

Lower Snake River Programmatic Sediment Management Plan Final Environmental Impact Statement *Appendix G – Public Involvement*

August 2014



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Scoping Summary

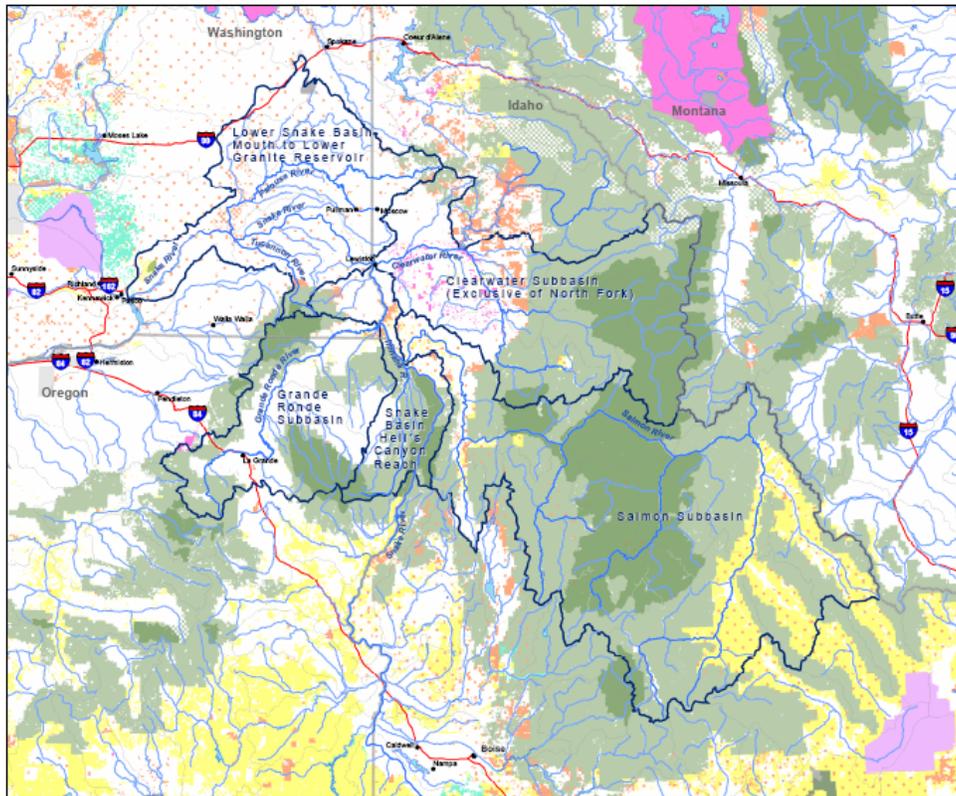


**US Army Corps
of Engineers**
Walla Walla District

Scoping Summary

Lower Snake River Programmatic Sediment Management Plan and Environmental Impact Statement

August 2007



Introduction

The Walla Walla District Office of the U.S. Army Corps of Engineers (Corps) is preparing an Environmental Impact Statement (EIS) for a Programmatic Sediment Management Plan (PSMP/EIS) to address sediment management within the lower Snake River, including the four reservoirs managed by the Corps. The plan will identify and evaluate ways the Corps can manage sediment within these reservoirs, and examine sediment sources on a programmatic basis in the near-term, mid-term, and long-term. The study area considered includes the four lower Snake River reservoirs extending from the mouth of the Snake River upstream through the Hell’s Canyon Reach of the Snake, and the Tucannon, Asotin, Palouse, Clearwater, Salmon, Imnaha, and Grande Ronde watersheds.

During the fall and winter of 2006-2007, the Corps held a series of technical workshops, public scoping meetings, and individual interviews throughout the affected region. The purpose of this report is to summarize information that was gathered during this public and government agency scoping process. The information gathered during this scoping process will assist in identifying issues to be considered in the development of the EIS.

The scoping process was divided into four components: 1) A preliminary scoping meeting held on September 26th, 2006 in Clarkston, Washington; 2) a series of pre-scoping stakeholder meetings and interviews with individuals, conducted from October 2006 through February 2007 at locations within sub-basins throughout the affected region; 3) public scoping open houses and meetings during February, 2007 at four cities within the region; and 4) written scoping comments.

Pre-Scoping Meeting for the Local Sediment Management Group (LSMG)

A preliminary scoping meeting was held in Clarkston, Washington. Invitees to this meeting included agencies or organizations that were participating members of the original lower Snake River Local Sediment Management Group (LSMG) or representatives of organizations who were identified to be an important contributor to the Corps’ refocused sediment management approach. The purpose of this meeting was to provide an overview of the planning process, describe progress made to date, and begin efforts to re-establish the LSMG for the PSMP/EIS process.

The meeting consisted of presentations by Corps’ and contractor staff on the history and project background; the purpose, objectives, and timeline of the PSMP and LSMG; and the project challenges. The presentations were followed by questions and a discussion on issues to be considered and data sources.

The participants noted that there are a number of data sources available, including recent aerial photography/remote sensing imagery and soil mapping. Participants said that it will be necessary to examine long-term data sets that are available from the U.S. Forest Service (USFS), U.S. Geological Survey (USGS), Natural Resource Conservation Service (NRCS), universities, and other organizations.

The following is a summary of the participants’ identified issues and comments:

- Rather than develop all new information, there are a number of existing studies and efforts (e.g., subbasin plans) that provide good data and sediment-source evaluations. These studies can help identify “hot spots” and priorities for sediment reduction actions.
- It is necessary to stress that the PSMP is not another dredging project. This misperception among resource organizations could discourage participation.
- It was not clear how the Corps could assure implementation from other agencies.
- There were questions about the form of the final product. In addition to the EIS, will it include an action plan and funding for implementation of sediment reduction actions?
- There are “synergies” that are possible from this project – e.g., leveraging other efforts at sediment reduction.
- Consider breaking down the LSMG into smaller geographically-based subcommittees for more focused input and increased participation.

Pre-Scoping Stakeholder Meetings

A series of pre-scoping stakeholder meetings and interviews with individuals was conducted at various locations in Oregon, Idaho, and Washington. The purpose of this effort was to provide participants with an overview of the project, and to solicit advice and information from government agency or other organizations’ staff on local, sub-basin-scale sediment issues, data sources, and evaluation methods.

The meetings consisted of a presentation by Corps’ staff, followed by questions and a discussion on local data sources and identifying knowledgeable individuals for follow-up communication. In addition to the meetings, individuals representing key organizations were interviewed. A set of questions was provided to the participants to solicit additional information and contacts. This information request focused on identifying sources of data and other information on sediment sources and routing through the stream system; efforts to manage sediment production; gaps in implementation of sediment control actions; and a query about their ability to participate in the on-going planning effort.

Similar to the Clarkston pre-scoping meeting, the stakeholder meeting participants noted that there are a number of sediment data sources available, though nothing that would constitute a comprehensive sediment budget for any of the sub-basins. Sediment source reduction is a priority in all of the sub-basins. The participants commented that there is more information on the implementation of sediment control measures and less data on sediment sources, delivery, and routing through the stream system. Where there are data on sediment sources and patterns, it is usually confined to a sub-watershed or stream reach. The participants noted that there are numerous opportunities to leverage existing sediment-reduction programs through cooperative efforts and cost sharing.

The following is a summary of the participants' identified issues and comments:

- The USFS is employing a number of sediment models (e.g., Water Erosion Prediction - WEPP) and ongoing application and research throughout the region. For this reason, it will be important to understand these on-going efforts and possibly use these models or information that has been generated.
- There are a number of sediment related research studies that focus on particular subbasins (e.g., the Palouse).
- Government agencies, including the Conservation Districts and NRCS, and subbasin organizations, such as the Grande Ronde Model Watershed, have identified sediment source areas, particularly roads, and are actively implementing sediment control measures such as road closures and drainage improvements.
- Sediment reduction is a priority for most of the organizations, with most actions focused on a “holistic” approach, including addressing resource management (e.g., proper grazing practices) and upslope measures such as proper drainage structures.
- Many of the streams within the affected region have completed stream inventory information, which is a source of data on in-channel sedimentation.
- A number of participants noted that there are limited data sets that show the direct relationship between sediment reduction actions and reduced sedimentation in streams. Some participants commented that it would be helpful to have demonstration projects that show the relationship between land management measures and sediment control.

Public Scoping Meetings

Public scoping open houses and meetings were held at four locations in the region: Clarkston; Washington on February 15; Boise, Idaho on February 21; La Grande, Oregon on February 22; and Portland, Oregon on February 27. The scoping meetings consisted of an afternoon and an evening session. The afternoon session was an open house format, during which display boards of the project area and project issues were set up in the conference room and Corps personnel and consultants were available to discuss the project and answer questions informally. The evening session included an introduction and a presentation by Corps' staff, followed by opening of the floor for comments and questions from attendees.

The following is a summary of the participants' identified issues and comments:

- There are concerns about the possible relationship between dredged sediment deposition in the Lower Snake River and habitat/fisheries impacts in the shallow water areas, including water temperature increases.
- Participants commented that it is necessary to capture all of the benefits of sediment reduction and not just benefits (environmental and related to commercial interests) in the Lower Snake River. There is a need to understand the economic benefits of sediment reduction in tributary systems.
- There were a number of questions about the funding mechanism for implementation of the final plan.
- There are concerns that sediment deposition in the river channel is increasing the risk of flooding within Lewiston. Will the EIS cover flood risks from sediment deposition?
- Participants had a number of questions about sediment management (including costs) and deposition patterns within the Lower Snake, in particular related to the dams and the port facilities, and relative contributions of sediment from the tributaries (e.g., the Clearwater).
- There were questions about how the Corps will evaluate sediment budgets, including movement through the tributaries and the dam complex.
- Many of the participants acknowledged that successful implementation of a sediment plan will require unprecedented cooperation from land management agencies and other organizations.

Written Scoping Comments

The public and agencies were encouraged to submit written scoping comments via comment cards, U.S. Mail, fax, or e-mail through the Corps' website. The Corps received twenty-one written comments from the following:

1 Federal agency
1 state agency
2 conservation districts
1 county advisory committee
1 city
2 ports
2 organizations
11 private citizens.

The written comments were separated into several general themes. These themes are listed below from those mentioned most frequently to those mentioned less frequently.

- Do not raise the levees at Lewiston. The existing levees cut off the city from the river.
- Support using measures to reduce sediment from upland sources. Instead of conducting more studies, provide funding to implement the measures already identified in subbasin plans.
- Support using a watershed approach and managing sediment as a resource in the river. Need to include more forest management and agricultural practices in the alternative measures.
- Use sediment modeling to answer several questions – determining source of sediment, forecasting sediment delivery into the Snake River, predicting future maintenance dredging needs.
- The Corps needs to coordinate this plan with Federal, State, and Tribal land management agencies and invite them to participate as cooperating agencies.
- Provide better flood protection for Lewiston. Do this through more dredging, providing free flood insurance, or buying out downtown.
- Do more dredging. Use dredging to maintain the authorized navigation and to provide flood protection for Lewiston.
- Future sediment evaluation needs to follow the Regional Sediment Evaluation Framework.

- The PSMP needs to look at a longer timeframe than 20 years. Seventy to 100 years would be more realistic and would address the time it may take to see results as well as addressing the end of the life of the dams.
- The PSMP needs to address impacts on water quality, Endangered Species Act-listed species, Tribes, and low income or people of color communities.
- Assess cumulative impacts across the various land ownership jurisdictions and consider appropriate mitigation strategies.
- Include a monitoring program to assess impacts and effectiveness of the measures and explain how the results will be used to modify future actions.
- Breach the four lower Snake River dams and improve railroads and highways to provide transportation of goods.
- Sediment management approaches should be looked at from a cost-effectiveness aspect.
- Do not relocate commercial navigation, recreation or water intake facilities.
- Draw down the reservoir in the spring to move sediment.

DEIS Public Meeting Summary



Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement

U.S. ARMY CORPS OF ENGINEERS

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NOTE: The following meeting summary notes are NOT a literal transcription of what was stated at the meetings. Rather, this is a paraphrased summary for general reference.

Agency and Public Information Meetings Summary

BACKGROUND

The U.S. Army Corps of Engineers (Corps) Walla Walla District held two public information meetings to discuss the Programmatic Sediment Management Plan (PSMP) for managing sediment within the Lower Snake River and the accompanying Draft Environmental Impact Statement (DEIS). The PSMP and DEIS evaluate management strategies for a long-term plan to manage sediment accumulation and also address an immediate need action, consistent with the PSMP, to reestablish the authorized dimensions of the navigation channel at four locations: Ice Harbor Lock and Dam downstream navigation lock approach, Federal channel at the Snake/Clearwater Rivers confluence, Port of Clarkston, and Port of Lewiston.

Two meetings took place on January 24, 2013 at the Lewis-Clark State College in Lewiston, Idaho. The first meeting, held at 2:00 pm, was an informational briefing geared toward elected officials or representatives of public agencies and municipalities that would potentially be affected by the PSMP and the immediate need action. However, the public was also welcome to participate at this meeting because it had been publicly announced by media. The second meeting, held at 5:30 pm, was an open house and informational meeting for the general public, with a presentation beginning at 6:30 p.m., followed by a question and answer session.

Prior to the 5:30 public information meeting, a 5:00 p.m. media interview session was held for reporters from the Lewiston Tribune, Columbia Basin Bulletin, and IdaBend Radio (nine-station chain in Moscow-Pullman area). The 5:30 p.m. public information meeting was covered by the Lewiston Tribune newspaper, KLEW-TV news, and IdaBend Radio.

LOCAL OFFICIALS INFORMATION BRIEFING

Notice of the local officials information briefing was provided through invitations from the Corps to agencies and elected officials, but was open to the general public if present. The meeting began at 2:00 p.m., and the presentation began at 2:15. Lieutenant Colonel Andrew Kelly, Walla Walla District Commander, welcomed participants to the meeting and provided a brief overview. The presentation was moderated by Bruce Herrickson of the Corps' Walla Walla District Public Affairs Office. Richard Turner and Sandy Shelin, Corps PSMP Project Manager and National Environmental Policy Act (NEPA) Manager, respectively, presented a PowerPoint slide program with information on the purpose of the PSMP; the long-term plan for managing sediment in the Lower Snake River; and an overview of the proposed immediate need action of dredging to reestablish the authorized dimensions of the navigation channel at four different locations. Subject matter experts on hydraulics and hydrology, fish biology, and the DEIS content were available to answer questions asked by meeting participants.

The following items were made available to the audience at both the local officials information briefing and the public information meeting:

1. Project information fact sheet.
2. Executive Summary of the draft DEIS.
3. CD copies of the DEIS in its entirety, including appendices.
4. Summary of environmental effects of plan alternatives.
5. Copies of the presentation slides.
6. Information sheet on Snake River commercial navigation.
7. Corps fact sheet “Comparing Cargo Capacities”
8. Walla Walla District general brochure

All public information items were made available to media, in addition to copies of previous news releases about PSMP.

Following the presentation, the audience was invited to ask questions to which the District representatives and subject matter experts responded. The question and answer session was intended to provide general information and was not recorded for public record. In addition, no formal comments were taken or recorded for the public record during any portion of the meeting. Rather, the audience was encouraged to submit comments in writing by March 26, 2013 for recording into the public record by either: (1) filling out a comment form at the meeting and leaving it with a Corps representative or in the provided comment box, (2) e-mailing the comments to psmp@usace.army.mil, or (3) mailing comments via U.S. Postal Service (USPS) to the Walla Walla District Headquarters. Mr. Henrickson repeatedly emphasized that all comments must be submitted in writing and forwarded to the Corps by the noted date. The Corps will review and consider all public comments on the DEIS submitted during the public comment period.

Twenty-one audience participants registered on sign-in sheets as they entered the meeting room. Participants included representatives of state officials, local municipalities, counties, businesses, and private citizens. (See Attachment A for Local Officials Information Briefing sign-in sheet.)

Participant’s Questions and Corps’ Responses

Following is a summary of the participant’s questions raised during the question and answer session and the Corps’ responses:

Subject: Asotin Marina

Participant Questions:

- The Asotin marina has been unusable for the last 10+ years due to sedimentation. Currently, the PSMP does not include any provisions to provide maintenance of the marina. Why does the PSMP not include the marina in the plan, and why does the Corps not provide maintenance?
- At a point in the past, it was brought up that the Asotin Marina could be used as a test site to develop a methodology to solve similar sedimentation problems at other marina sites. Is this still planned to happen?
- Why was the Asotin Marina built in the first place?
- It is my understanding that the marinas were installed in the first place to provide river access for houses that used to have access to the river prior to the dams. With the Asotin Marina silted in, that promise for access to the river is not being fulfilled.

Corps Response:

- The Corps included recreational facilities as part of the projects when constructing the reservoirs. Managing problem sediment at Corps-managed recreation areas is a Corps responsibility. However, leased recreation sites and properties are the responsibility of the lessee to maintain and operate. Due to the real estate agreements between the Corps and the lessees, the Corps does not maintain leased properties. It is also Corps policy that the Corps does not make capital improvements on property it has leased to another entity to manage.

Subject: Authorized Purpose of Recreation

Participant Questions:

- The PSMP included recreation as an authorized purpose. Why is sediment accumulation in the Asotin boat basin not included in the PSMP?
- Would like to see triggers for leased recreational areas.

Corps Responses:

- Recreation triggers are covered in the PSMP. These triggers for recreational areas exist for the emergency, immediate, and future timelines, but apply only to Corps' managed areas and not leased areas. Therefore, leased boat basins are not covered under the PSMP.

Subject: Dredging

Participant Questions:

- How many times have the confluences of the Snake and Clearwater Rivers been dredged?
- What dredging method would be used to remove sediment for the immediate action?

Corps Responses:

- A partial history of previous dredging actions is covered in Table 1-3 of the DEIS on pages 1-10 and 1-11.
- For the proposed immediate action, dredging would use a mechanical dredge, not a hydraulic dredge, to remove sediment.

Subject: Costs

Participant Questions:

- Would like to see triggers for the barren hillsides along the river that might include bringing in other players [agencies] to help re-forest areas on hills adjacent to river.
- Do the measures of Alternative 7 have a cost associated with them? If so, what prevents the Corps from using the least costly measure versus using a more expensive measure? For example, raising the Lewiston levies is included as a measure.
- Are costs given for the measures?

Corps Responses:

- Due to the large scale and quantity of sediment from dominant sources (landslides and forest fires in the Salmon River basin), there is no feasible, cost effective or meaningful

way to prevent sediment from the dominant sources from entering the Lower Snake River system.

- Raising the Lewiston levees is just one item in the “toolbox” of possible measures to use in the future. The PSMP is a long-term plan and therefore raising the levees is a potential option in the future. The flood risk reduction presently provided by the levees is acceptable as defined by Corps’ policy, therefore the Corps does not currently propose modifying the Lewiston Levee system at this time.
- Costs are not given for the measures in the DEIS. However, when a specific measure or measures are considered for a specific location, an evaluation would be completed at that time that evaluation may include an economic analysis. There would be public involvement associated with these future analyses.

Subject: Policies and Operation

Participant Questions:

- If the Salmon River is producing the dominant sediment load, why is there not a basin-wide trigger that would cause restoration of the entire basin involving other agencies?
- Was any analysis done by the Corps or the USFS for how changes to policies for management of forest fires in the past versus the fire management policies of the present have affected the sediment issue?
- Why is a drawdown of the river not done every few years to allow the river to naturally remove the sediment?
- What are the chances that the dams will be removed?

Corps Responses:

- Sediment is a naturally occurring physical process and is difficult to manage or control. The size of the Salmon River basin is so large that there is no practical way to implement a measure on a basin-wide scale to stop sediment.
- The DEIS did not look at specific forest management policies, but did examine how forest management practices may be contributing to sediment within the Lower Snake River system (Appendices C and D of the DEIS).
- Drawdown is a measure currently in the draft PSMP for addressing flow conveyance at Lewiston-Clarkston. It does not provide a complete solution with respect to long-term flood protection because the sediment is generally repositioned within the reservoir and not physically removed from the Snake River’s flow conveying channel. To provide long term flood protection in the vicinity of Lewiston and Clarkston, sediments must be repositioned to be located downstream of approximately River Mile 120 or they will ultimately have an effect on the ability to convey flood discharges through the Confluence area. Drawdowns alone will likely not accomplish the transport of sand sized sediments to locations downstream of River Mile 120.

Subject: Meeting Notification

Participant Question:

- Some of the elected officials did not receive a notice of the informational meeting until two days prior. In the future, please provide additional time prior to a meeting to issue a notice to officials.

Corps Response:

- Corps will evaluate its notification system to correct this problem.

PUBLIC INFORMATION MEETING – 5:30 P.M.

The public information meeting was announced on the Corps' website and local and regional news outlets. The meeting began with an open house from 5:30 pm – 6:30 pm. During the open house the public was invited to speak with individual subject matter experts at a number of stations that displayed information about aspects of the PSMP and DEIS. At the meeting, the same handouts provided earlier at the local officials information meeting were made available.

Lieutenant Colonel Andrew Kelly, Walla Walla District Commander, welcomed participants to the meeting at 6:30 pm, and provided a brief overview before the presentation began. The presentation was the same as given at the local officials information meeting and was also moderated and presented by the same panel of District representatives.

Following the presentation, the public was invited to ask questions to which the subject matter experts responded using the same process followed during the local officials information meeting. As with the earlier meeting, the question and answer session was intended to provide general information and was not recorded for public record.

Sixty-one audience participants registered on sign-in sheets for the public information meeting as they entered the meeting room. (See Attachment B for Public Information Briefing sign-in sheet.)

Participants Questions and Corps Responses

Following is a summary of the participants' issues raised during the question and answer session:

Subject: Cost and Funding Issues

Participant Questions:

- Is a cost benefit analysis required for the DEIS? If so, where is it located in the DEIS?
- What is the cost of sediment monitoring and contract management on top of dredging cost of \$22M to \$29M [costs were attributed to the Lewiston Tribune]?
- No matter what plan is implemented, it will cost 10s and 10s of millions of dollars to manage sediment over the next 5 or 10 years or more. Does it make sense to subsidize barge traffic when barge traffic is going down and it is a lot cheaper to subsidize rail? With large deficits in the federal budget, does this make sense to do this?
- Given that there is no benefit cost analysis, what is the predicate for the undertaking? Would the project still be done if there was no barge traffic on the river? And if that is not the case, how few barges would there have to be before the Corps would question the necessity of the project?
- Looking at the big picture, the Corps is looking at spending \$400M to \$500M on the jetties at the mouth of the Columbia River and 10s of millions of dollars for dredging in the Snake River. If the Corps cannot get money to replace jetties at the mouth of river, why would we do the dredging work here if ships cannot get into the river?
- Is the immediate action of dredging already in the Corps 2013 or 2014 budget?
- Due to possible sequestration, early retirement buyouts, and mandatory furloughs, is consistency of Corps project staff a worry when proceeding into the future?

Corps Responses:

- The Corps is not confirming numbers reported elsewhere, and cautions against guessing at numbers based on past costs and extrapolating them into the future.
- No cost benefit ratios are presented in the DEIS. The PSMP is an outline of future potential actions and a framework for making decisions about taking action to manage sediment in the future. When measures associated with a specific action are implemented, appropriate cost analyses would be completed.
- As authorized by Congress, the Corps would provide measures to manage the Snake River regardless of the barge traffic unless told otherwise. However, while the Corps is required to maintain the navigation channel, each Corps district develops their own list of priorities. The projects associated with those priorities are forwarded from each district to the division level and higher. The projects proposed from the various divisions are then reviewed on a national level. Therefore, at the higher levels of the Corps, it is unlikely a navigation project would be approved for a river system currently experiencing little or no traffic. There is an effort, at the regional and national levels, to prioritize projects and provide funding for what is the most important for the public.
- The navigation channel in the Snake River is not a channel for ocean-going vessels and does not experience ocean-going vessel traffic.
- The proposed immediate need action is in the Corps' capability, but is not in the budget. The Corps currently does not have a 2013 or 2014 budget.
- The PSMP (Appendix A of the DEIS) is intended to be a guidebook for Corps staff on how to make decisions in the future. The PSMP would be adopted by the District and implemented by current and future applicable District staff. Therefore, implementation of the PSMP would address the issue with consistency of the sediment management process in the future.

Subject: Spur Dikes and Bendway Weirs (In-water Structures)

Participant Questions:

- Recreation is an authorized purpose of the project. The in-water spur dikes (or bendway weirs) for increasing channel velocity is in a location popular for Chinook fisherman who would not be happy about this measure. Is this considered in this DEIS?
- Are the in-water structures (spur dikes or bendway weirs) a proven technology or a new experimental option?

Corps Response:

- The Corps is aware of the fishing issue and would address such in any future analysis involving these structures, if the Corps proposes to use this tool or measure.
- Spur dikes and bendway weirs are a proven technology that has been demonstrated on the Missouri and Mississippi Rivers.

Subject: Dredging

Participant Questions:

- The last time dredging took place and water quality analysis was completed upstream and downstream, did it cause a significant increase in turbidity?
- When you dig up the sediment, what is contained in sediment? Are there toxins in it?

- When you speak of the lowest environmental impact, do you mean dredging will occur when fish are not traveling? And does this also mean turbidity will be monitored during dredging?

Corps Responses:

- During the last dredging there was no significant increase in turbidity. There were a few spikes on occasion, but turbidity stayed within water quality limits.
- Before any dredging action, sediment is sampled and analyzed for contaminants. For the proposed immediate need action, samples have been collected and are currently being reviewed and results will be reviewed prior to proceeding with the action.
- During planning of future sediment management actions, the Corps will consider timing and methods used to minimize environmental risk while being economical. Water quality parameters, including turbidity, would be monitored during dredging.

Subject: In-water Disposal Sites for Dredged Material

Participant Questions:

- How was Knoxway Canyon in-water disposal site selected? It looks like the sediment would not stay in place at that site and would just flow away.
- The Port of Clarkston has 7.5 acres of property in the water above the Redwolf Bridge that the Port cannot do anything with. I have suggested putting a coffer dam at this location and using this site for in-water disposal to create an area that could be used as a new marina.

Corps Responses:

- Knoxway Canyon was selected as the disposal site for the proposed immediate need action because it meets multiple criteria. Appendix H of the DEIS provides details on why the site was selected. The site met all the required criteria of a disposal site and would allow the creation of shallow water habitat for juvenile salmonids through use of the dredged material. There is a mid-depth underwater bench located at the Knoxway Canyon site, so the dredged material would be placed on a relatively flat area and not a steep slope. Hydrographic surveys performed after the last disposal at the site showed the material does not wash away. Flow velocities at this location are generally too low to re-entrain and transport the sand sized sediments to be removed from the upstream work sites.

Subject: Measures Included in the PSMP

Participant Questions:

- How does the plan address the 3 or 4 months of the year when running at minimum operating pool (MOP) for fish when a 14-foot commercial channel is required?
- How does the plan address the high river flows along the levees in Lewiston and Clarkston?
- The PSMP mentions the possible relocation of an entire facility. When looking at the economics, it would save the taxpayer a lot of money to move the Port of Lewiston to the Port of Wilma since dredging of the confluence would no longer be necessary.
- It was mentioned that the Corps might be interested in boat harbors. Asotin's boat harbor is plugged with sediment. Does this plan cover the marina or other boat marinas?

- I see all these figures and maps showing structures and items, but it was stated these are not currently happening. What is in the plan and what is actually going to be happening?

Corps Responses:

- The intention of the Corps' current operation plan is to operate the reservoir levels at MOP when possible, but the Corps is authorized to operate above MOP when necessary to accommodate navigation. The PSMP will assist operating at MOP.
- The Lewiston levees are designed for high flows and are currently rated as satisfactory, as addressed in the DEIS appendices. There are no immediate needs in regards to levees. The flood risk reduction presently provided by the levees is acceptable as defined by Corps' policy; therefore, the Corps does not currently propose modifying the Lewiston Levee system at this time. See Section 5.10 of Appendix F of the DEIS for an in-depth discussion of flood risk.
- The potential measure of studying relocation of facilities in the future would apply to Corps managed facilities, but may not be possible for non-Corps facilities such as ports.
- The PSMP sets the framework for dealing with sedimentation of boat basins; however, the PSMP only covers boat basins managed by the Corps and not leased boat basins. The Corps is discussing leased facilities internally and with lessees, but the Corps has no specific actions proposed for addressing sediment accumulation in leased boat facilities at this time.
- The PSMP is the framework for what measures could potentially be used in the future. The DEIS analysis encompasses the approval and implementation of the PSMP and the immediate need action for dredging. The only measure that is currently proposed to be implemented consistent with the PSMP, is the immediate need action of dredging for navigation. The triggers in the PSMP are an indicator for the Corps to act, but do not determine the Corps' actions. The decision for what to do when a trigger is met will follow a project specific measure selection process and a new NEPA analysis.

Subject: Miscellaneous Issues

Participant Questions:

- First priority seems to be commercial navigation. I don't see a difference in authorized purpose versus mandated purpose in respect to this plan. Isn't it the Corps position that they are mandated by the Flood Control Act of 1962 to maintain a navigation channel of 14ft depth and 250ft wide regardless of cost?
- Did the PSMP and DEIS look at future sediment and sediment changes caused by global warming and climate change?
- Is the DEIS based solely on science or does it consider public comments? For example, if 90% of the public comments are against the project, would the project no longer be done? It feels like it does not matter what the public says.
- Is there any language in the DEIS that gives the Corps the ability or the authority to not conduct an EIS for any of the future measures (tools in the tool box) covered in the PSMP?
- The traffic on the Snake River has been off because of the uncertainty of being able to navigate the navigation channel and the fluctuations in channel elevation.
- The Corps has their own vernacular. It would be easier if the terms used in the PSMP and DEIS were in common everyday language.

Corps Responses:

- Yes, the PSMP and DEIS considered climate change effects (refer to sections 4.7, 4.9, and 4.11 of the DEIS). Appendix D also discusses sediment delivery in a changing climate.
- The level of priority placed on the Snake River system in comparison to other river systems depends on which river system the Snake River is being compared to; however, the Mississippi and Ohio Rivers have a higher priority.
- The NEPA process is not a voting process to determine whether or not a project or program should be implemented. The public comment process is conducted to help ensure that relevant information is not omitted from the NEPA analysis and public comments are considered in the decision-making process.
- The Corps is part of the Executive Branch of government. The public elects those in Congress who decide the funding of the Executive Branch. Therefore the way to influence federal funding of projects is through your elected official, not the NEPA process.
- There is no language in the DEIS that gives the Corps the ability or the authority to not conduct a NEPA review for any of the future measures or actions. A separate NEPA environmental analysis will be required to implement specific actions in specific locations, excluding pool elevation fluctuations which are already an approved operation method.

WRITTEN COMMENTS

Attendees of both information meetings were encouraged to submit written comments on the DEIS, which would be considered by the Corps and included as part of the project's public record. The Corps received six written comments from organizations or individuals at the two information meetings. Those comments, as well as any additional comments received during the open comment period which ends on March 26, 2013, will be reviewed and considered in preparing the Final EIS. All comments received during the public comment period will be included as an appendix of the Final EIS.

Attachment A

Local Officials Information Briefing Attendance

Name (please print legibly):	Scott Carlton		
Organization:	US Rep Labrador		
Street Address:	313 D Street, Suite 107		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.743.1388	Email:	Scott.carlton@mail.house.gov
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Mervin Schneider		
Organization:	City of Asotin		
Street Address:	303 Kings Lane		
City, State, and Zip Code:	Asotin , WA 99402		
Telephone:	509.758.9842	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Mike Hanna		
Organization:	US Senator Risch		
Street Address:	313 D Street		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:		Email:	Mike_hanna@Risch.senate .gov
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input checked="" type="checkbox"/>

Name (please print legibly):	Joe Kaufman		
Organization:	City of Lewiston		
Street Address:	215 D Street		
City, State, and Zip Code:	Lewiston, ID 8350		
Telephone:	208.790.8800	Email:	joekaufman@cityoflewsiton.org
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	David Doeringsfeld		
Organization:	Port of Lewiston		
Street Address:	1626 6 th Avenue North		
City, State, and Zip Code:	Lewiston, ID 81501		
Telephone:	208.343.5031	Email:	portdaveportoflewsiton.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Chris Davies		
Organization:	City of Lewiston		
Street Address:	1134 F Street		
City, State, and Zip Code:	Lewiston, ID		
Telephone:	208.305.6837	Email:	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Kurt Ausman		
Organization:	Private		
Street Address:	3205 21 st Street		
City, State, and Zip Code:	Clarkston, WA 99403		
Telephone:	208.791.5878	Email:	kurtausman@gmail.com
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Bradley Johnson		
Organization:	Snake River Salmon Recovery Board		
Street Address:	PO Box		
City, State, and Zip Code:	Clarkston, WA 99403		
Telephone:	509.758.1010	Email:	bjohnson@asotinoud.org
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Tom Kammerzell		
Organization:	Port of Whitman County		
Street Address:			
City, State, and Zip Code:			
Telephone:		Email:	Tomkammerzell@gmail.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Mel Johnson		
Organization:	Lewiston-Wez Peirce County Emergency Management		
Street Address:	1225 Idaho Street		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.799.3884	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Anthony Rogers		
Organization:	City of Asotin		
Street Address:	121 Cleveland , PO Box 141		
City, State, and Zip Code:	Asotin, WA 99402		
Telephone:	509.243.4411	Email:	Asotin2@cableone.net
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Brian Shinn		
Organization:	Asotin County Commission		
Street Address:	945-4 th Street		
City, State, and Zip Code:	Clarkston, WA 99403		
Telephone:	208.790.1725	Email:	bshinn@co.asotin.wa.us
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Paul Boeckman		
Organization:	Asotin Community		
Street Address:	1210 4 th Street PO Box 397		
City, State, and Zip Code:	Asotin, WA 99402		
Telephone: 509.243.1134	Email:	pboeckman@tds.net	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Paula Boeckman		
Organization:	Same as above		
Street Address:			
City, State, and Zip Code:			
Telephone:	Email:		
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Doug Zenner		
Organization:	Nez Perce County BOCC		
Street Address:	1225 Idaho Street		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone: 799.3090	Email:	dougz@co.nezperce.id.us	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Jim Jarvin		
Organization:			
Street Address:	PO Bx 154		
City, State, and Zip Code:	Asotin, WA		
Telephone:	509.243.4570	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Joe Appleton		
Organization:	Asotin City Council		
Street Address:	PO Box 582		
City, State, and Zip Code:	Asotin, WA 99402		
Telephone:	509.243.4868	Email:	jappleton@tds.net
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Vikki Bonfield		
Organization:	City of Asotin		
Street Address:	121 Cleveland Street		
City, State, and Zip Code:	Asotin, WA 99402		
Telephone:	509.243.4411	Email:	vbonfield@tds.net
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	John Claassen		
Organization:	Citizen of the City of Asotin		
Street Address:	100 Appleford Dr		
City, State, and Zip Code:	Asotin, WA 99402-0778		
Telephone: 509.243.8953	Email:	steelheadjohn@tds.net	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	James L. Bridges		
Organization:	Asotin County		
Street Address:			
City, State, and Zip Code:			
Telephone: 509.243.2074	Email:	jbridges@co.asotin.wa.us	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Lynn Jarvis		
Organization:			
Street Address:	PO Box 154		
City, State, and Zip Code:	Asotin, WA		
Telephone: 509.243.4570	Email:		
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Attachment B

Public Information Meeting Attendance

Name (please print legibly):	Ken Blakeman		
Organization:	Primeland Cooperative		
Street Address:	1200 Snake River Ave		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.743.8551	Email:	kblakeman@primelandcoop.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Robert D Cox		
Organization:	Pomeroy Grain Growers		
Street Address:	910 Main		
City, State, and Zip Code:	Pomeroy, WA 99347		
Telephone:	509.843.1694	Email:	bcox@pomeroygrain.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Michael Wisher		
Organization:			
Street Address:	515 Linden Ave		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.305.4196	Email:	Wisher4690@yahoo.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Joe Strohmaier		
Organization:			
Street Address:	24552 Arrow		
City, State, and Zip Code:	Juliaetta, ID 83535		
Telephone:	208.790.0758	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	W.E. Chetwood		
Organization:	NA		
Street Address:	932 Stewartooe		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.743.8230	Email:	wechetwood@cableone.net
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	M Jackson		
Organization:	Port of Clarkston		
Street Address:	1148 15 th 99403		
City, State, and Zip Code:	Clarkston, WA		
Telephone:	258.5212	Email:	mjackson@clarkston.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Mark Sellet		
Organization:	Student		
Street Address:	2525 8 th – 52		
City, State, and Zip Code:	Lewiston, ID		
Telephone:	Email:	Sells160@hotmail.com	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Paul Wemhoener		
Organization:	Port of Walla Walla		
Street Address:			
City, State, and Zip Code:			
Telephone:	Email:	Pweportwallawalla.com	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Brett Haarstick		
Organization:	Friends of Clearwater		
Street Address:	PO Box 8193		
City, State, and Zip Code:	Moscow, ID 83843		
Telephone: 208.882.9755	Email:	foc@friendsoftheclearwater.org	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Ashley Lipscomb		
Organization:	Great Old Broads for Wilderness		
Street Address:	415 South Polk Street		
City, State, and Zip Code:	Moscow, ID 83843		
Telephone:	Email:	Ashley.lipscomb@gmail.com	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Johnson Matthew		
Organization:	Nez Perce Tribe		
Street Address:	1820 W Arcadia		
City, State, and Zip Code:	(illegible) WA		
Telephone: 208.796.4296	Email:	jmatthews@ (illegible)	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Jenni Light		
Organization:	Resident		
Street Address:			
City, State, and Zip Code:			
Telephone:	Email:		
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input checked="" type="checkbox"/>

Name (please print legibly):	Larry Schroeder		
Organization:			
Street Address:	704 4 th Ave		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.798.8275	Email:	larryjschroeder@hotmail.com
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Dale Alldredge		
Organization:			
Street Address:	2914 Meadow Drive		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.791.6009	Email:	dale@rousseauco.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Charlotte Tuttle		
Organization:	Asotin City Citizen		
Street Address:	1220 5 th Street		
City, State, and Zip Code:	Asotin, WA 99402		
Telephone:	509.243.4627	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Jessica Knight		
Organization:			
Street Address:	3001 North and South Highway		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	Email:		
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Dokoda Stevens		
Organization:			
Street Address:			
City, State, and Zip Code:			
Telephone:	Email: drstevens@lc.icscieva		
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input checked="" type="checkbox"/>

Name (please print legibly):	Kathy Schroeder		
Organization:			
Street Address:	704 4 th Ave		
City, State, and Zip Code:	Lewiston		
Telephone: 208.798.8275	Email:		
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Randy Knight		
Organization:	LCSC Student		
Street Address:	PO Box 138		
City, State, and Zip Code:	Lewiston, ID		
Telephone:	724.3180	Email:	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input checked="" type="checkbox"/>

Name (please print legibly):	Erin Tennesen		
Organization:			
Street Address:	215 Prospect Ave		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.413.0796	Email:	Morrigan_t@hotmail.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input checked="" type="checkbox"/>

Name (please print legibly):	Konner Smith		
Organization:			
Street Address:			
City, State, and Zip Code:			
Telephone:		Email:	Smith.konner.s@gmail.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Patrick Baird		
Organization:	Nez Perce Tribe		
Street Address:	PO Box 365		
City, State, and Zip Code:	Lapwai, ID 83501		
Telephone:	206.621.3851	Email:	keithb@nezperce.org
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Gary F. Dorr		
Organization:	Nez Perce Tribe Fish and Wildlife Commission		
Street Address:	PO Box 82		
City, State, and Zip Code:	Lapwai, ID 83540		
Telephone:	208.277.8391	Email:	gfdorr@nezperce.org
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Robert Towner		
Organization:			
Street Address:	216 6 th Avenue		
City, State, and Zip Code:	Lewiston, ID		
Telephone:	208.746.4602	Email:	(illegible)
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	John Bradbury		
Organization:			
Street Address:	729 Preston		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.746.3100	Email:	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Bud Greene – Elaine Greene		
Organization:			
Street Address:	707 Ridgeview Dr		
City, State, and Zip Code:	Asotin, WA 99402		
Telephone:	509.243.5099	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Dan Hart		
Organization:	Almota Elevator Co		
Street Address:	PO Box 617		
City, State, and Zip Code:	Colfax, WA 99111		
Telephone:	509.397.3456	Email:	danh@almotagrain.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Gary Budd		
Organization:	Lewis Clark / Union Coop		
Street Address:	PO Box 127		
City, State, and Zip Code:	Uniontown, WA 59179		
Telephone:	509.729.3828	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Jacqui Gilbert		
Organization:	City of Lewiston		
Street Address:	215 D street		
City, State, and Zip Code:	Lewiston, ID		
Telephone:	208.746.1318	Email:	jgilbert@cityoflewiston.org
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Tom Stroschein		
Organization:	Latah County Commissioner		
Street Address:	1464 Alpowa		
City, State, and Zip Code:	Moscow, ID 83843		
Telephone:	509.330.1137	Email:	tom@lotah.id.us
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Cynthia Magnuson		
Organization:	Great Old Broads for Wilderness - Palouse		
Street Address:	326 E.A		
City, State, and Zip Code:	Moscow, ID 83843		
Telephone:	208.882.1606	Email:	cmcindyidaho@gmail.com
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Alan Schonefeld		
Organization:			
Street Address:	889 Big Cedar Rd		
City, State, and Zip Code:	Kooskia, ID 83539		
Telephone:	208.926.0921	Email:	lochsaxo@gmail.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Tony R Snodderly		
Organization:	Al. S. Senator Michael Crapo		
Street Address:	313 D Street, Ste. 105		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.743.1492	Email:	Tony_snodderly@crapo.senate.gov
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Jill Eckberg		
Organization:	None		
Street Address:	PO Box 9		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	509.758.6077	Email:	eckberg@outlook.com
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Bill Orsborn		
Organization:			
Street Address:	2802 SR 272		
City, State, and Zip Code:	Colfax, WA 99111		
Telephone:	509.397.2897	Email:	bporsborn@colfax.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Bill Correll		
Organization:			
Street Address:	17638 Snake River Road		
City, State, and Zip Code:	Asotin, WA 99402		
Telephone:	509.243.4055	Email:	ewcorrell@tds.net
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Gary MacFarlane		
Organization:	Friends of Clearwater		
Street Address:	PO Box 9241		
City, State, and Zip Code:	Moscow, ID 83843		
Telephone:	208.882.9755	Email:	
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Doug Mattoon		
Organization:	Valley Vision		
Street Address:	111 Main Street		
City, State, and Zip Code:	Lewiston ID 83501		
Telephone:	208.791.8653	Email:	doug@lewiston.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Bonnie Schonefeld		
Organization:			
Street Address:	889 Big Cedar Road		
City, State, and Zip Code:	Rooskia, ID 83539		
Telephone:	208.926.0921	Email:	bonnie@lochszconnection.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Arvid Lyons		
Organization:	Lewis Clark Terminal		
Street Address:	1534 3 rd Ave North		
City, State, and Zip Code:	Lewiston, ID		
Telephone:	208.746.9685	Email:	(illegible)
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Jofin Gordon		
Organization:	Local citizen		
Street Address:	Clarkston, WA		
City, State, and Zip Code:			
Telephone:		Email:	
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Deborah L Ruppe		
Organization:	Idaho Bureau of Homeland Security		
Street Address:	2707 16 th Ave		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.799.5127	Email:	drupe@bhsidaho.gov
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Steve Pettit		
Organization:	Retired		
Street Address:	28765 Cherry Lane Road		
City, State, and Zip Code:	Juliaetta, ID 83535		
Telephone:	208.276.3347	Email:	spideranch@cpcinternet.com
Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Sharon Hatch		
Organization:	Friends of Clearwater		
Street Address:	3031 Mayfair Dr		
City, State, and Zip Code:	Lewiston, ID 83501		
Telephone:	208.746.3997	Email:	sharonhatch@yahoo.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input checked="" type="checkbox"/>

Name (please print legibly):	Linwood Laughy		
Organization:			
Street Address:	5695 Highway 12		
City, State, and Zip Code:	Kooskia, ID 83539		
Telephone:		Email:	lin@wildblue.net
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Wanda Keefer		
Organization:	Port of Clarkston		
Street Address:	849 Port Way		
City, State, and Zip Code:	Clarkston, WA 99403		
Telephone:	509.758.5272	Email:	wanda@portofclarkston.com
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Daub McGraw		
Organization:	Latah Board of County Commissioners		
Street Address:	102 East A		
City, State, and Zip Code:	Troy, ID 83871		
Telephone:	509.499.9944	Email:	dmcgraw@latah.id.us
Preferred method of contact: (Check One)	Post Office <input type="checkbox"/>	E-Mail <input checked="" type="checkbox"/>	No Contact <input type="checkbox"/>

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City, State, and Zip Code:	Lewiston, ID		
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Name (please print legibly):	Sheldon Thornton		
Organization:	LC		
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Name (please print legibly):	Terry Lape		
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City, State, and Zip Code:	Juliaetta, ID 83535		
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Name (please print legibly):	Gary and Becky Thorguard		
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Name (please print legibly):	Jock Pring		
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Name (please print legibly):	Butch Odegaarp		
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Preferred method of contact: (Check One)	Post Office <input checked="" type="checkbox"/>	E-Mail <input type="checkbox"/>	No Contact <input type="checkbox"/>

Name (please print legibly):	Rick Davis		
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Comment Response Document

Comment Response Document

The Corps made the Programmatic Sediment Management Plan (PSMP) Environmental Impact Statement (EIS) available for public review and comment on December 21, 2012, and provided a period for the public to review the document and provide comments to the Corps by March 26, 2013. During that public comment period, the Corps held an open house and information meeting in Clarkston, Washington, on January 24, 2013. The purpose of the open house was to have the Corps present information about the PSMP and allow the public the opportunity to ask questions and submit written comments on the Draft EIS.

The Corps received comments on the Draft EIS from 120 agencies, individuals, and organizations during the comment period. The Corps carefully reviewed each of the comment documents (e.g., letter, email, comment sheet) to identify comments and concerns raised by the public. The Corps considered each specific comment and prepared responses to those comments. Where appropriate, the Corps reviewed and revised the documentation and analysis presented in the EIS.

In addition to the EIS, the Corps prepared a Section 404(b)(1) Evaluation to address water quality effects of a proposed in-water discharge of dredged material to be performed by the Walla Walla District Corps of Engineers (Corps) in the first available in-water work window (December 15 to March 1) following completion of the PSMP and associated EIS. A public comment period for the dredging action was provided March 11, 2013 through April 30, 2013.

All comments and responses regarding the EIS and the 404(b)(1) action are presented in this Comment Response Document (CRD). The CRD is organized as follows: (1) table of individuals who submitted comments with letter number provided for cross referencing, (2) table of comments by individuals and associated responses prepared by the Corps, and (3) the original comment documents (letters, forms, email) in their entirety with individual comments highlighted as presented in the comment/response table.

Table 1. Individuals Providing Comments

Commenter	Affiliation	Comment Source	Letter #
A. McLanther		Comment Form	0135
Ann Christensen		E-Mail Direct to Owner	0048
Anne Carter Terry Carter		E-Mail Direct to Owner	0071
Anthony Fusaro		E-Mail Direct to Owner	0077
Art Swannack Michael Largent Dean Kinzer	Whitman County Commissioners	Letter	0034
Arvid Lyons	Lewis-Clark Terminal	Letter	0013
Arvid Lyons		Comment Form	0015
Becky Reisch		Comment Form	0145
Betty Hayzlett		E-Mail Direct to Owner	0113
Bill Caldwell		E-Mail Direct to Owner	0029
Bill Chetwood		Letter	0020
Bill Elliot	U.S.D.A. Forest Service Rocky Mountain Research Station	E-Mail Direct to Owner	0003
Bob Rich	Shaver Transportation Company	E-Mail Direct to Owner	0037
Bonita Parodi		E-Mail Direct to Owner	0114
Brett Tourtillott		Comment Form	0149
Brian Shinn	Asotin County Board of Commissioners	Letter	0043
Bridget Frank		Comment Form	0130
Bruce Collier	Kneeland Korb Collier & Legg PLLC	E-Mail Direct to Owner	0049
C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	Idaho Department of Fish and Game State of Idaho - Office of the Governor State of Idaho - Dept of Environmental Quality Idaho Commerce	E-Mail Direct to Owner	0097
Cary Newman	Cream Ridge Morgans	Comment Form	0126
Celia Barton	Washington State Dept of Natural Resources	E-Mail Direct to Owner	0104
Charlie Costanzo	American Waterways Operators	E-Mail Direct to Owner	0067
Christina Baldwin		E-Mail Direct to Owner	0070
Claudia Parsons		Comment Form	0138
Cynthia Magnuson	Great Old Broads for Wilderness	Comment Form	0016
D. Wyatt	Nez Perce Waterways Committee	Letter	0058
Darcy Vansteelant		E-Mail Direct to Owner	0120
David Doeringsfeld	Port of Lewiston	Letter	0062
David Monsees, Dr.		E-Mail Direct to Owner	0089
David Peterson		Comment Form	0141
Debbie Stempf		E-Mail Direct to Owner	0066

Commenter	Affiliation	Comment Source	Letter #
Debi Mahler		E-Mail Direct to Owner	0088
Del Groat	Snake River Salmon Recovery	Letter	0118
Dennis McVicker Bruce Reed	Tidewater Barge Lines Inc	E-Mail Direct to Owner	0101
Doug Mattoon	Valley Vision	Letter	0039
Douglas Zenner Douglas Havens Robert Tippet	Nez Perce County Board of County Commissioners	Letter	0021
Dr Stephen Pauley		Comment Form	0139
Edward Kerns		E-Mail Direct to Owner	0085
Edward Kerns		Comment Form	0132
Eric Anderson		E-Mail Direct to Owner	0069
Eric Burnette	Port of Portland	Letter	0025
Erik Spinney		E-Mail Direct to Owner	0065
Faye Krueger Bruce Sims	U.S.D.A. Forest Service Region One Northern Region	Letter	0033
Gary Budd	Lewis-Clark Terminal Uniontown Cooperative Association	Comment Form	0010
Gary James	The Confederated Tribes of the Umatilla Indian Reservation (CTUIR)	E-Mail Direct to Owner	0073
Gary Mcfarlane	Friends of the Clearwater	Letter	0005
Greg Obray		E-Mail Direct to Owner	0061
Gregory Rinehart		Comment Form	0146
Guy Moura	The Confederated Tribes of the Colville Reservation	Letter	0002
Heather Ray	Upper Snake River Tribes Foundation Inc	Letter	0102
James Bradford		E-Mail Direct to Owner	0001
James Kuntz	Port of Walla Walla	Letter	0038
James Szatkowski		E-Mail Direct to Owner	0100
James Waddell		E-Mail Direct to Owner	0105
Jan Melton		Comment Form	0136
Jane Beattie		E-Mail Direct to Owner	0044
Jaynie Bentz		Comment Form	0143
Jeff Burwell	U.S.D.A. Natural Resources Conservation Service	Letter	0017
Jeremy Boswell	White Cloud Rafting	E-Mail Direct to Owner	0046
Jerry Nielsen		E-Mail Direct to Owner	0059
Jim Arnett	IOUE Local 370	E-Mail Direct to Owner	0027
Joanna Kirkpatrick		E-Mail Direct to Owner	0054
Jock Pring	Hells Canyon RV Park	E-Mail Direct to Owner	0004
John Claassen		E-Mail Direct to Owner	0011
John Fisher		Comment Form	0012
John Heimer		E-Mail Direct to Owner	0079

Commenter	Affiliation	Comment Source	Letter #
John Hillman		Letter	0032
John Karpenko		E-Mail Direct to Owner	0053
John Love Tom Kammerzell Daniel Boone	Port of Whitman County	Letter	0036
John Trunn		Comment Form	0150
John Wolverton		E-Mail Direct to Owner	0108
Johnson Meninick	Confederated Tribes and Bands of the Yakama Nation	Letter	0028
Joseph Bogaard	Save our Wild Salmon	Letter	0006
Joseph Widener		Comment Form	0152
Joseph Widener		Comment Form	0153
Justine Barton Laura Inaouye Celia Barton Lauran Warner Chris Warren	Environmental Protection Agency	Comment Form	0128
Karen Hendrickson		E-Mail Direct to Owner	0080
Karen Knudtsen		E-Mail Direct to Owner	0055
Kathleen Warren	City of Clarkston	Letter	0030
Kelly Jo Jackson	Burns Pauite Tribe	E-Mail Direct to Owner	0156
Kevin Edeline		Comment Form	0127
Kevin Lewis	Idaho Rivers United	Letter	0007
Kevin Poole	City of Lewiston	Letter	0026
Kristin Meira	Pacific Northwest Waterways Association (PNWA)	E-Mail Direct to Owner	0092
Laura Tersch		Letter	0040
Linda Anderson-Carnahan	EPA - Office of Ecosystems Tribal and Public Affairs	Letter	0076
Linwood Laughy		E-Mail Direct to Owner	0008
Linwood Laughy		E-Mail Direct to Owner	0087
Lucy Yanz		E-Mail Direct to Owner	0035
Mandy Lawrence	United States Department of the Interior	E-Mail Direct to Owner	0083
Margaret Rosenthal		E-Mail Direct to Owner	0115
Mark Anderson		E-Mail Direct to Owner	0110
Mark Schoesler	Washington State Senate	Letter	0064
Mark Wilson	Port of Kalama	Letter	0084
Melvin Johnson	Lewiston-Nez Perce County Office of Emergency Management	Letter	0014
Michael Burke		Comment Form	0124
Michael Hinman		E-Mail Direct to Owner	0051
Michael Wells		E-Mail Direct to Owner	0106
Mike Herbert		Comment Form	0131
Mike Lauro		Comment Form	0134

Commenter	Affiliation	Comment Source	Letter #
Mike Thomason		Letter	0022
Mr Eric Burnette	Port of Portland	E-Mail Direct to Owner	0095
Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	Sierra Club Earth Justice Citizens for Progress Wild Steelhead Coalition American Rivers Pacific Coast Federation of Fishermen's Assoc. and Institute for Fisheries Save our Wild Salmon Friends of the Clearwater Idaho Rivers United	Comment Form	0121
Mr James Kuntz	Port of Walla Walla	Letter	0063
Mr Jeff Fagerholm		Comment Form	0129
Mr John Fisher		Letter	0019
Mr Nick Serrano		Comment Form	0147
Ms Sue Schuetze	Benton County Public Works	E-Mail Direct to Owner	0045
Neil Babson		Comment Form	0123
Pat Barclay	Idaho Council on Industry & Environment	E-Mail Direct to Owner	0081
Pat Ford	Save our Wild Salmon	E-Mail Direct to Owner	0096
Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	Pacific Coast Federation of Fishermen's Assoc. and Institute for Fisheries American Rivers Wild Steelhead Coalition Citizens for Progress Earth Justice Sierra Club	Comment Form	0068
Patricia Nakaoki		E-Mail Direct to Owner	0090
Paul Dixon	Clearwater Paper Corporation	E-Mail Direct to Owner	0072
Paula Boeckman Paul Boeckman		Letter	0031
Philip Rigdon		E-Mail Direct to Owner	0109
Rich Howard		E-Mail Direct to Owner	0052
Richard Carr		E-Mail Direct to Owner	0047
Richard Rusnak		E-Mail Direct to Owner	0116
Robert Cox	Pomeroy Grain Growers	E-Mail Direct to Owner	0093
Robert Ellis		E-Mail Direct to Owner	0074
Roberta Larsen		E-Mail Direct to Owner	0057
Roger Inghram Janice Inghram		E-Mail Direct to Owner	0082
Ron Whittman		E-Mail Direct to Owner	0018
Ronald Wittman		Comment Form	0154
Ruth Stemper		E-Mail Direct to Owner	0098

Commenter	Affiliation	Comment Source	Letter #
Sabrina Tanner		Comment Form	0148
Sara Wolf		E-Mail Direct to Owner	0107
Sara Wolf		Comment Form	0155
Sarah Kerns		E-Mail Direct to Owner	0086
Sarah Kerns		Comment Form	0133
Scott Levy		Comment Form	0144
Sheryl Nims Larry Nims		E-Mail Direct to Owner	0060
Silas Whitman	Nez Perce Tribal Executive Committee	E-Mail Direct to Owner	0091
Silas Whitman	Nez Perce Tribal Executive Committee	Comment Form	0137
Stephanie Utter	U.S. Dept. of Interior - Bureau of Reclamation	Letter	0111
Steven Ellis		E-Mail Direct to Owner	0075
Steven Hawley		E-Mail Direct to Owner	0078
Sue Schuetze	Benton County Public Works	E-Mail Direct to Owner	0023
Terri Costello	State of Washington - Department of Ecology	E-Mail Direct to Owner	0041
Theodore Pearson		Comment Form	0140
Thomas Schirm	State of Washington - Dept of Fish and Wildlife	E-Mail Direct to Owner	0103
Todd Blamires	Lewis Clark Valley Chamber of Commerce	Letter	0024
Tom Lorz	Columbia River Inter-Tribal Fish Commission	E-Mail Direct to Owner	0112
Tom Kovalicky		E-Mail Direct to Owner	0056
Tom Stuart		E-Mail Direct to Owner	0099
unknown unknown		Comment Form	0151
Various Authors	Save our Wild Salmon	Letter	0119
Various Authors	Sierra Club	Letter	0117
Veronica Erbe		E-Mail Direct to Owner	0050
Vicki Anderson		E-Mail Direct to Owner	0042
Vicki Anderson		Comment Form	0122
Wanda Keefer	Port of Clarkston	E-Mail Direct to Owner	0094
Wanda Keefer	Port of Clarkston	Comment Form	0142
Zeke Corder		Comment Form	0125
Zephyr Moore		E-Mail Direct to Owner	0009

Letter No.	Commenter	Comment No.	Comment	Response
0001	Mr James Bradford	8353	I think the above plan is short sided and wasteful. Keeping the Port of Lewiston open to river traffic is totally un-necessary when barge traffic could move from the Port of Wilma without the cost of dredging. Dredging is simply another piece of pork offered to the Port of Lewiston.	The Corps' ability to consider the feasibility of reconfiguring or relocating port facilities is limited and generally requires a cost-share sponsor and specific authority. The Corps could consider reconfiguration or relocation of port facilities only if requested by the ports and subject to availability of authority and funding. The Corps is charged with maintaining the navigation channel, and the market would drive any shift of commodities from one port to another. Elimination of port facilities is outside the scope of this FEIS.
0002	Mr Guy Moura	8354	Please be advised your proposed undertaking lies within the traditional territory of the Palus Tribe.	The Corps recognizes the Palus Tribe and their connection with the Lower Snake River. It also recognizes the diffuse nature of Palus Tribal members within the modern reservation system. The Confederated Colville Tribes were among the tribes consulted both during the NEPA process and also through the NHPA Section 106 process, as were other Plateau Tribal Governments that may represent Palus Tribal members. See also Section 5 in EIS on "other laws."
0002	Mr Guy Moura	8383	The EIS acknowledges that the project activities have the potential of adverse effects on historic properties and the THPO concurs with these findings and requests an archaeological assessment or investigation be conducted in the various project areas, and the resulting report be sent to the THPO for review prior to the commencement of the project.	Section 4.4 of the FEIS does acknowledge that future actions under the Programmatic Sediment Management Plan (PSMP) may result in adverse effects to historic properties. Such future (tiered) actions, however, would be subject to their own review, including consultation with the appropriate Tribal Governments in accordance with Section 106 of the NHPA and its implementing regulation 36 CFR Part 800. Section 5.1.12 of the EIS identifies "No Potential" to affect historic properties for development of the PSMP, as the plan itself does not direct any specific action. The PSMP is a framework for identifying actions to be taken in the future if justified. The Corps has determined that the current immediate need action, consistent with the PSMP, to reestablish the navigation channel will result in "No historic properties affected". This determination was provided to your office on 14 May 2013, and we received a response that same day indicating that the Confederated Tribes of the Colville Reservation had no further comment on the NHPA Section 106 determination of effect.
0003	Mr Bill Elliot	8355	The EIS is generally well written, with useful graphs and figures. I noted few editorial concerns. The EIS addresses the issues concerning sediment from forests quite well. This is a significant improvement from the previous draft and I think it is adequate for the purpose intended. I have two concerns, with the EIS, however. The first is that no mention is made of the effects of rangeland management and the rangeland areas on sediment delivery, including bank erosion associated with overgrazing too close to upland streams.	Rangeland management is discussed in Agriculture Conservation in Section 2.2.2 Upland Sediment Reduction Measures (Expanded). It is not a contributing significant resource and therefore is not discussed in great detail in the EIS. The Corps owns a bathtub ring on the lower Snake River and does not currently allow cattle grazing. However, there are a limited number of cattle watering corridors, reserved when the Corps acquired lands to support the LSRP. Cattle trespasses on Corps lands sometimes occur, as well. Rangeland outside the LSRP can contribute to sediment, but this is not a significant contributing resource. See also Letter No 76 Comment 8742.
0003	Mr Bill Elliot	8384	Irrigation is minimal in the upland watersheds, as the majority of agriculture is dry land farming. The emphasis in the agricultural areas should be on the importance of soil conservation practices, which are becoming widely adopted, and have been shown to be effective in minimizing sediment delivery.	The statement is correct regarding the presence of dry land farming versus irrigation in the LSR watershed. The FEIS has been edited to provide clarification on this point (Sec.2.2.4.4). Note that agricultural conservation practices are included as part of the Upland Sediment Reduction Measure.
0004	Jock Pring	8356	Concerning the dredging for the Lewiston Clarkston area? Why have the two marinas we have been excluded from the dredging project? We have been severely impacted and without dredging will be out of business.	The Programmatic Sediment Management Plan (PSMP) is appropriately focused on managing sediment that interferes with the existing authorized project purposes of the LSRP. Private navigation infrastructure, or recreation areas/facilities leased from the Corps (e.g., marinas) are not part of the PSMP, because these areas/facilities are not operated and maintained by the Corps. All recreation areas have been excluded from the Corps' current immediate need action to reestablish the navigation channel, consistent with the PSMP. Any future actions (tiered from this EIS) to address sediment accumulations interfering with the LSRP recreation mission would generally include only those recreation areas operated and maintained by the Corps. The operation and maintenance of recreation areas leased to other parties, including sediment accumulation, is the responsibility of the lessee. The lessee must also obtain all necessary permits/approvals for such work.

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS

Letter No.	Commenter	Comment No.	Comment	Response
0005	Mr Gary Mcfarlane	8393	We would like to ask you for additional time, 60 days is preferable but at a minimum 45 days, to review the Lower Snake River Programmatic Sediment Management Plan Draft EIS.	The Corps extended the end date of the DEIS comment period from March 26, 2013 to April 20, 2013.
0006	Mr Joseph Bogaard	8394	We urge that the ACOE act quickly to extend its public comment period by at least 45 days and thereby allow sufficient time for public review and input on these critical issues.	The Corps extended the end date of the DEIS comment period from March 26, 2013 to April 20, 2013.
0007	Mr Kevin Lewis	8395	Idaho Rivers United respectfully requests an extension of the public comment period for the LSRPSMP Draft EIS of at least 45 days.	The Corps extended the end date of the DEIS comment period from March 26, 2013 to April 20, 2013.
0008	Linwood Laughy	8396	I hereby request an extension of the public comment period for the LSRPSMP Draft EIS of at least 45 days.	The Corps extended the end date of the DEIS comment period from March 26, 2013 to April 20, 2013.
0009	Zephyr Moore	8380	The dams remain in place. Where to dispose of silt to increase its value? How to dredge and transport silt with the least effort and expense? Lifting silt to hilltop then farmland solves the problem of storage. How to lift silt from reservoir to farmland?	The Programmatic Sediment Management Plan (PSMP) includes measures that address this comment which are Beneficial Use of dredged material and Upland Placement. Beneficial use options utilize the dredged material for a productive purpose such as habitat restoration/enhancement, construction and industrial use, etc. This measure views dredged material as a valuable and manageable resource. In upland placement, dredged material is placed on land, above high water, and out of wetland areas. The dredged material is typically placed in a cell behind levees that contain and isolate it from the surrounding environment. The dredged material is dewatered through evaporation and/or settling and discharged as clean water. For the current immediate action, several disposal alternatives were evaluated for their environmental impact and least cost for mobilization and placement. The Corps looks for opportunities to use sediments beneficially in the system, either through maintaining it in the system for ecosystem purposes, or upland uses such as farmland or beach renourishment, or construction type activities. As part of the Regional Sediment Management measure, we would welcome opportunities for beneficial use from willing and interested partners for any justified actions involving dredging. Corps policy is to use the least cost, environmentally acceptable disposal option and consider beneficial uses of dredged material consistent with available authorities. Pumping or transporting sediment to high elevations is likely to cost significantly more than keeping it in or near the water. The current immediate need action proposes to use sediment as a resource to improve habitat value for juvenile salmonids.
0010	Gary Budd	8357	Support for the project	Thank you for your comment.
0011	Mr John Claassen	8358	However, from what I heard today I am having a hard time believing that your research didn't promise much hope beyond dredging, a routine Corps activity, as a solution. You have identified a trigger for justifying dredging the waterways; however I found no triggers for supporting Recreation and Conservation. Instead Corps policies appear to be obstacles to making any progress in these areas. I find it extremely discouraging that the bases for these policies were not made apparent nor has anyone challenged the policies even if they were established by Congress. As a retired citizen of the City of Asotin who sometimes provides technical insight to his community, I am grateful that Dr. Greg Teasdale performed conceptual studies that provided limited insight on how a marina might be designed to prevent sediments from accumulating in the basin. I am disappointed that the studies were not carried further to establish a definitive basis. These more definitive efforts should include a small scale demonstration project. The simplest demonstration could be done right at the Clarkston boat ramp near the Corps offices where a simple tube open to up	See response to Issue No.8356 to comment letter No. 4. Properties/facilities that are leased from the Corps by private owners are per the lease agreement and the responsibility of the lessee to maintain. In the Programmatic Sediment Management Plan (FEIS Appendix A) Section 3.3.2 identifies action triggers associated with sediment accumulation that interferes with the existing authorized project purposes (commercial navigation, recreation, fish and wildlife, and flow conveyance). In general, triggers do not require the use of any specific measure. Measures will be developed on a case-by-case basis in accordance with the PSMP and for recreation areas could include relocating/reconfiguration the Corps owned/managed recreation facilities, dredging or doing nothing (e.g., closing the facility). The discussion of triggers and selection of measures has been expanded and clarified in the FEIS. The Corps does not envision funding a pilot project at the Marina at this time.

Letter No.	Commenter	Comment No.	Comment	Response
			river flow under the launch ramp could be used to drift the sediment away at the entrance/ exit.	
0011	Mr John Claassen	8359	I am disappointed that the Corps and its collaborators offered no hope for addressing erosion at the source. Yes the slopes are steep and rainfall is limited; however, I can't accept the finding that there is no practical way of stabilizing the soil. I have more confidence in Nature's methods of healing than I have in dredging.	Studies prepared by the USGS and USFS in support of the EIS determined that the primary contributors of sand to the Lower Granite Reservoir are episodic events associated with fire-affected forested areas and there is no practical way of preventing such erosion. Chronic erosion from forested areas contributes smaller quantities and finer sediments than the episodic events. The chronic erosion is caused by sources such as roads and is potentially more controllable than forest fires or landslides. Forest management practices are discussed as part of the Upland Sediment Reduction measure and that these forest management practices are outside of the Corps authorities.
0012	Mr John Fisher	8360	General concern about cost of barge traffic compared to trains	<p>A detailed economic analysis, which includes the identification of National Economic Development benefits, is required when developing a recommendation to Congress on whether a new navigation project is feasible and should be constructed. Once a navigation project is authorized and constructed, however, the Corps ensures continued maintenance is economically warranted based on continued commercial use of the navigation system. The Corps is not required to prepare a detailed economics analysis of the type called for in many public comments. Economic studies like those included in feasibility studies are not necessary when evaluating maintenance alternatives for existing projects. Such a study was completed in the <i>Final Lower Snake River Juvenile Salmon Migration Feasibility Report/Environmental Impact Statement</i> (LSRJSMFR) dated February 2002 (http://www.nww.usace.army.mil/Library/2002LSRStudy.aspx).</p> <p>The focus for cost-analysis under NEPA is on comparison of alternatives, not justification of the proposed project. Cost analysis is required when alternatives are (or should be) compared on a cost basis. Cost analysis is not required when there are more important qualitative considerations for comparing alternatives. 40 C.F.R. 1502.23 states: " For purposes of complying with the Act [section 102 (42 USC § 4332)], the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." The Corps has not identified a need for a cost analysis under NEPA to distinguish between alternatives, as the preferred PSMP alternative (Alternative 7) is a combination of all reasonable measures, and the only measure identified for the current immediate need to reestablish the federal navigation channel (consistent with the PSMP) is dredging.</p> <p>Additionally, a detailed economic analysis, which includes identification of National Economic Development (NED) benefits, is not required when the Corps develops O&M plans for existing Civil Works projects. Once a navigation project is authorized and constructed, the Corps ensures continued maintenance is economically warranted based on continued commercial use of the navigation system. The Corps is not required to prepare a detailed economics analysis of the type called for in many public comments. In accordance with the general guidance contained in ER 1105-2-100, the Corps has determined the ongoing/anticipated commercial use of the lower Snake River navigation channel warrants preparation of the PSMP. ER1105-2-100, Section E-15h(3)(i)(1) states, "continuation of ongoing dredged material management studies [e.g., PSMP] is conditioned on a confirmation that continued maintenance is warranted. Therefore, for each ongoing study, a review of indicators of continued economic justification will be conducted." For site-specific navigation channel maintenance actions under the PSMP in the future, the Corps will identify the least costly manner consistent with sound engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process (See, 33 CFR 335/336).</p>

The PSMP was developed to help identify and consider cost effective and environmentally

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				<p>acceptable methods to maintain the existing projects (the LSRP) by managing sediment that interferes with the existing authorized project purposes, including navigation. For the PSMP, the Corps considered previous detailed economic analyses, including the), <i>2002 Dredged Material Management Plan and Environmental Impact Statement, McNary Reservoir and Lower Snake River Reservoirs</i> (DMMP), the <i>2002 Final Lower Snake River Juvenile Salmon Migration Feasibility Report/Environmental Impact Statement</i> (LSRJSMFR) (http://www.nww.usace.army.mil/Library/2002LSRStudy.aspx, the 2005 <i>Lower Snake River Navigation Maintenance, Lower Snake and Clearwater Rivers, Washington and Idaho Environmental Impact Statement</i> and the current level of commercial navigation on the Snake River system. A variety of products are transported by barge on the lower Snake River, including containers, fertilizer, and machinery. Based on the <i>2002 Final Lower Snake River Juvenile Salmon Migration Feasibility Report/Environmental Impact Statement</i>, the increased cost to transport grain by rail or truck is about \$8.45 per ton in current dollars. Total tonnage on the lower Snake River is currently estimated at about 3 million tons with the majority being grain. Therefore, annual transportation savings of approximately \$25M can be expected if the navigation system is maintained. In reality it is likely that benefits will increase in the future as traffic continues to recover from the recession. Annual costs to maintain the lower Snake River navigation system are estimated to be in the \$1-5M range. Therefore based on the estimated transportation savings, ongoing channel maintenance on the lower Snake River is warranted from the navigation perspective.</p> <p>Section 3.5.3.1 of the EIS has been modified to include this additional economic information and clarify economic justification for the PSMP. Computing costs of measures identified in the PSMP that could be implemented in the future to address sediment interfering with existing authorized purposes of the LSRP (e.g., in-water structures) is outside the scope of the proposed actions under this EIS. The implementation of measures under the PSMP in the future (Appendix A to the EIS) would undergo tier-off NEPA analysis.</p>
0013	Arvid Lyons	8397	<p>After multiple conversations with the Corps of Engineers and port officials it was agreed to include our port of Clarkston barge loading berth in their dredge plans. I was surprised to see that the Corps of Engineers recent scope of dredge work showed LCT Clarkston berth was not included. Please consider this formal notice to secure any permits necessary to perform any dredging work necessary at LCT Clarkston barge loading berth and our barge loading berths in the Port of Lewiston.</p>	<p>The Lewis-Clark Terminal has been included in all of the applicable site-specific environmental documentation prepared for the proposed current immediate need action dredging, however it is the responsibility of the Port to obtain all necessary permits for the Corps to perform a dredging service in collaboration with Corps' dredging schedule for the maintaining the federal navigation channel.</p>
0014	Mr Melvin Johnson	8361	<p>I have reviewed the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement, and offer the following from a public safety perspective. The Lewiston levee system was designed to standard Corps of Engineers project flood specifications. Levee height will contain a 300-year flood event, with five feet of freeboard. In our hazard analyses, we identified siltification at the confluence of the Snake and Clearwater Rivers as an emerging hazard. Effectively, this sediment accumulation raises the river bed [or lowers the levee height] over time. Consequently, a river flow rate that would have been contained by the levees as initially constructed (for example, a 100-year event), may overtop them. This would have significant the impact on people, property and the environment in the inundation area. To maintain the project flood specifications I believe the most practical, cost effective solution is dredging and available system and structural</p>	<p>The Lewiston Levee System was originally designed to safely pass the Standard Project Flood (SPF) through the leveed reach. The SPF discharge on the Snake River downstream of the Clearwater River is 420,000 cubic feet per second (CFS), the SPF discharge on the Snake River upstream of the Clearwater River is 295,000 CFS, and the SPF discharge on the Clearwater River is 150,000 CFS. Because of physical differences between the respective drainage basins of the Snake and Clearwater Rivers, their peak SPF discharges do not occur simultaneously in time and are, therefore, not directly additive downstream of their confluence. Present Corps regulations and guidance dictate use of a Risk Based Analysis to assess levee adequacy. Section 5 of the FEIS Appendix F, Part 1, contains further discussion regarding Risk Based Analysis. The SPF is no longer a valid design target, having been superseded by more current guidance. As per Table 4 (EIS Appendix F, Part 2), the 1-percent annual exceedance probability discharge for the Snake River downstream of the Clearwater River is approximately 331,600 CFS, the 1-percent annual exceedance probability discharge for the Snake River upstream of the Clearwater River is approximately 229,400 CFS, and the 1-percent annual exceedance probability discharge for the Clearwater River is approximately 102,200 CFS. The 1-percent annual exceedance probability is the preferred technical</p>

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			measures. I concur with the US Army Corps of Engineers selection of Alternative 7 as the preferred alternative to manage sedimentation. This is the clear choice to protect people, property and the environment.	terminology for the phrase '100-year event.'
0015	Arvid Lyons	8362	I am Gmgr for LCT with barge terminal in Port of Clarkston and port of Lewiston. - 4/3/2012 we ground a tide water barge at 9'6" at our Clarkston Elevator - 12/18/2012 a loaded barge from LCT (TW 71) ran aground - drafts of 13'0" and 12'0" - We have been light loading at Clarkston and Lewiston (during low mop levels) - Berth and channel have become a safe concern - For the thousand of trucks that would be on the Hwy for the cleaner air we breath, and for those who are unfamiliar with the col/stake rive system, LCT appreciates the Corps unbiased role in its management.	Thank you for your comment.
0016	Ms Cynthia Magnuson	8378	I've also learned/heard that the smolts do not need a "resting" spot, but rather a quick trip to avoid predators.	It has been shown that juvenile salmon (especially fall Chinook) utilize shallow, shoreline habitat for rearing during their downstream migration. Shallow water habitat is somewhat limited within the reservoirs. See Section 3.1 of the FEIS and Appendix L.
0016	Ms Cynthia Magnuson	8379	I know that I am naïve on the topic but I'd like to know if a cost comparison has been run on : 1. This project i.e. – dredging and possibly levee lifting for years (20?) to come; 2. Tearing down the dams and allowing the river to clean itself and letting the fish return. If you've studied other U.S rivers you'll know that they are in desperate need of maintenance, crumbling bridges and silt build-it. Soon our dams will be requiring massive maintenance. With so few barges I feel this project should be put on hold until many other issues : economic need, the channel @ the ocean, and other needs in higher priority rivers of the US	See also response to comment 8360 in Letter No. 12. Based on probabilistic analysis of flood risk, the current risk of overtopping the Lewiston Levees by extreme flood discharge is acceptable per current Corps policy. The Corps has not evaluated a comparison between dredging for 20 years and raising the Lewiston levees; however Corps has prepared the appropriate level of economic review for the current immediate need channel maintenance action consistent with the PSMP in Section 3.5.3.1 of the FEIS.
0017	Mr Jeff Burwell	8398	The Corps should take into account the productivity, capability, and erodibility of soils when siting future actions under the preferred alternative and incorporate provisions for erosion, sediment, and dust control into future project designs.	Concur. The Corps agrees with the comment. Soil characteristics will be considered as applicable during the alternative formulation process when selecting the best measure(s) to implement at a specific location. And optimal provisions to address potential erosion, sediment production, or fugitive dust emissions would be employed.
0017	Mr Jeff Burwell	8399	Impacts to Prime and Unique Farmland from: the Management Measures are probably unlikely given their planned general locations, but if such areas are identified when planning future actions, they should be avoided to the maximum extent practicable. If impacts cannot be avoided, the Farmland Protection Policy Act (Public Law 97-98, 7 U.S.C. 4201) may apply.	Concur. The Corps agrees and intends to do so accordingly. A tiered NEPA evaluation would be conducted prior to any project implementation. The evaluation would include impacts to Prime and Unique Farmland as applicable. Any future proposed action on agricultural lands would include compliance with Farmland Protection Policy Act and include coordination of Form AD 1006 for identification and assessment of any Prime or Unique Farmlands.
0017	Mr Jeff Burwell	8400	NRCS encourages the installation of new and maintenance of previously installed soil and water conservation management systems in the study area.	Although the Corps has limited jurisdiction outside of the areas immediately adjacent to the lower Snake River, the FEIS acknowledges some benefit to the use of upland conservation measures. Section 2.2.2.4 of the FEIS has been revised "The Corps assumes agencies and land owners responsible for land management in the basins that drain into the LSRP... would continue to implement existing land management programs and practices related to upland sediment reduction measures(USRM), consistent with their current authorizations and funding. The continued implementation of current or increased (as funding/technology allow) USRM is considered a baseline component of all alternatives evaluated in this EIS, including the "No action" alternative, and is not being proposed as a separate/stand-alone measure." Studies conducted during the preparation of this FEIS (Appendices B-D) determined USRM would have little or no effect on reducing sediment deposition that interferes with LSRP authorized

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0017	Mr Jeff Burwell	8401	NRCS encourages the Corps to incorporate all known practicable avoidance, minimization, and/or mitigation measures that will eliminate or reduce adverse effects on aquatic ecosystems and water quality into the descriptions of the Management Measures identified in Section 2.	project purposes. Concur. The Corps has included and will consider all practice measures to avoid and minimize adverse effect. Measures to avoid or minimize (i.e., mitigate) the potential effects of individual management measures within an alternative are discussed in FEIS Section 4 specific to each element of the environment.
0018	Mr Ron Whittman	8363	I am in total support of the continued dredging of the Snake and Clearwater rivers for the purpose of river barge traffic up to and back out of the Ports of Lewiston, Clarkston and Wilma.	Thank you for your comment.
0019	Mr John Fisher	8402	Before any more money is spent on dredging an economic analysis of past, present, and future costs of barging needs to be made by an impartial and competent panel:	See response to comment 8360 in Letter No. 12.
0019	Mr John Fisher	8403	They should be able to contract a few tens of thousands of dollars for an economic analysis of the actual costs of barging vs. rail (trucking is obviously too destructive and inefficient) using economists and analysts from U of I or WSU.	See response to comment 8360 in Letter No. 12. The Corps has prepared the appropriate level of economic justification for the first channel maintenance action consistent with the PSMP in Section 3.5.3.1 of the FEIS.
0020	Mr Bill Chetwood	8404	What is missing here for the average citizen is justification of the sustained use of the waterway as transportation...the relative cost, and the longevity of the current proposal relative to the continued cost. In more concise terms, what is the cost/benefit ratio compared to alternative methods of transport.	See response to comment 8360 in Letter No. 12.
0020	Mr Bill Chetwood	8405	If the Corps wants public support, give us an accurate cost/benefit analysis and if it doesn't pencil out, go to a reasonable cost effective and environmentally acceptable alternative.	See response to Comment 8360 in Letter No. 12.
0021	Mr Douglas Zenner Mr Douglas Havens Mr Robert Tippett	8364	The Nez Perce County Board of Commissioners unanimously endorse the Corps of Engineers proposal to manage, reduce and prevent sediment accumulation using dredging and other sediment and watershed management measures.	Thank you for your comment.
0021	Mr Douglas Zenner Mr Douglas Havens Mr Robert Tippett	9073	Alternative 7 best addresses the immediate need to re-establish the Congressionally-authorized dimensions of the navigation channel. It establishes a programmatic plan to address long term sediment accumulation. Alternative 7 has our full support.	Thank you for your comment.
0022	Mr Mike Thomason	8406	I personally support Alternative 7 Comprehensive (Full System and Sediment Management Measures) of the draft PMSP/EIS because I feel it is the most efficient, cost effective and quickest solution to an issue that is already impacting barge traffic in the Snake River.	Thank you for your comment.
0022	Mr Mike Thomason	8407	While I am in favor of dredging, there are other options suggested in Alternative 7 which I personally do not favor. Those alternatives include: raising the height of the levies, relocating existing affected facilities, and drawing-down the rivers. All three of these alternatives would have negative effects I would like to avoid.	As described the FEIS Appendix A, Corps will monitor sediment deposition that is affecting existing authorized project purposes. The use of a specific measure will be determined when triggers are met on a project-by-project basis, selected based on location-specific characteristics, and nature of the problem (chronic problem area, intake blockage, navigation channel, high water velocities). Each measure has very specific applications. For example, reconfiguration of affected facilities are for Corps owned/managed facilities and could include water intake structures, mooring facilities, docks, boat ramps, and loading/unloading facilities. Current analysis indicates that flood risk is within acceptable limits, however if future sediment accumulation changes the flood risk to Lewiston levees, raising the levee may be an option for reducing flood risk. Location and height of change would be determined through detailed site-

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0022	Mr Mike Thomason	8408	It has been suggested that the Corps be able to utilize the current NEPA analysis for future maintenance dredging in an effort to expedite the process and cut the cost of doing everything over each time. I concur with that suggestion.	and time-specific studies. The Programmatic Sediment Management Plan (PSMP) FEIS evaluates future actions to the extent reasonably possible, and provides a general evaluation of the proposed action and alternatives and their associated potential environmental effects. The FEIS will provide a foundation for "tiering" of future environmental reviews for site-specific actions. Section 1.6 in PSMP (Appendix A) also includes discussion regarding "tiering" of environmental reviews subsequent to the FEIS and how tiered-off NEPA documents relate to the programmatic FEIS. The level of future NEPA analysis will be dependent on the activity to be undertaken, location-specific conditions, and expected impacts.
0023	Ms Sue Schuetze	8409	Benton County Public Works has no comments on this proposal:	Thank you for your comment.
0024	Mr Todd Blamires	8410	We support Alternative 7 Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that it is imperative that the Corps of Engineers maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.	Thank you for your comment.
0024	Mr Todd Blamires	8411	While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures: Modify flows to flush sediments (drawdown) Reconfiguring/relocate affected facilities Raise Lewiston levees to manage flood risk	See response to comment 8407 in letter No. 22 Use of a specific measure will be determined on a project-by-project basis and will be selected based on the location-specific characteristics, effectiveness and sustainability of the solution, costs, and environmental and social impacts of implementing the solution.
0024	Mr Todd Blamires	8412	We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.	See response to comment 8408 in letter No. 22.
0025	Mr Eric Burnette	8365	We believe this PSMP will help the Army Corps of Engineers resume routine maintenance dredging in an environmentally protective manner.	Thank you for your comment.
0025	Mr Eric Burnette	8385	The Port of Portland recognizes the need for a Programmatic Sediment Management Plan for the Lower Snake River and endorses your designation of Alternative 7 in the draft EIS as the preferred alternative.	Thank you for your comment.
0026	Mr Kevin Poole	8413	We support Alternative 7 Comprehensive (Full System and Sediment Management Measures) of the draft PMSP/EIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that it is imperative that the Corps of Engineers maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.	Thank you for your comment.
0026	Mr Kevin Poole	8414	While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures: Modify flows to flush sediments (drawdown) Reconfiguring/relocate affected facilities Raise	See response to comment 8407 in letter No. 22

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0026	Mr Kevin Poole	8415	Lewiston levees to manage flood risk We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.	See response to comment 8408 in letter No. 22.
0027	Mr Jim Arnett	8375	We (IUOE Local 370) represent over 2000 members and we support dredging to maintain shipping on the Snake and Columbia Rivers. Jim Arnett, 1914 13th Street, Clarkston, WA 99403	Thank you for your comment.
0028	Mr Johnson Meninick	8374	Although we understand cultural resource properties within the scope of the management plan have been partially evaluated; it is our understanding that this evaluation is currently incomplete. We have been involved in the ongoing analysis of cultural property studies within these reservoirs and are aware of the incomplete inventory. We would like to know what plans will be made to evaluate existing cultural resource properties that are inundated (wet sites) or to identify potential unknown properties that may be present in the inundated portions APE.	For programmatic sediment management, the Corps would evaluate cultural resources potentially affected by the adopted plan. This would include inventories and evaluation of terrestrial as well as submerged historic properties. Consultation will occur with applicable SHPO(s) and THPO(s), and would be based on the APE as defined for the proposed action. For the proposed current immediate need action, the Corps has evaluated the APE and documented its findings in Section 4.4. of the FEIS.
0028	Mr Johnson Meninick	8386	A determination of ineligibility based on inundation alone is not an accepted methodology. The presence of Traditional Cultural Properties (TCPs) not only occurs throughout the land adjacent to the river but also occur within the river. The presence of TCPs inundated by the construction of the dams can still be eligible regardless of whether they are inundated. Our ancestors have lived during times when water covered these sacred resources; they hunted, fished, and conducted ceremonies at these locations. They may be under water today, but they are still significant to our heritage and our way of life. We need to help protect these resources and to secure the reserved rights to those who will be the future of our people. These resources help to define our cultural heritage as Yakama people.	The Corps acknowledges that TCPs occur on land adjacent to as well as areas currently inundated with water. We also agree that inundated sites may still be determined eligible for the National Register. For the proposed current immediate need action, the Corps would dredge areas that have been previously dredged to the same depth, and dredged material would be placed in an area of on-going habitat creation. This disposal area has been previously investigated for cultural resources. For future actions, the Corps will consider the potential effects of proposed actions on TCPs, inundated TCPs and other historic properties.
0029	Mr Bill Caldwell	8368	Please do not waste my money in this way.. get rid of the dams and let nature recover.	See response to Comment 8686 in Letter No. 68. An alternative involving LSRP dam deauthorization, removal, or breaching is outside the reasonable range of alternatives required by NEPA for this action, given the stated purpose and need is to maintain the projects (LSRP) by managing sediment that interferes with the existing authorized project purposes. Corps is proposing to adopt a Programmatic Sediment Management Plan for future actions (immediate and forecast needs) and a current immediate need action, consistent PSMP, to re-establish the federal navigation channel to congressionally authorized dimensions.
0030	Ms Kathleen Warren	8416	We support Alternative 7 (Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia Snake River system is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that it is imperative that the Corps of Engineers maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.	Thank you for your comment.
0030	Ms Kathleen	8417	While Alternative 7 provides an array of measures to address	See response to comment 8407 in letter No. 22

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	Warren		sediment accumulation, we are opposed to the implementation of the following measures: Modify flows to flush sediments (drawdown) Reconfiguring/relocate affected facilities Raise Lewiston levees to manage flood risk	
0030	Ms Kathleen Warren	8418	We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.	See response to comment 8408 in letter No. 22.
0031	Paula Boeckman Paul Boeckman	8369	Please dredge the Asotin Marina! As USCGA crew members on patrol boats Asotin Marina would be the ideal place to stage patrols to the Hells Canyon.	See response to comment 8356 in letter No. 4
0032	Mr John Hillman	8419	Commercial navigation: In my opinion, commercial navigation from the Lewiston and Clarkston ports is no longer necessary. This is an outdated and over-subsidized benefit to the region	See response to Comment 8360 in Letter No. 12.
0032	Mr John Hillman	8420	Recreational Opportunity: The management plan asserts that dredging is necessary to keep boat basins along the Snake and Clearwater Rivers operational. The Lewis-Clark area is a hub of aquatic recreational opportunity, but the boat basins along the current reservoir are not necessary. Several boat basins have been built along the free flowing sections of the Snake and Clearwater Rivers and it is a fallacy to think that the reservoir is the key to access for these rivers.	The Programmatic Sediment Management Plan (Appendix A) and FEIS addresses sedimentation that interferes with the existing authorized project purposes. Dredging is just one measure or tool that could be used to remove sediment that interferes with use of some of the boat basins. See Section 2.2 of the FEIS and PSMP (Appendix A) for other measures to manage sediment. There is no assertion that dredging is necessary to keep boat basins along the Snake and Clearwater Rivers operational. The Corps has an obligation to maintain existing recreation areas, including its boat ramps/basins, unless future study shows continued maintenance is not warranted.
0032	Mr John Hillman	8421	Fish and Wildlife Conservation: It is a well-known fact that the anadromous fish species in the Columbia Basin survive in a free flowing river system. They did it for thousands of years. Barging wild salmonid smolt around the life threatening dams and reservoir does not increase their survivability, and persisting to think that barging should be a critical piece of the recovery process and management is a perverse use of logic. The recovery of native, wild anadromous fish populations stands its best chance of being accomplished by restoring a free flowing river system. It is time to seriously address this issue. How will ACE address the recovery of these quickly disappearing fish populations through the persistence to maintain a costly reservoir?	See responses to Comment 8460 in Letter No. 44, Comment 8694 in Letter 68, and Comment 8368 in Letter No. 29. The PSMP FEIS addresses sedimentation that interferes with existing authorized project purposes. Conversion of the reservoir system to a free-flowing Snake River (i.e., dam breaching) is not within the scope of this FEIS. Additionally, revisiting the multi-partner (regional) decision to barge smolts around the dams is also not the subject of this FEIS. The Corps participates in multiple efforts including improvements to hydropower, habitat, and hatcheries to address the recovery of these species. Barging of smolts is currently a requirement for the Corps under the National Oceanic and Atmospheric Administration 2014 Supplemental Biological Opinion for the Federal Columbia River Power System.
0032	Mr John Hillman	8422	Safety: The LSRPSMP states that it will provide "future" flood prevention for the Lewis-Clark valley, yet there is no indication as to how this will be provided. The document does not address flood prevention beyond 20 years from now. We can buy time now by raising the levees, but what will happen in 30 or 50 years? Downtown Lewiston is currently threatened by a 100-year flood event, and the preferred alternatives give no indication as to how flood prevention will be provided	See response to comment 8361 in letter No. 14. The Lewiston Levee System was originally designed to safely pass the Standard Project Flood through the levee reach. The System currently provides well in excess of protection against the one (1) percent annual exceedance probability event, commonly referred to as 100 year protection, to the City of Lewiston. See Section 1.3 of the FEIS Appendix F, titled 'Major Findings of the Hydraulics and Hydrology Analysis,' for further discussion of both current and future conditions. The Corps will continue to monitor conditions in the Lewiston area and will consider appropriate management actions in the future.
0033	Ms Faye Krueger Mr Bruce Sims	8372	The Forest Service is committed to increasing the rate of restoration of the National Forest System lands. We will implement these programs within the limits of uncertain budget appropriations. Ongoing activities include road decommissioning, road maintenance, post fire Burned Area Emergency Response (BAER) program that initiates erosion control and road stabilization measures following significant	See response to comment 8400 in Letter No. 17. The Corps recognizes the limitations of implementing programs when the ability to do so is based on funding available and operates under the same constraints. Section 2.2. of the FEIS states "The Corps assumes agencies and land owners responsible for land management in the basins that drain into the LSRP... would continue to implement existing land management programs and practices related to erosion control, consistent with their current authorizations and funding."

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			wildfires, and riparian area improvement projects. The results of these programs will vary over space and time.	
0033	Ms Faye Krueger Mr Bruce Sims	8373	The Forest Service will participate as a cooperator in meetings as appropriate and provide data derived from ongoing monitoring and reporting activities that may be relevant to the PSMP.	The Corps appreciates the willingness of the Forest Service to continue to participate in sediment management-related activities/planning.
0033	Ms Faye Krueger Mr Bruce Sims	8387	Appendix A Section 4.2 leaves the impression that every agency or jurisdiction will use the same set of BMPs. The USDA Forest Service has recently published National Best Management Practices for Water Quality Management (Volume 1: National Core BMP Technical Guide FS-990a, April 20 12). State agencies, Tribes, and other federal agencies may use slightly different practices. Clarification on this statement may be necessary.	See response to comment 8400 in Letter No. 17. The Corps has modified the text in section 2.2 in the FEIS assumes that current or increased (as funding/technology allow) Upland Sediment Reduction Management would continue in the future and will be an inherent (baseline) feature of all alternatives considered and is not being proposed as a separate/standalone measure. The Corps has modified the text the Programmatic Sediment Management Plan (Appendix A).
0033	Ms Faye Krueger Mr Bruce Sims	8388	We suggest that grazing practices may be an area that could be addressed more fully in the document.	See response to comment 8355 in letter No. 3.
0034	Mr Art Swannack Mr Michael Largent Mr Dean Kinzer	8366	We believe agencies should always be good stewards of their resources, especially in these times of reduced funding. By utilizing alternative 7, the Corps will have the ability to use all available resources to best solve both immediate and longer term sedimentation problems in the Snake River drainage. This alternative will reduce costs and red tape. The Corps will be able to be innovative and not restricted to only dredging as a fix to the long term issue of sedimentation in the Snake River area. We heartily support Alternative 7.	Thank you for your comment.
0034	Mr Art Swannack Mr Michael Largent Mr Dean Kinzer	8389	We the Board of Commissioners for Whitman County, Washington wish to express support for Alternative 7 Comprehensive (System and Sediment Management).	Thank you for your comment.
0035	Ms Lucy Yanz	8370	Please remove the dams in the Lower Snake, and invest the money spent on their upkeep in the infrastructure to get goods to market a better way. Salmon are important and the hatchery system has not succeeded in mitigating the impacts of dams as had once been hoped. It is time to admit that the environmental cost of the dams is just too high.	See response to comment 8368 in Letter No. 29.
0036	Mr John Love Mr Tom Kammerzell Mr Daniel Boone	8423	We support Alternative 7 Comprehensive (Full System and Sediment Management Measures) of the draft PMSPIEIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that maintaining the congressionally authorized 14-ft. navigation channel is a priority for the Army Corp of Engineers. The Ports on the Snake River system are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.	Thank you for your comment.
0036	Mr John Love Mr Tom Kammerzell Mr Daniel Boone	8424	While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures: Modify flows to flush sediments (drawdown) Reconfiguring/relocate affected facilities Raise Lewiston levees to manage flood risk	See response to comment 8407 In letter No. 22

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0036	Mr John Love Mr Tom Kammerzell Mr Daniel Boone	8425	We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.	See response to comment 8408 In Letter No. 22.
0037	Mr Bob Rich	8371	We additionally support the Corps' ability to utilize the NEPA analysis of this project to tier off for future maintenance dredging.	See response to comment 8408 in letter No. 22.
0037	Mr Bob Rich	8390	It is imperative that areas of shoaling and sedimentation impeding the authorized federal navigation channel be dredged. This clearance also must be extended to allow private terminals and public ports to perform their berth and marina maintenance dredging as well. Allowing further delay only adds to the costs and impacts of the dredging, adds system risk to groundings of tows, and reduces the ability to safely navigate on the river system.	See response to comment 8356 in letter No. 4. The Programmatic Sediment Management Plan addresses sedimentation that interferes with existing authorized project purposes. Private terminals, ports, marinas, and berthing areas are the responsibility of those owners to perform O&M. Each may obtain permits to dredge their facilities.
0037	Mr Bob Rich	8391	Regular maintenance dredging, without the continued threat of litigation, is essential to manageable channel maintenance costs and safe navigation-the hallmarks of the Lower Snake River navigation channel.	Thank you for your comment. The Programmatic Sediment Management Plan is not establishing a regular maintenance dredging plan, however the PSMP will provide the basis for continuing maintenance activities. Dredging is one of a number of measures identified in the PSMP to manage sediment that interferes with existing authorized project purposes of the LSRP.
0038	Mr James Kuntz	8376	Appendix H of the draft PSMP/EIS adequately characterizes the need for immediate action to restore the Snake River navigation channel to full authorized depths for its entire length. We believe that undertaking immediate dredging is the least cost, environmental sensitive means to restore current diminished authorized navigation depths. Thus, we fully support the Corps' intention to use dredged material to create additional shallow water habitat for juvenile salmonids.	Thank you for your comment.
0038	Mr James Kuntz	8377	The Port also suggests that final documents clearly identify how the Corps of Engineers intends to use the EIS as the foundation for future maintenance activities. As currently written, we find the document vague on what level of analysis, if any, might be required to support continuous routine maintenance.	See response to comment 8408 in letter No. 22.
0038	Mr James Kuntz	8392	Thus, we fully support the Corps' intention to use dredged material to create additional shallow water habitat for juvenile salmonids.	Thank you for your comment.
0039	Mr Doug Mattoon	8426	We support Alternative 7 Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS.	Thank you for your comment.
0039	Mr Doug Mattoon	8427	We do not support the System Management measure under Alternative 7 to raise the height of the Lewiston Levee.	See response to comment 8407 in Letter 22.
0040	Ms Laura Tersch	8428	I have reviewed The-Draft and submit for your consideration that none of the alternatives defined in the Draft are the best alternative. The best alternative needs to address the stated "purpose and need" in addition to being in the best interests of the local, affected communities;	Section 2 of the FEIS describes the process the Corps used to develop the Programmatic Sediment Management Plan alternatives presented in the FEIS and the criteria the Corps used to screen potential measures to be included in the alternatives. Potential measures were developed through a collaborative process that included a series of workshops involving technical experts from the Corps and other agencies, and input from scoping and stakeholders. Only those measures that met the purpose and need and were considered technically feasible were determined to be reasonable to include in the PSMP alternatives. Reasonable measures were combined into a variety of alternatives, which were then evaluated to determine whether they met the purpose and need. Alternatives that met the purpose and need were evaluated in detail in the FEIS. The alternative measures developed and evaluated

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0040	Ms Laura Tersch	8429	<p>The preferred: alternative - chosen by the Corps (#7 Comprehensive) contains system management measures which are clearly harmful to some very important interests of the local communities. It also contains measures which don't even address the stated "purpose and need" (sediment management), such as raising the Lewiston levees to "manage flood risk," relocating "affected facilities," and reconfiguring "affected facilities."</p>	<p>in the PSMP FEIS are those that address maintaining the existing authorized project purposes. Criteria for selecting a measure for future actions (immediate need and forecasted need) and for any future tiered evaluation will include consideration of impacts and interests of the local affected communities.</p> <p>The purpose and need is (DEIS Section 1.1.2) to maintain the existing projects (the LSRP) by managing sediment that interferes with the existing authorized project purposes by adopting and implementing a PSMP, which includes actions for long-term and immediate needs. The purpose also includes a current immediate need action to re-establish the federal navigation channel to the congressionally authorized dimensions of 14 feet deep by 250 feet wide to address sediment accumulation that is interfering with commercial navigation. Coinciding with the current immediate need action is a related need to restore depths necessary to support commercial navigation at non-federal berthing areas of local ports.</p> <p>The PSMP will provide a programmatic framework to evaluate and implement sediment management measures to address the accumulation of sediment that interferes with existing authorized project purposes. The PSMP is needed to maintain the LSRP by managing, and preventing if possible, sediment accumulation in areas of the lower Snake River reservoirs that interfere with the existing authorized project purposes.</p> <p>Measures that address sediment that interferes with those purposes were considered (hence the inclusion of modifying levees and modifying or relocating Corps owned/managed facilities affected by sedimentation). Section 2 of the FEIS describes the process the Corps used to develop the PSMP alternatives presented in the EIS and the criteria the Corps used to screen potential measures to be included in the alternatives. Potential measures were developed through a collaborative process that included a series of workshops involving technical experts from the Corps and other agencies, and input from scoping and stakeholders. Only those measures that met the purpose and need and were considered technically feasible were determined to be reasonable to include in the PSMP alternatives. Inclusion of such measures does not predetermine they will be implemented. The PSMP sets out a framework for future decision making and all measures will be considered in a separate study/evaluation to identify the most effective, least cost, environmentally acceptable, and technically feasible alternative.</p>
0040	Ms Laura Tersch	8430	<p>I submit that the chosen alternative should include the following measures, in order to achieve the stated "purpose and need" without significant detriment to the local communities:</p> <ul style="list-style-type: none"> • Navigation objective reservoir management • Continued upland sediment reduction measures by the Corps, other land managers/owners (at current levels of implementation) • Expanded implementation of structural and nonstructural sediment reduction measures by other land managers/owners • Vegetation filter strips • Streambank erosion control • Structural forest practices • Forest Vegetation management • Agriculture conservation measures • Bendway weirs • Dikes and dike fields • Agitation to resuspend sediments • Trapping upstream sediment (in reservoir) • Navigation and other dredging • Dredging to improve flow conveyance capacity • Beneficial use of dredged material • In-water disposal of dredged material 	<p>As noted in Section 2 of the Draft EIS, CEQ regulations implementing NEPA direct agencies to "rigorously explore and objectively evaluate all reasonable alternatives" that would meet the purpose and need as part of an EIS (40 CFR 1502.14(a)). The Corps implemented a collaborative process involving technical experts from the Corps and other agencies to develop measures and used those measures to formulate a range of alternatives. The alternatives were developed by assembling the feasible and effective measures into groupings based on how and by whom the measures could be implemented to meet the purpose and need. The majority of measures identified in this comment are included in Alternative 7 (Appendix A) in the EIS. Continuation of current Upland Sediment Reduction Measures (Vegetation filter strips, Streambank erosion control, Structural forest practices, Forest Vegetation management, Agriculture conservation measures) are not likely to further reduce the amount of sediment that is currently interfering with (or expected to interfere with) existing authorized project purposes of the LSRP. For the purpose of alternative development, this FEIS assumes that current or increased (as funding/technology allow) USRM would continue in the future and will be an inherent (baseline) feature of all alternatives considered and is not being proposed as a separate/standalone measure. Section 2.2 of the FEIS has been modified to clarify that upland sediment reduction measures (BMPs) may increase as funding/technology allows. The Corps would continue implementing erosion and sediment control on its lands adjacent to the LSRP, but such efforts are primarily associated with habitat creation and land management and not specifically sediment control.</p>

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0040	Ms Laura Tersch	8431	<ul style="list-style-type: none"> • Upland disposal of dredged material <p>I strongly oppose any alternative which would include the following:</p> <ul style="list-style-type: none"> • Modify flows to flush sediments (drawdown) • Reconfigure affected facilities • Relocate affected facilities • Raise Lewiston levees to manage flood risk 	See response to comment 8407 in letter No. 22.
0041	Terri Costello	8452	The proposed monitoring and operations plan calls for waiting at least 3 hrs after water quality standards are violated to make adjustments to operations. The plan should call for altering dredging operations as soon as water quality standards are violated and simultaneously working to determine if the operation is causing the exceedance, or if there is a problem with the monitoring equipment.	The Corps has revised the water quality portion of the Monitoring Plan for the current immediate need action (Appendix J) as per coordination with Washington Department of Ecology. The plan now calls for using an early warning station, 300 feet downstream from the monitoring zone, to allow the dredging contractor to alter dredging operations before turbidity levels exceed state standards at the compliance boundary station. Data will be collected every 15 minutes. If turbidity levels at the early warning station exceed the background levels for two consecutive 15-minute instances, the contractor would assess the situation to determine if the elevated turbidity is attributed to dredging. If so, the contractor would then implement best management practices to reduce turbidity. These changes mean the contractor would respond to elevated turbidity levels within one hour instead of the three hours indicated in the draft monitoring plan.
0041	Terri Costello	8453	Dredge spoils will either be dumped in one mass from the bottom of a barge, or pushed off the barge deck with a dozer. Placing the spoils in water in large aggregations should reduce turbidity by reducing surface area available for water and sediments to mix. Spoils will be placed along the shoreline in shallow water which should reduce the opportunity for turbidity plumes to be carried downstream.	Dredged material associated with the current immediate need action to reestablish the navigation channel is predominantly sand, which is expected to have less turbidity effects during placement than dredged material containing high proportions of finer particles. The Corps will monitor turbidity during sediment placement procedures, as described in FEIS and the site-specific Monitoring Plan (Appendix J. If future actions involve placement of dredged material, effects would likely be similar and monitoring and operations to minimize turbidity effects would be the same/similar.
0041	Terri Costello	8454	Only one sediment sample was collected in this vicinity, Clarkston Bend, and it was not tested for toxics. Dredging at the Snake-Clearwater confluence represents over 96% of the proposed dredging. Neglecting to collect and analyzed more sediment samples at the Snake-Clearwater confluence is a concern. More sampling should take place at this site prior to performing dredging. Toxaphene was not included in the toxics testing. This banned chlorinated pesticide has 303(d) listings in the Snake River and has been found in many southeast Washington streams. Toxaphene should be included in any future toxics testing.	See response to Comment 8774 in Letter No. 76. The Corps did collect another series of sediment samples from the proposed dredge areas at the confluence and analyzed for chemicals of concern during summer 2013 -- including Toxaphene. Section 3.6.2 of the FEIS main report and Appendices I and L have been revised to include the results from the additional sampling.
0041	Terri Costello	9072	Additionally, any future in-water projects (i.e. bendway weirs, sediment traps, agitation, etc.) should be reviewed by Ecology for potential water quality impacts prior to commencing work.	Any future in-water projects to manage sediment that interferes with existing authorized project purposes of the LSRP are expected to undergo additional (tiered) NEPA review and coordination, as outlined in the PSMP, consistent with all applicable environmental laws and regulation. Tiered environmental review would include compliance with the Clean Water Act, which (if appropriate) will include coordination/review by Washington Department of Ecology.
0042	Vicki Anderson	8455	ABSOLUTELY NOT!!!!!!!!!!!!!!!!!!!!	Thank you for your comment.
0043	Mr Brian Shinn	8456	We support Alternative 7 Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS.	Thank you for your comment.
0043	Mr Brian Shinn	8457	While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures: Modify flows to flush sediments (drawdown) Reconfiguring/relocate affected facilities Raise	See response to comment 8407 in Letter No. 22.

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			Lewiston levees to manage flood risk, programmatic approach to permitting for dredging	
0044	Jane Beattie	8458	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad.	See response to comment 8360 in Letter No. 12.
0044	Jane Beattie	8459	The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to comment 8360 in Letter No. 12.
0044	Jane Beattie	8460	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to Comment 8694 in Letter No. 68. The EIS acknowledges that the proposed current immediate need dredging and placement of dredged material within the Lower Snake River may adversely affect Snake River fall Chinook salmon, Snake River spring/summer Chinook salmon, and bull trout. ESA Section 7 consultation with the USFWS and NMFS was conducted. Incidental impacts to listed species were considered and evaluated. To reduce effects on listed species, the Corps would conduct dredging and dredged material placement during the in-water work window of December 15 - March 1, when fewer individuals of ESA-listed species are likely to be present. The Corps considers both upland and in-water disposal alternatives when dredging is proposed. For proposed in-water disposal, the disposal method is ultimately identified after evaluation of disposal alternatives under the substantive provisions of Section 404(b)(1) of the Clean Water Act (CWA), associated EPA guidelines (40 C.F.R. 230) and Corps regulations. When in-water disposal is proposed, the Corps is required to identify and utilize the lowest cost, least environmentally damaging, practical alternative as its disposal method. The alternatives analysis in the Section 404(b)(1) evaluation is incorporated into the NEPA process and ultimately identifies the Corps proposed/preferred disposal alternative. The Corps is proposing to use the dredged material for the current immediate need action to create shallow water habitat at RM 116 (Knoxway Canyon) that would provide a resting/rearing area for juvenile salmon, primarily fall Chinook salmon. Future disposal/placement of dredged material (if required) will be determined by site-specific Section 404(b)(1) and tiered NEPA evaluation.
0044	Jane Beattie	8461	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	The FEIS has been updated to include a new section (Section 4.12 of the main report) that specifically addresses the possible effects of climate change. This new section incorporates some details from Appendices D and F, and addresses the potential for changes to watershed sediment loading and transport due to climate change. Based on Section 4.12 and Appendices F and D, it is quite likely that climate change may not significantly increase sediment yield within the Snake River Basin since it appears present basin climactic conditions, with respect to effective precipitation, may already provide the maximum long-term sediment yield conditions. However, the effects of climate change on sediment yield are still a science under intensive study, and other opinions regarding potential changes in sediment yield presently exist. Climate change may affect vegetation, which may possibly affect sediment yield. Continuing to collect sediment deposition data within the Lower Granite reservoir each year as part of the plan-level monitoring, would likely provide valuable information with respect to annual sediment yields from the drainage basin. It would also provide timely opportunities to adaptively manage the reservoir environment and the upstream drainage basin with respect to any significant changes in sediment yield noted by the deposition data collected. The changes to watershed sediment production and transport possibly resulting from climate change, particularly how it may affect sediment accumulation that interferes with the LSRP's existing authorized purposes, cannot be accurately predicted at this time. The PSMP makes provisions for long-term monitoring and evaluation of sediment in the LSRP. Coordination with land and water resource management agencies, through LSMG and in conjunction with plan-level monitoring and evaluation, will help the Corps and other agencies adaptively manage resources to address changes (if any) attributable to climate change.. While climate trends

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				indicate warmer and drier future conditions potentially resulting in more wildfire in large portions of the study area, accurately predicting how those future conditions affect sediment accumulation in the LSRP is not currently realistic or feasible. . The continued collection of sediment deposition data within Lower Granite Reservoir on an annual basis would likely provide valuable information with respect to annual sediment yields from its drainage basin, and provide timely opportunities for adaptive management.
0045	Ms Sue Schuetze	8462	Benton County Public Works, Courthouse, Prosser, WA has no comments on this proposal.	Thank you for your comment.
0046	Jeremy Boswell	8463	The proposed dredging is waste of limited federal tax dollars and the Corps should conduct an honest cost-benefit analysis.	See response to comment 8360 in Letter No. 12.
0046	Jeremy Boswell	8464	Also, the effects of the dredging have a negative impact on reservoirs and threatens Endangered Species Act especially relating to salmon and steelhead.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68.
0046	Jeremy Boswell	8465	Why would any government agency want to spend a bunch of money to increase flood risk to its citizens? Lewiston could possible flood due to your actions, due you really want to take that risk?	See Comment 8361 in Letter 14 and Comment 9060 in Letter 78. None of the measures the Corps could consider under the PSMP to manage sediment would result in an increased risk of flooding at Lewiston. One of the screening criteria for alternatives in the EIS is the "alternative must provide the ability to address flood risk at Lewiston and Clarkston if it reaches unacceptable levels" (Section 2.2.6). One of the measures proposed in the PSMP is dredging for flow conveyance between the Lewiston, Idaho levees, if necessary. The Corps is not currently proposing any "flow conveyance" dredging. Additionally, any in-water disposal of dredged material will be proposed below River Mile 120 to prevent flow conveyance issues. Since the proposed in water disposal site for the current immediate need action is downstream of River Mile 120, the proposed disposal should have negligible (if any) effect on the flood risk at Lewiston and Clarkston.
0047	Richard Carr	8466	Dredging the lower Snake River at an annual cost of over \$3 million does not make economic sense to me. The cost benefits simply do not work.	See response to comment 8360 in Letter No. 12.
0047	Richard Carr	8467	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad.	See response to comment 8360 in Letter No. 12.
0047	Richard Carr	8468	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68.
0048	Ann Christensen	8469	As money is being cut in so many areas of government, I urge you to do a common-sense cost benefit analysis to determine that the benefits of this dredging outweigh the \$3.2 million per year costs.	See response to comment 8360 in Letter No. 12.
0048	Ann Christensen	8470	Dredging has environmental consequences, including the dumping of the spoils. Damage to the habitat of endangered salmon and steelhead stocks must be considered in this decision.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68.
0049	Bruce Collier	8471	It certainly seems disproportionately expensive to dredge the lower Snake to facilitate the minimal barge traffic. There is a high cost in taxpayer money and a high price in environment degradation.	See response to comment 8360 in Letter No. 12
0050	Veronica Erbe	8472	It was extremely hard to determine how well the Corps addressed the wetlands portion of the assessment. This was surprising considering the USACE's involvement in this area. Although assessments of potential wetlands impacts are made	Wetlands were discussed within the Terrestrial Resources section of the Draft EIS (Section 4.2). Due to the programmatic nature of the document and the size of the study area (Lower Snake River from upstream reach of Lower Granite Reservoir to the Snake confluence with the Columbia), description of and effects to wetlands are not discussed at a site-specific level. For

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			throughout the document, there is not a section that pertains only to wetlands.	the current immediate need action to reestablish the navigation channel, the EIS did not identify any effects to wetlands. All site specific future actions would require separate evaluation of potential effects to wetlands present in the action area.
0050	Veronica Erbe	8473	No specific mitigation for wetland impacts was found.	The EIS did not identify any specific/permanent adverse effects to wetlands, either for development of the PSMP or the current immediate need action to reestablish the navigation channel. The EIS (Section 4.2) did identify possible (generally temporary) effects to wetlands associated with potential future PSMP actions (measures), but efforts to minimize/offset such effects would be incorporated into the tiered NEPA planning process.
0050	Veronica Erbe	8474	I believe that it would have been easier to inform the public about this proposal and gather their input if wetlands considerations had been addressed under a separate heading which showed the models used to identify and assess impacts.	See comment 8473 in Letter 50. There were no specific models used to determine potential impacts to wetlands, as the PSMP is a programmatic document and the proposed current immediate need action is not expected to affect wetlands.
0051	Michael Hinman	8475	I am totally opposed to dredging the Snake river.	Thank you for your comment.
0051	Michael Hinman	8476	Please do a real cost benefit analysis of this ridiculous idea.	See response to comment 8360 in Letter No. 12.
0052	Rich Howard	8477	Dredging sediment is harmful to salmon and steelhead no matter what the season.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. The Corps has completed ESA Consultation with USFWS and NMFS regarding effects to salmonids.
0052	Rich Howard	8478	The DEIS needs to examine the option of deauthorization of the four lower Snake River dams and conduct a thorough cost analysis of transportation alternatives besides barging.	See response to comment 8360 in Letter No. 12 and Comment 8368 in Letter No. 29.
0052	Rich Howard	8479	The DEIS fails to adequately address and incorporate the intensifying impacts from climate change.	See response to comment 8461 in Letter No. 44.
0052	Rich Howard	8480	The DEIS fails to accurately assess if lower Snake River dredging . . . Along with operations and maintenance of the water barging transportation system is actually a high funding priority for the COE and the Northwest in an era of sequestration, project backlogs, and tighten federal fiscal resources. At the very least the Corps must include in the final EIS a full cost-benefit analysis of dredging the lower Snake over the next 20 and 50 years.	See comment 8360 in Letter No. 12. The priority (regional and national) of LSRP maintenance actions will be determined as part of the budget process. LSRP maintenance action are ranked according to priorities established first by the Walla Walla District, then the Northwestern Division and ultimately by USACE Headquarters in D.C.
0052	Rich Howard	8481	There should also be mention in the Final EIS as to how the above actions may affect the re-negotiation of the Flood Control Act of 1950 between Canada and the U. S.	Any action undertaken to manage sediment deposition under the PSMP that interferes with the LSRP existing authorized purposes, including the current immediate need action to reestablish the navigation channel, would not be expected to have any effect on the treaty with Canada. The LSRP dams are run-of-the-river and do not provide storage or flood control. None of the viable sediment management measures would have any effect on water storage, it is not anticipated the renegotiation of the Columbia River Treaty with Canada would have any effect on these actions.
0053	John Karpenko	8482	At a time when everything is on the table in terms of government funding it seems absurd to continue to provide welfare for the inland ports and barge traffic on the Snake River/Columbia system. Not only do I oppose the welfare for the barge industry I am also very sensitive to the aquatic life. Please reconsider this subsidy.	See response to comment 8360 in Letter No. 12.
0053	John Karpenko	8483	We are supposedly trying to do everything we can to sustain the salmon and steelhead populations and dredging has proven to be detrimental to these species and many others.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0054	Joanna Kirkpatrick	8484	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines IF the	See response to comment 8360 in Letter No. 12.

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0054	Joanna Kirkpatrick	8485	benefits of this proposal outweigh the costs. The effects of dredging, including dumping dredge spoils into the reservoirs, will threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0055	Karen Knudtsen	8486	It seems to be outrageously expensive and fiscally not sustainable. I think an HONEST cost benefit analysis needs to be done.	See response to comment 8360 in Letter No. 12.
0056	Tom Kovalicky	8487	Please do a cost Benefit Analysis for your Proposed Dredging Operation on the Snake River	See response to comment 8360 in Letter No. 12.
0057	Roberta Larsen	8488	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to comment 8360 in Letter No. 12.
0058	Mr D. Wyatt	8489	We are of the opinion that the plan must include dredging of all necessary areas, including Marinas and not restricted to just the port areas. Water recreation safety and the economy of our community would be very much negatively affected if these areas are not kept open and safe for all users.	See response to comment 8356 in Letter No. 4. The PSMP addresses sedimentation that interferes with federally authorized projects. Marinas are not federal projects and are the responsibility of the owners. The marinas can obtain permits to dredge their facilities.
0058	Mr D. Wyatt	8490	Raising the levees should be a last resort. The cost would be enormous and the heightened levees would further detach our communities from the river.	See response to comment 8361 in Letter No. 14. The Corps retained levee raise as a measure for long-term implementation of the PSMP because conditions change over time and model simulations have only a certain degree of accuracy. The Corps has not identified a current need to raise the levees in Lewiston, but it is included as a measure in the PSMP for consideration and use if conditions warrant. As with all measures, it would be subject to tier-off NEPA analysis if considered for implementation in the future.
0058	Mr D. Wyatt	8491	The plan should encompass all of the navigation infrastructure including marinas, not just the ports.	See response to comment 8356 in Letter No. 4. The PSMP addresses sedimentation that interferes with existing authorized project purposes of the LSRP. Leased/local marinas are not LSRP projects/purposes and are the responsibility of the lessees/owners.
0059	Jerry Nielsen	8492	At a cost of almost \$20,000.00 per barge, spending \$3,200,000.00 per year to dredge the Snake River channel near Lewiston, Idaho, is a bad idea.	See response to comment 8360 in Letter No. 12.
0059	Jerry Nielsen	8493	And to make a bad idea even worse, the environmental consequences of disposing of the dredged sediments will grow exponentially over time.	The PSMP does not assume, but can address, increased sedimentation in the future. The PSMP does not designate a specific disposal method if dredging is required. Disposal of dredged material under the PSMP may occur upland or in-water, dependent upon the site-specific requirements/conditions. The Section 404(b)(1) evaluation, and Corps regulations (Federal Standard) will ultimately identify the appropriate disposal method. The PSMP specifically addresses areas of reoccurring sediment accumulation. Areas identified as having a reoccurring problem (anticipated/reoccurring more than once in five (5) years) will trigger study of long-term solutions.
0060	Sheryl Nims Larry Nims	8494	There are several points for consideration, one of which is the actual cost of the dredging, and benefits.	See response to comment 8360 in Letter No. 12.
0060	Sheryl Nims Larry Nims	8495	The other major consideration is the effect on salmon of the dredging process. The salmon are already stresses by the locks and dams.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0060	Sheryl Nims Larry Nims	8496	There is actually less need for barging, with the trains available. So the importance of barging is less important, given that .1 of 1% of waterborne commerce uses this system.	See response to comment 8360 in Letter No. 12.

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0061	Greg O Bray	8497	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0061	Greg O Bray	8498	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to comment 8360 in Letter No. 12.
0061	Greg O Bray	8499	Increased sediment load due to large forest fires – a result of climate change – will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to comment 8461 in Letter No. 44 and response to comment 8361 in Letter No. 14.
0062	David Doeringsfeld	8500	The Port of Lewiston supports Alternative 7 with the caveats described below. The Port of Lewiston is opposed to the implementation of the following measures: Modify flows to flush sediments (drawdown) Reconfiguring/relocate affected facilities: Raise Lewiston levees to manage flood risk: Programmatic approach to permitting for dredging:	See response to comment 8407 in Letter No. 22.
0063	Mr James Kuntz	8501	We believe that undertaking immediate dredging is the least cost, environmental sensitive means to restore current diminished authorized navigation depths. Immediate dredging would also remove accumulated sediment that has caused the Corps of Engineers to compromise its Endangered Species Act obligations to maintain to minimum operating pool. We believe the Corps has accomplished sufficient sediment evaluation. Thus, we fully support the Corps' intention to use dredged material to create additional shallow water habitat for juvenile salmonids.	Thank you for your comment.
0063	Mr James Kuntz	8502	The Port also suggests that final documents clearly identify how the Corps of Engineers intends to use the EIS as the foundation for future maintenance activities. As currently written, we find the document vague on what level of analysis, if any, might be required to support continuous routine maintenance.	See response to Comment 8408 in Letter No. 22.
0064	Mark Schoesler	8503	I support dredging the channel because it is the only available short-term solution to restore the federal navigation channel to its required dimensions.	Thank you for your comment.
0065	Erik Spinney	8432	I would ask the Corps to reconsider its plan to dredge. Independent research has shown the most financially responsible option for this issue is the removal of the four dams.	See response to comment 8360 in Letter No. 12.
0066	Debbie Stempf	8433	*** Dredging sediment is harmful to salmon and steelhead: Dredging the lower Snake and Clearwater Rivers is harmful to salmon and steelhead and the habitats they depend on for survival; this DEIS fails to fully consider these impacts and ways to mitigate or minimize them.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0066	Debbie Stempf	8448	*** The DEIS needs to look at lower Snake River dam removal and transportation alternatives: The Corps DEIS fails to explore all available options, including the removal of the four lower Snake River dams, the costs and benefits of the current barge transportation system, or the potential replacement of the	See response to comment 8360 in Letter No. 12.

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0067	Charlie Costanzo	8434	waterborne transportation by rail, trucks, and other means. AWO strongly supports the Corps' decision to commence maintenance dredging at the earliest possible opportunity in order to restore the lower Snake River navigational channel to its federally authorized dimensions, which will ensure that navigation continues in an unimpeded and safe manner.	Thank you for your comment.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8682	The Corps' unanalyzed assumptions about the net economic benefits of the navigation system are no longer valid, even if they may have been at some time. To the contrary, the most up-to-date available information shows that the costs of the existing system are approximately double the benefits provided; dredging to maintain the channel will return less than a dollar in benefits for every dollar spent.	See response to Comment 8360 in Letter No. 12.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8684	THE CORPS' NARROW PURPOSE AND NEED STATEMENT IS BASED ON AN ERRONEOUS LEGAL CONCLUSION. Although the Corps continues to believe otherwise, Congress has never indicated that navigation – via a fourteen-foot or any other depth of channel – must be preserved at all times on the Snake River. Congress originally authorized the Snake River navigation system with the Rivers and Harbors Act of 1945. The authorizing report indicates that the lower Snake River dams would provide navigation on average for ten months a year. H.R. Doc. No. 75704. The Flood Control Act of 1962 includes a provision that reads: "The depth and width of the authorized channel in the Columbia-Snake River barge navigation project shall be established at fourteen feet and two hundred and fifty, respectively, at minimum regulated flow." Nothing in the 1962 Act alters or qualifies Congress's expectation that navigation through the project would be unavailable a few months each year. If Congress meant to reverse course and require the Corps to maintain a fourteen-foot channel depth 365 days a year, it would have said so explicitly. Courts have been clear, however, that "an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, [which would cause the EIS to] become a foreordained formality." Congress requires the Corps to consider several purposes – including fish and wildlife conservation, power generation, recreation – rather than to pursue navigation alone at the expense of all other uses. Were Congress to wish to require the Corps to maintain a fourteen-foot channel at all times of the year, at the expense of all other uses the Snake River system, it could certainly do so through a clear expression of intent, but it has chosen not to do so. The ESA requires that the Corps further consider additional scenarios and alternatives, such as	The DEIS purpose and need statement has not been narrowly tailored in order to prevent the consideration of alternatives or result in such consideration of alternatives to become a foreordained formality. Agencies are granted considerable discretion to define a project's purpose and need. This action involves development of a long-term plan for managing sediment that interferes with the operation and maintenance of existing Civil Works projects on the lower Snake River and a first (current immediate need) action consistent with the plan to reestablish the dimensions of the congressionally authorized federal navigation channel and to maintain associated port berthing areas commensurate with federal navigation channel. The purpose and need statement is appropriately focused on those O&M goals. (EIS, Section 1.1.1). The nature and scope of this proposed O&M action does not require the Corps to expand the environmental analysis/review (as requested in many public comments) to include an in-depth economic justification of the LSRP, a large-scale transportation analysis, or consideration of alternatives that are outside the reasonable range of alternatives, given the purpose and need statement (e.g., dam breaching). The purpose of this O&M action/plan is much different than the 2002 Lower Snake River Juvenile Salmon Migration Feasibility Study and Environmental Impact Statement, which did evaluate dam breaching (available at, http://www.nww.usace.army.mil/Library/2002LSRStudy.aspx). The nature and scope of the current proposed O&M action, however, is appropriately focused only on addressing sediment that interferes with existing authorized project purposes of the LSRP. The Corps acknowledges that Congress has not required that commercial navigation be guaranteed 365 days a year on the lower Snake River, as evidenced by prior navigation outages (e.g., annual maintenance). It is equally clear, however, that Congress intended for commercial navigation to be possible 365 days a year. The PSMP EIS has been modified to clarify the Corps position on this point (Section 1.2). However, the comment's reference to H. Doc. 75-704, and "indication" of a 10-month navigation season, is misplaced as the early plans in 1945 involved consideration of a 5-foot navigation channel, which "would be blocked by ice" two months out of the year. The Flood Control Act (FCA) of 1962 modified Congress's expectation and mandated the establishment of a 14' deep and 250' wide navigation channel. Additionally, the need to maintain the channel at congressionally authorized dimensions would not change if navigation was available 365 days a year, 10 months, or less. The navigation channel would still be maintained to provide the requisite dimensions when navigation was available. As the FCA of 1962 established the navigation channel dimensions, the Corps lacks discretion to designate different channel dimensions when maintaining the navigation

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			<p>alternative means of moving goods through this corridor that would have less impact on salmon. Given that Congress has neither mandated a fourteen-foot channel nor the promotion of navigation without consideration of other goals, the Corps cannot credibly assert that Congressional “authorization” to maintain a particular channel depth is the same as an absolute requirement from which it cannot vary no matter the circumstances. A few miles downstream, the Corps has demonstrated as much. The Columbia River authorized navigation channel depth is 27 feet to the Dalles Dam. Yet despite the wide discretion afforded in these statutes and the case law, the Corps defines the purpose and need for the proposed action by saying that “immediate action is needed to reestablish the navigation channel to its authorized dimensions”, i.e. fourteen feet. DEIS at 1-4. The Corps’ purpose and need, while acknowledging other purposes generally, is far too narrowly-defined, focused in the near term only on deepening the channel. Under this purpose and need, dredging is a foregone conclusion. The purpose and need for this DEIS should be focused more broadly on transportation of products from Lewiston downstream. Barge navigation is not an end in itself, but rather a means of shipping various products, primarily grain exports, to and from Lewiston. This DEIS should evaluate the relative merits, costs, and environmental risks presented by different transportation regimes, including barge navigation, so that Congress and the public can have a complete picture of the situation.</p>	<p>channel. Based on associated legislation and supporting documents, Congress clearly intends the Corps to maintain the lower Snake River navigation channel at the dimensions it specifically designated (i.e., 14 feet deep and 250 feet wide). Those dimensions drive the EIS purpose and need statement. As a result, the Corps’ appropriately developed alternatives that manage the existing LSRP for a channel depth of 14 feet. The LSRP was designed, constructed, and funded by Congress, to accommodate commercial navigation at 14 feet at MOP designation. Sill depth at the LSRP navigation locks is 15 feet at MOP. Additionally, the commercial navigation industry on the lower Snake River conducts business based on the congressionally-designated channel dimensions (i.e., 14’ x 250’). Some tug boats alone, depending on weather, river conditions, and/or barge configuration, can require between 11 and 13 feet of clearance/draft.</p> <p>Also, the comparison to the initial authorized navigation channel depth at The Dalles Dam (27 feet) is inapposite. The LSRP were designed and constructed to accommodate the congressionally designated 14 foot depth (PL 87-874), which did not apply to The Dalles Dam, and all prior LSRP channel maintenance actions have used the 14 foot depth as a target depth. The Corps interprets the use of “established” in the FCA of 1962 as meaning more than “initially” or “temporarily.” Such a narrow interpretation is unreasonable. Having provided no alternative definition of “established” in the FCA, the Corps must assume Congress meant for the term to have its common and ordinary meaning.</p> <p>Finally, the Corps acknowledges that it must consider discretionary authority across all project purposes and authorities when making project O&M decisions. The LSRP was authorized in PL 79-14 for the purposes of inland navigation, hydropower generation and incidental irrigation water supply (i.e., dominant project purposes). PL 78-534 authorized the construction and O&M of recreational facilities in the LSRP, and the Fish and Wildlife Coordination Act of 1958 (PL 85-624) resulted in certain modifications to the LSRP during and after construction for fish and wildlife conservation/mitigation purposes. Additionally, the Corps understands that other Federal environmental laws (e.g., ESA) can influence or place additional requirements on Corps discretionary O&M authorities.</p>
0068	Mr Gary McFarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8685	There are multiple different ways to transport products that don’t require the full navigation channel, or even any barge navigation at all, and that would also retain and enhance the non-barging economic benefits provided by port facilities.	See responses to Comments 8360 in Letter No. 12 and 8686 in Letter 68.
0068	Mr Gary McFarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8686	THE CORPS DOES NOT CONSIDER ALL REASONABLE ALTERNATIVES. Owing to its improperly narrow purpose and need statement, the Corps has nominally presented seven alternatives, which consist of five alternatives and two combinations. 4 The “alternatives,” are hardly stand-alone options that would amount to any marked difference in strategy or provide the basis for comparative discussion. The first two alternatives are dismissed essentially out of hand, and the remaining three alternatives are aggregated to form the preferred alternative. Each, including the “no action” alternative is measured against the Corps’ erroneous criterion of creating a	See responses to comment 8684, Letter No. 68. Based on the stated EIS purpose and need statement (including re-establishing the federal navigation channel to congressionally authorized dimensions), the Corps has considered an appropriate range of alternatives. An agency is under no obligation to consider every possible alternative to a proposed action, nor must it consider alternatives that are unlikely to be implemented or those inconsistent with its basic policy objectives. Project alternatives derive from an EIS’s purpose and need. The Corps’ policy objectives are clear – maintain a 14-foot by 250-foot navigation channel at minimum operating pool (MOP), unless otherwise directed by Congress. The nature and scope of the proposed maintenance actions for the existing LSRP does not require the Corps to expand the environmental analysis/review to include alternatives to the LSRP (e.g., dam breaching), in-depth analysis justifying the existence of the

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			<p>14-foot channel, and the Corps has provided no discussion of true alternatives to that strategy. Setting the purpose and need as “maintaining a 14-foot channel” may be accurately restated as “dredging a 14-foot channel” since according to the Corps, there is no other way – at least in the short-term – to maintain such a channel in the immediate way the Corps envisions; an alternative that includes dredging is a therefore a preordained conclusion. The Corps’ improperly narrow purpose and need statement also underlies its rejection of several reasonable alternatives without sufficient explanation.</p>	<p>LSRP (e.g., transportation study), maintaining the navigation channel at less than 14 feet at MOP, or for 14 feet at MOP only during certain months of the year. Additionally, an alternative designed to maintain a 14-foot channel less than 12 months a year would not decrease the need for channel maintenance. Maintaining a 14-foot channel for any period/duration during a year would require the same level of channel maintenance planning/actions. Alternatives like the aforementioned are completely outside the scope of this proposed maintenance action and the associated reasonable range of alternatives. The 2002 <i>Lower Snake River Juvenile Salmon Migration Feasibility Study and Environmental Impact Statement</i> is an example of a prior study on potential structural modifications/alternatives to the LSRP (including dam breaching), and is available at http://www.nww.usace.army.mil/Library/2002LSRStudy.aspx. The nature and scope of current proposed maintenance actions, however, is appropriately focused only on addressing LSRP maintenance by managing sediment that interferes with existing authorized project purposes.</p>
0068	<p>Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin</p>	8687	<p>The Corps’ “No Action Alternative” is Not a True No Action Alternative and Did Not Receive Adequate Consideration. The Corps’ “no action” alternative suffers from two major problems. The first is that rather than “no action” it involves substantial action and cannot form the proper baseline for evaluating the PSMP. The second problem is that while it is not a “no action” alternative, Alternative 1 still deserves – but did not receive – full consideration as an alternative to dredging. A true no action alternative would not have as its goal the maintenance of a 14-foot channel and would not involve navigation oriented reservoir management. Under such a plan, there would be no programmatic sediment management plan, and sediment would continue to accumulate in the river with the Corps doing nothing beyond necessary dam maintenance. While the Corps’ “no action alternative” is not a true no action plan, it still qualifies as an alternative that must be evaluated fully. The Corps, however, has provided nothing but the most surface-level evaluation of its “no action alternative.”</p>	<p>See response to Comment 8686 in Letter No. 68. The no action alternative described in Section 2.2.5.1 of the EIS represents the existing conditions (maintaining status quo) and provides the appropriate baseline for comparison of all reasonable alternatives. Under the no action alternative, there would be no change from current operational practices and no action to re-establish the Federal navigation channel or port berthing areas. Doing nothing at all (as the comment suggests) would, in reality, be a different operational action from current conditions and, thus, a different action alternative. See 40 C.F.R. 1502.14(d) and Answer No. 3 in CEQ’s 40 Most Asked NEPA Questions (http://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf). The Corps has appropriately described the no action alternative as a continuation of the Corps’ current operational practices of managing the LSRP, without development and formal adoption of a PSMP or any new sediment management actions (e.g., channel maintenance dredging). Finally, the Corps has appropriately determined the no action alternative would not satisfy the purpose and need associated with the proposed action (see, Section 2.2.7 of the EIS), but evaluated potential effects of the no action alternative as a baseline for comparison purposes.</p>
0068	<p>Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin</p>	8691	<p>The Corps should have considered light-loading and other alternatives that would render Alternative 1 a workable solution (within the MOP constraints imposed by the FCRPS BiOp) and that might obviate the perceived need to maintain a 14-foot channel in perpetuity. The Corps Failed to Consider A Range of Reasonable Alternatives. The agency cannot narrow the purpose and need in order to limit the choice among alternatives. the Corps identified and then rejected without detailed consideration four reasonable alternatives based on the assumption that it must maintain a 14-foot navigation channel year round: navigation-oriented reservoir management (Alternative 1), the implementation of system management measures only (Alternative 3), the implementation of structural management measures only (Alternative 4), and a combination of system management and structural management (Alternative 6). DEIS at 2-25 to2-28, 2-30. The Corps entirely failed to consider alternatives or a combination of alternatives that would involve maintaining the navigation channel at less than 14 feet. The Corps briefly identified and then summarily dismissed a</p>	<p>See responses to Comments 8686 and 8684 in Letter No. 68. “Light-loading” barges is not a viable/reasonable sediment management alternative for maintaining the existing authorized purposes of the LSRP. The navigation industry determines how to load barges based on navigation channel conditions and other factors. “Light-loading” by the navigation industry may occur as a consequence of the Corps’ failure to maintain the navigation channel, but it is not a separate alternative – it’s a reaction. The Corps considered a sediment management measure of maintaining the channel at less than 14 feet deep, but rejected the measure as not satisfying the proposed action’s purpose and need statement.</p>

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			<p>“system management” measure to maintain channel depth at less than 14 feet. See DEIS at 2-5, 2-8. This measure should have been analyzed despite the fact that adjusting channel depth is consistent with the broader purpose and need, the Corps summarily rejected this alternative – giving it a total of two sentences of analysis – on the grounds that it did not meet the purpose and need of the management plan: “The Congressionally-authorized channel depth is 14 feet.” the Corps eliminated Alternative 3 on the grounds that “[f]urther system management measures would not reestablish the navigation channel.” Id. at 2-24. This again illustrates the unduly narrow scope of the purpose and need defined by the Corps. Likewise, the Corps relied on its erroneously narrow definition of the purpose and need in eliminating Alternatives 4 and 6 from detailed consideration. Neither of these alternatives received due consideration because they would not fulfill the Corps’ incorrect 14-foot channel purpose and need. As a result of eliminating the alternatives that would not provide for an immediate 14-foot channel, the Corps ultimately considered only two alternatives in detail: Dredging Based Management (Alternative 5) and “Comprehensive” (Alternative 7). While there is no minimum number of alternatives that must be discussed in an EIS, the agency must consider a range of alternatives sufficient to “foster[] informed decision-making and informed public participation.” California v. Block, 690 F.2d 753 (9th Cir. 1982). Having only two real alternatives, both involving the same primary action – dredging – and with a goal to “initiate action to reestablish the authorized dimensions of the navigation channel,” DEIS at 2-22, the DEIS does not fulfill this purpose. The Corps eliminated Alternative 3 on the grounds that “[f]urther system management measures would not reestablish the navigation channel.” Id. at 2-24. This again illustrates the unduly narrow scope of the purpose and need defined by the Corps. Likewise, the Corps relied on its erroneously narrow definition of the purpose and need in eliminating Alternatives 4 and 6 from detailed consideration. Neither of these alternatives received due consideration because they would not fulfill the Corps’ incorrect 14-foot channel purpose and need.</p>	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8691a	<p>Alternative 7, the Corps’ chosen alternative, amounts to a “we’ll tell you later” approach; it is not a real action alternative. It contains no real plan but is just a limited menu of options the Corps may consider at some unspecified point after dredging, or perhaps after dredging another time, or another. There is no limiting principle to Alternative 7; it is essentially a license to take whatever actions on the list the Corps chooses, whenever it chooses, without actually selecting which options would be better than others or describing what standards the Corps will apply when choosing among these options. And as the Corps has demonstrated repeatedly, dredging will always be its default choice. Without establishing a hierarchy of measures and any</p>	<p>The PSMP is not a “tell you later” or dredging only plan. The PSMP provides a framework for identifying measures for managing sediment that interferes with the existing authorized project purposes of the LSRP. The EIS considered seven alternative approaches for managing the problem sediment. Each approach is comprised of a different set of potential management measures that could be implemented under that approach. Because this is a programmatic plan and is designed to allow the Corps to respond to problem areas now and in the future, it is not appropriate or possible to identify exactly what actions would be taken for unidentified problems at unidentified locations. Instead, the PSMP provides the decision process the Corps would go through each time a problem area is identified. The PSMP (Appendix A) has been modified (based on public comments) to better describe the triggers for taking action and the process for choosing measures to address sediment accumulation that interferes with existing authorized purposes of the LSRP. The Corps will complete a tier-off environmental and</p>

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			standards or benchmarks for those measures, the Corps cannot evaluate the environmental or socioeconomic impacts of this Alternative.	engineering analysis each time the Corps reaches a trigger for taking a site-specific action. The analysis would identify and evaluate any of the measures that could be used to solve that particular problem, including a cost-effectiveness analysis. The analysis would also go through the appropriate public and agency review. Dredging is one of the measures that could be considered and the PSMP acknowledges that it may be the only viable measure for some situations. However, the PSMP does not state dredging is the default for all situations.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8693	THE CORPS HAS UNLAWFULLY PREDETERMINED THE OUTCOME OF THE NEPA PROCESS. An agency may not decide to proceed with a proposed action until after it has considered the action's potential environmental impacts. The Corps has violated these key principles by deciding to adopt a sediment management plan, and specific contents of that plan, before completing the NEPA process. While members of the public are diligently preparing comments on the DEIS in order to provide the Corps with full information, the Corps is proceeding with other actions as if it had already adopted Alternative 7 and the draft plan included in Appendix A in a Record of Decision. The Corps' pursuit of a Clean Water Act permit tied to an as-yet unfinished NEPA process demonstrates that the Corps has predetermined the result of this NEPA process. The Corps should abandon its intent to undertake any activities tied to the PSMP or its EIS until after the NEPA process has been completed. In addition, unless the Corps makes substantial changes to the EIS and/or the PSMP in response to public comments, it can be presumed that the final EIS and PSMP will be predetermined results that do not satisfy NEPA.	The Corps has not adopted a plan, determined an outcome for this programmatic sediment management plan, or determined the specific contents of a plan. Both the plan and its contents are in draft form (i.e., proposed action), and are subject to change based on public comment at any time prior to the signing the Record of Decision. Actions contemplated under the plan will undergo tiered-off NEPA analysis and process, to include public notice as required and comment. Any preparations taken by the Corps in support of future sediment management and maintenance actions are entirely contingent upon completion of the NEPA process. Action can prejudice the outcome of the NEPA process when it tends to limit alternatives. The Corps has engaged in certain planning actions for proposed navigation channel/ berthing area maintenance (e.g., design, budgeting, etc.), but each aspect of these preparations is, at all times, contingent upon the completion of the PSMP NEPA process. For example, memorandums of agreement with the Ports of Lewiston and Clarkston do not commit the Federal government to a specific course of action in the PSMP. The Corps has not irretrievably/irrevocably committed any resources during such planning efforts. In all considered planning designs, the Corps reserved the absolute right to prevent the use of the resources in question. The sampling, study, and design work undertaken by the Corps during the creation of the PSMP and EIS is necessary to fully evaluate environmental effects of the alternatives against the no-action alternative, and represent a necessary component of the NEPA analysis. The rule governing this issue is 40 C.F.R. § 1506.1, which contemplated the need for design and planning during the development of an EIS in order to effect a comprehensive NEPA analysis. Specifically, this rule states that it "does not preclude development by applicants of plans or designs or performance of other work necessary to support an application for Federal, State or local permits or assistance.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8694	The DEIS Fails to Adequately Consider Effects to ESA-Listed Salmon and Steelhead. The DEIS does not discuss whether or how the work windows will minimize impacts to these fish, does not consider impacts that will not be avoided, and does not present or discuss any additional mitigation to address the impacts to fish that are there during the work window months. The DEIS cites several studies about Fall chinook that overwinter but does not attempt to quantify the number or percentage of overwintering fish or how affecting overwintering fish would affect the overall population. Second, dredging impacts salmonid habitat. The entire lower Snake River is designated critical habitat for Snake River Fall chinook salmon spawning, rearing and migration. The Corps notes that Snake River Fall chinook do spawn in the tailrace areas downstream of the four dams and that its most recent survey data (from 2006-2009) identified a number of Fall chinook redds in the tailrace portions of all four Lower Snake River dams. Id. at 3-10 to 3-11. The Corps also notes that the lock approaches in the downstream tailraces of these dams contain suitable habitat for spawning, but emphasizes that redds have not been detected in these areas recently. Many of these lock approaches	See response to Comment 8460 in Letter 44. Impacts to ESA-listed species have been considered in the development of the EIS. 1) The Corps proposes to conduct in-water activities associated with the current immediate need action between 15 December to 28 February during the winter in-water work period to minimize impacts to ESA listed species. Activities will only occur in shallow water areas less than 16-18 feet deep when research and monitoring has shown that the relatively small population of overwintering juvenile fall chinook do not use the shallow water areas, but are in the more temperature buffered pelagic zone or have moved downriver into the Little Goose and Lower Monumental reservoirs. Based on research and monitoring continuously conducted over the past 20 years (since 1988 guided by an interagency study design workgroup), conducting in-water work during this period will minimize impacts to listed ESA species. These studies first determined that a small percentage of the annual Snake River Fall chinook production cohort is typically the only ESA-listed species present in the project areas during this winter period. These subyearlings are often slower growing individuals reared more in the cooler Clearwater River before outmigrating to the Snake River where about the beginning of July they may holdover from their outmigration until the next spring. They need some invertebrate production from limited shoreline-oriented habitat to be utilized as food through the late summer and fall. Invertebrate producing habitat as deep as the bottom of the photic zone can provide needed food resources. The series of Bennett et al. research reports, as well as the recent Connors and Tiffan and Arntzen et al. report confirm that once the shallow water habitat column reaches about 18 degrees Centigrade, the fall chinook juveniles leave the

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			<p>will be dredged under the dredging alternatives. See id. at 1-8 to 1-9 (each of the lock approaches listed as a “problem area”). This conclusion is speculative and is based, at best, on outdated information. As the Corps and other federal agencies have touted in several other forums over the past three years, Snake River Fall chinook returns have, on average, increased in the past five years. Redd surveys last completed when these returns were up to 50% lower do not constitute complete or accurate information about what habitat is important for Fall chinook spawning now or in the future.</p>	<p>shallow waters for the deeper and slightly cooler pelagic zone of the reservoir (during summer until October) where they spend the majority of the wintertime (when the reservoir buffers temperature to slightly warmer than the shallow water and tributary input water). Implementation of the current immediate need action is anticipated to have low impacts to fish during the in-water work period based on the limited numbers of fish present during this time period and the pelagic orientation of resident type fall chinook that do overwinter in the vicinity of the proposed actions (e.g., Tiffan and Connor 2012). For future need actions, impacts to ESA-listed fish will be evaluated as part of each tiered action under the EIS/PSMP.</p> <p>Potential effects to ESA-listed species were evaluated in consultation with the USFWS and NMFS. The winter in-water work window is during a period of time when the fewest ESA-listed fish are present in the work areas. This work window was selected to minimize impacts on listed fish. Water quality monitoring will be also be used to minimize impacts. If state water quality standards are exceeded, steps will be taken, including stopping work, to reduce the exceeded parameter below the state standard.</p> <p>We have determined the proposed action may affect and is likely to adversely affect designated critical habitat. We have consulted with the USFWS and NMFS on effects to listed species and their critical habitat.</p> <p>2) The Corps has funded redd surveys in suitable spawning habitat areas of the Snake River since 1993 to delineate footprints of suitable spawning habitat based on substrate size, depth, water velocity, and upwelling/downwelling. Surveys of potentially suitable fall Chinook spawning habitat in the proposed dredging area below Ice Harbor Dam will be conducted prior to dredging. If any redds are found, the Corps will reinitiate ESA consultation with NMFS to determine the appropriate protection and avoidance solution. The intent of the historical surveys, and their incorporation into the EIS, has been to provide templates to identify where any the Corps may need to resurvey within a proposed action's effective impact zone to ensure adherence to a no impact/ no take treatment of redd production. An increase in the number of potential spawners composing an annual run population would not be unduly impacted at any increased effect due to this required impact avoidance model documented in the EIS and NOAA Fisheries BiOp. Snake River fall chinook salmon redds created in the tailwaters downriver of each Snake River dam have fluctuated with run sizes, flow conditions, and hatchery vs wild fish ratios. These secondary spawning habitats have produced redds in repeated locations associated with the dam's bypass outfall pipe flows and powerhouse outflow kcfs.</p> <p>The DEIS and Biological Assessment (Appendix K) document that the proposed current immediate need dredging and placement of dredged material within the Lower Snake River acknowledges that these activities would affect ESA-listed species. To reduce effects on listed species, the Corps would conduct dredging and dredged material placement during the in-water work window of December 15 - March 1, when fewer individuals of ESA-listed species are likely to be present. This would be true of potentially future dredging or other measures that involve in-water work to manage sediment. The in-water work window is established by NMFS, USFWS, and applicable state agencies.</p>
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford	8694a	<p>Even now, water temperatures in the Snake River during the months of July-September routinely exceed 70 degrees, which not only harms salmonids and other cold-water fish, but also violates Washington's water quality standards. While a large portion of this increase is caused and exacerbated by the</p>	<p>See response to Comment 8695 in Letter 68.</p> <p>Water temperatures in the lower Snake River are, to a large extent, determined by the temperatures of the inflowing Snake and Clearwater Rivers. The USGS has been measuring water temperatures at the Snake River Anatone station (approximately 22 miles upstream from the end of Lower Granite reservoir) since 1959. This information shows that water</p>

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	Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin		increased surface area of the reservoirs and slow-moving water behind the dams, these temperatures exceedences are projected to increase in both severity and duration over the next 20 years due to the effects of climate change. As temperatures increase, the temperature exceedences in the Snake River – particularly in shallow-water areas – will become longer and more severe.	temperatures have exceeded 20 °C (68 °F) every year, sometimes more than 70% of the days between 1 June and 30 September. The presence of the reservoirs does not cause the average temperature of the water to increase. In fact, a comparison to data collected from the lower Snake River in the 1950's shows that the temperature peaks were higher than they currently are. The influence of the impoundments are to slow the rate of heating in the spring as well as the rate of cooling in the fall due to the greater thermal mass. The possible effects of climate change on lower Snake River water temperatures have not been quantified. However, there are some ongoing regional climate change studies that hypothesize warmer summer air temperatures and reduced summer river flows, which could lead to warmer water temperatures. This potential outcome could impact surface water temperatures of all lakes, reservoirs, rivers, and streams over a very large area and not just the lower Snake River. Shallow water areas are more susceptible to solar heating, but the anticipated 7.36 acres of near-shore habitat less than 6-ft deep and the 18 acres of 6-18 foot deep habitat that would be created as part of the current immediate need dredging and disposal action only represents 0.08% and 0.21% of the Lower Granite reservoir surface area at MOP. This shallow water is not stagnant and moves with the downstream flow, and any increases in local water temperatures will not be measurable in the river as a whole.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8695a	The Corps' creation of shallow-water habitat (even if successful structurally) may provide no benefit if summer rearing fall chinook using shallow water habitat are forced by higher temperatures to move downstream to the cooler Columbia mainstem. The Corps must consider whether its projected benefits extend to significant portion of fall chinook that rear in the Clearwater River.	See response to Comment 8695 in Letter No. 68.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8695	The Benefits Predicted from "Habitat Improvement" Resulting from In-Reservoir Deposition of Dredge Spoils are not Justified. The DEIS assumes that in-river disposal will create effective "habitat" for salmon and other species. While we would support valid salmon habitat restoration measures, we are concerned that the benefits of in-river disposal are overstated and the risks have been ignored. As temperatures increase, the temperature exceedences in the Snake River – particularly in shallow-water areas – will become longer and more severe. The Corps' projections of benefits from its placement of dredge spoils does not account for this or any other risks. Before the Corps embarks upon such a risky and expensive project, more evaluation on the risks and benefits should be provided.	The Corps has been engaged in dredged material placement in the Lower Snake River for more than 25 years, including monitoring fish use of the habitat placement areas. The multiple studies cited in Section 4.1.2.1 document the results of the monitoring and use of the created shallow water habitat areas by juvenile salmonids. Placement of dredged material to create shallow-water habitat would not have a measurable effect on water temperature in the Lower Snake River. As seasonal surface water temperatures increase throughout the reservoir a corresponding surface water temperature increase will occur within the photic zone over any newly created shallow water habitat. The new ribbon design for shallow water habitat creation is expected to maximize the amount of habitat available for juvenile fall chinook salmon during spring rearing periods while maintaining the ability for fall Chinook to move to deeper pelagic water when shallow water temperatures begin to near 18 degrees Centigrade. Juvenile chinook are not restricted to remain in the shallow water zone when river temperatures rise heats up to temperatures that may cause sublethal effects. When the reservoir and tributary inflows are less than 18 degrees Centigrade, created shallow water habitat provides additional forage and resting for several hours during fall chinook outmigration. The surface area over the shallow water habitat would be many times smaller than the surface area of the reservoir. Any localized increase in water temperature at the shallow water habitat location would not change the temperature of the reservoir as the volume of the water in the reservoir is much greater than the volume of the water that would be affected by the shallow water habitat area. The potential effects of climate change on lower Snake River water temperatures has not been quantified. Should climate change result in higher water temperatures in the Snake River, this would not necessarily decrease the potential value of the created shallow water habitat areas

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0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8696	The DEIS largely dismisses the potential for dredging to stir up toxic wastes contained in sediments. DEIS at 3-54 (one-paragraph summary of several sediment samples). We believe that the risks presented could be far greater than those acknowledged by the DEIS. Previous data has shown sediment samples contaminated with dioxin and petroleum products, substances that will be activated in the river during dredging. The Corps should provide much more detailed information, including the results of recent comprehensive sampling and core tests throughout the areas to be dredged. Moreover, the Corps should provide more detailed information on how it intends to monitor the dredging to ensure that toxics “hot spots” do not cause habitat degradation.	for juvenile salmonids. See response to Comment 9051 in Letter No. 77. Section 3.6.2 of the EIS has been revised to provide more information on the historical sediment sampling performed by the Corps prior to performing maintenance dredging in the lower Snake River. The Corps has been taking sediment samples from areas proposed to be dredged in the lower Snake River since the Corps started dredging in the early 1980's. Appendix I has been completely revised. The appendix now contains the revised sediment sampling evaluation for the 2011 sediment sampling and the evaluation report for the 2013 sediment sampling. Together, these represent the sediment the Corps proposes to dredge for the current immediate need action.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8697	The DEIS Fails to Evaluate Fully the Impacts of its Preferred Alternative. Although the DEIS contains some – albeit limited and inadequate – information about some of the impacts of dredging, it contains little to no analysis of the impacts of other features of Alternative 7. In the absence of any information that this measure is “off the table” (combined with the Corps’ failure to consider climate change and other risk factors – see infra), raising Lewiston’s levees seems inevitable – at least insofar as the Corps has presented no plan that would alleviate that need. It is at least reasonably foreseeable that additional sediment accumulation in the Lower Granite reservoir outside the navigation channel will continue over the course of the PSMP and require the Corps to address how to protect Lewiston from flood risk.	The Corps has modified Section 4 of the EIS to better identify potential effects of the PSMP alternatives. The proposed current immediate need action is for specific locations, using specific methods. Therefore, more detail is provided regarding impacts anticipated to result from that action. In addition, dredging has historically occurred within the same general areas of the river (i.e., the navigation channel), thereby making detailed description of potential effects associated with future dredging possible. This is a programmatic EIS, and the evaluation of potential effects of PSMP measures is based on available information and is evaluated only to the extent reasonably possible at this time. Future proposals to implement any measure contained within the selected alternative will include a tiered review of the specific environmental effects of those future actions. Any future sediment management actions involving any measure(s) will undergo a tiered-off, project-specific NEPA analysis prior to implementation. That analysis would provide more detailed information regarding individual measure impact effects applicable to that location. Raising the Lewiston levees is not inevitable, as stated in the comment. Sedimentation in the Snake/Clearwater confluence will be monitored and adaptively managed in accordance with the adopted plan.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8698	The continued use of the Lower Snake River navigation channel contemplated in DEIS will result in the emission of greater greenhouse gases. As identified in the attached comments from Natural Resource Economics, the current barge system results in higher carbon dioxide emissions – at least 1,259 million tons higher – than shipping by rail. . . . Moreover, climate change compounds the harm to salmon caused by the operation of the Lower Snake River dams, including for navigation. . . Less reliance on trucking to the river and barging would result in a measurable net reduction in energy consumption and air pollution, but these effects are not captured anywhere in the Corps’ analysis.	See response to comments 8460 and 8461 in Letter 44 and comment 8694 in Letter No. 68. Section 4.12 of the FEIS includes an evaluation of potential climate change effects on the sediment accumulation interfering the existing authorized purposes of the LSRP, and the potential effects of the alternatives on greenhouse gas generation. By itself, navigation channel maintenance is not likely to result in increased trucking/barge traffic. Maintaining the authorized use of navigation would not change the capacity to accommodate barge traffic within the inland navigation system. The reduction in carbon dioxide emissions cited in the comment is an estimate for a specific proposal for rail terminal improvement, and does not represent a systematic evaluation of greenhouse gas (GHG) differences in modal alternatives. Based on a 2007 study conducted by the Texas Transportation Institute, barge transportation has lower GHG production per ton-mile than other modes of transportation, including railroad and truck. Barges produce 19.27 tons of GHG per million ton miles (MTM), rail produces 26.88 tons of GHG per MTM, and trucks produce 71.61 tons of GHG per MTM. (Texas Transportation Institute, 2007). Regarding climate change compounding the “harm to salmon caused by the operation of the Lower Snake River dams...,” text has been added to the EIS to more fully describe anticipated effects of climate change on the Lower Snake River. The EIS text has been revised to address GHGs consistent with the CEQ’s draft guidance on climate change and GHGs.
0068	Mr Gary Mcfarlane Mr Kevin Lewis	8698b	In a rapidly warming world, access to coldwater refugia, such as that in central Idaho and eastern Oregon, is vital for resilience and for survival and recovery of salmon and steelhead. These	DEIS Section 4.6.2 presents the water temperature effects of the creation of shallow water habitat with dredged material. Placement of dredged material would not, of itself, affect water temperature in the Lower Snake River. As seasonal surface water temperatures increase

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	Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin		cold-water refugia in central Idaho and Oregon support the highest and longest migrating salmon group on earth, a unique feature cited by scientists as vital to maintain given its adaptive value during climate change. There is widespread scientific agreement that the current configuration and operation of the Snake River dams – that the Corps seeks to perpetuate through the PSMP – precludes these fish from reaching and fully utilizing that habitat.	throughout the reservoir a corresponding surface water temperature increase will occur within the photic zone over any newly created shallow water habitat. The few percent of the total wetted volume of the reservoir that is created for shallow water rearing habitat for juvenile salmon use will not have measurable effects to the habitat/flow fields utilized by migrating adults. In addition, June, July, and August 2013 water temperatures in the non-impounded reaches of the Clearwater (outside the Dworshak Dam temperature release-affected reaches), Salmon, and Grande Ronde rivers exceed the daily maximum water temperatures in the forebays of the Snake River dams.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8699	While the Corps recognizes that the current system of slackwater lakes does result in higher and longer lasting water temperatures in the summer, DEIS at 4-60, it fails to analyze its decision to continue maintaining a navigation system (for the term of the PSMP or beyond) that perpetuates this exceedence, nor does it recognize or consider that increasing temperatures from climate change will make this current problem worse	See responses to Comments 8368 in Letter 29, 8461 in Letter 44 and 8686 and 8698 in Letter 68.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8700	The DEIS does not contain an analysis of cumulative effects that meets these requirements. rather than identifying and cataloguing the full suite of projects and impacts in the affected area (both past and present), the Corps cryptically states that, with the exception of Alternative 3, it will only consider activities that the Corps itself has or will undertake in its cumulative impact analysis. DEIS at 4-55. But the Corps' duty is to evaluate cumulative effects – including reasonably foreseeable effects – from all entities in the action area. Although the Corps assumes that the alternatives will not have cumulative effects with other projects in the action area, the DEIS does not contain information about any other projects that would allow the Corps to draw this conclusion. It is at least reasonably foreseeable – and indeed, likely – that the sediment accumulation the Corps is attempting to address in the DEIS will increase and will require additional measures and additional costs over time. None of these increases, however, are factored into the Corps' consideration of the environmental impacts from increased needs for channel maintenance over time and are not considered in any analysis of the benefits and costs of the PSMP. The Corps is not permitted to ignore the changing on-the-ground reality of its action over the term of the DEIS. By doing so, the Corps not only ignores a host of cumulative environmental impacts, but also fails to account for changes that will alter the economics of continuing to maintain a 14-foot navigation channel. Corps' sediment projections do not account for increases in sediment from other events. For example, the SWAT model the Corps relies on in Appendix F does not appear to account for mass wasting events that contribute massive amounts of sediment to river systems in one-time pulses. The Corps' sediment projections do not account for reasonably	The EIS identifies past and present actions, assesses the effects of those actions, and identifies and assesses reasonably foreseeable future actions consistent with CEQ guidance on cumulative effects analysis (Section 4.11) and climate change (Section 4.12). Table 4-3 presents reasonably foreseeable future actions considered as part of the cumulative effects assessment for the PSMP EIS. Actions by Federal agencies, state and local agencies, and private landowners were all considered in the analysis. In addition, past and present actions affecting the environment are identified in accordance with NEPA and CEQ's guidance for conducting cumulative effects analysis. The Corps identified reasonably foreseeable actions (by Federal or non-Federal entities) at a regional, programmatic level. Actions planned (or consistent with adopted plans) were considered reasonably foreseeable. Actions not proposed would be considered speculative and, therefore, would not be considered reasonably foreseeable. The EIS (Section 4.11) has been modified to more fully document cumulative effects associated with future actions under the PSMP, as well as the current immediate need action to re-establish the congressionally authorized dimensions of the federal navigation channel.. Appendix F addresses sediment transport in the Snake and Clearwater rivers and Appendix M addresses sediment measurements and transport for tributaries of the Snake and Clearwater rivers.

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			foreseeable increases in timber harvest of federal (or any other lands) lands.	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8702	The DEIS fails to incorporate climate change into its cumulative impacts analysis, either as part of its catalog of past projects and events, or as a reasonably foreseeable future impact. In fact, the only reference to “climate change” in the “Cumulative Effects” section of the DEIS uses climate change as an excuse to avoid estimating or providing a qualitative description of the amount of sediment entering the river from upland sources.	See response to Comment 8461 in Letter No. 44.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8704	Due to the Corps’ erroneous and unspecific sediment deposition estimates, it is impossible to understand the environmental and economic costs of dredging. The Corps, however, fails to provide any accurate information about historical sediment deposition at the confluence. Table 3.16 omits any figures for dredging in the most critical reach of the Lower Granite Reservoir – the confluence of the Snake and Clearwater Rivers, where most of the dredging occurs. Table 3.16 data includes 2.76 mcy as the amount of sediment dredged in Lower Granite Reservoir from 1974-2010. However, Table 1-3 of the DEIS and Appendix A list the total volume for all the dredging in Lower Granite reservoir as over 4.5 mcy, with about 95% of the total completed at/near the confluence. These contradictory and confusing data infect other sections of the DEIS. The DEIS needs to better evaluate sediment transport and deposition in the Clearwater River from the upper limits of the pool down to the confluence with the Snake River and in the Snake River from the upper limits of the pool downstream past the confluence with the Clearwater River and down to the Port of Wilma area. It is difficult for the Corps, let alone the public, to understand the environmental effects and the economic costs of dredging when it is unclear what volumes of sediment the Corps has dredged – and will need to dredge in the future – and from where.	See response to Comment 8360 in Letter 12. Table 3-16 is based upon Table 44 (erroneously given as Table 7 in the Table 3-16 footnote) which is found in Appendix F, Part 1. Table 3-16 is intended to be a ‘summary’ of sediment accumulation within these three general reaches: (1) the Snake River upstream of the Clearwater River confluence, (2) the Clearwater River upstream of the Snake River confluence, and (3) the Snake River downstream of the Clearwater River confluence. The column within Table 3-16 titled ‘Snake River Below Silcott’ should instead be ‘Snake River Below Confluence with Clearwater River.’ The numerical values given in the third column are correct, as are the sums of the third and fourth numerical columns in Table 44. Table 3-16 has been corrected to show the correct reference to Table 44 and to have the correct Column Heading of Snake River Below Confluence with Clearwater River.’ Section 3.7.3 of the EIS has been revised to reflect this information. Table 44 gives the volumetric figures for the Snake River downstream of the Clearwater River confluence. Table 1-3, found on Pages 1-10 and 1-11 of the PSMP Main Report, is titled ‘Partial History of Federal/Port Dredging in the Lower Snake River.’ This table is also presented in the PSMP Appendix A as Table 2-2; which is found on Pages 11-12 of Appendix A. Table 43 is found on Page 152 of PSMP Appendix F, Part 1; and is titled ‘Estimated Dredge Volumes at the Confluence of the Snake and Clearwater Rivers.’ The dredge volume given in Table 43 is approximately 4.8 million cubic yards (mcy) which agrees closely with the comment’s value of 4.5 mcy. It should be noted that two different data sources were used in developing the volume computations; these being the pre-and post-condition surveys specifically made at the specific locations for Dredging Contracts and the periodic Sediment Range surveys which are made separately over the entire Lower Granite Reservoir. The differences noted are likely due to such factors as survey measurement errors, cross section interpolation, errors in dredge volume estimates, and consolidation of silt sediment in the lower part of Lower Granite Reservoir. Table 3-16 dredged volumes are presently based on the Sediment Range surveys which likely are not as specifically accurate for the volumes removed from the dredged areas as are the condition surveys specifically performed for dredging actions. (Response needs to indicate that text and Table 3-16 have been modified to be consistent.)
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity	8705	While Appendix F’s “Flood Risk Analysis” may appear robust at first blush, its analysis lacks important considerations and downplays the flood risk to the City of Lewiston. In 26 pages of discussion, tables, and figures, the issue of climate change is never mentioned, yet climate change will likely play an important role in the future flood risk for Lewiston. At the very least, this analysis should evaluate the possible effects of climate change and the potential for shifting storm tracks instead of simply	See responses to Comments 8461 in Letter No. 44 and 8361 in Letter 14 . Section 18.7 of Part 3 of Appendix F to the PSMP (titled ‘Effect of Climate at Year 2060 on Sediment Yield) describes Climate Change analyses made using precipitation and temperature data. In addition, Figure 1 of Appendix D (titled ‘Enhanced Sediment Delivery in a Changing Climate in Semi-Arid Mountain Basins: Implications for Water Resource Management and Aquatic Habitat in the Northern Rocky Mountains) is a conceptual plot of sediment yield relative to hydroclimate and the regulating role of vegetation. The sediment yield curve for Figure 1 is based on the published work (December 1958 in Transactions,

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	Edwina Allen Bob Margulis Dustin Aherin		looking at the past. The analysis should recognize that the major flood risk to Lewiston is the very existence of Lower Granite Reservoir.	American Geophysical Union) of W.B Langbein and S.A. Schumm, titled 'Yield of Sediment in Relation to Mean Annual Precipitation.' From these two references, it can be seen that the maximum sediment yield generally occurs where the effective precipitation is on the order of 10 inches per year. This annual precipitation is generally experienced over a large portion of the effective drainage basin for Lower Granite Reservoir. Therefore climate change is not expected to significantly increase the basin's sediment yield since it appears that present basin climactic conditions might already provide the maximum long-term sediment yield conditions..
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8706	The DEIS lacks analysis on the effects of increased sediment delivery due to increased wildfire and mass wasting events that result from climate change. The impact analysis of increased sedimentation on flow conveyance, levee height & freeboard should include a benefit/cost assessment that includes information (including economic and social costs) on levee maintenance and expansion and sediment dredging for flow conveyance purposes.	See responses to Comments 8461 in Letter No. 44, 8361 in Letter 14 and 9060 in Letter 78.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8707	the DEIS fails to discuss a host of relevant information, presents only one-sided and misleading information and conclusions about the benefits of the project, and fails to apply the requirements of NEPA, its own regulations, applicable standards and guidelines, and does not adhere to recognized professional standards for evaluating the benefits and costs of any of the alternatives. To correct these deficiencies, the Corps must start over and transparently evaluate the full suite of socioeconomic impacts of its preferred action and a full range of alternatives rather than relying on general statements and outdated assumptions about the costs and benefits of its preferred course.	See response to Comment 8360 in Letter No. 12.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8708	The EIS Presents Misleading and One-Sided Information to Show a Net Benefit From the Project and Ignores Available Information Demonstrating that the Costs Far Exceed the Benefits. Because of the Corps' failure to comply with the above requirements, the DEIS (unlike past Corps EISs on this same issue), does not even estimate a benefit/cost ratio for the preferred – or any other – alternative. We question whether that failure is a mere oversight, or whether it reflects the fact that the available information shows that this ratio shows a net detriment would result from the PSMP. One major alternative outlined in the NAS report suggests the possible divestiture or decommissioning of parts of the Corps' infrastructure. Given this recommendation, the requirements of NEPA, and the Corps' proposal to maintain the Snake River as a waterway through the PSMP, this DEIS is the place where the Corps should examine that alternative.	See responses to Comment 8360 in Letter No. 12 and Comment 8686 in Letter No. 68.
0068	Mr Gary Mcfarlane Mr Kevin Lewis	8709	The trend toward rail shipping continues. The soon-to-be-opened McCoy shuttle train loader facility near Oakesdale will provide yet another competitive alternative to trucking grain for	See response to Comment 8360 in Letter No. 12. Section 4.11 of the EIS has been revised to include information on the McCoy rail facility. Section 3.5.3.1 of the EIS has been corrected to show the `10 million tons of cargo is shipped

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	Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin		shipment by barge on the waterway. In all likelihood, the facility will result in diverting even more grain to rail that otherwise would be shipped by barge. The DEIS does not discuss – or even mention – either of these developments or the likelihood that they further decrease any navigation-related economic benefits. What little information on economics the Corps does present in the DEIS ignores all of this evidence and grossly exaggerates the volume of commercial freight transported on the lower Snake River and overestimates the benefits of the system. For example, the DEIS broadly – but without any explanation – asserts that approximately 10 million tons of cargo are transported annually on the lower Snake River. DEIS 3-43	on the Columbia-Snake system, not just the Snake.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8709a	The Corps selected Alternative 7 as its Preferred Alternative. By choosing this alternative, the Corps, in effect, has determined that, in some configuration, dredging and construction of structures offer the most desirable socioeconomic and other environmental consequences. If the PSMP and the Preferred Alternative are adopted, subsequent environmental review will focus on the specifics of the configuration of these measures, not on whether or not to proceed with dredging and construction.	Under the proposed PSMP, any time a trigger is reached, the Corps would perform a tiered environmental and engineering analysis to evaluate the measures that could be used to address the sediment accumulation problem. Dredging and construction of structures are some of the measures that may be considered, but they are not the only ones. The PSMP does not authorize or direct the construction or implementation of any sediment management measure. The PSMP provides a framework for making sediment management decisions in the future based on further study and NEPA analysis.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8710	The Corps' flawed NEPA analysis also infects its responsibilities to comply with the Clean Water Act. Like NEPA, the Clean Water Act ("CWA") requires that, before proceeding with projects affecting water of the United States, the Corps conduct an analysis of the project's potential impacts. Thus, just like NEPA, the CWA requires the Corps to conduct a comprehensive analysis of the impacts of dredging and levee construction before those projects may proceed. The Corps' failure to do so in this DEIS therefore not only violates NEPA, but if not corrected, also infects its CWA permitting process.	<p>The PSMP is a programmatic plan that does not identify any specific actions, rather it provides a framework for future decision-making when an action is warranted (triggered) to address sediment that interferes with existing authorized project purposes of the LSRP. The EIS, therefore addresses potential future actions under the Plan in broad terms. The Corps would complete a tiered-off environmental analysis (Categorical Exclusion, Environmental Assessment, Supplemental EIS) to evaluate and compare alternative measures or combinations of measures to be enacted each time a trigger for action is reached, in accordance with the PSMP. The EIS also includes a current immediate need action, consistent with the PSMP, to re-establish the dimensions of the congressionally authorized navigation channel. The specific environmental effects of that action are addressed in this EIS. The effects of the proposed current immediate need action dredging on water quality are addressed in Section 4.6.2 and 4.6.3.2 of the EIS.</p> <p>The Corps is not proposing to modify levees or engage in any flow conveyance action at Lewiston at this time. The EIS has been revised to better identify potential environmental effects of a levee raise on a programmatic level in Section 4. Section 4.6.3.1 of the EIS addresses possible effects of a levee raise on water quality.</p> <p>The Clean Water Act (CWA) compliance included in the PSMP/EIS as Appendix L is only for the current immediate need action as that is the only site-specific action currently proposed. For future actions, the Corps would perform tiered-off environmental compliance and analysis of measures once the trigger for taking an action has been reached to determine the best measure to implement at that time. That tiered-off compliance would include CWA analysis and documentation.</p> <p>The Corps does not issue itself a CWA Section 404/10 permit. Instead, it applies the substantive legal requirements of Section 404 of the CWA and the 404(b)(1) guidelines to its</p>

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0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8711	<p>The PSMP DEIS falls far short of its obligations to provide all relevant information and demonstrate a good faith effort at studying and analyzing the socioeconomic consequences of the Preferred Alternative. The socioeconomic elements of the DEIS ignore a large body of socioeconomic information relevant to the EIS, provide no analytical basis whatsoever for the Corps' selection of the Preferred Alternative, and fail to provide the public and decision-makers with coherent and reliable information they can use to assess the socioeconomic consequences of implementing this alternative. The PSMP DEIS presents an incomplete and biased picture of the socioeconomic effects of the Preferred Alternative, exaggerating its positive effects and diminishing or overlooking its negative effects. Information not included in the DEIS indicates that implementation of the Preferred Alternative likely would result in negative overall socioeconomic outcomes, with the benefits smaller than the costs of producing them. Three sets of standards apply to the Corps' socioeconomic analysis in the PSMP DEIS. One includes the generally accepted, professional standards that apply to analyses of this type and govern the assessment of the accuracy, precision, and reliability of the analytical results. The second includes standards specifically applicable to Corps. The third includes the standards embedded in the Environmental Operating Principles expressed at the beginning of the PSMP DEIS. Executive Order 12866: Regulatory Review and Planning specifies standards for economic analyses.⁶ Although it uses regulatory actions as its focus, the standards are widely accepted among professional economists to have broader application. The PSMP DEIS Does Not Meet Generally Accepted, Professional Standards The Corps can satisfy its obligation to describe fully the socioeconomic effects of the PSMP only if it uses relevant, widely accepted, professional standards of analysis. These standards are expressed through Presidential Executive Order 12866 and related guidance from the Office of Management and Budget (OMB). It does not assess the costs and benefits of any alternative. Indeed, it provides no substantive discussion of costs whatsoever. Instead, it offers at most vague promises. The terms, "cost" and "costs," appear rarely in the discussion of the socioeconomic effects of the alternatives (Section 4.5), but never in the context of actually measuring anything. That is, the DEIS never links these terms with any dollar amount. Thus, it contains no quantified discussion, let alone analysis, of the Preferred Alternative and fails completely to satisfy widely accepted</p>	<p>actions (Appendix L). The public interest associated with a federal Civil Works project is established when authorized by Congress and confirmed through O&M funding/appropriations. A separate public interest review is not required for formal adoption of a PSMP or for the proposed current immediate need action (consistent with the PSMP) to reestablish the congressionally authorized federal navigation channel.</p> <p>See responses to Comments 8360 in Letter No. 12. Executive Order 12866 (with implementing guidance, Office of Management and Budget Circular A-4) does not apply to the proposed adoption and implementation of the PSMP EIS or current immediate need action to re-establish the congressionally authorized navigation channel. The Corps applied the economic considerations for NEPA review and agency decision-making that apply to maintenance of existing authorized Civil Works projects. Despite the EO's lack of general applicability, the Corps' considerations reflect the core principles of the EO and sound economic decision-making.</p>

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			professional standards of socioeconomic analysis that require thorough assessment of the costs, in monetary terms where possible and in detailed qualitative terms where not. Similarly, the PSMP DEIS does not assess the socioeconomic benefits of each alternative.	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8715	DEIS makes no attempt to quantify the potential socioeconomic benefits of the Preferred Alternative, or of the other alternatives. It mentions benefits only in the abstract and, thus, fails to satisfy widely accepted professional standards of socioeconomic analysis that require thorough assessment of the benefits, in monetary terms where possible and in detailed qualitative terms where not. Lacking any description of the socioeconomic costs and benefits of each alternative, the PSMP DEIS does not even attempt to describe or quantify the net benefits (net costs) of each. With no information about their respective net benefits or costs, the PSMP DEIS offers no evidence that the Preferred Alternative would impose the least socioeconomic burden on society. Office of Management and Budget (OMB) Circular A-4: Regulatory Analysis, provides operational, analytical guidance for satisfying the standards of Executive Order 12866. The PSMP DEIS, however, contains no socioeconomic benefit-cost analysis, nor any comparison of the alternatives' net benefits (or net costs).	See response to Comment 8360 in Letter No. 12.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8718	The PSMP DEIS, however, does not identify a baseline scenario of the future showing, from a socioeconomic perspective, what the world will be like if the Preferred Alternative is not adopted. It superficially identifies “current operational practices” under the “No Action” alternative as the baseline, but nowhere provides information regarding what specific socioeconomic variables will look like in the future under this alternative. With no quantitative description of the baseline, the PSMP DEIS cannot and does not provide a basis for assessing the socioeconomic effects of the referred Alternatives against those of the other alternatives.	See responses to Comment 8360 in Letter No. 12 and Comment 8687 in Letter No. 68.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8719	The PSMP DEIS, however, mentions some side-effects and ancillary benefits, but never in quantitative terms that would allow adding them to the direct benefits and costs. For example, it says that using dredged material to create fish habitat or restore ecosystems “would have indirect benefits, including potential recreation benefits.” (p. 4-32), but it provides no detailed description of these benefits and their socioeconomic significance, nor does it offer qualitative or quantitative information for assessing how these side-effects and ancillary benefits would vary across the alternatives.	See response to Comment 8360 in Letter No. 12.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford	8720	The PSMP DEIS, however, does not provide a summary of the socioeconomic factors, qualitative or quantitative, that would allow readers to evaluate the alternatives against one another. The socioeconomic sections of the PSMP DEIS, however, contain no statement of assumptions or sensitivity analysis—	See response to Comment 8360 in Letter No.12.

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	Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin		<p>none—making it impossible to see how the Corps arrived at its estimates and conclusions. The PSMP DEIS, however, does not show that the Preferred Alternative is likely to do more socioeconomic good than harm. Instead, it provides only general statements asserting that the Preferred Alternative would yield benefits for some groups. For example, it states, “Modifying flows to flush sediments (drawdown)...would have a long-term beneficial effect on navigation, by improving the navigation channel.” (p. 4-33) It provides no yardstick—indeed, no quantitative information at all—for gauging the socioeconomic importance of these benefits, however. Nor does it provide any information about the magnitude of the simultaneous socioeconomic cost that a drawdown would impose on taxpayers, competitors of the barge companies, or others. The PSMP DEIS, however, provides only general statements about the distribution of socioeconomic effects on current groups. For example, it observes that the Preferred Alternative’s long-term beneficial effect on navigation “could adversely affect the capacity of the rail or highway system.” (p.4-33) It makes no effort to detail these effects or assess their magnitude, however. Moreover, the socioeconomic elements of the PSMP DEIS contain no information whatsoever for assessing the intertemporal distributional consequences, i.e., the effects on future generations, of implementing the Preferred Alternative and for comparing them to those of the other alternatives. The socioeconomic elements of the PSMP DEIS make no mention of externalities, however. Yet several are immediately obvious, such as the impacts of dredging and other activities on the population and value of salmon, and the effects of the Preferred Alternative on the emission of airborne and waterborne pollutants harmful to human health, fish, and wildlife.</p>	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8725	<p>The PSMP DEIS Does Not Meet Agency-Specific Standards The agency-specific standards include a requirement that, before proceeding with the Preferred Alternative, the Corps must demonstrate, with reasonable certainty, that its benefits to the national economy will outweigh its costs. Evaluation of the national economic benefits and costs are to be addressed in the so-called National Economic Development (NED) account, with monetary measurement of benefits (increases in the economic value of goods and services) and costs (decreases in economic value). The PSMP DEIS acknowledges the relevance of the Principles and Guidelines to the document when it observes that reductions in the generation of hydropower “are a National Economic Development cost.” (p. 4-34)The PSMP DEIS does not, however, quantify this cost or any other cost. Nor does it present an evaluation of each alternative’s national economic benefits and costs, and net benefits (net costs). Thus, it ignores the agency’s own standards of analysis. The Corps also had an obligation to distinguish between each alternative’s benefits and costs, i.e., changes in economic value of goods and services,</p>	See response to Comment 8360 in Letter No. 12.

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			and its impacts on jobs, incomes, and other indicators of the level and distribution of economic activity. Although the Corps acknowledged, but did not apply, the 1983 Principles and Guidelines, the Council on Environmental Quality recently released a new set of Principles and Requirements for Federal Investments in Water Resources and draft Interagency Guidelines that supersede the Principles and Guidelines. The Corps should closely examine and apply the Principles and Requirements as it completes an accurate and balanced analysis of the costs and benefits of each course of action in any final EIS.	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8726	The PSMP DEIS does not identify, clarify, or quantify areas of risk and uncertainty. It especially does not quantify how risks and uncertainties under the Preferred Alternative compare with those under the other alternatives.	See responses to Comments 8360 in Letter No. 12 and Comment 8686 in Letter 68.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8727	The PSMP DEIS Does Not Apply the Agency’s Environmental Operating Principles The PSMP DEIS presents a set of “Environmental Operating Principles applicable to all its decision-making and programs.” Even a cursory review of the PSMP DEIS reveals, however, that it falls far short of the aspirations expressed in these statements, failing to clarify the extent and effect of taxpayer subsidies to bargaining under the Preferred Alternative. This failure arises, from an economic and social perspective, insofar as the document fails to provide a full accounting of all the costs and all the benefits of each alternative, including the Corps’ Preferred Alternative. As a consequence, there is no way of knowing, from the PSMP DEIS, if the Preferred Alternative represents economic and environmental solutions that support and reinforce one another. The costs of maintaining the navigation channel exceed the benefits, and that the Preferred Alternative therefore is not consistent with the Environmental Operating Principles because it is not an economically sustainable solution to the problems the Corps is addressing. Moreover, by being totally devoid of any accounting of socioeconomic effects, the PSMP DEIS does not demonstrate that the Corps accepts responsibility and accountability for all the consequences of the Preferred Alternative’s impacts on human welfare, as required by the Environmental Operating Principles. The PSMP DEIS provides such an incomplete description of the Preferred Alternative’s costs that it does not come close to complying with the Environmental Operating Principles’ commitment to assess and mitigate the Preferred Alternative’s cumulative impacts.	See response to Comment 8360 in Letter No. 12.

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0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8728	The PSMP DEIS falls woefully short of all the standards applicable to the analysis of the socioeconomic consequences of the PSMP. Specific shortcomings include, but are not limited to: ? No explanation of significant socioeconomic issues to be addressed in managing sediment. ? No description of the process for evaluating the alternatives with respect to these issues and for incorporating their socioeconomic consequences into the selection of the Preferred Alternative. ? No description of a baseline scenario that reveals the Corps' detailed expectations of what specific, important socioeconomic variables will look like in the future without the proposed action. ? No description of how the world will look different under each alternative, relative to these socioeconomic variables. ? No description of relevant extant data and past research regarding these variables. ? No description of, or justification for, socioeconomic assumptions embedded in the design of the analysis, the analytical findings, or the comparative assessment of the alternatives based on the findings. ? No quantitative information regarding the costs and benefits of each alternative. ? No description, especially a quantitative description, of the net benefits (net costs) of each alternative. ? No comparison, especially a quantitative comparison, of the alternatives' costs, benefits and net benefits (net costs). ? No description and comparison, especially in quantitative terms, of the alternatives' impacts on jobs, income, and other indicators of economic activity. ? No assessment, quantitative or qualitative, of uncertainties and risks associated with each alternative. ? No description of the distribution of costs, benefits, jobs, income, uncertainties, and risks among different groups, including future generations. ? No summary, especially a quantitative summary substantiated by data and analysis, of the similarities and differences among the alternatives in their socioeconomic consequences.	See response to Comments 8360 in Letter No. 12 and 8687 in Letter No. 68.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8729	The Corps should, at a minimum, complete these steps: 1. Review and incorporate into the DEIS past research on socioeconomic issues associated with sediment management in the lower Snake River 2. Augment the review of relevant past research with an appropriately designed scoping process to identify important issues and variables for assessing the socioeconomic effects of the different alternatives examined in the PSMP DEIS. 3. Prepare a baseline scenario that describes in detail what the relevant socioeconomic variables will look like in the future absent federal action. 4. Describe fully the costs, benefits, and net benefits (costs) of each alternative from the national economic development perspective, accounting for those that can reasonably be expressed in monetary terms, as well as those that cannot. 5. Describe fully the impact of each alternative on the distribution of regional economic activity, focusing on employment and income. 6. Describe fully the uncertainties and risks associated with each alternative. 7.	See response to Comments 8360 in Letter No. 12 and 8687 in Letter No. 68.

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			<p>Provide a summary comparison of the alternatives that includes: (a) costs, benefits, net benefits (net costs); (b) the distribution of costs and benefits among different groups; (c) the distribution of regional economic activity among different groups; and (d) uncertainty and risk. 8. Prepare an analysis of the Preferred Alternative consistent with directions provided by the Principles and Guidelines for the National Economic Development and Regional Economic Development accounts. This effort should parallel, if not build on, the NED, RED, and related analyses the Bureau of Reclamation and Washington Department of Ecology recently completed in conjunction with the development of a programmatic environmental impact statement for the Integrated Water Resource Management Plan for the Yakima River Basin.13 8. Clearly explain criteria used to evaluate the socioeconomic differences among the different alternatives and the process used to apply the criteria and select the Preferred Alternative. The PSMP DEIS not only fails to take a “hard look” at all the available, relevant information regarding all aspects of the PSMP’s socioeconomic effects, it closes its eyes to this information. In particular, it fails to utilize extensive, readily available information regarding the economic benefits and costs of the Preferred Alternative, and its impacts on the distribution of economic activity between the barge industry and its competitors in the rail and trucking industries.</p>	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8730	<p>The socioeconomic sections of the PSMP DEIS should compare the benefits of each alternative against its costs to determine the net benefit (net cost) and demonstrate that, unless other factors outweigh the objective of maximizing net national economic benefit, the Preferred Alternative selected by the Corps has the greatest net benefit (lowest net cost). They do neither. This omission has important consequences, insofar as even a brief review of the available information suggests that the Preferred Alternative’s costs outweigh its benefits. As a result, the DEIS presents information and selects a Preferred Alternative biased in favor of dredging and other activities that require taxpayer support and subsidies to the barge industry. The Principles and Guidelines also explains that the assessment of the costs of a planned program, such as the Preferred Alternative, should examine “the opportunity costs of resources used in implementing the plan. These adverse effects include: Implementation outlays, associated costs, and other direct costs.” (p. 8) The socioeconomic sections of the PSMP DEIS, however, provide no information about the Preferred Alternative’s implementation outlays, associated costs, or other direct costs</p>	<p>See response to Comment 8360 in Letter No. 12. The preferred alternative does not select any action to perform. Rather, the preferred alternative (the PSMP) provides for a tiered environmental and engineering analysis to determine what measure or measures, if any, would be implemented once a trigger for sediment management is reached. The Plan addresses sediment that interferes with all existing authorized project purposes, not just commercial navigation.</p>
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford	8732	<p>In the costs and benefit of dredging, one must measure the true reduction in costs to the national economy, not the reduction in barge rates that reflect a subsidy from taxpayers. Extensive research provides insights into the true benefits (or costs) of maintaining the navigation channel in the LSRP. Some of this</p>	<p>See response to Comment 8360 in Letter No. 12.</p>

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	Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin		has focused on the competition to barge traffic from rail and trucks in this region and how the competition affects the potential benefits and costs of actions that would maintain or, alternatively, cease barge traffic along the Lower Snake River. A study completed in 2003, for example, found that, if the navigation system on the lower Snake River were closed, grain shippers would, on average, incur additional costs of about \$1–2 million per million tons of grain. In recent years, the Port of Lewiston has shipped about 500,000 tons of grain per year. These numbers, combined, indicate that, if the tonnage remains at this level, grain shippers would incur additional costs of \$0.5–1.0 million per year, if they were unable to ship by barge. The avoidance of these costs represents the Preferred Alternative's primary economic benefit. This benefit, \$0.5–1.0 million per year, however, falls short of the annualized cost of dredging of at least \$2 million.	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8733	The DEIS presents no information to substantiate an expectation that the downward trend will not continue. If tonnage continues to decline in the future, potential benefits from maintaining the navigation channel, all else equal, will decline as well.	See response to Comment 8360 in Letter No. 12. Future tonnage shipped by barge will be determined by the market. Information on the Port of Lewiston web site shows shipping trends over the past 20 years. These trends show several cycles of increasing and decreasing cargo moving through the Port.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8734	Subsidies to the navigation system have enabled the barge lines to transport grain and other products at prices that do not cover the system's full costs. For many years, some shippers realized economic benefits from these lower prices, both as they shipped products by barge and as competition between barge and rail induced railroads to keep their prices lower than would exist absent the navigation subsidies. Over the past couple of decades, however, the hidden costs and unsustainability of these subsidized prices have become apparent as railroads, struggling to compete with the subsidized prices of barge shipments, cut investments in and maintenance of rail lines. In some cases, the lines were abandoned or sold to the state, which has had to make substantial investments to keep them running. The DEIS fails to account for any of these costs.	See response to Comment 8360 in Letter No. 12. The EIS does not evaluate the potential effects associated with the existence of the Federal navigation channel. Congress authorized the construction of the LSRP through PL 79-14, Section 2 and established the dimensions of the LSRP navigation channel in PL 87-874. The Corps is not required in the PSMP or EIS to again justify the existing of the LSRP. The Corps is not evaluating alternatives to the LSRP or comparing costs or benefits of other transportation modes. The PSMP is simply intended to provide a decision-making framework for taking future operation and maintenance (O&M) actions addressing sediment that interferes with existing authorized project purposes of the LSRP.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen	8735	Information available to the Corps but not included in the DEIS suggests strongly that the socioeconomic benefits of the Preferred Alternative fall far short of the costs. By not expressing, studying, and analyzing this information, the DEIS fails to "take a hard look" at a critically important aspect of the PSMP's economic consequences. The Corps must re-work the DEIS and fully examine the net benefits (net costs) of each alternative if it is to satisfy its obligation to provide good faith analysis and sufficient information to allow a firm basis for	See response to Comment 8360 in Letter No. 12.

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	Bob Margulis Dustin Aherin		weighing the risks and benefits of the agency's Preferred Alternative.	
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8736	The DEIS fails to show how maintaining the navigation channel, through implementation of the Preferred Alternative, would "maintain the flow of commodities" by barge. The tonnage barged on the Lower Snake River has been declining over many years and the DEIS does not demonstrate how the Preferred Alternative would arrest this decline.	See response to Comment 8360 in Letter No. 12. The Corps acknowledges the maintenance of the navigation channel by itself does not dictate the number of barges or tonnage shipped on the Columbia-Snake system, as the use of the system is determined by market forces. Maintenance of the channel provides the opportunity (not a guarantee) for commercial navigation to occur.
0068	Mr Gary Mcfarlane Mr Kevin Lewis Linwood Laughy Pat Ford Steve Mashuda Glen Spain Michael Garrity Edwina Allen Bob Margulis Dustin Aherin	8737	The PSMP DEIS summarizes the Preferred Alternative's impacts on economic activity with this observation: "Maintaining the navigation channel would maintain the flow of commodities thereby maintaining existing related conditions in employment and income in related economic sectors." (p. 4-33) It provides no other information, or analysis, of the impacts. Because of the failure to conduct a with-vs.-without analysis, it is impossible to know, from the information provided in the PSMP DEIS, how the Preferred Alternative would affect economic activity. Specifically, it is impossible to know if income and jobs would go up or down, or which workers in which industries would be affected. Moreover, it does not discuss, let alone analyze, the potential effects on the flow of commodities by barge of the recent and planned investments in the rail system that likely will draw even more freight away from the barge system in the future. The PSMP DEIS provides no information about the Preferred Alternative's potential impacts on these jobs and incomes. Indeed, it provides no quantitative information about any jobs or incomes. Nor does it account for changes underway in the competition for freight that indicate existing conditions in employment and income in sectors related to navigation and the barge industry likely will change, perhaps dramatically, regardless of the Corps' approach for managing sediment in the LSRP. The incomplete socioeconomic picture in the PSMP DEIS is a biased picture. The bias emerges as, out of the void created by the absence of socioeconomic data or analysis, the PSMP DEIS avoids communicating the negative socioeconomic effects that would accompany implementation of the Preferred Alternative. The incomplete picture thus allows the PSMP DEIS to portray the Preferred Alternative as more desirable than taking no action, or pursuing other alternatives that would avoid some or all of these costs, when, from a socioeconomic perspective, the reverse likely is true.	See responses to Comments 8709 and 8736 in Letter No. 68
0069	Eric Anderson	8435	The Snake was last dredged eight years ago for a total cost of \$5 million. This opened hundreds of miles of river to navigation. How many miles of railroad or highway would you get for that cost? How much do you think it would cost to remove a major	Thank you for the comment.

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0069	Eric Anderson	8436	dam? To me dredging the river is a bargain. Barging is undeniably the least cost and most environmentally friendly means of moving large volumes of commodity goods.	Thank you for the comment.
0070	Christina Baldwin	8437	It fails to assess impacts from climate changes.	See response to Comment 8461 in Letter No. 44.
0070	Christina Baldwin	8438	It fails to provide cost/benefits analysis of dredging.	See response to Comment 8360 in Letter No. 12.
0070	Christina Baldwin	8449	It fails to assess alternatives to dredging. It fails to consider alternatives to barge transportation.	See responses to Comment 8686 in Letter No. 68.
0071	Anne Carter Terry Carter	8439	We urge the Corps to conduct an independent cost-benefit analysis to determine the benefits of this proposal.	See response to Comment 8360 in Letter No. 12.
0071	Anne Carter Terry Carter	8440	Dredging may threaten Endangered Species Act listed stocks of salmon and steelhead which are year round inhabitants of these waters.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0071	Anne Carter Terry Carter	8441	As a result of ongoing climate change the increased sediment load caused by large first fires will increase flood risk to the cities of Lewiston and Clarkston and require a continuous cycle of dredging at a cost that we feel would outweigh benefits.	See response to Comment 8561 in Letter No. 44. Section 18.7, titled 'Effect of Climate at Year 2060 on Sediment Yield,' is presented starting on Page 175 of Part 3 of Appendix F of the PSMP EIS. That section describes Climate Change analyses made using precipitation and temperature data. In addition, Figure 1 of Appendix D is a conceptual plot of sediment yield relative to hydroclimate and the regulating role of vegetation. From these two references, it can be seen that the maximum sediment yield generally occurs where the effective precipitation is on the order of 10 inches per year. This annual precipitation is generally experienced over a large portion of the effective drainage basin for Lower Granite Reservoir. Therefore climate change should likely not significantly increase the basin's sediment yield since it appears that present basin climactic conditions might already provide the maximum long-term sediment yield conditions.
0072	Paul Dixon	8442	As a large Shipper on the Snake/Columbia River System, we support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS.	Thank you for the comment.
0073	Gary James	8443	There currently is not enough known to say that some dredging strategies or locations would or would not be more damaging to lamprey but the DEIS should include measures taken to identify suitable lamprey habitat and develop sampling methods and practices to avoid impacts to lamprey populations. Such sampling and examination of dredge spoils/deposition areas to better understand the potential juvenile lamprey impacts is appropriate.	Sampling has been completed for the current immediate need action to re-establish the navigation channel to the congressionally authorized dimensions. No lamprey were identified in the proposed dredge area. The Corps is not proposing in this EIS to perform dredging other than the current immediate need action. The need for lamprey monitoring and sampling will be determined for each future action through the tiered environmental analysis and will be specific to the type of action and location of project.
0074	Robert Ellis	8444	this seems very costly and inefficient	See response to Comment 8360 in Letter No. 12.
0075	Steven Ellis	8445	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad.	See response to Comment 8360 in Letter No. 12.
0075	Steven Ellis	8446	The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0075	Steven Ellis	8447	I am especially concerned about the affects on the Endangered Species Act-listed stocks of salmon and steelhead.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0076	Linda Anderson-Carnahan	8742	We believe that the DEIS does not carry forward management measures that advance this work or long-term sediment reduction. We believe that significant uncertainties in the interpretations of sediment sources in the DEIS result in understatements of the potential effectiveness of upland management activities.	For this FEIS, the Corps assumes that agencies and land owners responsible for land management in the basins that drain into the LSRP (including federal and state agencies, Tribes, and land owners) would continue to implement existing land management programs and practices related to erosion control, at current or increased levels of implementation as funding and technology allow. The Corps would continue implementing erosion and sediment control on its lands adjacent to the LSRP, but such efforts are primarily associated with habitat creation and land management and not specifically sediment control. The continued

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				<p>implementation of current or increased (as funding/technology allow) USRM is considered a baseline component of all alternatives evaluated in this EIS, including the “No action” alternative, and not being proposed as a separate/standalone measure.</p> <p>Watershed studies performed for this FEIS (Appendices B-F) indicate that at present there are no specific opportunities identified to implement USRM (at current or increased levels) that would appreciably reduce/prevent the predominant coarse sediment (i.e., sand) generated from mass wasting events from entering the rivers and interfering with existing authorized project purposes of the LSRP. The studies indicate there may be opportunities for increased USRM (e.g., road and vegetation management) that may help reduce the amount of fine sediment (i.e., silt) entering tributaries, but fine sediments are a minor problem in the LSRP as compared to sand. Additionally, the Corps has not identified a practical way to quantify or confirm the relationship/nexus between increased USRM and reduction of fine sediment that interfere with existing authorized project purposes of the LSRP (primarily recreation areas and HMU irrigation intakes).</p> <p>The Corps would continue to coordinate meetings with all applicable land use management agencies and groups through the annual LSMG meeting. The LSMG meeting would serve as an information exchange forum between the Corps and federal and state regulatory agencies, tribes, local governments, and other stakeholders. The primary purposes of the meeting would be to share data and compare trends observed by each agency, identify potential opportunities to improve each agency’s independent sediment reduction practices, and analyze trends on a watershed basis. Information gained from LSMG meetings may be used by the Corps to adapt PSMP measures. The Corps intends to explore opportunities for other regional coordination concerning sediment management in the lower Snake River basin (e.g., provision of staff expertise under the Regional Sediment Management Program), which are hosted/facilitated by other agencies or stakeholders</p>
0076	Linda Anderson-Carnahan	8744	We recommend that the preferred alternative include a measure for the Corps to establish a technical working group among agencies that have responsibilities for sediment management and water quality in the Lower Snake River. Such a group would provide a forum to coordinate monitoring programs, develop a process to share results, and collaborate to implement activities that would facilitate sediment reduction in the basin. This would also support the Corps' goal to reduce sediment in the navigation channel.	See responses to comment 8742, Letter No. 76.
0076	Linda Anderson-Carnahan	8745	The preferred alternative does not seem to prioritize collaboration and sediment reduction, but rather focuses on channel and structural measures that may be impediments to supporting more natural river processes. Both of our agencies are engaged in regional watershed management elsewhere; programs such as the Great Lakes Basin Program ³ could serve as models.	See response to Comment 8744 in Letter No. 76. The purpose of the PSMP is to maintain the LSRP by managing sediment that interferes with existing authorized purposes of the LSRP. The Corps is not proposing to manage sediment for any other purpose (e.g., water quality). The PSMP includes use of the LSMG to continue dialog concerning ongoing/current upland sediment reduction efforts (and improvements if/when possible), but the Corps' in-depth study of sediment sources/deposition in the watershed did not identify additional upland sediment reduction measures that could be implemented at this time that would have an appreciable effect on reducing sediment that interferes with existing authorized purposes of the LSRP. Therefore, consideration of an alternative that would create a regional sediment management group similar to the Great Lakes Basin Program (authorized in the 2002 and 2007 Federal Farm Bills) would serve little (if any) purpose beyond which the LSMG will serve. Section 3.2.3 of Appendix A provides describes the actions the Corps would take in response to reaching triggers. The response would differ based on the authorized project purpose and the trigger level. The Corps has prioritized the actions in some situations, but determined it was not appropriate to prioritize the actions in other situations. For those non-prioritized actions, the Corps would determine which

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0076	Linda Anderson-Carnahan	8746	<p>The DEIS does not identify the temporal scale that is covered by the programmatic evaluation or alternatives. From previous Corps presentations, we understood that the analysis would include a long-term(20+ year) planning horizon. An environmentally sustainable 4 and "systems based approach" to addressing sediment management in a long-term plan should include explorations of further reductions of sediment inputs over the identified planning horizon. The chronic sediment sources corroborated by the studies associated with this PSMP/DEIS should be addressed over a long-term basis and at a broad spatial scale. These sediment reduction measures do not appear to have been adequately considered due to the Corps' focus on specific sediment accumulation in the Lower Snake River Project. 5 This focus limited implementation to timeframes of 5 years or less, 6 and included only those measures effective over the narrower spatial scale and in the short timeframes for their "menu of potential measures." While mechanical measures such as dredging may be needed periodically throughout the lifetime of the dams of the LSRP, inclusion of long-term goals and long-term measures such as reduction of sediment inputs from land management practices may well reduce the frequency needed for dredging and other mechanical measures that alter the natural systems.8 These types of source reduction measures must be considered over the long-term and over the broad spatial scale, not within the constraints of reducing specific sediment accumulation within the LSRP in 5 years or less (the spatial and temporal constraints defined by dredging,9 the Corps's traditional sediment management measure).</p>	<p>action to take based on what the criteria of least cost, technically feasible, environmentally acceptable.</p> <p>See response to Comments 8742 and 8744 in Letter No. 76. The PSMP has no sunset date or specific planning horizon. The PSMP is a long-term plan that forms the basis of the sediment management system for the LSRP. In this regard, the PSMP is like a roadmap to inform the decision-making process of future sediment management activities. The PSMP is intended to be a long-term document, functioning as an "adaptive management plan." Adaptive management is a systematic process developed in order to continually improve management policies and practices by learning from the results of prior implemented measures or additional study. The PSMP will be reviewed periodically (at least every 5 years), and modified if necessary to better address sediment accumulation that interferes with the Corps ability to maintain the LSRP. The PSMP is not focused on 5-year solutions to addressing problem sediment, but the 5-year trigger will provide impetus to focus on identifying more permanent solutions to recurring sediment problems that interfere with the existing authorized purposes of the LSRP.</p>
0076	Linda Anderson-Carnahan	8747	<p>The DEIS discusses the development of the PSMP as part of the Corps' civil works planning authority. We understand one of the Corps' civil works' primary missions to is ecosystem restoration. This is defined by the Corps as focusing activities to restore significant ecosystem function, structure, and dynamic processes that has been degraded. However, the DEIS does not seem to carry this mission forward in the proposed management measures/action alternatives.</p>	<p>See response to Comment 8684 in Letter No. 68. Ecosystem restoration is one of the primary missions of the Corps' Civil Works program. However, the Corps carries out this mission through specific ecosystem restoration authorities, unless directed otherwise by Congress, and at the request of an interested non-Federal sponsor that must cost share the study and construction, and agree to provide all Operation and Maintenance. The Corps' responsibilities and mission of maintaining existing Civil Works water resources development projects (e.g., the LSRP) is separate and distinct from the Corps' authority to engage in cost-shared ecosystem restoration projects. The Corps does not have general authority to engage in off-project ecosystem restoration actions. Additionally, the purpose and need for the PSMP and actions implemented there under are appropriately focused on maintaining the LSRP by managing sediment that interferes with the project's existing authorized purposes. For future channel maintenance actions under the PSMP, when dredging is involved, the Corps will consider beneficial use of dredged material, in accordance with the PSMP and Corps regulations/policies. Disposal options available to the Corps for dredged materials are identified in accordance of Corps regulations (33 CFR 335-338). The "Federal Standard" for disposal of dredged material is defined as "[T]he least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process. . . ." (33 CFR 335.7). The Corps</p>

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				considers both upland and in-water disposal alternatives when dredging is proposed. For proposed in-water disposal, the disposal method is ultimately identified after evaluation of disposal alternatives under the substantive provisions of Section 404(b)(1) of the Clean Water Act (CWA), associated EPA guidelines (40 C.F.R. 230) and Corps regulations. When in-water disposal is proposed, the Corps is required to identify and utilize the lowest cost, least environmentally damaging, practicable alternative as its disposal method. The alternatives analysis in the Section 404(b)(1) evaluation is incorporated into the NEPA process and ultimately identifies the Corps proposed/preferred disposal alternative. Additionally, it is the Corps' policy to always consider beneficial use of dredged material when evaluating disposal options (Engineer Manual 1110-2-5026). Additionally, the Corps may pursue separate cost-share ecosystem restoration opportunities in the future (possibly identified through LSMG) if a cost-share sponsor is identified and in accordance with Corps authorities, regulations and policies. Such projects, however, will not be implemented as a measure under the PSMP. The underlying purpose of cost-shared ecosystem restoration projects is established by the cost-shared sponsor or Congress -- not the Corps. Therefore, inclusion of cost-shared ecosystem restoration projects, as an alternative in the PSMP-EIS, is not feasible and outside the reasonable range of alternatives required by NEPA.
0076	Linda Anderson-Carnahan	8748	The DEIS relies on adaptive management; however, the monitoring to inform adaptive management is based only on the Corps' monitoring. Raising levees or installing structures (e.g., dike fields) to alter the river's conveyance of sediment does not seem consistent with a naturally functioning river system. Furthermore, there is no prioritization of the measures. We are concerned that if the Corps selects the preferred alternative as presented in the DEIS, it would allow a project to move forward to construct in-river structures without first considering more restorative practices such as proactively managing the sources of sediment.	See response to Comments 8742 and 8747 in Letter No. 76. The PSMP (Appendix A) has been modified to improve the Plan structure and clarify how sediment management measures will be used in the future to manage sediment that interferes with existing authorized purposes of the LSRP. The Section 3.4.3 of the PSMP identifies the process the Corps will use to study and identify future forecast actions to manage sediment and includes a tier-off NEPA analysis that would consider <u>all</u> measures (alone or in combination) identified that could provide a more permanent (long-term) solution to reoccurring sediment deposition problems. The PSMP does not itself, without a tier-off NEPA analysis, authorize implementation of any measure (e.g., in-water structures). A determination on implementation of a measure(s) under the PSMP to address future forecast needs will be identified through compliance with environmental laws and technical and economic feasibility.
0076	Linda Anderson-Carnahan	8749	<ul style="list-style-type: none"> • We recommend that the final EIS include an overarching principle for regional sediment management and demonstrate how this approach would be carried forward. • We recommend that the final EIS include an approach toward increasing long-term sediment reduction measures consistent with the goal of watershed based management. • We recommend that the final EIS include a discussion of how the management measures are consistent with restoring ecosystem processes and promoting long-term sustainability. 	See responses to Comments 8742, 8744, 8745, 8746, and 8747 in Letter No. 76 . Based on the responses referenced above, the Corps is unable to incorporate the recommendations made in this comment.
0076	Linda Anderson-Carnahan	8750	The DEIS does not provide details of an adaptive management plan. Appendix A provides a thorough discussion of how a general monitoring program would be implemented. Although this section captures key steps, there are neither specific measures, nor an explanation of a decision framework for how measures would be implemented. An adaptive management plan should be formalized identifying uncertainties (e.g., over 20 percent of the source of sediment is unknown) and providing clear direction to modify decisions as additional monitoring data are obtained.	The Corps has modified the PSMP (Appendix A to the FEIS) to better identify how the Corps will use plan-level and post-project monitoring and coordination through the LSMG as an adaptive management program for updating the PSMP as appropriate to better manage sediment that interferes with existing authorized purposes of the LSRP. (Appendix A, Section 4.1).
0076	Linda Anderson-Carnahan	8751	Appendix A states that the PSMP guides only those actions taken by the Corps within the project boundaries of the LSRP and does not apply to actions taken by other organizations or	See response to Comment 8750 in Letter 76. The Corps has reviewed the analyses provided by the U.S. Forest Service, Washington State University, and the University of Idaho; and determined sediment reduction actions taken

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			agencies. For this reason the monitoring focuses on the effectiveness of Corps management activities, disregarding the potentially very important sediment information from upland sources. We note that NEPA allows for consideration of actions outside of the lead agency's authority. Effective, long-term, watershed-based sediment management requires coordinated effort among appropriate agencies. The Corps has a process to convene the Lower Snake Management Group.	within the watershed would not have a measureable effect on reducing sediment that interferes with existing authorized project purposes. Through the plan-level monitoring discussed in the PSMP (Section 3.2.1 of Appendix A), and use of the LSMG (Section 1.7 of Appendix A), the Corps will continue to monitor sediment deposition, and use such information to guide future sediment management action.
0076	Linda Anderson-Carnahan	8752	The DEIS acknowledges that dredging will likely be necessary in the future; although on a less frequent basis than past dredging when combined with other management measures. The adaptive management plan does not identify how placement and beneficial use of future dredged material would be determined.	The PSMP (Appendix A) creates a framework for future planning and decision making that would address the specific sediment management strategies beyond the proposed "current immediate need" action. The PSMP does not identify the disposal method for future site-specific sediment maintenance actions. The PSMP provides the framework that would be used to identify future sediment disposal methods, in accordance with Corps regulations (33 CFR 335-338) as the "Federal standard," which is the least cost, technically feasible and environmentally acceptable disposal method. As stated in the PSMP (Section 4) the Corps would use plan-level and post-project monitoring, as well as annual LSMG coordination meetings, to evaluate the effectiveness of disposal methods and modify the PSMP accordingly if warranted as an adaptive management approach.
0076	Linda Anderson-Carnahan	8753	The DEIS states that alternatives and measures were eliminated based on the fact that they, by themselves, would not be effective at reducing sediment accumulation. While we would agree that some measures may not be effective independently, the eliminated measures (and potentially additional ones) could be part of a system-wide approach to reduce sediment accumulation.	See response to Comment 8742 in Letter No. 76. Of the original 23 measures that were identified, only four were eliminated from further consideration. Those four were eliminated because they would not have been effective or were not technically feasible based on past implementation, were not feasible specific to the conditions of the LSRP, or did not meet the purpose and need. The measures retained could be used as stand-alone measures or in combination to effectively manage sediment that interferes with existing authorized purposes of the LSRP.
0076	Linda Anderson-Carnahan	8754	The DEIS does not include a decision framework of how management measures would be prioritized. It would appear that without a means to prioritize implementation, structural measures included in the preferred alternative could move forward as proposed projects. The structural management measures would alter the river's natural conveyance and could adversely impact salmonids by increasing habitat for predator species. The effectiveness of these measures seems speculative; impacts may outweigh the benefits. We encourage the Corps to discuss a decision framework for implementing measures that include impacts to salmonids as part of the decision matrix.	The PSMP does not prioritize measures for either immediate need or future forecast needs. The PSMP (Section 3) identifies a sequence of actions/steps for future use in identifying measures that would be implemented to address sediment interfering with existing authorized purposes of the LSRP. For future forecast need actions, the Corps would use a tier-off NEPA analysis to identify measures for implementation, after consideration of all measures identified during the PSMP/EIS process.
0076	Linda Anderson-Carnahan	8755	Emphasize continued monitoring. Although the description of action alternatives includes bulleted statements to conduct monitoring, only the No Action emphasizes the task to continue monitoring in order to better characterize sources in the watershed.	The FEIS identifies monitoring as a component of each alternative considered (Section 2.2.1 of the main report). The PSMP (Appendix A) has been updated to clarify that the Corps will use plan-level monitoring (Section 3.1), post-project monitoring, and coordination through the LSMG (Section 1.7) to monitor sediment deposition and source information. Plan-level monitoring includes navigation channel condition surveys, sediment range cross sections within the reservoirs, and recording of navigation hazard reports from commercial navigators and the recreational boating public. The Corps determined that continued coordination of the LSMG meetings may be a useful tool for exploring potential Upland Sediment Reduction Management (USRM) in the future. Through LSMG, the Corps would continue to engage other land managing agencies and groups, but would not necessarily actively participate in any monitoring actions within the watershed. If a need for additional monitoring arose and funding could be secured, the Corps would consider performing additional watershed monitoring.
0076	Linda Anderson-	8756	Include measure that emphasizes collaboration with land	See responses to Comments 8742 and 8744 in Letter No. 76.

Appendix G – Public Involvement
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	Carnahan		managers. The DEIS states that wildfire severity is expected to increase resulting in additional sediment load. This point underscores the importance of deliberately engaging in watershed management to address long term sediment reduction.	
0076	Linda Anderson-Carnahan	8757	Increased upland management was eliminated because it would not reduce sediment accumulation as a stand-alone action. We believe that increased restoration of uplands may provide benefit and could be combined with less frequent dredging while avoiding the proposal to construct in-water man-made structures.	See response to Comment 8742 in Letter No. 76.
0076	Linda Anderson-Carnahan	8758	Include a measure to create a collaborative forum of land managers to promote strategic restoration opportunities. While limited agency resources may impact the ability to increase upland management, using current resources to more deliberately direct and help prioritize/inform efforts could be an effective measure to include in the preferred alternative.	See responses to Comments 8742 and 8744 in Letter 76.
0076	Linda Anderson-Carnahan	8759	Alternative 7 assumes all measures are available to implement (except those under Alternative 1 and 2). It appears that this would allow the Corps to move forward with structural measures without first prioritizing monitoring, additional source characterization, or collaboration of management activities. Because of this lack of prioritization, Alternative 7 could result in unnecessary degradation of river's natural flow above the Lower Granite Dam.	See response to Comment 8754 in Letter No. 76. The Corps could implement a structural measure in the future. However, any such measure would require a tier-off NEPA analysis. Depending on the potential effects of the measure, this analysis could be required to go through public and agency review prior to implementation.
0076	Linda Anderson-Carnahan	8760	Most of the alternatives were eliminated from further evaluation because they did not meet the purpose and need; however Alternative 7 includes these measures. It is unclear if the intent is to implement all of the measures under Alternative 7 since they would not be effective on their own or implement each independently or implement them in combination with only one or two other measures. This seems unlikely and therefore we are unsure how Alternative 7 would be effective. Please clarify in the final EIS.	See response to Comment 8754 in Letter No. 76. The PSMP (Appendix A) has been updated to clarify the process used to identify measures to be implemented in the future to address sediment interfering with existing authorized project purposes of the LSRP.
0076	Linda Anderson-Carnahan	8761	More discussion is needed on current management activities. The action alternatives include a measure to continue current upland management with a bulleted list of the relevant agencies. The Corps's upland management is identified; however, there is no discussion about these current management activities or those of other agencies. Therefore, it is not clear how this measure (current activities) would meet the purpose and need. Also, it is not clear how this measure would meet the purpose and need, while the alternative that increases upland management would not.	See response to Comments 8742 and 8744 in Letter No. 76. Other agency management of erosion and sediment is discussed in Section 1.5, Section 2.2.4, and Table 2-1 of the FEIS main report, Section 1.6 and Table 2-3 of the PSMP (Appendix A), and Appendix B .
0076	Linda Anderson-Carnahan	8762	We believe that structural management measures should be a last resort. These measures will require maintenance in perpetuity, have in-river effects in perpetuity, and do not seem to be consistent with Corps' sustainable practices as outlined in the PSMP as "Environmental Operating Principles."	See response to Comment 8754 in Letter No. 76.
0076	Linda Anderson-	8763	We recommend including a table in the EIS similar to EPA's	The Corps has added a table to Section 2.2.5 of the FEIS indicating which measures are

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	Carnahan		Table I to clarify measures carried forward in the action alternatives	applicable to each of the seven alternatives. The descriptions of the alternatives in Section 2.2.5 include a list of the measures applicable to each alternative
0076	Linda Anderson-Carnahan	8764	<ul style="list-style-type: none"> • We recommend that the final EIS include additional information on the decision framework for prioritizing measures and further consider the impacts to ESA listed species. • We recommend that the preferred alternative include a measure that emphasizes monitoring to continue source characterization and resolve unknowns. • We recommend that the preferred alternative be modified to include a commitment to collaborate with relevant stakeholders. We recommend including more detail on how continued collaboration would occur and who would be involved in developing an agreement for continued coordination of sediment management on a watershed scale. This will aid in the understanding of how decisions will be made for implementing actions/sediment measures and how efforts will be combined and prioritized in the watershed. 	See responses to Comment 8754, 8755, 8742, 8744, 8763 in Letter No. 76.
0076	Linda Anderson-Carnahan	8765	Since sediment reaching the confluence of the Snake and Clearwater Rivers are influenced by upstream processes, we believe the preferred alternative in the DEIS should include a watershed sediment management and monitoring component.	See response to Comment 8742 in Letter No. 76.
0076	Linda Anderson-Carnahan	8766	The mass balance presented in the DEIS does not identify the source(s) of between 21% and 33% of the sediment load that reaches the Lower Granite Reservoir. 2 This 'unknown' sediment load adds a level of uncertainty to the watershed analysis presented in the DEIS. Accordingly, based on the uncertainty associated with the 'unknown' component of the mass balance it would be prudent to continue monitoring watershed sediment processes in order to determine the source of this 'unknown' sediment, with a goal of developing watershed sediment management of the 'unknown' sediment source(s) along with the 'known' sediment sources.	See response to Comment 8755 in Letter No. 76. The Corps is not proposing to continue sediment transport monitoring/measurements used in developing the PSMP EIS, as the Corps does not believe such monitoring is likely to result in information useful to the Corps' future sediment management actions.
0076	Linda Anderson-Carnahan	8767	The DEIS does not include bedload as a source of sediment accumulation in the Lower Granite Reservoir. It is possible that a portion of the 'unknown' component of the mass balance could be the resuspension of bedload.	See response to Comment 8766 in Letter No. 76. Both bedload and suspended sediment loads have been measured at two United States Geological Survey's (USGS) stream gage sites upstream of Lower Granite Reservoir, these being the Snake River near Anatone, Washington (USGS #13334300); and the Clearwater River at Spalding, Idaho (USGS #13342500). USGS Open File Report 80-690, titled 'Sediment Transport in the Snake and Clearwater Rivers in the Vicinity of Lewiston, Idaho,' (included in Appendix N) presents the technical information gathered at these locations from 1972 through 1979. Similar sediment transport data was recently gathered by the USGS at these and additional locations, and documented in their Scientific Investigations Report 2013-5083, titled 'Sediment Transport in the Lower Snake and Clearwater River Basins, Idaho and Washington, 2008-11 (also included in Appendix N).' 'Suspended load' is defined as 'material carried in suspension within the main body of streamflow.' 'Bed load' is defined as 'material moving on or near the streambed.' The 'total load' is made up of 'bed load' and the 'suspended load.' Present flow conditions largely determine whether a given particle of sediment is currently being transported as 'suspended load' or as 'bed load.' During a low flow velocity condition, a given sediment particle may be capable of being moved only as 'bedload' near the streambed, but at a high flow velocity condition the same sediment particle may be easily moved as 'suspended load' carried within the water column itself. Lower Granite Sediment Studies have

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0076	Linda Anderson-Carnahan	8768	We would note that the implementation time frame used in the DEIS, currently restricted to 5 years or less, seems short to effectively evaluate and address the impacts of current and expected future fire induced mass-wasting sediment loading events. In addition, the DEIS implies that sediment loading from fires has no anthropogenic component because fire is a natural process and therefore, there was no need for additional monitoring or management of these sediment loads. We believe the DEIS does not adequately consider the contribution of anthropogenic activities and conditions (e.g., roads and culverts) to the creation of 'mass-wasting' events	considered 'total load' conditions; and have thus taken into account both 'suspended load' and 'bed load' sediment transport modes. The sediment range measurements taken within Lower Granite Reservoir provide the best source of overall sediment mass changes within the Reservoir. See responses to Comment 8742, 8746 and 8755 in Letter No. 76. The five year timeframe for evaluating future forecast needs used in the PSMP is not a timeframe for evaluating fire induced mass-wasting sediment loading events or monitoring of sediment from any source. The five year trigger for study of long-term sediment management measures is focused on actual or anticipated deposition of sediment in the Lower Snake River at reoccurring intervals that interferes with existing authorized project purposes of the LSRP. The proposed plan-level monitoring and coordination through the LSMG would be used to evaluate the effects of future fire-induced mass-wasting. The FEIS is not intending to imply there is no anthropogenic component associated with sediment loading from fire. The Corps has added a new Section 4.10 that addresses the effects of climate change and the role of anthropogenic activities. However, the conclusion from the Forest Service report in Appendix C is that the role of roads in contributing sediment to the LSRP is greatly overshadowed by the contribution from landslides.
0076	Linda Anderson-Carnahan	8769	Potential sediment loading from ephemeral gullies on agriculture lands were not addressed during the watershed analysis for agricultural lands... It is possible that a small fraction of these gullies will produce sediment that is routed through the system, which may, in turn, influence the sediment budget at the confluence of the Snake and Clearwater Rivers.	See Section 1.6.2.3 of the FEIS which confirms that the study area draining into the Lower Snake River below Lower Granite reservoir is dominated by cultivated agriculture and that sediment resulting from agricultural practices involves primarily fine-grained sediment (i.e. silt) with very little sand. Although it is true that ephemeral gullies produce sediment that eventually reaches the LSR system, these sediments are not contributing measurably to problem sediment accumulations that interfere with existing authorized purposes. Due to the location of agricultural lands within the LSR contributing watershed, these sediments generally enter in areas downstream of Lower Granite which do not experience significant sediment accumulation.
0076	Linda Anderson-Carnahan	8770	The issue of sediment production resulting from grazing activities was not addressed in the DEIS. Because a fairly large portion of the Snake and Clearwater River basins include grazing activities, it is problematic that the potential effect of grazing activities on sediment production were not addressed in the DEIS.	See response to Comment 8355 in Letter No. 3.
0076	Linda Anderson-Carnahan	8771	The programmatic EIS includes a project specific proposed action to dredge in 2013/2014 to address the immediate need to maintain the federal navigation channel and adjacent berths. This inclusion seems inconsistent with a programmatic approach. Based on CEQ 17 guidance, a programmatic EIS can be used for broad federal actions. The NEPA Book 18 refers to programmatic analyses as a "strategic environment assessment" and distinguishes between programmatic EISs and project specific EISs. It states that agencies focus on different factors when preparing each. Programmatic EISs do not typically evaluate defined facilities or specific sites. The DEIS states specifically that the PSMP "does not prescribe project-specific solutions" Therefore, we are unclear how the project specific proposal informs the decision considered in this PSMP.	The Corps acknowledges that a programmatic EIS most commonly focuses on evaluation of broad Federal actions (e.g., the adoption of new agency programs or regulations). The EIS for the PSMP, however, is appropriately focused on both a programmatic, long-term, plan for managing sediment that interferes with existing authorized purposes of the LSRP, as well as an immediate need action consistent with the Plan to reestablish the congressionally-authorized navigation channel. CEQ regulations clearly identify several different Federal actions that require NEPA review, including, "Adoption of formal plans . . . Adoption of programs. . . [and] Approval of specific projects. . ." (40 CFR § 1508.18). 40 CFR § 1502.4 states: "(a) . . . Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement. (b) Environmental impact statements may be prepared, and are sometimes required, for broad Federal actions such as the adoption of new agency programs or regulations (§ 1508.18). Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decision making." When determining the scope of an EIS, a Federal agency must consider "Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement." (40 CFR § 1508.25). The evaluation of multiple, connected, Federal actions

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				<p>in the same EIS is not prohibited, as doing so facilitates informed decision-making by the agency and meaningful comment by the public on the proposed action(s), alternatives, and potential environmental effects. Both the PSMP and immediate need actions have been modified based on public comments received.</p> <p>The Corps did not originally initiate the PSMP/EIS process with an immediate need action identified as part of the purpose and need or proposed action. The Corps entered the EIS scoping and evaluation process with no preconceived notions about reasonable/viable alternatives for managing sediment that interferes with existing authorized purposes of the LSRP. That position is supported by the years of in-depth sediment source/deposition studies conducted by the Corps and other entities (Appendices C-E). It was not until the EIS process had developed to the “preferred alternative” stage that the Corps determined only one (1) measure could reestablish the navigation channel once sediment had accumulated to the point of interfering with navigation, and that is dredging. At that point, the (connected) immediate need action (consistent with the PSMP) was added to the proposed action in the EIS for efficiency purposes.</p> <p>Inclusion of the immediate need action in the EIS to reestablish the navigation channel to congressionally-authorized dimensions is similar to tiering under NEPA regulations. The EIS clearly states the immediate need action must be consistent with the PSMP. The EIS, therefore, first evaluates potential measures for maintaining the LSRP by managing sediment that interferes with all existing authorized purposes of the LSRP (i.e., the PSMP), without regard to the immediate need action. The EIS then evaluates (from a programmatic level) the potential environmental effects associated with the PSMP and then (tiering down) the specific environmental effects of the proposed immediate need action, which are similar for both potential future dredging actions and the immediate need action.</p> <p>CEQ guidance on efficiencies in NEPA (Improving the Process for Preparing Efficient and Timely Environmental Reviews under NEPA (March 6, 2012) and Modernizing NEPA Implementation, CEQ Task Force (2002-2004)) appear to support the Corps’ approach to this EIS. The guidance highlights and clarifies opportunities; and encourages efficient, thorough environmental reviews and quicker and better informed Federal decisions. Modernizing NEPA Implementation, CEQ Task Force (2002-2004), Chapter 3 (Programmatic Analyses and Tiering), states, “Programmatic NEPA analyzes and tiering can reduce or eliminate redundant and duplicative analyses and effectively address cumulative effects.” The Corps’ approach is also consistent with CEQ regulations that direct other efficiencies, including elimination of duplication with State and local procedures (§ 1506.2), adoption of documents (§ 1506.3), and combining project reports and NEPA documents (§ 1506.4).</p>
0076	Linda Anderson-Carnahan	8772	<p>The DEIS does not fully analyze the effects of in-water disposal or appear compliant with the 404(b)(1) Guidelines. The EPA often supports in-water disposal of dredged material; however, the EIS should more rigorously document that in-water disposal for the immediate maintenance action complies with the Guidelines. Based on the available information, we do not believe the proposed action has been clearly demonstrated to be the least environmentally damaging practicable alternative.</p>	<p>The Corps has revised the alternatives analysis in Appendix L, the Clean Water Act Section 404(b)(1) evaluation for the proposed current immediate need action, to address comments received from EPA through the DEIS and Clean Water Act Public Notice comment periods. Additionally, information regarding the effects of the 2005/2006 in-water disposal on water quality was included in the revised 404(b)(1) evaluation. The Corps has discussed the 404(b)(1) analysis with EPA and has documented the anticipated impacts of the proposed action per 40 CFR part 230. This includes an analysis of impacts to aquatic resources, including wetlands and special aquatic sites, as well as other significant resources in the project area. Through the analysis, the Corps recommends moving forward with placement of the dredged material at Knoxway Canyon RM116 to create shallow water habitat as the preferred disposal alternative for the proposed current immediate need action. This disposal alternative represents the lowest cost, least environmentally damaging, practicable alternative, when considering environmental effects, implementation costs, project logistics, and project purpose and need. Alternatives utilizing upland sediment disposal areas are not practicable for primarily cost and logistical reasons. Both in-water disposal alternatives are practicable and</p>

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				<p>the environmental effects are similar. However, ESA-listed fish are less likely to be present during disposal actions at the Knoxway Canyon site and the proposed disposal at this site would provide greater benefit to the aquatic environment (it would help re-establish shallow water sand bar habitat important to ESA-listed fall Chinook salmon and would benefit benthic organisms). Additionally, disposal options available to the Corps for dredged materials are identified in accordance of Corps regulations (33 CFR 335-338). The “Federal Standard” for disposal of dredged material is defined as “[T]he least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process. . . .” (33 CFR 335.7). The Corps considers both upland and in-water disposal alternatives when dredging is proposed. For proposed in-water disposal, the disposal method is ultimately identified after evaluation of disposal alternatives under the substantive provisions of Section 404(b)(1) of the Clean Water Act (CWA), associated EPA guidelines (40 C.F.R. 230) and Corps regulations. When in-water disposal is proposed, the Corps is required to identify and utilize the lowest cost, least environmentally damaging, practicable alternative as its disposal method. The alternatives analysis in the Section 404(b)(1) evaluation is incorporated into the NEPA process and ultimately identifies the Corps proposed/preferred disposal alternative. Additionally, it is the Corps’ policy to always consider beneficial use of dredged material when evaluating disposal options (Engineer Manual 1110-2-5026).</p>
0076	Linda Anderson-Carnahan	8773	<ul style="list-style-type: none"> • We recommend that the final EIS address the alternatives analysis for future disposal of dredged material, both in-water and in appropriate and available upland areas. • We recommend that a full suite of disposal alternatives that could support beneficial use (e.g., uplands, in-water, and combination thereof, at individual or multiple sites) be evaluated for practicability. • We recommend that the final EIS clearly demonstrate the need to create shallow water habitat for juvenile salmonids at the Knoxway Canyon site, should in-water disposal be the only practicable alternative. • We recommend that the final EIS clearly demonstrate selection of the Least Environmentally Damaging Practicable Alternative. 	<p>See response to Comment 8772 in Letter 76. As described in Section 1 of the EIS, the PSMP EIS is intended to be a programmatic EIS, which identifies and describes alternatives and potential effects in broad terms. Future actions will require project-specific environmental reviews, including preparation of National Environmental Policy Act (NEPA) documents (Environmental Assessment [EA], EIS, or supplemental EIS) tiered off of this programmatic FEIS, which will evaluate potential environmental effects in further detail . Section 4 of the FEIS (Environmental Effects of Alternatives) is structured to first evaluate the potential environmental effects (in as specific detail as possible from a programmatic standpoint) associated with implementation of PSMP measures in the future for managing problem sediment and then narrowed to address project-specific potential effects for the current immediate need action to reestablish the navigation channel to congressionally authorized dimensions. The FEIS does this for the three (3) alternatives carried forward for detailed analysis -- Alternative 1 (No Action), Alternative 5 ((Dredging Based Sediment Management), and Alternative 7 (Comprehensive - Full System and Sediment Management). Potential effects associated with future need actions involving disposal of dredged material (if warranted after study/NEPA) are discussed in Section 4, as are site-specific potential effects of the current immediate need action reestablish the navigation channel. The potential effects associated with disposal methods are evaluated primarily in Section 4 under Alternative 5, but carried forward by reference in the analysis of effects under Alternatives 7, as the effects are similar/the same. The choice of disposal methods in the future (upland or in-water) will be identified through the follow-on study and tiered NEPA analysis and Corps regulations requiring the identification of the least cost, technically acceptable, environmentally acceptable disposal method. Such analysis could involve analysis of combinations of disposal methods (upland and in-water). The Clean Water Act Section 404(b)(1) evaluation for the current immediate need (Appendix L) demonstrates the aquatic environment benefit of creating shallow water habitat in Lower Granite reservoir for juvenile salmonids at the Knoxway Canyon site. The evaluation also shows this disposal alternative meets the requirements of the Section 404(b)(1) guidelines. The Biological Assessment (BA) for the current immediate need action to reestablish the navigation channel (Appendix K) concludes that the action will likely have adverse effects on numerous ESA listed salmonids. The creation of shallow water habitat has been included in</p>

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0076	Linda Anderson-Carnahan	8774	Along with our responsibility under CWA Section 404, we also review and comment on the suitability of sediment for in-water disposal/placement. The DEIS does not provide sufficient information to determine the suitability of immediate need dredged material prism for in-water placement. We reviewed the DEIS and appendices for information provided to date that might support sediment quality statements throughout the DEIS and supporting documents. From our review we have identified a lack of information (i.e. an adequate final sediment characterization report) to determine the suitability of sediment for in-water disposal/placement.	the BA as a conservation measure to offset the potential adverse effects. Accordingly, this conservation measure has been incorporated into the current immediate need action to reestablish the navigation channel . The Clean Water Act Section 404(b)(1) evaluation for the proposed current immediate need action (Appendix L) has been revised to incorporate Appendix H and provide information from the additional sediment sampling and analysis performed in 2013 for the current immediate need action. Appendix I has been revised to include the data report from the 2013 sediment sampling and analysis, and the suitability determinations from the Dredged Material Management Office.
0076	Linda Anderson-Carnahan	8775	We have had informal discussions with the Seattle and Walla Walla Districts and have been anticipating a revised draft sediment report. In its absence, the DEIS lacks supporting documentation related to the suitability of the material for the proposed placement project. Conclusions about the suitability of material for in-water placement/beneficial use are not supported by the draft September 2012 report provided in Appendix I. In order to conduct our review, we require a sediment characterization report clearly documenting the Corps' fieldwork and reasoning in August 2011 with an analysis that includes comparisons of all data to appropriate, agreed to screening values. This is necessary before the Corps can finalize environmental documentation for this project, and before agencies can provide informed comments about the project. Furthermore, the EIS, appendices and Biological Assessment inaccurately conclude that all proposed dredged material has been found suitable for unconfined, open-water disposal and for use in the proposed fish habitat.	See response to Comments 8774 and 8777 in Letter No. 76.
0076	Linda Anderson-Carnahan	8776	The DEIS does not include the most recent water quality results from the 2006 Water Quality Monitoring Report, which provides real-time results applicable to active dredging activities as well as placement and regarding activities at the previous placement site, adjacent to the current proposed placement site. For example, section 4.6.2.1 of the EIS states that the "turbidity levels would be expected to meet state water quality standards 300 feet downstream from dredging and placement actions ... ". The Corps' 2006 water quality monitoring report ²⁰ states that during the 851 hours of dredging in the reach near Port of Clarkston, the project was in compliance only 64% of the time with an average turbidity of 5.84 NTU over background (at a deep station 300+ feet downstream). While it may be decided that the short-term turbidity effects are reasonable and unavoidable in order to accomplish the final shaping/dressing of the benches, these effects should be anticipated and actual results should be clearly summarized and discussed in the water quality sections of the EIS and all appendices, including the	The FEIS was updated with information regarding the effects of the 2005/2006 dredging on water quality. The Section 404(b)(1) Evaluation for the proposed immediate need dredging action (Appendix L) has been revised to include this information from the 2005/2006 dredging and disposal action. Section 4.6 of the FEIS has also been revised.

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0076	Linda Anderson-Carnahan	8777	Biological Assessment and 404(b)(1) analysis. We recommend that the EIS include adequate detail to determine whether or not the sediment is acceptable for in-water disposal. Without review of this information, the EPA does not support this action.	See response to Comment 8774 in Letter No. 76. Section 3.6.2 of the FEIS was revised to include the results of the 2013 sediment sampling and testing. The Corps received a determination on February 18, 2014 from the Dredged Material Management Office that the sediment for the proposed current immediate need maintenance action was suitable for unconfined in-water placement.
0076	Linda Anderson-Carnahan	8778(f)	DEIS Sec. 4.6.2.1 Page 4-36. Statements that information in Appendix I and the 20 11 sediment sampling results indicate that materials from the proposed dredging meet criteria for open-water disposal are premature given the lack of a complete sediment characterization report.	See response to Comments 8774 and 8777 in Letter No. 76.
0076	Linda Anderson-Carnahan	8778(e)	DEIS Page 3-54. This entire paragraph is not supported by any report and should be removed pending receipt of a final characterization report. The EPA disagrees with the statement that, "Based on the results from the study, the sediment at the Port of Clarkston, Port of Lewiston and the navigation channel in the confluence area meet the chemical and physical criteria for open and unconfined in-water placement." The existing data are not packaged in such a way (e.g. a complete report) that this can be determined for the most recent (2011) dataset that best represents the proposed dredging prism (with the exception of the Port of Clarkston crane dock).	See response to Comments 8774 and 8777 in Letter No. 76.
0076	Linda Anderson-Carnahan	8778(g)	DEIS Sec. 4.6.2.2 Page 4-36. Immediate Action. As discussed previously, there is no sediment report is available to support statements about suitability of material for placement. Again, the DEIS should reference water quality monitoring results for each phase of the proposed actions.	See response to Comments 8774 and 8777 in Letter No. 76.
0076	Linda Anderson-Carnahan	8778(m)	Appendix H, Page 6. This page, including grain size information, must be updated and reference the final approved sediment characterization report from Walla Walla District (when available), along with the Port of Clarkston's most recent crane dock sediment data report. Does Port of Lewiston have adequate sediment characterization of their berth like Port of Clarkston Crane Dock does the Corps data cover this area? Does the Port of Clarkston's upstream berth area have adequate sediment characterization does the Corps data cover this area? Consistent grain size statements are needed throughout the documents.	See response to Comments 8774 and 8777 in Letter No. 76. Appendix H has been incorporated into Appendix L, the Section 404(b)(1) Evaluation for the proposed current immediate need maintenance action. Information in Section 2.1.1 of Appendix L has been updated to reflect the most recent data results. Final sediment characterizations for the Port of Clarkston, Port of Lewiston, and the Federal navigation channel have been included in Appendix I. The FEIS documents have been revised to provide consistent grain-size statements.
0076	Linda Anderson-Carnahan	8778(d)	DEIS Sec. 4.1 Page 4-1. Plankton and Benthic Community discussions. All alternatives about effects on plankton and benthic community should mention the quality of the dredged material. Potential chemical contaminants -and the fact that testing and a suitability determination documents whether sufficient information exists to support these analyses and whether these resources are protected -are not mentioned anywhere in these alternatives evaluations. Sufficient evaluation	See response to Comment 8778b in Letter No. 76. A suitability determination of the sediments was included in Appendix I of the FEIS. Alternative 1, No Action (Continue Current Practices) does not include any dredging action, so there is no need to mention the quality of dredged material in Section 4.1.1. For future actions, the Corps would perform any required sediment sampling and analysis and obtain a suitability determination for in-water disposal from the appropriate Sediment

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			of material, as could be documented in a suitability determination, is central to no and minor short-term effects calls in the document.	Evaluation Framework offices. If the sediment sampling and analysis results showed the sediments had unacceptable concentrations of chemicals of concern that would preclude using unconfined in-water disposal, the Corps would either not dredge the area, or would pursue an alternate acceptable disposal method. Section 2.2.4.1, Dredging and Dredged Material Management, has been revised to include this information.
0076	Linda Anderson-Carnahan	8778(c)	The 2011 sampling report referenced in Appendix I is incomplete. The DMMP agencies provided initial comments in October and are awaiting an updated report. Without it, any comments about appropriateness of the current dredged material prism for in-water placement are not supported. The analysis should discuss the standards were used for comparison of results. Have regional sediment evaluation programs evaluated the results? If so, where are these evaluations? And if not, please explain.	See response to Comment 8778b in Letter No. 76. The sampling report in Appendix I has been replaced with a revised version that includes comparisons to DMMP guidelines. The DMMP agencies have reviewed the results of the additional sediment sampling.
0076	Linda Anderson-Carnahan	8778(ao)	Appendix K, Sec. 3.8, Page 31, First Bullet. How will the Corps "encourage" other Federal agencies to reduce sedimentation? What activities will occur? We recommend a more concrete plan for coordination and sharing of information here.	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. See response to Comment 8742 and 8744 in Letter No. 76.
0076	Linda Anderson-Carnahan	8778(ap)	Appendix K, Sec. 3.8.2, Page 32. It is incorrect to say that no contaminants in excess of regulatory thresholds have been found ... we are awaiting the sediment characterization report. There are upland disposal options identified, if needed. Although they may be expensive, they also could be available.	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. See response to Comment 8774 in Letter No. 76. At the time the Biological Assessment for the proposed current immediate need maintenance action was prepared, the best available data showed no contaminated sediments in areas to be dredged. The Corps has kept the Services informed of the results of the sediment sampling and bioassay testing performed in 2013 for the current immediate need action . The Corps provided the Services with a copy of the February 18, 2014 suitability determination for unconfined in-water disposal of the subject sediment.
0076	Linda Anderson-Carnahan	8778(ak)	Appendix K, Page 28. Again, how were exceedances addressed?	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. See response to Comment 8776, 8778ad, and 8778aj in Letter No. 76. The protocol for addressing exceedances is described in Appendix J, Section 4.2.1. This information has been provided to the Services.
0076	Linda Anderson-Carnahan	8778(al)	Appendix K, Page 28. Figure 11 should have distances marked.	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. See response to Comment 8778aa in Letter No. 76. Figure 11 is only a conceptual graphical representation. The final monitoring plan distances were not available at the time the Biological Assessment in Appendix K was prepared. Specific distances were identified in consultation with Washington Department of Ecology, NMFS, and USFWS (the Services).
0076	Linda Anderson-Carnahan	8778(aq)	Appendix K, Page 76. Background/Baseline Turbidity section. Provide a reference for the background turbidity information and where/when it was obtained. It is useful to know that the average background turbidity level during the 2005/2006 dredging was less than 5 NTUs. Provide a citation to the report. Washington does not have a 25 NTU background action limit.	The reference for the turbidity monitoring is: Dixon Marine Services, Inc, 2006. Water Quality Final Report, FY06, Lower Snake River Dredging Project, Snake and Clearwater Rivers, Report Submitted to USACE, Walla Walla District, Contract # W912EF-06-C-0001. The reference to the 25 NTU background action limit is erroneous and should not have been made.
0076	Linda Anderson-Carnahan	8778(as)	Appendix K, Page 80. This section needs to be rewritten once a final sediment characterization report is available.	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process.

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0076	Linda Anderson-Carnahan	8778(au)	Appendix K, Sec. 6.4.4, Page 91. Chemical Contamination. No reference is available at this point to support or refute the contention here that. ... "Only a very small number of samples contained contaminants higher than Washington and Idaho regulatory criteria." What criteria? Ultimately, when the report is available, this section should be updated.	See response to Comments 8778arand 8778ap in Letter No. 76. Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. See response to Comment 8778at and 8778ap in Letter No. 76.
0076	Linda Anderson-Carnahan	8778(av)	Appendix K, Sec. 6.5.1.1, Pages 92-93. Spawning and juvenile rearing areas. Water Quality. Table 17 and the earlier narrative do not make it clear that standards were only exceeded by a small amount for short periods. See comment. Also, Table 17 does not include a value of 15 NTU. Good to see some narrative that describes the types of activities that were causing the turbidity (scow bottom dumping) and those levels dropped between scow dumping events. Can this kind of detail be provided for areas that exceeded during dredging? Again, a sediment characterization report must confirm the contention that low levels of contaminants were found in a small number of samples.	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. See response to Comment 8778at in Letter No. 76. Table 17 contains an average value of 9.63 NTU over background. This value added to the background criteria of 5 NTU equals just less than 15 NTU. The turbidity criteria were exceeded for 543 hours during 2,697 total hours of dredging/disposal (20.13% of the time).
0076	Linda Anderson-Carnahan	8778(aj)	Appendix K, Page 27. Either in this section or elsewhere in the BA, there should be a clear discussion of turbidity exceedances that occurred during the 2006 dredging/ placement project, including how many, where, during what activities, and for how long?	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. See response to Comments 8776 and 8778ad, Letter No. 76. A more detailed analysis of the 2005/2006 turbidity data was added to Section 4.6.2.2 of the FEIS main report. Page 90 of Appendix K (Table 17) provides a summary of the turbidity exceedance data for the 2005/2006 dredging and disposal effort.
0076	Linda Anderson-Carnahan	8778(an)	Appendix K, Page 29. Why does it only mention one post-placement monitoring event for stability, when more are mentioned in other documents?	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. This detail was not completely determined at the time the Biological Assessment for the current immediate need maintenance action was written. See response to Comment 8778ah in Letter No. 76. Based on prior monitoring of disposal in 2005/2006, the material hasn't moved. More than one sampling will not affect ESA species. See Appendix J, Section 3.3.1 where one monitoring even is planned with an additional one the following year if funding is available.
0076	Linda Anderson-Carnahan	8778(u)	Appendix H, Page 19. All dredging will be mechanical e.g. clamshell. It should be made clear that the initial placement of Ice Harbor and then other materials would be by bottom dump barge. It is then stated that the final material lifts will be removed from the barge and placed via hydraulic or mechanical methods, once bottom dump barges can no longer access the shallow area. How was the other bench constructed? How would hydraulic pump out really be used to do the final placement and reshaping of the surface of the bench to meet depth and slope requirements? Slurry would cause turbidity effects downstream potentially more than happened in 2005-2006. How will the 10 ft. depth of sand be confirmed? Has the dredging prism been characterized well enough to define the grain sizes and ensure sequential placement? Reference the final sediment characterization report when it is available. Where will the sand	Appendix H has been incorporated into Appendix L. Section 2.1.2 of Appendix L describes the dredging methods and equipment. Any references to using hydraulic pumping for off-loading the barges have been removed as this method would not be used. See response to Comment 8778(s), Letter No. 76. The grain size of the sediment has been characterized well enough to determine all of the material, except for the rock/cobbles from the Ice Harbor site, meets the criteria for sand (See Appendix I) . The revised sediment evaluation report and the results of the 2013 additional sediment sampling have been added to Appendix I. Section 2.3.2.1 of Appendix L describes the sediment placement sequence that would be used at the Knoxway Canyon in-water disposal site. This sequence has been modified from the one described in Appendix H. The Corps now intends to place the rock first, followed by the material from the Snake River at Clarkston. The material from the Clearwater River at Lewiston would be placed last as it has the least amount of silt. The Corps has not determined the volume needed for the final lift as

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			for the top of the bench be dredged, and how much volume is needed for the final 10 foot lift of sand?	all of the material (except for the rock/cobble that would be placed first and covered with sand) would be sand.
0076	Linda Anderson-Carnahan	8778(v)	Appendix H, Page 20. How often is "periodically" when defining frequency of hydrographic surveys post-placement? How has the 2005/2006 bench performed/changed in terms of stability in the years post-placement? Was the top of the bench dressed with sand, and has the sand remained?	<p>Appendix H has been incorporated into Appendix L. The text of appendix L and J have been revised to indicate the Corps would perform follow up surveys after the first spring runoff following disposal. The Corps proposes to replicate the surveys one year later if funding is available.</p> <p>See response to Comment 8778(s) in Letter No. 76. The text of Section 2 of the FEIS main report and Appendix L has been revised to include a discussion of the construction and stability of past shallow water disposal actions.</p> <p>The Knoxway Canyon site is in an area of low velocity water. The 2005/2006 bench has remained stable since it was created and the sand placed on the tops of the bench has remained in place.</p>
0076	Linda Anderson-Carnahan	8778(n)	Appendix H, Page 10. Please explain how the contractor will "overspill excess water from the barge" 2 feet below the river surface.	Appendix H has been incorporated into Appendix L, the Clean Water Act Section 404(b)(1) evaluation. Dredged material contains a lot of water, even when removed using a clamshell bucket instead of a hydraulic dredge. When the dredged material is placed in the barge for disposal, a considerable portion of the volume in the barge is occupied by water which decreased the amount of dredged material that can be placed in the barge. To maximize the amount of dredged material transported to the disposal site and avoid transporting large amounts of water, the dredging contractor is allowed to collect the water from inside the barge and discharge it back into the river while the barge is being loaded with dredged material. The contractor discharges this water via a discharge pipe. The reference to discharging 2 feet below the river surface has been deleted.
0076	Linda Anderson-Carnahan	8778(t)	Appendix H, Page 17, Figure 10. Please include labels that show depths of the margins and acres for each area, not just the shallow water area.	Appendix H has been incorporated into Appendix L. Figure 10 from Appendix H has been revised and is now Figure 2-12 in Appendix L. Additional information regarding dimensions has been added to the figure. Figure 2-13 in Appendix L is a cross-section of the proposed disposal and also provides depth information.
0076	Linda Anderson-Carnahan	8778(o)	Appendix H, Sec. 4.1.1 Page 11. Joso disposal site. While Joso is not a preferred disposal site, it could hold some dredged material at some point, or might be a worthwhile restoration site. The Joso discussion needs a few more details including an estimate on the volume and footprint of dredging that would be required to have access to the disposal site, and why an 80 acre retention pond would have to be constructed? If cranes are offloading sandy dredged material, it doesn't seem like there would be much required dewatering? How much capacity is at the Joso site?	Appendix H has been incorporated into Appendix L. In response to comments received on the DEIS and the Public Notice for the proposed current immediate need action, the Corps revised the analysis of alternative disposal sites for the current immediate need action. Section 2.3 of Appendix L presents this revised analysis. A revised description of upland disposal at Joso is in Section 2.3.2.3 of Appendix L.
0076	Linda Anderson-Carnahan	8778(q)	Appendix H, Sec. 4.2, Page 12. States that if funding or other issues meant the habitat option could not be pursued, open-water disposal might be pursued ... identifying a site that "would not impact the navigation channel or other project purposes or have an unacceptable impact on environmental resources"... ? If this option were pursued this section would require much more detail including a clear description of how a site would be selected, a description of depths considered shallow, mid-depth and deep, and a description of how this site would be monitored in the short and long-term. In addition, explain how habitat is created at depth for species that prey on salmonids.	See the response to Comment 8778(o) in Letter No. 76. As stated in Section 2.5 of Appendix L, the Corps has selected "In-water placement to create habitat at Knoxway Canyon, RM 116" as the preferred disposal alternative for the current immediate need action.
0076	Linda Anderson-	8778(r)	Appendix H, Sec. 4.3, Page 13. Resource agencies like the	Appendix H has been incorporated into Appendix L. The FEIS and Appendix L have been

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	Carnahan		Services will have to ensure that the in-river disposal being proposed continues to have their "qualified support" in terms of benefits to salmonids. Page 14 again mentions habitat will be created "subject to availability of funds". Is it possible dredging will occur, but the habitat option will not be pursued because of funding?	revised to indicate National Marine Fisheries Service supports the use of dredged material to create shallow-water habitat, because biological monitoring has shown this to be an effective method. The proposed current immediate need action includes shallow water habitat development as a beneficial use of the dredged material.
0076	Linda Anderson-Carnahan	8778(p)	Appendix H, Sec. 4.1.2, Page 12. Port of Wilma. Similar to Joso. This option may not hold all the material, but could be an upland option for some of the dredged material if needed.	See response to Comment 8778(o) in Letter No. 76. Section 2.3 of Appendix L now acknowledges that multiple sites could be used for disposal. Section 2.4 of Appendix L presents the results of the alternative disposal site screening.
0076	Linda Anderson-Carnahan	8778(ah)	Appendix J, Sec. 4.3, Page 14. Both changes in elevations and/or grain size/substrate might indicate movement of material. It is not clear how the sediment sampling records are going to help evaluate the composition of the dredged material disposed at any given bench placement location? Settling differences in the water column, as well as in situ variation, for example may make the comparison moot. In addition, the surface will be dressed with at least 10 feet of sand. The berm idea would be worth evaluating however.	Hydrographic surveys of the 2005/2006 disposal area have shown the material does not move or slump at the Knoxway Canyon location. The underwater bench at Knoxway was selected as a shallow-water habitat creation site because it is on the inside of a river bend and has low water velocity. The statement about comparing to the pre-dredging sediment sampling records has been deleted from Appendix J. The results of the sediment sampling indicate the material to be dredged (except for the rock/cobble from the Ice Harbor navigation lock site) is predominantly sand. The Corps has determined a sand embankment in this low water velocity location should be stable. The Corps is not proposing to construct a berm for this current immediate need action to reestablish the navigation channel, but may consider one for potential future disposal actions if warranted and the monitoring shows a need for a berm (see Appendix J, Section 4.2).
0076	Linda Anderson-Carnahan	8778(ab)	Appendix J, Sec. 3.3, Page 9. It is good to see that hydrographic surveys are anticipated during the 2-3 years post-placement. In Section 3.3.1, to assess "long-term" stability it would seem a 10 year survey would also be needed which would complement the results/timing anticipated for Biological monitoring in Section 3.3.2. Also, would the grain size/substrate of the bench surface be tested?	Hydrographic surveys would be performed when the annual navigation channel maintenance surveys are performed. Grain size of the disposal site surface would be characterized during the biological monitoring efforts proposed for year 2 and 10 following the disposal action.
0076	Linda Anderson-Carnahan	8778(k)	Appendix H. Inconsistencies in dredging and acres of impact. Update all documents with current likely maximum dredging volumes and acres of impact. These numbers vary in the appendices and BA ... i.e. 50 and 72+ acres of dredged surface area, 422K cy and 500K cy of dredging, different acres of good vs. fair habitat at the habitat site, etc.	Identified dredge volumes and areas have been updated with the most recent bathymetric data (November 2012, August 2013, and September 2013) and checked for consistency. The Biological Assessment (BA) is not being updated with this information as the BA included in the FEIS is the actual document sent to National Marine Fisheries Service and the U.S. Fish and Wildlife Service and is provided in this FEIS for general information. The Corps has provided the Services with updated information on the proposed action, as appropriate.
0076	Linda Anderson-Carnahan	8778(w)	Appendix J, Sec. 3.1.2, Page 4. Add the Gottfried et al 2011 reference to the references section.	Reference was added.
0076	Linda Anderson-Carnahan	8778(i)	Sec. 4.6.3.1 Page 4-38. Please include the turbidity values during the referenced 1992 test drawdown of Lower Granite Reservoir	Section 4.6.3.1 of the FEIS was revised to include the requested turbidity information.
0076	Linda Anderson-Carnahan	8778(ag)	Appendix J, Sec. 4.2.4, Page 14. How often is temperature verified?	Section 3.2.1 of Appendix J states, "Turbidity data measured by the sondes (i.e., multi-parameter probes) would be verified periodically in the field. This task would consist of collecting water samples when the sondes are calibrated daily, and when questionable values appear in the data set." The Corps proposes to monitor for only turbidity as part of the current immediate need maintenance action.
0076	Linda Anderson-Carnahan	8778(af)	Appendix J, Sec. 4.2.4, Page 14. It appears that the temperature section was cut off.	Section 4.2.4 of the monitoring plan has been deleted as the Corps and Washington Department of Ecology have agreed that turbidity is the only parameter that needs to be monitored during the proposed current immediate need maintenance action.
0076	Linda Anderson-	8778(y)	Appendix J, Sec. 3.2.1, Page 6. Water Quality Monitoring. Only	Thank you for your comment. The consultation process for the Endangered Species Act is

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	Carnahan		in the BA (Appendix K) is there brief discussion of the past water quality monitoring results conducted during dredging and placement in 2005/2006 (see BA p. 87 section 6.4.2 and especially BA p. 90 Table 17). This is significant because the actual 2006 Water Quality Monitoring report indicates numerous exceedances of the Washington state turbidity standards during both dredging and placement activities in 2005/2006. In the BA and other project documents discussion is lacking on how water quality monitoring results affected dredging or placement activities real time, and whether any discussion of the environmental significance of the findings occurred at that time. Discuss what placement activity was occurring (e.g. bottom dumping, reworking the surface, mechanical or hydraulic placement) when placement site exceedances occurred. The 2006 Water Quality Monitoring Report must be discussed in the EIS in the Environmental Effects of Alternatives section, and should help inform agency review and creation of a water quality monitoring plan for the current proposal. Particularly the Washington State Department of Ecology (Ecology) should be provided past results along with the current proposed water quality monitoring plan.	being conducted with the Services, and concerns are addressed through that process. Additional information regarding the effects of the 2005/2006 dredging on water quality was included in Section 4.6.2.2 of the FEIS. The Corps has provided the monitoring report for the 2005/2006 dredging and disposal action to Washington Department of Ecology (DOE). The water quality portion of Appendix J has been modified based on the Corps' coordination with DOE.
0076	Linda Anderson-Carnahan	8778(ai)	Appendix K, Page 24. This section should mention the top dressing of 10 feet of sand, etc. The dredging plan mentions that hydraulic placement could be an option for this activity. Include better figure along with Figure 9 here one that shows bathymetry.	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. Appendix K was provided along with the EIS as supplemental information. It was provided to the Services to initiate ESA consultation. Covering exposed surfaces was the procedure used during the last dredging/disposal in 2006. If appropriate, the Services will provide reasonable and prudent measures (RPM) and conservation recommendations to avoid or minimize impacts to listed species. Bathymetry at the disposal site is shown on Figures 8 and 10 of the Biological Assessment (BA) for the proposed current immediate need action. The BA is not being updated as the BA included in the FEIS is the actual document sent to National Marine Fisheries Service and the U.S. Fish and Wildlife Service and is provided in this FEIS for general information. The Corps has kept the Services informed of any relevant changes to the PSMP and the proposed current immediate need action. Appendix H has been incorporated into Appendix L. A revised description of the disposal action at Knoxway Canyon is in Section 2.3.2.1 of Appendix L. The reference to hydraulic placement of the dredged material has been deleted as the Corps is no longer considering this as a potential placement method for this action. Figure L-10 in Appendix L shows the bathymetry of the Knoxway Canyon site and the footprint from the 2005/2006 disposal.
0076	Linda Anderson-Carnahan	8778(am)	Appendix K, Page 28. Where is a figure showing monitoring array at the placement site?	Thank you for your comment. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. The monitoring array at the disposal site for the current immediate need action is shown in Figure 2 of Appendix L.

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0076	Linda Anderson-Carnahan	8778(at)	Appendix K, Page 90, Table 17. Include the dates 2005/2006 and dredging/disposal in the table caption. This table is important and needs to be able to stand alone, while the pertinent text should include a better narrative description of the results. Do these represent the best BMPs we can do? Were BMPs implemented? What activities seemed to contribute the most to the exceedances? Where is the high 15 NTU value mentioned in the text on page 89? Without a better tie in to the 2006 water quality monitoring report, it is unclear what the stationing of 300, 400 and 900 mean in terms of distance from the ongoing activity. The disposal site numbers lack the "average turbidity over" row which is provided for the dredging locations?	See responses to Comments 8772, 8776, 8778ad, and 8778aq in Letter No. 76. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process. Additional information regarding the frequency of exceedances at monitoring stations was added to Section 4.6.2.2 of the FEIS, but the final biological assessment has already been provided to resource agencies. The data in Table 17 came directly from the Dixon Marine Water Quality Report (2006). The "Average Turbidity Over" row for the disposal site, with values ranging from 2.45 to 4.68 NTU, was inadvertently left off. Dredging at the ports and reshaping at the disposal site appeared to have the most effect on turbidity levels. The high AVERAGE value of 15 NTU came from the deep "400" sensor at the Lower Monumental dredging site. The "average turbidity over" value was 9.63. This, added to the background criteria of 5 NTU, equals an average of about 15 NTU. A Background Reference Monitoring Station was located 300 feet upstream of all dredging activity, at a distance from shore recommended by the Contractor that best fit the circumstance. Two Compliance Monitoring Stations were located at points no less than 100 feet apart and 300 feet downstream of dredging activities. Distance from the dredge was measured from the dredge bucket, ± 30 feet, when the swing arm was pointing downstream. Compliance Monitoring Stations were located in the main direction of river flow and, to the extent practical, in the direct path of the plume. In addition to the two Compliance Monitoring Stations (300 feet downstream), a Remote Monitoring Station was located 600 feet downstream from the dredging bucket. When dredging occurred within 300 feet downstream of the confluence of the Snake and Clearwater Rivers, a Background Reference Monitoring Station monitored conditions 300 feet upstream in both the Snake and Clearwater Rivers. The Corps believes that BMPs in Appendix K, Section 3.8.2, are more than adequate to address water quality relative to listed species.
0076	Linda Anderson-Carnahan	8778(ac)	Appendix J, Sec. 3.3.2, Page 10. Why has the sampling timing been modified ... is it based on the previous monitoring?	The amount of biological monitoring reflects the Corps' attempt to balance the need to document the effectiveness of the disposal technique with cost. Since the Corps performed extensive monitoring for the PSMP that documented the use of previous shallow water habitat construction, the Corps determined a reduced level of monitoring would be sufficient for the current immediate need action.
0076	Linda Anderson-Carnahan	8778(ae)	Appendix J, Sec. 4.2.2, Page 13. If the Washington dissolved oxygen (DO) standard is 8 mg/L, why is 5 mg/L mentioned as the action level in the second paragraph	Appendix J has been modified to remove all reference to monitoring any water quality parameter other than turbidity. The Corps and Washington Department of Ecology have agreed that only turbidity needs to be monitored for the current immediate need action.
0076	Linda Anderson-Carnahan	8778(ad)	Appendix J, Sec. 4.2.1, Page 13. Turbidity standards and compliance boundaries should be confirmed with Ecology. How would notification of Ecology occur should there be exceedances? Given the need to define a "protocol yet to be determined for turbidity" (section 4.2.2), how were exceedances actually handled in 2005/2006? Indicate how often dredging or placement was stopped due to continued exceedances? What were effective BMPs for handling the turbidity last time around?	The Corps has coordinated with Ecology, National Marine Fisheries Service, and U.S. Fish and Wildlife Service to identify an acceptable compliance boundary for water quality monitoring associated with the proposed current immediate need dredging and disposal action. Appendix J has been modified to include the results of the coordination. Exceedances in turbidity levels during the 2005/2006 dredging and disposal were handled by reducing the speed at which dredging was performed or modifying the way the bucket was used to reshape the surface of the disposal site. The contractor was required to stop dredging when turbidity levels were unacceptable. This happened several times during the dredging actions, with each stoppage lasting at least two hours. Stoppages occurred on a daily basis at the disposal site during reshaping until the Corps and Washington Department of Ecology made some modifications to the monitoring scheme specifically for the reshaping.
0076	Linda Anderson-Carnahan	8778(s)	Appendix H, Page 14. Please provide more details on the construction methods and stability of the existing Knox way bench. How was the material placed and reworked in 2005/2006? Was sand placed on top similar to the 10 foot surface layer that is proposed for the ribbon option this year?	See response to Comment 8778(ah) in Letter No. 76. dHydrographic surveys performed as recently as 2011 showed the material disposed at the Knoxway Canyon site is stable. Appendix H has been incorporated into Appendix L. Section 2.3.2.1 of Appendix L provides a revised description of the proposed disposal at Knoxway Canyon.

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0076	Linda Anderson-Carnahan	8778(b)	DEIS Sec. 3.6.2, Page 3-53. This discussion should be updated with data from the 2011 sampling, along with the Port of Clarkston's 2012 data. A statement such as in paragraph 3 that for 2000 and 2003 "all detected concentrations of contaminants were below screening levels", also requires a statement about the list of chemicals of concern (e.g. SEF chemicals) that were tested for, and that all detection limits were below the applicable SL so otherwise this is an inadequate summary of testing results.	Material was placed on the site in 2005/2006 using the same methods (bottom dump barges, reshaping after all material had been placed on-site) that would be used in for the proposed current immediate need dredging and disposal. Sand was placed on the top of the shallow-water bench created in 2005/2006. Reshaping was accomplished using the clamshell bucket of the dredge to reposition some of the material. The FEIS (Section 3.6.2) has been updated to include the results of the 2013 sediment sampling (See also Appendix I).
0076	Linda Anderson-Carnahan	8778(z)	Appendix J, Page 7, Figure 1. Ecology may again determine that (per WAC 173-201A-200 Freshwater) the turbidity point of compliance is 300 feet downstream of the activity causing the turbidity exceedance. Given the fixed array system, and use of a monitoring zone of 1000 ft. x 600 feet around the active dredging site (Figure 1), it looks like active dredging could occur anywhere from 300 feet to 1300 feet away from the fixed array during monitoring. The placement site monitoring includes a monitoring zone 1000 feet x 400 feet Figure 2. Given this monitoring network was also used in 2006, it may be anticipated that turbidity exceedances will occur and that they will be farther than 300 feet from the monitored activity. There is no discussion of what happened in 2006, or is proposed to happen now, when an exceedance is detected ... are those details expected to be imposed in the state water quality certification? Please present what happened in 2005/2006, including examples of changes in the activity or BMPs that were initiated or could be initiated to resolve anticipated turbidity exceedances.	Appendix J has been revised to reflect the monitoring plan arrangements agreed to by Washington Department of Ecology and the Services for the proposed current immediate need action. The agencies have agreed to use an arrangement similar to that used in 2005-2006, however there are some changes. The monitoring zone is now 800 feet long and 600 feet wide. The station 300 feet downstream from the zone is now called the "early warning" station and is used to prompt the dredging contractor to take action to prevent exceedances of state water quality standards at the compliance boundary station. The "compliance boundary" station is 900 feet downstream of the monitoring zone and is used to determine if the dredging/disposal is meeting state water quality standards. The original 2005/2006 water quality monitoring plan was developed around a station numbering system whereby a new station number was applied to the data collection platform (DCP) each time it was moved to differentiate data collected at the new location. The goal was to maintain a nearly constant monitoring pattern with respect to the dredge. However, frequently moving the DCP (sometimes every 15 minutes) produced small data sets that introduced variability into the data set which made evaluating trends problematic. Additionally, since dredging occurred 24/7 the water quality floats also had to be moved at night when it was difficult for the water quality technicians to see the steel positioning cables that were stretched upstream and downstream of the dredged, creating a safety hazard. By implementing a monitoring zone around the dredge, a constant monitoring pattern was established that reduced data variability, thereby facilitating the determination of any elevated turbidity measurements, and mitigated a potential safety hazard. Results of the 2005/2006 turbidity monitoring, as well as a discussion of the protocol followed when exceedances occurred, was added in the final report.
0076	Linda Anderson-Carnahan	8778(h)	DEIS Sec. 4.6.3.1 Pages 4-37 and 4-38. Similar as comments on Section 3.6 and 4.1 above. How was it determined that the "agitation" measures would have the same effects and duration as dredging ... since the water column is being used to convey the full volume of sediments it would seem to potentially have far greater turbidity impacts, and be quite different from dredging. Please provide a better explanation of what exactly is anticipated with "agitation" and therefore what the water quality effects would be relative to dredging.	Section 4 of the FEIS main report has been revised to clarify the effects of the alternatives and the measures that would be used for the alternatives. A description of the "agitation to resuspend sediment" measure is found in Section 2.2.4.2 of the FEIS main report.
0076	Linda Anderson-Carnahan	8778(a)	DEIS Sec. 1.3.2, Page I-7. Sediment Management Guidance. A statement should be included about additional assessment,	The Section has been revised to include reference to DMMP guidelines.

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			beyond the SEF, of dredged material in terms of specific beneficial use requirements, and whether any given material is appropriate for the use proposed.	A statement has been added to the paragraph on the Planning Guidance Notebook indicating that document provides guidance on beneficial use of dredged material. The Corps disagrees on the need to state the material must be appropriate for the use proposed as the Corps would not propose to use any sediment or dredged material for an inappropriate use – it would not make sense to make such a proposal.
0076	Linda Anderson-Carnahan	8778(l)	Appendix H, 4, Figure 2. Include this aerial; however, the title should indicate that this figure shows the Federal project at the confluence, not the actual shoaling.	Appendix H has been incorporated into Appendix L. The subject figure is now Figure L-4. The title has been revised to indicate this depicts the federal channel dredging location.
0076	Linda Anderson-Carnahan	8778(aa)	Appendix J, Page 8, Figure 1, and 8, Figure 2. Please add distances to these figures. E.g. Figure 1 sides of monitoring zone are 1000 feet and 600 feet, and compliance and 9 stations are 300 feet from the downstream edge of the zone, Figure 2 etc.	These figures are conceptual illustrations and are not drawn to scale. A note indicating "Not to Scale" was added to each, along with a distance designation.
0076	Linda Anderson-Carnahan	8778 (sa)	Appendix H, Page 15, Figure 8. What is the date of this survey (2006 or 2011?). From the figure there appear to already be benches/deltas at the mouths of the gullies flowing into this reach...will any good existing habitat be affected by the ribbon proposal? Also, please ensure the acres/depths are consistent with other locations in the document, including the BA. The new proposed placement footprint should be superimposed on a figure with bathymetry like Figure 8 in addition to that provided in Figure 9.	This figure is based on survey data from 2011. The small elevated areas along the shoreline at the disposal site do not provide quality shallow-water habitat. Appendix H has been incorporated into Appendix L. The Corps has added Figure L-12 showing the footprint of the of the proposed current immediate need action disposal adjacent to the 2005/2006 disposal material.
0076	Linda Anderson-Carnahan	8778(x)	Appendix J, Page 5. What does "proposed templates" refer to in the juvenile lamprey discussion ... dredging and disposal areas?	"Proposed templates" referred to the dredging template or proposed dredging area.
0076	Linda Anderson-Carnahan	8778(ar)	Appendix K, Pages 76-77. Chemical Contaminants section. No report has been accepted or reviewed that adequately supports the statements contained here. This section should be rewritten once a final report is produced, and should also include the Port of Clarkston crane dock information. A referenced report should be included in the final EIS.	The Biological Assessment (BA) is not being updated as the BA included in the EIS is the actual document sent to National Marine Fisheries Service and the U.S. Fish and Wildlife Service and is provided in this EIS for general information. The Corps has used e-mail and telephone conversations to provide the Services with updated information about the proposed current immediate need action. The final sediment characterization report was provided to the Services as well as the suitability determinations from the Dredged Material Management Office and other analyses performed for the proposed action (see Appendix I).
0076	Linda Anderson-Carnahan	8779	It was implied in the DEIS that sediment loading from fires has no anthropogenic component because fire is a natural process and therefore there was no need for additional monitoring or management of these sediment loads. The expected sediment loading increase may be an expression of 'natural' processes, but the ultimate drivers are largely anthropogenic in origin and therefore the sediment produced by these fire events cannot be considered as not including anthropogenic influences.	Climate, not anthropogenic influence, is the primary driver of fire and therefore sediment loading. Anthropogenic effects would not result in a measureable change in sediment loading in the federal navigation channel. Monitoring and managing sediment from anthropogenic influence on fire would provide no benefit to the maintenance of the LSRP by managing problem sediment. Appendix D, titled 'Enhanced Sediment Delivery in a Changing Climate in Semi-Arid Mountain Basins: Implications for Water Resource Management and Aquatic Habitat in the Northern Rocky Mountains,' was prepared by Jaime R. Goode, Charles H. Luce, and John M. Buffington of the United States Forest Service Rocky Mountain Research Station as part of the PSMP FEIS. Figure 1 of their report is a conceptual plot of sediment yield relative to hydroclimate and the regulating role of vegetation. The sediment yield curve for Figure 1 is based on the published work (December 1958 in Transactions, American Geophysical Union) of W.B Langbein and S.A. Schumm, titled 'Yield of Sediment in Relation to Mean Annual Precipitation.' From these two references, it can be seen that the maximum sediment yield generally occurs where the effective precipitation is on the order of 10 inches per year. This annual precipitation is generally experienced over a large portion of the effective drainage basin for Lower Granite Reservoir. Therefore environmental effects, such as climate change, should likely not significantly increase the basin's sediment yield since it appears that present basin climactic conditions might already provide the maximum long-term sediment yield conditions.

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0076	Linda Anderson-Carnahan	8780	It is incorrect to conclude that roads are not a potentially important source of sediment load. As mentioned previously, the DEIS incorrectly treats fire-induced sediment loading as having no anthropogenic component, with limited management implications.	See responses to Comment 8779 in Letter No. 76 and Comment 8359 in letter No 11. The USFS and other land managers are currently using BMPs to address erosional issues associated with roads. The Corps expects that such BMPs will continue in the future, or increase as funding and technology allow. Appendix D states "sediment yields from experimental basins with roads are three orders of magnitude smaller than those from individual fire-related events..., suggesting that road restoration would provide a relatively minor reduction in sediment loads at the basin-scale".
0076	Linda Anderson-Carnahan	8781	RUSLE2 modeling only evaluates the sheet and rill component of sediment erosion, and does not evaluate other potential sources of sediment erosion. One such potential sediment source is ephemeral gullies. The RUSLE2 model does not evaluate the impact that ephemeral gullies have on sediment production. Ephemeral gullies have been shown to be an important source of sediment production in agricultural areas within the project area. Ephemeral gullies also provide a temporary route for sediment to reach a waterway:	See response to Comment 8769 in Letter No. 76.
0077	Anthony Fusaro	9047	I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement.	See responses to Comments 8687 and 8686 in Letter No. 68. Alternatives 5 and 7 include measures that do meet the proposed project purpose and need (maintaining the LSRP by managing sediment that interferes with existing authorized purposes of the LSRP). Alternatives that did not satisfy the proposed project's purpose and need were eliminated from further consideration, with the exception of Alternative 1 - No Action. Sections 2.2.6 and 2.2.7 of the EIS contain an explanation of the alternatives screening process. The "No action" alternative does not satisfy the stated purpose and need, but (as required by NEPA) has been carried forward in the EIS for detailed review to provide a baseline for comparing potential environmental effects of other reasonable alternatives.
0077	Anthony Fusaro	9048	Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives - those are 1) fish and wildlife conservation with respect to wild salmon and 2) recreation.	See response to Comment 8747 in Letter No. 76. The reasonable range of alternatives evaluated in the EIS, including Alternatives 5 and 7, are not intended to mitigate for authorized project purposes. The alternatives evaluated were intended to satisfy the proposed project's purpose and need. The EIS identifies four authorized purposes affected by sediment accumulation -- commercial navigation, recreation, fish and wildlife conservation, and flow conveyance at Lewiston-Clarkston. The EIS evaluated a reasonable range of alternatives for addressing problem sediment for all identified existing authorized purposes. Additionally, the PSMP (Appendix A to the EIS) has been revised to better identify measures that can be used to address future actions for managing sediment. The PSMP identifies the measures that the Corps may use in the future to manage sediment interfering with each of the existing authorized purposes. The PSMP does not identify any "mitigation" for future sediment management actions. Mitigation (if any) for future sediment management actions will be identified in site-specific, tiered-off NEPA analyses. The purpose and need also identifies a current immediate need action, consistent with the PSMP, to reestablish the congressionally-authorized dimensions of the federal navigation channel (14-foot deep and 250-foot wide). The current immediate need action is appropriately focused on the navigation.
0077	Anthony Fusaro	9049	Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. The consultation process for the Endangered Species Act is being conducted with the Services, and concerns are addressed through that process.
0077	Anthony Fusaro	9050	Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the	Appendix I documents the most recent sediment sampling and analysis. Sediments proposed for dredging are approximately 90-percent sand, and meet regionally accepted chemical, physical and biological criteria as suitable for unconfined in-water placement. The results of the sediment sampling showed that the material the Corps is proposing to dredge meets the screening limits for chemicals of concern and/or the bioassay interpretive criteria that have

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			four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir.	been instituted to prevent adverse effects on the environment. If the sediment sampling and analysis results showed the sediments had unacceptable concentrations of chemical that would preclude using unconfined in-water disposal (i.e., did not meet chemical/physical/biological criteria), the Corps would either would not dredge the area, or would pursue an alternate acceptable disposal method. Also, it has been shown that juvenile salmon (especially fall Chinook) utilize shallow, shoreline habitat for rearing during their downstream migration. Shallow water habitat is somewhat limited within the reservoirs.
0077	Anthony Fusaro	9051	By dredging the contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and sent downstream would be considerable.	See responses to Comments 8774 in Letter 76 and 9050 in Letter 77.
0078	Steven Hawley	9052	The Corps assumes, and states thus in the DEIS, the agency is mandated to maintain a 14 ft. by 250 ft. navigation channel through the confluence of the Snake and Clearwater Rivers to the Port of Lewiston. This navigation channel depth and width appears only in the Flood Control Act of 1962. But Flood control is NOT one of the authorized purposes of the Lower Snake River Project. The Corps further erroneously asserts that Congressional authorization to maintain this navigation channel at 14 x 250 is the same as a requirement from which it cannot vary no matter the circumstances.	See response to Comment 8684 in Letter No. 68.
0078	Steven Hawley	9053	The 2002 legal settlement that addressed dredging on the lower Snake River required that the Army Corps consider a number of alternatives to dredging. NEPA also requires the agency to consider such alternatives. Instead, the Army Corps identified ONLY dredging as the acceptable alternative. A wider range of options, including breaching, should be included as part of the Corps' analysis.	See response to Comment 8686 in Letter No. 68.
0078	Steven Hawley	9054	Dredging is bad for salmon. Dredging the lower Snake Clearwater Rivers is harmful to salmon and steelhead and the habitats they depend on for survival. This EIS fails to fully consider these impacts and ways to mitigate them.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0078	Steven Hawley	9055	The DEIS states without justification that the dredging alternatives are the most ecologically friendly, but dropping dredging spoils in rivers cannot be justified as a salmon/steelhead habitat improvement measure.	See responses to Comments 8460 in Letter 44, comment 8694 in Letter No. 68, and 9050 in Letter 77. The Corps did identify Alternative 7 as both the preferred alternative and the environmentally preferred alternative. The environmentally preferred alternative is ordinarily the alternative that causes the least damage to the biological and physical environment (46 FR 18026, as amended, 51 FR 15618). The Corps considered the balance of environmental effects of the range of alternatives considered in making this recommendation in the DEIS, as well as whether the alternative met the purpose and need. While Alternative 1 had, on balance, fewer effects on the environment, it did not meet the purpose and need, and therefore was not considered as the environmentally preferable alternative. Alternative 7 provided a range of dredging and non-dredging sediment management options, and therefore was identified as the environmentally preferred alternative.
0078	Steven Hawley	9056	The DEIS fails to provide an adequate accounting of the costs and benefits of dredging, of maintaining a navigation channel to the Port of Lewiston, or of maintaining and operating the lower Snake River transportation waterway.	See response to Comment 8360 in Letter No. 12.
0078	Steven Hawley	9057	The Corps further fails to provide any analysis or comparison of the overall costs of dredging and barging with alternative	See response to Comment 8360 in Letter No. 12.

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0078	Steven Hawley	9058	transportation options like trucking and/or rail. The LSRPSMP DEIS includes no assessment of the value and priority of this project compared to other proposed projects, costs, benefits and the likely priority of dredging and freight transport on the lower Snake River given the non-sustainability of the Corps' extensive national system of dams, locks and levees.	See response to Comment 8360 in Letter No. 12.
0078	Steven Hawley	9059	The LSRPSMP DEIS fails to adequately address and incorporate the accumulating impacts from climate change.	See response to Comment 8461 in Letter No. 44.
0078	Steven Hawley	9060	The DEIS fails to adequately assess the risk of flood in Lewiston, Idaho over time and the likely costs associated with levee-raising to address the flood risks created by the dam and levee system.	See responses to Comments 8361 in Letter 14 and 8360 in Letter 12. The potential environmental effects associated with measures addressing flow conveyance through the Lewiston Levees has been adequately addressed in the EIS. There is no immediate need to address flow conveyance at this time and implementation of such measures in the future (if warranted) would undergo a separate tiered NEPA analysis in order to identify the least cost, technically feasible, and environmentally acceptable alternative. See Section 3 of the PSMP.
0079	John Heimer	8450	In this era of restricted federal dollars it seems absurd to be doing this. A much simpler and less costly solution would be to ship the material currently being done by the Port of Lewiston downriver by rail car.	See response to Comment 8360 in Letter No. 12.
0079	John Heimer	8451	You need to come up with a viable alternative instead of sediment removal, and where over time are you going to put all of the sediment taken from the river. Think about taking out one dam on the Snake River, in this case Granite, it would solve the sediment problem and help with the salmon steelhead issues.	See response to Comment 8686 in Letter No. 68.
0080	Karen Hendrickson	8504	The combination in the DEIS of authorized purpose (navigation channel 14 feet deep and 250 feet wide) and the screening criteria for alternatives guarantees that only one alternative can meet the criteria. No "hard look" at other alternatives is possible. This flaw by itself violates the intent and requirements of NEPA.	See response to Comment 8686 in Letter No. 68.
0080	Karen Hendrickson	8505	In a time of a federal budget crisis the Corps refuses to attach any costs to the many options in the preferred Alternative 7 "toolbox." Without costs you also apparently decided you don't need to address benefits in more than vague language and casual reference.	See response to Comment 8360 in Letter No. 12.
0080	Karen Hendrickson	8506	Climate change receives short shrift in the DEIS. Despite evidence that the amount of sediment reaching the Snake/Clearwater confluence is increasing in recent years, despite the huge increases in forest land burning each decade and the fact that this is a major source of sediment, despite warnings from Goode in the appendices and all the major research on climate change from around the world —the Corps appears to be predicting future sediment at not much over historical levels.	See response to Comment 8461 in Letter No. 44.
0080	Karen Hendrickson	8507	Your "no action" alternative doesn't seem like an alternative at all. No action suggests letting the silt accumulate at the confluence, on the lower Clearwater, in front of the ports of Lewiston and Clarkston. The DEIS violates NEPA by not having a no action alternative.	See response to Comment 8687 in Letter No. 68.
0080	Karen	8508	The Corps and DEIS are not being honest with area residents	See response to Comment 8361 in Letter No. 14.

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	Hendrickson		when it comes to flood risk and the potential for overtopping the Lewiston levee. Mr. Teasdale admits that the new method of determining flood risk involves a policy interpretation and poses an “important uncertainty” in the DEIS, even suggesting the Corps and Lewiston residents need to discuss this matter and come to a joint decision. The DEIS needs to include the process used to address this “important uncertainty” —the amount of public involvement in determining local tolerance for flood risk, the review of the policy issue, what conclusion was reached, and the criteria used to reach that conclusion.	
0080	Karen Hendrickson	8509	Further, the Corps does not acknowledge that the channel would be dredged to allow heavy barge traffic to the Port of Lewiston, in spite of the fact that all POL barge traffic has declined precipitously during the past decade and that, therefore, the expense of the plan itself and of any future dredging are not warranted.	See response to Comment 8360 in Letter No. 12.
0081	Pat Barclay	8510	Alternative 7 provides some of the best options for dealing with the sediment in the system and restoring the 14 foot navigation channel as authorized by Congress. We do not, however, support the following: The use of drawdowns to flush sediment. Raising the levies in Lewiston does nothing about the sediment accumulation. It impacts public access to the Snake and Clearwater Rivers. The recommendation to relocate facilities is not feasible because of the cost in both private and public dollars.	See response to Comments 8407 in Letter 22 and 8490 in Letter No. 58.
0082	Roger Inghram Janice Inghram	8511	Without providing a meaningful cost-benefit analysis regarding sediment management and by further ignoring limited budgets, drastically declining barge traffic, rising dam/lock maintenance costs, declining salmon and steelhead runs, etc., the draft EIS is woefully inadequate.	See response to Comment 8360 in Letter No. 12.
0082	Roger Inghram Janice Inghram	8512	“No Action” is status quo, which calls for action - dredging for standards of 14' X 240', a very costly perpetual taxpayer expense.	See responses to Comments 8687 in Letter No. 68 and 8360 in Letter No. 12.
0082	Roger Inghram Janice Inghram	8513	Alternatives should be expanded to include full discussions of the effects of climate change	See responses to Comments 8686 in Letter No. 68 and 8461 n Letter No. 44.
0083	Mandy Lawrence	8514	The Department does not have any comments to offer.	Thank you for your comment.
0084	Mark Wilson	8515	The Port supports the Corp's ability to tier off of the NEPA analysis for this project for future maintenance dredging so that the Corps does not have to start from scratch the next time dredging is required.	See response to Comment 8408 in letter No. 22.
0084	Mark Wilson	8516	Dredging is immediately necessary and cannot wait another season. Please understand the many Lower Columbia port's need to receive their barged product in a timely and efficient manner. The Port encourages the Corp to complete the PSMP and DEIS in an expeditious way.	Thank you for your comment.
0085	Edward Kerns	8517	I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement.	See response to Comment 9047 in letter No. 77.

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0085	Edward Kerns	8518	Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0085	Edward Kerns	8519	Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir.	See response to Comment 9051 in Letter No. 77.
0085	Edward Kerns	8520	By dredging the contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and sent downstream would be considerable. Without establishing a	See response to Comment 9051 in Letter No. 77.
0086	Sarah Kerns	8521	I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement.	See response to Comment 9047 in Letter No. 77.
0086	Sarah Kerns	8522	Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0086	Sarah Kerns	8523	Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston, and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir.	See response to Comment 9051 in Letter No. 77.
0086	Sarah Kerns	8524	By dredging the contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and sent downstream would be considerable.	See response to Comment 9051 in Letter No. 77.
0087	Linwood Laughy	8526	I naively thought the purpose of the sediment management plan was to determine how best to deal with sediment accumulation, which permits a number of alternatives. Real alternatives, I believe, are what NEPA requires. . . . I doubt if federal law smiles favorably upon establishing the major purpose of a plan that which can be met by only a single alternative, putting up various dummy alternatives that could not possibly pass the Corps' screening criteria, and then either tossing them out or combining them all into your giant "tool box" that would allow you to do whatever you pleased whenever you felt the need to do so.	See responses to Comments 8684 and 8686 in Letter 68. The purpose of the PSMP is to guide all Walla Walla District Corps sediment management activities. It provides a programmatic framework to manage and prevent, if possible, the accumulation of sediment that interferes with existing authorized purposes of the LSRP. The measures included within the PSMP were developed through a collaborative process that included a series of workshops involving technical experts from the Corps and other agencies, and input from scoping and stakeholders. Section 2.2 of the EIS describes the process for development and screening of these measures and how these measures were developed into alternatives that were then evaluated in the EIS. The FEIS alternatives evaluation determined which suite of measures (assembled as an alternative) would be applied to the PSMP.
0087	Linwood Laughy	8527	While on the topic of alternatives . . . While the DEIS mentions the possibility of closing some waterway facilities...my review of this matter suggests that about 90% of the dredging at the confluence of the Snake and Clearwater Rivers and up the Clearwater River would be unnecessary if the Port of Lewiston abandoned its marine operations.	See response to Comment 8686 in Letter 68. The FEIS evaluated, and the PSMP includes (Section 2.2.4.3), a System Management measure for studying reconfiguring or relocating affected facilities when a future forecast need for navigation is identified, subject to authority and funding. Also, the majority of sediment accumulation interfering with the federal navigation channel occurs in the Snake River in front of (or near) the Port of Clarkston -- not the Port of Lewiston. For a visual presentation of sediment accumulation interfering with the federal navigation channel see Figure 2-5 in

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0087	Linwood Laughy	8528	What about light loading of barges? Yes, it would cost shippers more money. How much more? Would it be cheaper than perpetual dredging?	Appendix L. See response to Comment 8691 in Letter No. 68.
0087	Linwood Laughy	8529	What about maintaining commercial river navigation fewer than 12 months a year?	See response to Comment 8684 in Letter No. 68.
0087	Linwood Laughy	8530	BREACH. Clearly the Army Corps does not want to include this alternative for resolving sediment issues.	See response to Comment 8686 in Letter No. 68.
0087	Linwood Laughy	8531	NEPA requires a NO ACTION alternative. The “no action” alternative in the Corps’ sediment management plan calls for the Corps to take all available steps to keep the navigation channel at 14 x 250. So the no action alternative prescribes a series of actions, not the absence of action.	See response to Comment 8687 in Letter No. 68.
0087	Linwood Laughy	8532	Citizens who attended the January 24, 2013 Q & A in Lewiston clearly had costs and benefits on their minds. Corps spokespersons that evening repeatedly failed to provide any information regarding costs and benefits of what was being offered as a 50-year plan with implementation costs likely exceeding \$50 million just for dredging. The audience was told the DEIS in question, which is also the LSRPSMP, did not require any cost-benefit analysis. I suggest the public will no longer find that response adequate, nor your plan or DEIS adequate without honest information about costs. “We don’t know what the costs will be.” is not an acceptable response.	See response to Comment 8360 in Letter No. 12.
0087	Linwood Laughy	8533	The DEIS fails to address the impact of carbon dioxide emissions and other greenhouse gases that would result from maintaining a navigational channel on the lower Snake River... federal agencies must assess carbon dioxide emissions in review documents prepared under NEPA. The DEIS perpetuates the myth that barge transport is more energy efficient than rail and thus provides less air pollution in the form of greenhouse gases.	See response to Comment 8698 in Letter No. 68.
0087	Linwood Laughy	8534	The DEIS presents disturbing data about the huge upward trend in the number of acres of forest burned over the past 40 years, and also notes that forest fires are major contributors to sediment due to related flooding and mass wasting. The DEIS gives limited attention to climate change, the Corps apparently hoping the future will be much like the past—an agency wish that permeates other aspects of the DEIS as well.	See response to Comment 8461 in Letter No. 44.
0087	Linwood Laughy	8535	The area of study clearly needing the most accuracy and consistency is that of sediment. If this NEPA requirement is not met with respect to sediment in a sediment management plan, the plan needs serious revision. In the all-important table 3-16 in the main body of the DEIS we learn that between 1974 and 2010 the total volume of sediment that accumulated in the Lower Granite Reservoir was 79.83 mcy. Total dredged volume was 2.76 mcy. No accounting is made of the missing 2.10 mcy of sediment. Teasdale repeatedly states that to keep the navigation channel 14 x 250 the Corps needs to dredge an average of .7 mcy of sediment per year from the confluence and	See response to Comment 8461, Letter No. 44 . Table 3-16 Sediment Accumulation in Lower Granite Reservoir, 1974-2010, found in Section 3.7.3 of the PSMP Main Report; is based upon Table 44 (erroneously given as Table 7 in the Table3-16 footnote in the Draft PSMP EIS) which is found in Section 7.5 of Appendix F, Part 1. Table 3-16 is intended to be a ‘summary’ of sediment accumulation within these three general reaches: (1) the Snake River upstream of the Clearwater River confluence, (2) the Clearwater River upstream of the Snake River confluence, and (3) the Snake River downstream of the Clearwater River confluence. (The column within Table 3-16 titled “Snake River Below Silcott” has been changed to “Snake River Below Confluence with Clearwater River” For the FEIS.) The numerical values given in the third column are correct, and are the sums of the third and fourth numerical columns in Table 44 (12.48 + 62.26 = 74.74; 15.6% + 78.0% = 93.6%; and

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			<p>lower Clearwater. During the past 34 years the Corps has dredged an estimated 4.8 mcy. Teasdale's figure indicates that over the next 34 years the Corps will need to dredge 25.2 mcy, or approximately 5 times as much sediment as in the past, for the navigation channel alone. If dredging also must deal with the issue of flood risk, much greater volumes of dredging would be needed according to Teasdale. Did Teasdale mean .07 from table 3-16 (the .03 + .04), or is Table 3-16 an inaccurate interpretation of Teasdale's .7 figure? If the former, then the DEIS argues that sediment volume and accumulation will be no greater over the next 34 years than it was in the past despite evidence to the contrary in the DEIS and the noted impacts of climate change. If the already inaccurate table 3-16 fails further by not using Teasdale's data, then the entire DEIS is in error by a magnitude of 10.</p>	<p>0.35 + 1.73 = 2.08). Table 44 gives the volumetric figures for the Snake River downstream of the Clearwater River confluence. Table 1-3, found in Section 1.3.2 of the FEIS Main Report, is titled 'Partial History of Federal/Port Dredging in the Lower Snake River.' Table 43 is found in Section 7.4 of Appendix F, Part 1; and is titled 'Estimated Dredge Volumes at the Confluence of the Snake and Clearwater Rivers.' The dredge volume given in Table 43 is approximately 4.8 million cubic yards (mcy) which agrees closely with the comment's value of 4.5 mcy. It should be noted that two different data sources were used in developing the volume computations; these being the pre-and post-condition surveys specifically made at the specific locations for Dredging Contracts, and the Sediment Range surveys which are made separately over the entire Lower Granite reservoir. The differences noted are likely due to such factors as survey measurement errors, cross section interpolation, errors in dredge volume estimates, and consolidation of silt sediment in the lower part of Lower Granite reservoir. Table 3-16 dredged volumes are based on the Sediment Range surveys which likely are not as accurate for the volumes removed from the dredged areas as are the condition surveys specifically performed for dredging actions. Average annual sediment accumulation in Lower Granite Reservoir is approximately 2.2 million cubic yards (mcy). Major Finding #12, in Section 1.3 of Appendix F Part 1, states 'about 0.7 mcy of sand must be dredged to maintain the authorized navigation channel depth and maintain the current hydraulic capacity of the levees.' The recent dredging activities in Lower Granite Reservoir have focused on Navigation Channel maintenance and it is correct that removing larger volumes of sediment would be required to 'maintain the current hydraulic capacity of the levees.'</p>
0087	Linwood Laughey	8537	<p>In 2002 the Corps told the residents of Lewiston the levee around their city was inadequate to protect them from flood and needed to be raised 3 feet. In the present DEIS this flood risk has all but disappeared, the issue does not need to be revisited for at least 15 years (statement at January 24 Q & A)... Whether to use the original flood risk criteria or the new probabilistic method is, according to Appendix F, a matter of policy interpretation. Teasdale refers to this situation as an "important uncertainty," a decision "to be made by jointly considering USACE policy and community tolerance of flood risk." One of the options the Corps considered while doing the scoping work for this plan and project, as presented in the Congressional Record, was to purchase flood insurance for the property owners in downtown Lewiston. The Corps might want to put that option in the toolbox as well</p>	<p>See Comment 8361, Letter No. 14. The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency (FEMA), a component of the U.S. Department of Homeland Security (DHS). A publication titled 'Answers to Questions About the NFIP,' numbered FEMA F-084 and dated March 2011; is available to the Public and provides information regarding specific questions about the National Flood Insurance Program. Flood Insurance could be an additional toolbox item. However, Flood Insurance Mapping and insurance rates are usually prepared using the one per cent chance annual exceedance event (commonly referred to as the 100 year flood) as the basis, whereas the Lewiston Levees provide protection far in excess of this base flood event.</p>
0088	Debi Mahler	8539	<p>In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.</p>	<p>See response to Comment 8360 in Letter No. 12.</p>
0088	Debi Mahler	8540	<p>The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.</p>	<p>See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68</p>
0088	Debi Mahler	8541	<p>Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.</p>	<p>See response to Comment 8361 in Letter No. 14.</p>
0089	Dr David	8542	<p>Those dams should be taken out (a project worthy of taxpayer</p>	<p>See responses to Comments 8368 in Letter No. 29 and 8686 in Letter No. 68</p>

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS

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	Monsees		support) like other Army Corps of Engineer projects across the nation.	
0089	Dr David Monsees	8543	Do a fair cost analysis.	See response to Comment 8360 in Letter No. 12.
0089	Dr David Monsees	8544	Don't dredge.	Thank you for your comment.
0090	Patricia Nakaoki	8545	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0090	Patricia Nakaoki	8546	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0090	Patricia Nakaoki	8547	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8361 in Letter No. 14.
0091	Silas Whitman	8548	[Comment combined with 8555]	
0091	Silas Whitman	8549	On March 11, 2013 the Corps issued a 30-day public notice proposing to perform maintenance dredging totaling 491,043 cubic yards at the above four locations. The dredging quantity exceeds the amount identified in the PSMP/DEIS by 69,368 cubic yards.	The quantities listed in the Draft EIS were based on the 2011 channel condition survey as those were the most recent results available when the Draft EIS was distributed for public review in December 2012. The results of the 2012 channel condition survey were available in March 2013 when the Walla Walla District Corps of Engineers (Corps) prepared the Public Notice. The Corps determined it better served the public interest to disclose the most recent information when preparing the Public Notice, even though it was not the same as what was presented in the Draft EIS. The increase in estimated quantities was caused by ongoing sediment accumulation between 2011 and 2012, and did not result in any change to the Corps' proposed dredging or disposal action
0091	Silas Whitman	8550	[Added from Letter] Executive Order 13175 requires all Federal agencies to formulate "an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." This document affirms the Corps' legal responsibility to engage in pre-decisional consultation with federally recognized Tribes, an important component of that process. Despite the Tribe's extensive previous involvement in the Corps' Lower Snake River sediment management initiatives, including the numerous comments, meetings, and litigation, the PSMP/EIS fails to acknowledge the Tribe's historic ties to the project area and ignores the cultural, religious, economic and nutritional importance the Tribe attaches to the resources that reside in the project area. [Added from 8551] The Corps does not describe the 1855 Treaty in any meaningful way, including failing to list it among the statutory authorities it is required to consider in its analysis. The Corps provides no identification of treaty and trust resources that may be affected by the project, and performs no evaluation at all of the project's impacts on treaty rights. [Added from 8553] There is accordingly no meaningful effort in the PSMP/DEIS to recognize and evaluate the impacts to the	The Corps has added a section to the FEIS (Section 5.1) that provides information on treaties with Native American Tribes, including a specific reference to the 1855 Treaty with the Nez Perce Tribe. The Corps acknowledges the Tribe's historic ties to the project area; and the cultural, religious, economic, and nutritional importance the Tribe attaches to the resources in the project area. The potential environmental effects associated with the PSMP were evaluated on a programmatic level, and included a site-specific evaluation for the immediate need action to re-establish the congressionally-authorized navigation channel. The proposed LSRP maintenance actions will have no significant or long-term adverse impacts on important treaty resources. Meaningful consultation (including Government-to-Government) on the EIS and PSMP (Appendix A) with area Tribes is described in Section 6.2 of the FEIS.

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			myriad Nez Perce Tribal interests in connection with the project. The Tribe expects to see a substantial improvement in this evaluation in the FEIS.	
0091	Silas Whitman	8552	The PSMP/EIS also fails to evaluate the Tribe as an affected population for environmental justice purposes, and performs no analysis of the project's socioeconomic impacts to the Tribe.	See Comment 8550, Letter No. 91. As stated in Section 4.5. of the EIS, "[N]o direct socioeconomic or other effects would be disproportionately borne by high minority or high low-income populations; therefore, no environmental justice issues would result from alternatives considered. Section 5.2.4 also contains information on environmental justice. Neither the PSMP (Alternative 7) nor the current immediate need action consistent therewith is expected to result in any significant or long-term effects to the aquatic or cultural resources which are important to the Tribes.
0091	Silas Whitman	8554	The Corps' interpretation of what Congress intended for commercial navigation on the Snake River system is flawed. First, although the FCA requires the federal navigation channel to be established at 14 feet deep by 250 feet wide, the Flood Control Act does not mandate the Corps to maintain the federal navigation channel at 14 feet when operating at Minimum Operating Pool (MOP). Second, neither the Flood Control Act nor any subsequent Congressional documents support an interpretation that Congress intended for the Corps to maintain the channel at no less than 14 feet at MOP year-round. To the contrary, Congress, in authorizing the Snake River Dams, considered and recognized that navigation may not be available year-round. House Doc. 704, 75th Cong., 3rd Sess. At 9, 39. In addition, the Corps has previously acknowledged time periods when full navigation on the Snake River will not be available. The Corps has also recognized that seasonal light loading has occurred and is occurring on the Snake River. There is therefore no principled statutory interpretation on which the Corps can support a need to maintain the federal navigation channel at no less than 14 feet deep at MOP year-round.	See response to Comment 8684 in Letter No. 68.
0091	Silas Whitman	8555	After reviewing the documents, the Tribe does not support the Corps' preferred Alternative 7 because it is a product of an unreasonably narrow purpose and need that relies on dredging while eliminating from consideration viable options such as increased implementation of sediment reduction measures, maintenance of the Lower Snake River navigation channel at the less than 14 feet depth as has been occurring using light-loading of barges, and partial breaching of the Lower Snake Dams. As a result of the narrow purpose and need, the Corps failed to fully evaluate a reasonable range of alternatives. To safeguard and advance the Corps' treaty and trust responsibilities to the Tribe, the Tribe requests that the Corps fully analyze and adopt a new alternative that prioritizes the additional measures above as well as components of Alternatives 2, 3 and 4. The draft PSMP/EIS does not provide a reasonable range of alternatives. By narrowly defining the purpose and need to require maintenance of the navigation channel at no less than 14 feet by 250 feet year-round, and then applying two levels of screening criteria for the alternatives development that eliminate alternatives which, according to the	See response to Comments 8686 and 8684 in Letter No. 68.

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			<p>Corps, interfere with authorized purposes (again maintaining the navigation channel at no less than 14 feet year-round), the Corps has impermissibly limited the range of alternatives it believes it must analyze to just two alternatives which both include dredging. These two dredging-based alternatives belie the Corps' assertion that it is stressing a "system based approach" to solve sediment-related problems. Such an excessively narrow range of alternatives for a programmatic document is unreasonable and does not satisfy NEPA.</p>	
0091	Silas Whitman	8556	<p>The No Action Alternative as described is not a true no action alternative for several reasons. First, the No Action Alternative is predicated upon the Corps' assertion that the Snake River must be maintained at no less than 14 feet for navigation. Second, the No Action Alternative is not a valid alternative because the No Action Alternative includes actions that are explicitly included in the preferred alternative (Alternative 7). The Corps needs to develop a true No Action Alternative that contemplates the agency not managing the lower Snake River to maintain a 14-foot navigation channel for navigation. The agency also needs to fully evaluate the environmental effects of this No Action Alternative compared with the effects of permitting the proposed activity.</p>	<p>See response to Comment 8687 in Letter No. 68. The effects associated with the No action (Alternative 1) are described in Section 4 of the EIS, along with the potential effects of the other alternatives carried forward for review (Alternatives 5 and 7), which provides an important baseline for comparing potential effects.</p>
0091	Silas Whitman	8557	<p>The Corps states that the purpose of programmatic management is to provide consistency in and a "roadmap" for future project-specific decision-making. The Corps' preferred Alternative 7 does not provide such a "roadmap." Rather, Alternative 7 provides a listing of potential measures that may possibly be implemented, singly or in combination, with little edification on what actually will happen. Rather than a roadmap, Alternative 7 offers confusion and uncertainty regarding the future of sediment management and transportation channel maintenance in the lower Snake River. . . . Absent adequate forethought, planning and preparation for implementation of this type of alternative, the only road map that is apparent is the continuation of channel maintenance dredging. The preferred alternative does not provide an order or preference in which a measure or measures will be implemented when sediment "interferes with authorized purposes. The PSMP/DEIS is supposed to be a programmatic document. Yet it does not identify what measure or measures in the "toolbox" will be implemented to address any of the conditions. Nor do the documents identify any order or preference for how the measure or measures will be implemented. Without a hierarchy or preference guiding how the Corps will select one measure or measures over another to address a "condition," alternative 7 lends itself to reliance on one tool dredging that the Corps has historically demonstrated to strongly prefer as a management tool over other, non-dredging options. Accordingly, the Tribe requests that the Corps identify programmatic selection criteria for each measure as well as a hierarchy or</p>	<p>See response to Comments 8746 and 8754 in Letter No. 76. As described in Section 1 of the FEIS, the PSMP FEIS evaluated alternatives that define broad programs for managing sediments through implementation of future actions (immediate and forecasted needs) as they relate to maintaining the existing authorized project purposes of the LSRP. Actions taken to address the current immediate need to reestablish the navigation channel are covered in this FEIS. Future actions may require project-specific environmental reviews, including preparation of National Environmental Policy Act (NEPA) documents (Environmental Assessment [EA], EIS, or supplemental EIS tiered off of this programmatic EIS. Appendix A of the FEIS presents the PSMP, which was developed from Alternative 7 (the preferred alternative).</p>

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			order that will establish a fair and transparent decision-making framework for determining when, how, and in what order a measure or measures will be implemented.	
0091	Silas Whitman	8560	The preferred alternative does not include operating the Lower Snake River at less than the "authorized" 14 foot deep navigation channel. The Corps is not required to operate the navigation channel at 14 feet deep by 250 feet wide year-round, but is only authorized to do so. The Corps may and has operated the navigation channel at less than 14 feet through a menu of options such as restricting commercial traffic during higher flows or implementing a light-load barging requirement. The Corps needs to include and analyze in detail this viable option either as a stand-alone alternative and as a measure in the preferred alternative.	See responses to Comments 8684, 8691 and 8686 in Letter No. 68.
0091	Silas Whitman	8561	The preferred alternative eliminates increased upland sediment reduction measures consistent with Alternative 2. The preferred alternative limits upstream sediment reduction measures to existing levels. The PSMP/DEIS fails to provide any explanation why the preferred alternative cannot incorporate increased upland sediment reduction measures rather than just implementing existing measures. The Corps eliminated Alternative 2 from consideration because "sediment reduction from upland sourced would not, by itself, be effective at reducing sediment accumulation that interferes with authorized purposes of the LSRP, either for future or immediate needs." DEIS at 2-34. Yet the preferred alternative incorporates other measures, including dredging, to address what the Corps characterizes as an immediate need to maintain the navigation channel at 14 feet year round. Therefore, the Corps' reason for eliminating Alternative 2 as a stand-alone alternative does not apply to the preferred alternative.	See response to Comment 8742, Letter No. 76. Measures were carried forward if they met the purpose and need and were technically feasible. Measures were eliminated only if, by themselves or in combination with other measures, they were incapable of enabling the purpose and need to be met. Alternative 2 (Expanded Implementation of Upland Sediment Reduction Measures) was eliminated from further consideration as an alternative because that alternative alone would not satisfy the action's purpose and need. Section 2.2.2.4 of the FEIS has been revised "The Corps assumes agencies and land owners responsible for land management in the basins that drain into the LSRP... would continue to implement existing land management programs and practices related to upland sediment reduction measures (USRM), consistent with their current authorizations and funding. The continued implementation of current or increased (as funding/technology allow) USRM is considered a baseline component of all alternatives evaluated in this EIS, including the "No action" alternative, and is not being proposed as a separate/stand-alone measure. Studies conducted during the preparation of this FEIS (Appendices B-D) determined USRM would have little or no effect on reducing sediment deposition that interferes with LSRP authorized project purposes.
0091	Silas Whitman	8562	The preferred alternative does not incorporate partial dam breaching of the four Lower Snake River dams. The Tribe requests that the Corps include dam breaching as a viable measure in the preferred alternative and as a stand-alone alternative for detailed environmental analysis.	See response to Comment 8368 in Letter No. 29 and Comment 8686 in Letter No. 68.
0091	Silas Whitman	8564	The overall organization of the Environmental Effects of Alternatives section needs improvement. The section refers interchangeably to "direct effects" and "effects" but does not clearly distinguish direct from indirect impacts. The Tribe recommends that the section be reorganized to include, by alternative, a Direct Impact and Indirect Impact Sections so that the reader clearly understands how the Corps is characterizing those impacts.	The Corps acknowledges that CEQ regulations require the agency to consider both direct and indirect effects in the FEIS (40 C.F.R. 1502.16). However, the regulations do not dictate separate sections for each of these analyses. Direct and indirect effects were considered in the analysis described in Section 4. In cases where indirect effects were identified for a particular element of the environment, these effects are described within the analysis of the element affected. In cases where no indirect effects were identified for other elements of the environment, indirect effects are not discussed.
0091	Silas Whitman	8565	Currently the document does not adequately evaluate the direct, indirect and cumulative impacts of each of the 15 measures identified in Alternative 7. The Tribe recommends that the Corps take each of the 15 measures and evaluate their direct, indirect, and cumulative impacts individually each of the affected	See response to Comment 8697 in Letter No. 68.

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			<p>environment components. First, the PSMP/DEIS provides little or no evaluation of the impacts of several measures on the affected environment. For example, impacts of raising the levees to manage flood risk is not evaluated for aquatic or terrestrial species. Agitation to suspend sediments is not evaluated. Second, the PSMP/DEIS lumps together installation and maintenance of bendway weirs and dikes, dike fields and in-reservoir trapping systems based on broad assumptions about their impacts and analyzes them collectively, rather than individually. Each measure is different and therefore needs to be fully evaluated individually. Third, in the instances where the Corps does evaluate impacts from a measure or measures, the analysis is inadequate. NEPA requires the Corps to provide in the PSMP/DEIS a comprehensive and accurate evaluation of the impacts of the project on the environment. These vague statements do not provide the reader with any meaningful sense of the degree to which these measures will affect the environment. . . . The result of this piecemeal and cursory evaluation is an inadequate examination of the preferred alternative's 15 measures and accordingly does not comply with NEPA. This evaluation cannot be deferred to a later date or included in some theoretical site-specific proposal that may or may not occur during the life of the PSMP.</p>	
0091	Silas Whitman	8566	<p>The research the Corps references in support of its conclusion that creating shallow-water habitat benefits natural subyearling fall Chinook does not state whether Clearwater juveniles would benefit. This is an important consideration because the portion of fall Chinook spawning in the Clearwater consistently makes up about 1/3rd of the naturally spawning population of NOAA's Snake River Fall Chinook Evolutionarily Significant Unit (ESU). Any analysis of benefits of the project on fall Chinook juveniles, including the purported benefits of creating shallow water habitat using dredge spoils, must take into consideration the specifics of the outmigration timing and behavior of those fish reared in the Clearwater River.</p>	<p>See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. The Clearwater population of fall chinook is included in the Snake River fall Chinook ESU. As indicated by the comment, the Clearwater component of the Snake River fall Chinook ESU often migrate through the lower Snake River later in the season than other cohorts. As such, it is recognized that this component of the ESU will likely utilize the shallow water habitat created at Knoxway canyon to a lesser degree than other subyearling fall Chinook produced in the Snake River and Grande Ronde River. Based on the research conducted by the Corps, shallow water habitat creation is a benefit to the overall ESU as it increases the overall amount of shallow water habitat available for rearing within the migratory corridor.</p>
0091	Silas Whitman	8568	<p>The Corps also needs to provide additional information concerning another impact on juvenile fall Chinook. There is inadequate analysis concerning the impacts of predation on juvenile fall Chinook salmon that may use this new shallow habitat. There is also a lack of information regarding the impacts to sturgeon due to the decrease in mid-depth habitat for sturgeon</p>	<p>Potential increased predatory habitat for smallmouth bass is discussed with regard to weir field development. Section 3.1.4.3 (Predatory Species) of the FEIS discusses that smallmouth bass are common predators in shallow water habitat. As such, in Section 4 a brief discussion of the likely potential for increased predation by smallmouth bass in created shallow water rearing sites will be updated along with Snake River fall chinook life-history and distribution with recent monitoring results of Connor et al. 2013, Tiffan and Connor 2012, and Arntzen et al. 2012. Based on research since the 1990's, creation of shallow water habitat has been shown to not increase the amount of predation on juvenile fall chinook while concurrently providing additional juvenile chinook rearing habitat. Pre-dam/pre-reservoir habitats used during fall chinook outmigrations would have been predominately shallow water habitats except for the larger deeper pools used by sturgeon. While filling the reservoirs has resulted in the creation of more mid-depth habitats and potentially resulted in more habitat for shoreline and non-native predators such as smallmouth bass, salmonid predators such as bass typically utilize adjacent cover (of which darker depths can be classified). Hence, we aim to place materials in a large enough footprint with no cover (open sand or small gravels) designed to retard hunting</p>

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				<p>opportunity of predators such as smallmouth bass from that mid-depth to shallow water edge.</p> <p>Sturgeon populations present in the action area are identified and discussed in Section 3.1.4.3 of the EIS. Section 4.1.2.1 of the FEIS, which discusses potential effects associated with Alternative 5 (Dredging and Dredged Material Management) states "White sturgeon spawning occurs in fast flowing sections of the Snake River below dam tailraces (Parsley and Kappenman 2000) and at the upstream reach of Lower Granite Reservoir, so dredged material placement in the deeper, slower flowing reservoirs would not affect white sturgeon spawning habitat." That discussion is carried forward into the discussion on potential effects associated with Alternative 7 in Section 4.1.3 (including the current immediate need action to reestablish the navigation channel).</p>
0091	Silas Whitman	8570	<p>The CEQ's draft guidance suggests an environmental impacts statement include an analysis of (1) cumulative emissions over the life of the project; (2) measures to reduce GHG emissions, including consideration of reasonable alternatives; and (3) a discussion of the link between such GHG emissions and climate change. Section 3.9 of the PSMP/DEIS provides some discussion of regional climate conditions in the context of air quality. . . . However, there is no analysis concerning the cumulative emissions over the life of the project, measures to reduce GHG emissions, or a discussion of the link between such GHG emissions and climate change.</p>	<p>See response to Comment 8698 in Letter No. 68.</p>
0091	Silas Whitman	8571	<p>The Corps needs to identify and evaluate how the projected climate change may affect the project area over the life of the project. Although the Corps did reference climate change in the context of contributing sources of sediment from wildlife, there is no analysis of climate change impacts to Snake River water temperatures. Climate change impacts should also be fully evaluated regarding water quantity and quality, sediment production and deposition, and impacts to ESA-listed species or other aquatic life. The Corps also needs to perform a better analysis of the thermal impacts, including climate change, on aquatic resources caused by the creation of shallow water impacts.</p>	<p>See response to Comment 8461 in Letter No. 44.</p>
0091	Silas Whitman	8572	<p>There is no Indirect Impacts section in the PSMP/DEIS to refer to. In fact, the Tribe identifies very few instances where indirect impacts are even explicitly identified in the document. Failure to identify and fully evaluate indirect impacts in the EIS violates NEPA. The Corps needs to develop a new section, clearly labeled Indirect Impacts, for each alternative.</p>	<p>See Comment 8564, Letter No. 91.</p>
0091	Silas Whitman	8573	<p>Table 4.2 labeled "Reasonably Foreseeable Future Actions" identifies an impact to urban land uses that will "maintain and potentially minimally expand existing urban areas." DEIS at 4-63. Under the Socioeconomics Section, the document states that ". the Pacific Northwest wheat forecast for 2011 is strong and world demand is growing, which is likely to result in substantial cargo volume growth." DEIS at 3-47. Similarly, under Section 4.5, the document concludes that "[s]ediment and system management measures ... would generally have a long-term indirect positive effect on regional economies by providing</p>	<p>The proposed action (alone) is not expected, either directly or indirectly, to result in an increase in barge or other boat traffic on the lower Snake River. While the FEIS acknowledges (Section 3) that forecasts indicate shipping could increase, such an increase would result from improvements in the economy (local, regional, national, and international), market forces, and harvest conditions -- not the continued maintenance of the LSRP navigation channel. The proposed current immediate need action would simply reestablish the existing navigation channel to its congressionally-authorized dimensions. Such maintenance, by itself, would not result in an increase in barge or other boat traffic on the lower Snake River.</p>

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			for continued commercial navigation and movement of commodities, providing options for commodity shippers, and maintaining acceptable levels of flood protection in Lewiston, the result would be positive long-term benefits to the communities protected by the levees." Given these pronouncements points to economic growth in the region the project will facilitate, such as "substantial cargo volume growth" and "potentially minimally expand existing urban areas," there is no accompanying identification of the indirect impacts of increased barge or other boat traffic to and from the area. The Corps needs to identify and evaluate this information as an indirect (and possibly cumulative effect) in the document.	
0091	Silas Whitman	8574	The Corps also needs to evaluate the socioeconomic impacts of the project on transportation industries that do not rely on the LSRP to move their goods to and from market. Facilitating barge shipments may negatively affect shipments by rail and truck but this impact has not been identified or evaluated at all. More boat traffic to and from the Snake River can interfere with the nets or prevent treaty fishers from placing their nets safely on the river.	See response to Comment 8360 in Letter No. 12 and Comment 8573 in Letter No. 91. Continued maintenance of the existing lower Snake River navigation channel is not expected to result in an increase in commercial navigation or a reduction/increase in other transportation modes. Any increase or reduction in shipping or other transportation (if they occur) would be dictated by the economy and market forces. Additionally, any change in shipping/transportation would not require an increase in navigation channel maintenance. Regarding any potential conflict between commercial navigation, recreational boaters, and Tribal fishers, all river users would be expected to follow boating regulations and be alert to prevent boating accidents.
0091	Silas Whitman	8575	The Corps also needs to evaluate the cumulative effects of implementing multiple measures from the "toolbox" over time. Currently the PSMP/DEIS evaluates the measures' impacts individually. However, the document acknowledges that a measure or measures may be implemented from the toolbox to address an immediate or future need. No analysis has been performed to determine what the incremental effects would be of applying more than one measure simultaneously or close in time.	See response to Comment 8700 in Letter No. 68.
0091	Silas Whitman	8576	As the Corps is aware, the United States and Canada are reviewing the treaty before the 2014 opportunity for notice for earliest termination. One of the key topics under negotiation concerns the called upon storage operations. This condition may likely require maintaining storage capacity at Dworshak Dam over other uses such as fish and cultural resources. This drop in volume will likely translate into lower than average flows in the Snake River in April, May and into the summer. As a result, Snake River fall Chinook may have less water available for rearing and outmigration. Less water in the Snake River system, in conjunction with possible continued operation of the reservoir pools at MOP + 1 or+ 2, may negatively affect Snake River juvenile salmon. This and other scenarios relating to changes in the Columbia River Treaty during the life of the project are not identified or evaluated in the PSMP/DEIS and should be fully analyzed.	The proposed action does not include O&M at Dworshak Dam and Reservoir (a storage project), as Dworshak is not a lower Snake River project. The FEIS, therefore, does not evaluate potential effects associated with changes to the Columbia River Treaty as either a direct or indirect effect. Additionally, changes to the Columbia River Treaty that may affect Dworshak operations is not a reasonably foreseeable action at this point for cumulative effects analysis. No decisions have been made regarding the Columbia River Treaty with Canada, and no decision on operational changes (if any) is expected until long after the date the Corps anticipates signing a Record of Decision for the PSMP/EIS. The Corps cannot evaluate the potential effects of an action that is completely undefined at this point (i.e., not reasonably foreseeable).
0091	Silas Whitman	8577	The draft PSMP/DEIS find that there are not disproportionate impacts of the project on the Tribe or its members. Any impacts on salmon, steelhead, lamprey or other trust resources, will	See response to Comment 8552 in Letter No. 91.

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			have a disproportionate impact on the Tribe due to their reliance on fish and the importance of fish to Tribal culture, spirituality and economy. Tribal members consume a substantially higher rate of fish than the non-Tribal communities.	
0091	Silas Whitman	8578	PSMP/DEIS excludes economic analysis of the impact of the project on the Nez Perce Tribal economy and the health and welfare of its people. The socioeconomic analysis is flawed because it is limited to counties that encompass the project area and does not consider social and economic factors unique to the Tribe and its treaty rights and resources, which extend outside of the county areas analyzed.	See responses to Comments 8550 and 8552 in letter No. 91.
0091	Silas Whitman	8579	The PSMP/DEIS does not provide a complete or accurate accounting of the costs and benefits of dredging with respect to maintaining the navigation channel at 14 feet by 250, as well as access to port berthing areas. The Corps also does not evaluate the costs of dredging and barging with other transportation such as trucking and rail. The PSMP DEIS also does not contain any analysis evaluating whether the preferred alternative even makes economic sense at a local or regional scale. The Corps possesses substantial information assessing the economics of river navigation, yet none of this information is provided or evaluated in the context of the project. The preferred alternative may result in greater socioeconomic costs than benefits. The reader does not know the answer to this question because the Corps has failed to address it as a socioeconomic consideration. The available information in the PSMP DEIS suggests that the costs of dredging alone may greatly outweigh any perceived benefits captured through facilitating barge, rather than rail or truck, traffic.	See response to Comment 8360 in Letter No. 12
0091	Silas Whitman	8581	The PSMP/DEIS acknowledges the existence of numerous known archaeological sites within the project area. The Tribe has determined that the Corps' survey work to date does not adequately cover the project area and therefore the agency's conclusions about the nature and extent of possible impacts is based on incomplete information. The Tribe is also concerned that the Corps is speculating about impacts on tribal historic properties without consulting in advance with the Tribe.	Section 4.4 of the FEIS does acknowledge that future actions under the PSMP may result in adverse effects to historic properties. Such future (tiered) actions, however, would be subject to their own review, including consultation with the appropriate Tribal Governments in accordance with Section 106 of the NHPA and its implementing regulation 36 CFR Part 800. The Corps will consult with Tribes and appropriate state SHPO(s) as part of that process. Section 5.1.12 of the FEIS identifies "No Potential" to affect historic properties for development of the PSMP, as the plan itself does not direct any specific action. The PSMP is a framework for identifying actions to be taken in the future if justified. The Corps has determined that the current immediate need action, consistent with the PSMP, to reestablish the navigation channel will result in "No historic properties affected". NHPA Section 106 consultation was initiated in January 2013 when the SHPO and area Tribes were provided information regarding the area of potential effect of the current immediate need action. This letter also requested that the consulting parties provide comments or information they felt was relevant regarding properties or effects associated with the current immediate need action. A number of the consulting parties responded, and subsequently cultural resources were discussed in face-to-face, technical meetings at the request of both the Nez Perce Tribe and the Yakama Nation. Based on the responses and follow-on conversations the Corps prepared its official determination of effect in May of 2013. The Idaho SHPO had previously declined to review the determination of effect in a letter dated 1 Feb. 2013, citing the fact that the current immediate need action was occurring in areas previously dredged. The Washington SHPO concurred with the determination of "No historic properties affected" in a letter dated 20 May 2013.

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS

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0091	Silas Whitman	8582	The Draft EIS does not provide analysis of avian predation or increases in piscivorous predation resulting from creating shallow water adjacent immediately upstream of Knoxway Bay, a large backwater which would appear to provide the highest quality largemouth bass and crappie habitat in the reservoir as well as the highest quantity of perching structure for double-crested cormorants	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. Creation of shallow water habitat near Knoxway Bay is not believed to increase the likelihood of predation on Snake River fall Chinook relative to other locations in the Lower Snake River. In regards to avian predation on fall Chinook, creation of additional shallow water habitat is not expected to increase foraging by piscivorous waterbirds in this area. Double-crested cormorants are pursuit divers capable of diving to most water depths found throughout the lower Snake River and are not likely to key in on fall Chinook in this area. Knoxway Canyon is not considered high quality perching habitat or roosting habitat nor have cormorants been observed in aggregations in this area (D. Roby personal communication; Roby et al 2011). In regards to predation on fall Chinook by largemouth bass and crappie, creation of shallow water habitat at the proposed disposal site is not expected to increase beyond predation levels seen at other shallow water locations within the Lower Granite Reservoir.
0091	Silas Whitman	8583	The use of dredge material to create shallow water habitats may increase the amount of available habitat for juvenile fall Chinook. However, it will decrease the amount of middepth habitat used by sturgeon. Further assessment of the availability of mid-depth habitat and sturgeon is necessary.	See response to Comment 8568 in Letter 91.
0091	Silas Whitman	8584	There are potential concerns regarding elevated summer water temperatures: The DEIS at 4-35 states that summer water temperatures may increase at shallow water deposition sites but are not anticipated to be significant. The DEIS does not analyze thermal impacts, however, instead providing irrational and flawed justification for anticipated lack of impact (page 4-35). Conversely, the 2001 USACE Dredged Material Management Plan for Lower Snake River Reservoirs states that creation of shallow water habitat could increase the availability of warmer near-shore waters, potentially resulting in enhanced growth and higher survival for resident game fish and, possibly, subyearling Chinook (page K-17).	Statement is correct that creation of shallow water habitat could increase the availability for warmer near-shore waters for specific fish species. Detailed discussion regarding benefits to fish from shallow water habitat creation is discussed in Section 4.1, Aquatic Resources of the FEIS. The comment refers to the Section 4.6, Water Quality of the FEIS. The discussion in this section does not negate the fact that there would potentially be elevated water temperatures at in-river placement sites, but draws the conclusion that overall changes to the thermal budget of the "reservoir" as a whole, are not anticipated to be significant.
0091	Silas Whitman	8585	While above listed impacts may be found to be relatively insignificant for the proposed shallow water deposition of a 26 acre area, information (and lack of same) provided for Preferred Alternative options may suggest that dredging be identified for regular implementation. Given that the Corps' 2001 Dredged Material Management Plan proposes six additional LGR disposal sites totaling 1,022 acres, future impacts on salmonid predation, sturgeon habitat and temperature could be highly significant.	Currently, the Corps is proposing to place dredged materials at the Knoxway Canyon site for the proposed current immediate need action. Future actions to manage sediments may involve placement of additional sediment at sites within the lower Snake River depending on future proposed actions. As the Corps has not proposed future actions at this time, identification of specific future disposal sites is premature. The Corps will identify sediment disposal locations if warranted and assess the environmental effects of placement when future actions are proposed. The EIS identifies direct, indirect, and cumulative effects at the programmatic level.
0091	Silas Whitman	8586	Figure 3-1 describing typical migration timing of anadromous salmonids needs to be revised to cover the complete migration period. Juvenile spring/summer Chinook migration period needs to be extended. Juvenile fall Chinook are migrating/present all year. Coho adult migration can likely be initiated in September not August. Steelhead adults are present all year.	The Corps will update Figure 3-1 to better reflect typical migration time and periods of presence. It should be noted that some salmonids are present at certain times of year while not actively migrating through the FCRPS. For example, some juvenile fall Chinook are present in the winter as 'reservoir type' individuals and not actively migrating downriver at all times.
0091	Silas Whitman	8587	Description of fall Chinook redd distribution on page 3-10 should be revised to acknowledge that 30% of the redds occur in the Clearwater River.	The Corps acknowledges that the Clearwater River provides an important spawning aggregate of the Snake River basin. The text in Section 3.1.4.2 of the FEIS will be revised to include a better description of spawning locations within the Snake River Basin.
0091	Silas Whitman	8588	Coho salmon description on page 3-13 states the 1995 reintroduction was done "in cooperation with USFWS and	Concur. Statement in Section 3.1.4.1 will be updated to reflect comment.

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			IDFG". This should be deleted as the effort was a NPT program with actual objection by IDFG	
0091	Silas Whitman	8589	Juvenile lamprey may be present in dredging areas. Monitoring of dredged materials for juvenile lamprey should be required.	<p>The Corps does not propose to conduct additional monitoring for lamprey as part of the proposed current immediate need action. Impacts to juvenile lamprey as part of future actions will be evaluated as part of each tiered-off NEPA analysis, and based on the most recent information available. Section 3.1.4.2 of the FEIS has been revised to incorporate additional information regarding Pacific lamprey, including information on presence/absence and sampling methodologies. Lamprey typically migrate up the Snake River during summer and spawn the following spring, with juvenile lamprey (ammocetes) spending 3-7 years rearing in freshwater before beginning their outmigration to the ocean. They spend 1-2 years in the ocean as an adult (Luzier, C.W., H.A. Schaller, J.K. Brostrom, C. Cook-Taboer, D.H. Goodman, R.D. Nelle, K. Ostrand and B. Streif. 2011, Pacific Lamprey (<i>Entosphenus tridenatus</i>) Assessment and Template for Conservation Measures. U.S. Fish and Wildlife Service, Portland, Oregon. 282). Juvenile lamprey are known to rear in sandy substrate in tributary streams, as well as at the confluences of stream/river systems where suitable rearing conditions exist. As noted in the text, "Juvenile lamprey typically have a patchy distribution related to other environmental variables such as water depth and velocity, light level, organic content, chlorophyll concentration, proximity to spawning area and riparian canopy" (Moser et al. 2007). Additionally, juvenile lamprey are believed to move downriver during their freshwater rearing as a result of high flow scouring events and/or volitionally for a variety of potential reasons (Luzier, et al. 2011). As a result, lamprey may be present at an individual location (e.g., the Snake River and Clearwater confluence) seasonally and/or at least during sporadic periods such as after high flow events. Juvenile lamprey may be impacted during the proposed near-term action. It is anticipated that juveniles may have the opportunity to be flushed or swim from the barge if captured during dredging activities. By placing dredged materials in shallow water, any juvenile lamprey that remain in the materials may have the opportunity to escape and/or continue to utilize the area. Impacts to juvenile lamprey as part of future actions will be evaluated as part of each tiered action, based on the most recent information available.</p> <p>The EIS has been revised to indicate that, while sampling did not indicate juvenile lamprey are present at the confluence of the Snake and Clearwater Rivers where suitable rearing habitat is present for ammocetes, it is possible they may be present and could be impacted by the proposed actions. The sampling methods used were experimental, but were based on the best available science at the time. Electrofishing techniques, a sampling method that has successfully located juvenile lamprey in the lower Columbia River, were used. As a result of having only 1 year of habitat sampling information regarding juvenile lamprey presence/absence in the lower Snake River and no established sampling technologies, information from the lower Columbia River and general Pacific Lamprey life history information will be used to inform the EIS regarding potential impacts to this species within the project area.</p>
0091	Silas Whitman	8590	Regarding other issues related to lamprey: The Tribe's comment is that: Rather than apply the experimental, untried electro-fishing/optical camera approach, using the method and statistical treatment employed by Jolley et al. (2012), including the Generalized Random Tessellation Stratified (GRTS) sampling approach, would have made more sense. Jolley et al. (2012) was able to confirm that larval Pacific lampreys occupy Bonneville Reservoir, a larger body of water than Lower Granite pool. Therefore, it is an understatement to say that, "It is plausible that juvenile lamprey were present but not observed	<p>The FEIS and Appendix J text will be revised to indicate that while sampling efforts have not indicated juvenile lamprey are present at the confluence of the Snake and Clearwater Rivers where suitable rearing habitat is present for ammocetes, it is possible they may be present and could be impacted by the proposed actions. While the sampling methods utilized were experimental, they were based on the best available science at the time and utilized electrofishing techniques, a sampling method that has successfully located juvenile lamprey in the lower Columbia River (Moser et al. 2007; Artzen et al 2013). It should be noted that the Jolley et al. (2012) methodology was in development at the same time as the methods utilized to inform this FEIS and were expected to provide similar results while being less obtrusive towards juvenile lamprey as they would not need to be physically handled for assessment. As</p>

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			with this electro-shocking sled as it was recently developed for this specific objective and had a limited testing period prior to deployment." Actually, the results of the survey are meaningless and would errantly be used, even by suggestion, as evidence that larval Pacific lamprey are absent in the LSRP. the narrative and assessment of potential impacts to Pacific lamprey need to be redrafted	a result of having only one year of habitat sampling information regarding juvenile lamprey presence/absence in the lower Snake River and no established sampling technologies, information from the lower Columbia River and general Pacific Lamprey life history information will be utilized to inform the FEIS regarding potential impacts to this species within the project area. Juvenile lamprey are known to rear in sandy substrate in tributary streams and at the confluences of stream/river systems where suitable rearing conditions exist. As noted in the text, "Juvenile lamprey typically have a patchy distribution related to other environmental variables such as water depth and velocity, light level, organic content, chlorophyll concentration, proximity to spawning area and riparian canopy (Moser et al. 2007)." Additionally, juvenile lamprey are believed to move downriver during their freshwater rearing as a result of high flow scouring events and/or volitionally for a variety of potential reasons (Luzier, et al, 2011). As a result, lamprey may be present at an individual location such as the Snake River and Clearwater confluence seasonally and/or sporadically such as following high flow events. It is recognized juvenile lamprey therefore may be impacted during the proposed near term action. It is anticipated that juveniles may have an opportunity to be flushed or swim from the barge if captured during dredging activities. By placing dredged materials in shallow water, any juvenile lamprey that remain in the materials may have the opportunity to escape and/or continue to utilize the area. Impacts to juvenile lamprey as part of future actions will be evaluated as part of each tiered action based on the most recent information available.
0091	Silas Whitman	8591	In the staff-to-staff meeting, Corps staff informed us their own internal triggers had been met that dredging alone was not the answer to the sediment issues, yet the EIS only looks at dredging.	The Corps reviewed numerous measures PSMP/EIS that could be used to manage, or prevent if possible, sediment that interferes with existing authorized project purposes of the LSRP. It was during that analysis and evaluation of measures/alternatives that the Corps determined there is only one (1) measure that can be used once sediment accumulates to the point of interfering with the safe navigation -- i.e., dredging. It was for that reason the Corps included the current immediate need action in this EIS rather than addressing it in a future tiered-off environmental assessment -- i.e., efficiency. In addition to providing the required channel dimensions for commercial navigation, reestablishing the navigation channel to 14 feet deep at MOP supports juvenile salmonid outmigration (as addressed in National Oceanic and Atmospheric Administration 2014 Supplemental Biological Opinion for the Federal Columbia River Power System, Reasonable and Prudent Alternative Action 5). Triggers have also been hit for the long-term (future forecasted need) action for navigation at the Snake/Clearwater Rivers confluence and both the current immediate need and long-term for recreation at several boat basins. Analysis of measures to address these needs would be addressed in future tier-off NEPA analyses, subject to funding availability.
0091	Silas Whitman	8592	Sediment input is suggested to be at the highest since 1970. ACOE staff suggests long bankfull events route more sediment than short peak flood events. ACOE ran model simulations of 50 years and suggest the bed level would vary from 1 ft. to over 15 ft. Yet in staff to staff when asked if the cross-section data showed the river had reached equilibrium they felt it had reached this point. So is the section at equilibrium or will it continue to fill in?	See response to Comment 8361 in Letter No. 14. 'Equilibrium' of a system is dependent upon the definition of the boundaries for the system under consideration; as well as the 'definition' of equilibrium itself. 'Equilibrium' of a system with respect to sediment transport is generally defined as being reached when 'sediment inflow' equals 'sediment outflow.' 'Local equilibrium' might be applied to a localized area such as at the Snake/Clearwater confluence; whereas 'system equilibrium' might be applied to the entire extent of Lower Granite Reservoir. With respect to 'local equilibrium' in the vicinity of the Snake/Clearwater confluence, it is likely that some short river reaches may have reached an equilibrium condition; and the 'local sediment inflow' and the 'local sediment outflow' are approximately equal. However, a 'system equilibrium' of Lower Granite Reservoir will not be reached for perhaps hundreds of years since its storage volume available for trapping sediment is approximately 480,000 acre-feet. Assuming an average annual sediment accumulation of 2,200,000 cubic yards, it would take approximately 350 years to approach 'system equilibrium' conditions.
0091	Silas Whitman	8593	Cumulative Effects (pg. 4-66). The Corps will continue to dredge but never address where future dredging spoils will be placed and potential impacts.	See responses to Comments 8408 in Letter No. 22 and 8700 in Letter No. 68. The Corps proposes dredging as a current immediate need action to reestablish the authorized dimensions of the Federal Navigation Channel. Future proposals, pursuant to the

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				adopted Programmatic Sediment Management Plan, would be developed to address sediment management needs. Dredging and dredged material management are a measure included in both DEIS Alternatives 5 and 7. However, the process to determine actions for future actions would be based on the planning and decision making framework presented in FEIS Appendix A. If future action involves dredging and dredged material management, the Corps would assess project specific alternatives, which could include multiple locations for placement of dredged material. Analysis of specific proposals for dredged material placement would occur as part of the project-specific tier-off NEPA analysis. The EIS identifies direct, indirect, and cumulative effects at the programmatic level.
0091	Silas Whitman	8594	The Tribe's ultimate goal is to have the lower Snake dams breached. As such, deposition of dredged materials should be done in manner that will preclude their downstream transport under natural river conditions (either remove from river or placed in stream well outside of historical river channel).	As stated in Section 2.3.2.1 of Appendix L to the FEIS, the proposed in-water disposal site for habitat development is located in the Lower Granite reservoir at Snake RM 116 and was selected for its proximity to dredging locations while meeting engineering and biological criteria. This site is an approximately 120-acre mid-depth bench on the left bank of the Snake River about 0.5 river miles upriver of Knoxway Canyon. The Knoxway site was historically an old homestead orchard and pasture located several hundred feet upland of the historic river shoreline.
0091	Silas Whitman	8595	Section 3.4.1 - "Archaeological resources, historic buildings and structures, and traditional cultural properties that have been evaluated on the basis of specific criteria and found eligible for the National Register of Historic Places are referred to as historic properties." Is this list comprehensive? The term "historic properties" does not apply only to evaluated resources	The list is consistent with definition of historic properties in the NHPA and implementing regulations. Regarding the statement that "the term 'historic properties' does not apply only to evaluated resources," the language in Section 3.4.1 has been changed to read "Archaeological resources, historic buildings and structures, and Traditional Cultural Properties that are eligible for listing in the National Register of Historic Places are referred to as historic properties." For any proposed actions under the PSMP, the Corps would identify and evaluate historic properties within the APE, in accordance with the NHPA.
0091	Silas Whitman	8596	3.4.1.1 - are the lists of archaeological resources meant to be definitive? In the discussion of historic resources, ACEWW must acknowledge that Tribal resources may also be historic (i.e., post-contact).	See responses to Comments 8595 and 8581 in Letter No. 91. . . The Corps acknowledges that other resources may be present in the project area. Specific resources will be identified and evaluated as part of project-specific analyses associated with proposed future actions.
0091	Silas Whitman	8597	3.4.1.2The section heading and subsequent repeated phrase "historic property of religious and cultural significance" is incorrect. The language in NHPA is "historic property of cultural and religious significance TO INDIAN TRIBES." The document appears to combine HPCRSIT and traditional cultural properties (TCP), which are defined in National Register Bulletin 38. These are related but separate classifications, and the document uses the definition of TCP to discuss HPCRSITs. ACEWW needs to add a section for TCPs. Remove the word "aboveground" from the definition for historic buildings and structures. This section implies that historic themes define which resources are valid. Whose themes? Is there a list? Is the list static? Themes are important, but not all NR eligible resources may fit into existing themes.	The language used is consistent with both the NHPA and its implementing regulation 36 CFR Part 800, which has the order of significance as "religious and cultural". All mentions of TCPs have been removed from Section 3.4.2. HPCRSITs are a type of traditional cultural property. The explanation of themes has been refined to be specific to historic properties, then follow that by explaining that we also work with Tribes to identify HPCRSITs that do not align with traditional research themes. 3.4.1.3 Now reads: "Historic buildings and structures refer to extant elements of the built environment and are evaluated for significance in the context of themes identified in the study area: exploration, missions..."
0091	Silas Whitman	8598	3.4.2p 3-36, paragraph 2"The Confederated Tribes of the Yakama Reservation, Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Colville Nation, the Nez Perce Tribe, and the Wanapum Band have interests in traditional resources in this area." Define this term, as I'm not sure what it means. Are these treaty resources, TCPs, HPCRSITs, etc.?	The phrase "traditional interest" has been removed from this paragraph, thus eliminating the need to discuss its definition. The rest of that paragraph goes into some detail as to what these resources are, but we will standardize by using the HPCRSITs terminology as a legally recognized catch-all for religious and cultural properties of interest to Indian Tribes.
0091	Silas Whitman	8599	p 3-36, paragraph 5"The Lower Snake area contains the type sites for phases identified as a foundation of the cultural	Section 3.4.2 of the FEIS has been revised. The examples provided are only there to establish the context of both the antiquity and significance of cultural remains within the Lower

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			chronology: Windust Cave, the Tucannon site, and the Harder site. The earliest dates in the region come from Marmes Rock shelter and the Granite Point (10,000-9,000 years ago), Windust Cave (before 5,000 years ago), and Ash and Burr Caves (8,000 years ago)." These are not the oldest sites in the region. Hatwai and Lower Salmon River sites are older, and well known.	Snake River drainage.
0091	Silas Whitman	8600	p 3-37, paragraph 1-"In 1948 the Columbia Basin Project of the River Basin Surveys conducted an intensive reconnaissance of Harbor, Lower Monumental, and Lower Granite Reservoirs as well as the Hells Canyon Dam area." This survey took 2 weeks for over 100 miles of river shoreline. This was not an "intensive survey" by contemporary standards, and the results of the survey should not be regarded as authoritative or conclusive.	The Corps has revised the text in Section 3.4.2 of the FEIS to more accurately reflect the nature of the Columbia Basin Project study.
0091	Silas Whitman	8601	p 3-37, paragraph 2"Salvage excavations were undertaken at a number of places along the Snake River and on major tributaries, including the Palouse River and Alpowa Creek. Most of the data was never formally reported and many of the assemblages were not analyzed." This is true, so it is difficult to use the excavation results as baseline data, or draw many conclusions about the archaeological record or Columbia Plateau cultures and/or cultural change from the excavation data.	The Corps agrees that the resulting data from these salvage excavations has limited utility for answering more specific archaeological questions, but the information has been useful in inferring information such as site locations and settlement patterns that are useful for interpreting the presence of sites within areas potentially affected by Federal undertakings.
0091	Silas Whitman	8602	p 3-37, paragraph 7"Most areas with high potential for cultural resources in the lower Snake River portion of the study area were inundated by reservoirs associated with the four dam projects on the Lower Snake. Cultural resource sites in these areas may contain both prehistoric and historic period components. The areas with high potential for cultural resources include mesa tops and overhangs, talus slopes, confluences, tributary streams, springs, terraces, alluvial fans, flood channels, and channel bars." This is an accurate statement, but it is unclear what its relevance is to the PSMP or discussion of its effects on cultural resources.	The purpose of the statement was to indicate that areas inundated, such as those within the project area, must be considered as having a high potential for containing cultural resources.
0091	Silas Whitman	8604	4.4.1 -"Historic buildings, including the dams, would not be affected by maintaining pool levels at the navigation objective." Maintaining pool levels might not cause further impacts, but will not undo the existing impacts of the project.	The FEIS does not evaluate the potential effects associated with the existence of the LSRP. The purpose and need for the proposed actions, as stated in the EIS, is to maintain the LSRP by developing a PSMP for managing sediment that interferes with existing authorized purposes of the LSRP and implementation of an immediate need action consistent with the PSMP to re-establish the congressionally authorized navigation channel. (14' deep by 250' wide). The purpose is not to evaluate the potential effects associated with the existence of the LSRP.
0091	Silas Whitman	8605	4.4.2.1 p 4-27, paragraph 3 -"Dredging and the disposal of dredged material also have the potential to disturb values associated with historic properties of religious and cultural significance to Indian tribes. The Corps recognizes a number of these types of sites, many of which were inundated when the reservoirs associated with the LSRP were filled." What site type does the Corps recognize? Are there site types that the Corps does not recognize?	The section 4.4.2.1 of the FEIS has been revised to read "Dredging and the disposal of dredged material also have the potential to disturb sites of religious and cultural significance to Indian tribes, including those that may have been inundated when the reservoirs associated with the LSRP were filled".
0091	Silas Whitman	8606	p 4-27, paragraph 4 "One other aspect of dredging that has the potential to affect historic properties is the disturbance of	This issue was discussed during technical staff-to-staff meetings with the Nez Perce Tribe on 15 February 2013 and the Yakama Nation on 18 March 2013. The discussion at those

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			secondary deposits of archaeological material that may occur within sediments identified for dredging; including, potentially, human remains. Although the secondary deposition of the archaeological material likely means it retains no archaeological value, it may have traditional religious and cultural significance, especially in the case of human remains. For this reason, in-water disposal of dredged material is preferred as it ensures that the material remains in the river, in a secondary depositional environment. However, in shallow areas where dredged material may be placed for beneficial use, material placement and contouring and anchor lines also have the potential to disturb or bury inundated sites." The Corps cannot say this without consultation with the Tribe. At this time, this is the opinion of the contractor and maybe the Corps.	meetings was used to inform the Corps final NHPA Section 106 determination of effect provided to all consulting parties in May of 2013. No specific comments were received regarding this matter.
0091	Silas Whitman	8607	p 4-28, paragraph 1 -"Placement of fill has the potential to bury archaeological sites. This may entail some beneficial protection; however, the chemical effect of burying sites is not well understood. Reuse of fill in conjunction with habitat enhancement may have beneficial effects for historic properties of religious and cultural significance to Indian Tribes." The Corps should not say this without consultation with all the Tribes with interest in the Lower Snake River. At this time, this is the OPINION of the contractor and maybe the Corps.	The section 4.4.2.1 of the FEIS specifies that in relation to this point any future actions would be subject to "project-specific" reviews. Therefore, no final determination of effects would occur prior to consultation occurring on any future actions. In regards to the current immediate need action the determination was made, in the NHPA Section 106 determination of effect, that the placement of fill was not occurring over any known archaeological sites.
0091	Silas Whitman	8608	4.4.2.2 p.4-28, paragraph 5 -"some dredging would be done in close proximity to archaeological sites, but should not directly impact any of them." How can the Corps guarantee this? p 4-28, paragraph 6 in Idaho, two locations would be dredged. Each location has a portion of an archaeological site included wit/till the study area but, again, it is not anticipated that dredging activity would impact cultural properties because both locations have been previously dredged several times to the same depths proposed for the near-term maintenance dredging actions. "Is the Corps asserting that existing impacts result in no effect to historic properties?"	The Corps based this finding on the fact that no dredging is proposed outside of areas that have been previously dredged, and that the material proposed to be dredged has only accumulated since the last large scale dredging project that occurred in 2005/2006. This determination is further supported by the fact that the Corps has completed dredging of all of the current template at multiple times in the past.
0091	Silas Whitman	8609	4.11.2.1 p58, paragraph 1 -"Dam building on the Snake River system has resulted today in 17 dams on the main stem of the Snake River and more than 20 dams on 1Tributaries, though most are outside the cumulative effects area (USACE 2005)." What is the area of cumulative effects? How did the Corps determine this area? Was it done in consultation with the Tribes? FCRPS does NOT have an agency approved APE for either direct or indirect effects.	The Corps defined the geographic scope of the cumulative effects analysis based on guidance in the Council on Environmental Quality's <i>Considering Cumulative Effects Under the National Environmental Policy Act</i> . The cumulative effects analysis for the PMSF was not specifically related to the FCRPS, other than FCRPS dams are included within the geographic scope of the cumulative effects analysis. Furthermore, the cumulative effects discussed in the FEIS are consistent with identifying sources of, and areas affected by, sediment on the Lower Snake River and not the operation and maintenance of the entire FCRPS system.
0092	Kristin Meira	8610	PNWA strongly supports the Corps' decision to commence maintenance dredging at the earliest possible opportunity to re-establish the navigational channel at authorized dimensions, which will ensure that navigation continues in an unimpeded and safe manner.	Thank you for your comment.
0092	Kristin Meira	8611	Specifically, PNWA is concerned that facility reconfiguration and relocation is opaquely described and could lead to prohibitively expensive and impracticable solutions that could greatly burden	See response to Comments 8407 and 8408 in Letter No. 22. The Corps would review relocation or reconfiguration of facilities in the tier-off NEPA if those measures would help solve the sediment deposition problem at a specific site.

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			local communities. PNWA urges the Corps to provide more detail on when and how it would ever consider resorting to this option in lieu of more readily available and pragmatic options such as maintenance dredging during the approved in-water work window.	
0092	Kristin Meira	8612	Similarly, PNWA is equally concerned about the prospect of drawdown as an option to deal with sediment accumulation. As the 1992 drawdown of the Lower Granite pool demonstrated, a great deal of environmental harm resulted from that drawdown, including the killing of thousands of stranded fish. In addition to the environmental devastation caused by the drawdown, severe economic damage also resulted.	See response to Comment 8407 in Letter No. 22. The Corps would review drawdown in the tier-off NEPA analysis if that measure would likely help solve the sediment deposition problem at a specific site.
0092	Kristin Meira	8613	The DEIS is vague on what level of analysis, if any, might be required for future maintenance dredging. We understand that the Corps views the PSMP EIS as programmatic in nature, but we believe it is important for the Corps to clarify exactly what future NEPA analysis, if any, would be required for future maintenance dredging.	See response to Comments 8407 and 8408 in Letter No. 22. The Corps would review dredging in the tier-off NEPA analysis if that measure would help solve the sediment deposition problem at a specific site.
0092	Kristin Meira	8614	PNWA endorses the Corps' selection of alternative 7 with the caveats described above. This option provides the Corps with the broadest suite of tools to address sediment accumulation, in addition to dredging. PNWA also supports the screening out of non-dredging and other alternatives that were determined not to accomplish the project's purpose and need, including options to maintain the navigation channel at less than its authorized dimensions.	Thank you for your comment.
0092		8614	PNWA endorses the Corps' selection of Alternative 7 with the caveats described above. This option provides the Corps with the broadest suite of tools to address sediment accumulation, in addition to dredging. PNWA also supports the screening out of non-dredging and other alternatives that were determined not to accomplish the project's purpose and need, including options to maintain the navigation channel at less than its authorized dimensions.	Thank you for your comment.
0092	Kristin Meira	8615	Given the immediate need to dredge, selection of the "No Action" alternative is not viable either in the short or long-term.	Thank you for your comment.
0093	Robert Cox	8616	I am writing in favor of the Snake River channel maintenance.	Thank you for your comment.
0093	Robert Cox	8617	I was at a PSMP meeting in Lewiston earlier this year and I heard many comments about relocating facilities to different areas where the dredging wasn't necessary. Being involved with the river system and higher construction costs; I know this is not a viable option	Shifting the location of facilities could potentially help solve sediment deposition problems in some instances. The facilities would only have to relocate slightly downstream at the Ports of Clarkston and Lewiston to likely reduce the need for maintenance dredging. Data on sedimentation show less deposition in downstream areas than at the current port facility locations. However, just because this measure has potential to partially alleviate sedimentation issues in the confluence area does not mean it would be implemented in the future. The Corps lacks the authority to relocate facilities that are not Corps-owned. Any further consideration of this measure would be reviewed in detail during a site-specific tier-off NEPA analysis.
0093	Robert Cox	8618	Finally, I really don't understand why we need to go through this process each time we dredge. Channel maintenance is an ongoing process and always will be. The Environmental Impact Statement (EIS) should be the final document that we use now and for future dredging	NEPA requires all Federal Agencies, including the Corps, to consider the environmental effects of an agency's proposed action. Therefore, every sediment management action performed by the Corps, including dredging, is an agency action requiring environmental review. However, through completion of the programmatic FEIS and implementation of the PSMP, any future sediment management action would be addressed through a NEPA

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				document tiered off the programmatic EIS and should require less effort to process. The purpose of the PSMP (Appendix A of the FEIS) is to guide all Walla Walla District Corps sediment management activities. It provides a programmatic framework to manage and prevent, if possible, the accumulation of sediment that interferes with the existing authorized project purposes of the LSRP. Use of a specific measure will be determined on a case-by-case basis and will be selected based on the location-specific characteristics and nature of the problem (chronic problem area, intake blockage, navigation channel, high water velocities, etc.). Dredging is just one of the measures the Corps could consider. Project specific studies including environmental, engineering, and economic (cost) analyses would be conducted to determine the most effective measure or combination of measures to address the specific problem. The environmental analysis would use the PSMP as the roadmap for project-specific decision-making.
0094	Wanda Keefer	8619	The Port strongly supports USACE's decision to commence maintenance dredging at the earliest possible opportunity to re-establish the navigational channel at authorized dimensions. Freight movement can then continue unimpeded and safely.	Thank you for your comment.
0094	Wanda Keefer	8620	The outcomes of the PSMP/EIS have significant impacts to the environment and economy of Lewis Clark Valley, of which Asotin County is a part. (The Port of Clarkston's jurisdiction is all of Asotin County.) We do not have rail, so the options for our farmers are river transportation or trucking to move their products to market (which can be anywhere in the world).	Thank you for your comment.
0094	Wanda Keefer	8621	We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS.	Thank you for your comment.
0094	Wanda Keefer	8622	While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures: Modify flows to flush sediments (drawdown) Reconfiguring/relocate affected facilities Raise Lewiston levees to manage flood risk	See response to Comment 8368 in Letter No. 22.
0095	Mr Eric Burnette	8623	We continue to fully support the alternative you propose, however we would like to offer an extension of our original thoughts: If the path you take does ultimately involve the use of dredged material to create Shallow Water Habitat (SWH), we would ask that you fully monitor and report the details of the successes (or failures) of the project.	The Corps intends to periodically monitor in-water habitat creation sites to assess the use by salmonid species, subject to availability of funding.
0096	Pat Ford	8624	Economic indicators today in and out of the DEIS demonstrate that the Lower Snake River waterway is not fiscally sustainable. The growing costs to maintain and operate this system exceed its shrinking benefits. Increasing expense and declining usage is worsening a cost/benefit ratio already underwater. This costly leg of the Inland Northwest's transportation infrastructure must be replaced for local users with an affordable, fiscally sound transportation system focused on rail, road, and continued use of the lower Columbia waterway. ???	See response to Comment 8360 in Letter No. 12.
0096	Pat Ford	8625	The DEIS fails to include a simple cost-benefit analysis on lower Snake waterway dredging - raising serious questions about the project's economic and fiscal viability	See response to Comment 8360 in Letter No. 12.
0096	Pat Ford	8626	The FEIS should examine these tradeoffs: if and how the funds needed to sustain the Snake River waterway - with its cost/benefit ratio today far below 1 - could threaten or divert	See response to Comment 8360 in Letter No. 12.

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			significant funds needed to sustain other more valuable parts of the Columbia Basin's economic infrastructure. In addition, pursuant to the NAS Report's recommendations, the Corps should thoroughly explore alternative funding mechanisms: increased user fees, local tax increases, and local or state revenue-sharing. Northwest taxpayers and businesses need this information.	
0096	Pat Ford	8627	The FEIS must thoroughly assess climate impacts on the Lower Snake waterway. The FEIS should also include a thorough, accurate examination of the anticipated effects of climate change on this project and its costs - and thus the Lower Snake waterway - over at least the next 20 years.	See response to Comment 8461 in Letter No. 44.
0096	Pat Ford	8628	A full analysis, based on the best science, regarding the extent to which wildfires in upstream watersheds are increasing, and thus increasing sediment deliveries to the Lower Granite reservoir. The FEIS must correct the DEIS's contradictory statements that (a) fires in the upstream watershed are mobilizing more sediment, while also asserting that (b) future sediment deliveries will be less than current levels.	See response to Comment 8461 in Letter No. 44. Figure 1 in Appendix D is a conceptual plot of sediment yield relative to hydroclimate and the regulating role of vegetation. This figure shows that maximum sediment yield generally occurs where the effective precipitation is on the order of 10 inches per year. This annual precipitation is generally experienced over a large portion of the effective drainage basin for Lower Granite reservoir. Therefore, events such as climate change and forest fires should likely not significantly increase the basin's sediment yield since it appears that present basin climactic conditions might already provide the maximum long-term sediment yield conditions.
0096	Pat Ford	8629	A full analysis with up-to-date information that compares carbon-production in the lower Snake corridor: waterway traffic versus rail/road alternatives.	See response to Comment 8698 in Letter No. 68.
0096	Pat Ford	8630	We believe it short-sighted for the federal government to spend millions of taxpayer dollars in coming years on infrastructure that can no longer be sustained. It would be far wiser to invest those dollars now in rail and roads that are less environmentally harmful, more affordable and economically viable, and better meet the changing needs of the economy.	See response to Comment 8360 in Letter No. 12.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8788	The State supports Alternative 7, which includes dredging and dredged material management	Thank you for your comment.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8789	Although we find the programmatic approach useful, we do not think the DEIS meets the definition of an actual plan for sediment management in the Lower Snake. Several key elements of a plan are missing. The DEIS does not present a complete progression of actions needed to achieve the objective of managing sediment in the Lower Snake River, nor does the DEIS describe how future sediment management actions will be prioritized. No schedule is presented for assessing and implementing the specific sediment management actions identified in the DEIS.	Appendix A (the PSMP) has been revised to more clearly describe the process the Corps would use to implement any sediment management actions. The plan is the decision tree with the tier-off analysis for site-specific actions. Future sediment management actions are not prioritized. The Corps would perform an environmental, engineering, and cost-effectiveness analysis that would also go through a public and agency review process prior to selecting any measure to implement once a trigger has been hit.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8790	In our opinion, the DEIS fails to provide a complete "roadmap" and does not "define broad programs" to manage sediment. The DEIS does a good job of identifying a suite of 23 sediment management measures that could be employed alone or in any combination to manage sediment in the Lower Snake River (primarily concentrated in the Clearwater/Snake River confluence through Lower Granite Reservoir). However, the	See the response to Comment 8789 in Letter no. 97.

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			DEIS does not take the essential next steps needed to make the DEIS a plan: prioritizing management measures and scheduling actions. The DEIS contains few indications or projections of which structures or sediment management options, or which combinations of those many options, might be utilized under what conditions. Although the DEIS contains suitability screening criteria for management options, the DEIS gives little or no indication of protocols for selecting and prioritizing which of the various sediment management measures would be effective, and where. Thus, as it stands, the DEIS is a list of sediment management tools and a very broad assessment of the scope impacts expected from those individual tools but does not rise to a structural plan	
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8791	We are concerned by the lack of even a cursory assessment of the cumulative impacts of the 23 sediment management measures presented. We are particularly concerned that by deferring the cumulative effects analysis to the project level, both short- and long-term cumulative effects of various potential combinations of the measures will not be fully vetted.	See response to Comment 8700, Letter No. 68. More detail has been added to Section 4.11 to account for anticipated effects of measures included in Alternatives 5 and 7. The analysis is programmatic. For future actions, cumulative effects analysis would be tiered off of the more general programmatic assessment contained in the FEIS. It is not possible or useful to identify all possible combinations of measures that could be considered for each potential problem area for the life of the Plan. The Corps retained the 23 measures contained in the FEIS because they had potential to help solve the sediment deposition problem. However, retaining the measures for analysis does not mean they would ever actually be used. The tiered-off NEPA analysis would identify the measures or combination of measures to be used for that site-specific problem. The Corps is not pre-determining what measures to implement at all locations at this time, because each problem area is unique. The Corps' experience has been that some problem areas resolve themselves, some change over time, and new problem areas develop. The Corps determined its best strategy for a programmatic plan is to approach it as a decision process (Appendix A) rather than decide upfront what measures would be implemented at each site.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8792	One of the most obvious shortcomings of the DEIS is its failure to address this most basic question: How will implementation of any one, or any combination of, the non-dredge options presented in Alternative 7 reduce or eliminate the need for repeated dredging and disposal of spoils, and to what extent?	The viable sediment management measures are described in Section 2.2.4 of the FEIS. All of the structural sediment management and system management measures are expected to reduce the need for dredging. These would work by causing sediment to deposit where it does not interfere with existing authorized project purposes of the LSRP, by reconfiguring a facility so sediment does not deposit, or by moving a Corps-owned facility to a different location along the shoreline where sediment deposition would not be a problem. Continued use of upland sediment reduction measures may have a local effect in the watershed, but is not expected to have a measurable effect on sediment deposition that interferes with the existing authorized project purposes of the LSRP.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8793	Based on this DEIS and past assessments, sediment aggradation represents approximately a 1 percent reduction in total Lower Granite Reservoir capacity every two to three years. Over the next 100 to 150 years, the reservoir capacity can be expected to decrease by approximately 50 percent. What effect will this have on the reservoir environment, and how will foreseeable Corps sediment management activities - particularly in-water discharge of dredge spoils - contribute to those changes in the environment?	Initial Corps sediment modeling studies for Lower Granite Reservoir were accomplished assuming a 60-year time horizon. Present PSMP studies assumed a 50-year future analysis period. Time horizons on the order of 100-150 years have not been studied. Assuming an average annual sediment deposition rate of 2,200,000 cubic yards, it will take on the order of 300-350 years for Lower Granite Reservoir to approach the point of being completely filled with sediment. The river would continue to flow, but in a shallower and perhaps narrower channel. Sediment would continue to be transported downstream. Any in-water disposal of material dredged from the Lower Granite reservoir would not contribute to this change as the disposal action would simply move the material from one part of the reservoir to another.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8794	We believe that the cumulative effect of continued, long-term impacts to water temperature from deposition of dredge spoils in the reservoir deserves far more attention than received in the DEIS.	Estimates based on the historical and current annual influx of sediment into Lower Granite reservoir indicate that the usable volume of the reservoir may be filled during the next 350 years. As this process progresses and the water depth decreases some additional heating may occur due to solar radiation. However, as the volume of the reservoir decreases the

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				higher water velocity will likely mitigate some of the effect. Additionally, as more shallow water habitat becomes available, either from natural sediment deposition or moving shallow habitat from one location to another as may occur during a dredge/disposal operation, there are greater opportunities for the establishment of riparian vegetation that could provide local shading. The long-term thermal regimen of the reservoir has not been quantified due to the level of uncertainty inherent in the succession process, as well as the unknown impact of global climate change during the lifetime of the reservoir, but will be reviewed as more data becomes available.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8795	Among the structural sediment management options is a proposal to create and maintain "traps" for sediment. These are basins excavated in the river channel into which sediments would settle out and those sediments would be repeatedly removed by dredging to maintain effectiveness. Similarly, the DEIS indicates that sediment will collect below bend way weirs; no indication is given of whether or how often sediment will have to be removed from below/between weirs for those sites to maintain effectiveness. Repeated impacts to the environment for maintenance as well as changes to the hydrology, sediment transport, and biota, from these permanent structures are elements of the project that should have been assessed in a rigorous cumulative impacts analysis.	Section 2.2.4 of the EIS main report has been revised to provide more information on the use and maintenance of these measures. Only the sediment trapping measure would require dredging of accumulated sediment and management of those dredged sediments. The Corps estimates about 300,000 cubic yards of sediment would be removed every two years from a trap at the upstream end of Lower Granite reservoir. The effects of this dredging, as well as that of other measures involving dredging, are described in Section 4 of the FEIS main report. There would be no dredging associated with maintenance of the weirs or dikes as sediment deposition between the structures would improve the efficiency of the structures in directing flow towards the center of the river. The PSMP would guide whether and how measures are considered as part of future actions. Environmental effects would be considered and documented as part of a project-specific, tier-off NEPA analysis.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8796	Currently, the only mitigation identified in the DEIS is creation of "fish habitat" with dredge spoils in Lower Granite ("beneficial use" of dredge spoils.) IDFG has stated in past comments that dredge spoil habitat is marginally valuable habitat for salmonids, at best. As noted below, new evidence in the DEIS does not change our assessment. We believe that a broader range of mitigation actions for impacts to fish and other biota should be included and more fully explored because the relocation of silt in the reservoir through dredging and disposal should not be considered as mitigation for dredging.	The PSMP EIS did not identify any need for mitigation. Proposed beneficial use of dredged material for the current immediate need action is not identified as "mitigation" in the EIS. In the Biological Assessment for the proposed current immediate need action (Appendix K of the EIS); the Corps includes shallow water habitat creation as a conservation measure. National Marine Fisheries Service has informed the Corps they support in-water disposal to create shallow-water habitat as that type of habitat is in short supply in the reservoir and monitoring of previous habitat creation sites indicates the sites are being used by juvenile salmonids. Based on previous actions, extensive monitoring, and agency coordination, the Corps has identified in-water placement to create shallow water habitat as a reasonable measure with less potential biological harm and more potential biological benefit than deep water or upland disposal of dredged material. The Corps has not identified any potential conservation measures or "mitigation" measures for any action other than the proposed current immediate need action. Any actions to avoid, minimize, or offset environmental effects for future actions under the PSMP would be identified through the tiered-off environmental analysis for those actions.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8797	We encourage the Corps to maintain a commitment to reducing sediments at their source, providing technical assistance, and funding where appropriate to reduce sediment input. However, the Corps has demonstrated that those controls will have limited value for resolving navigational problems in Lower Granite Reservoir.	See responses to Comments 8742, 8744, and 8746 in Letter No. 76.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8798	We remain supportive of utilizing dredge material to create favorable habitats in the reservoir where possible and commend the Corps for its commitment to a demanding monitoring program to assess both the impact of projects and the effectiveness of created habitats. However, until more extensive monitoring can demonstrate otherwise, we maintain our previous assessment that the benefits to fish that would be derived from the created habitats described in the DEIS are	See response to Comment 8796 in Letter No. 97. Regarding "beneficial use", the term is used in the FEIS as using dredged sediments as resource materials in productive ways as defined by the Corps, US EPA, and the National Dredging Team (see EM 1110-2-5026, USACE 1987; USACE 2011c).

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			likely to be minimal and that claims of "beneficial use" of dredge spoils are overstated.	
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8799	Adhering to the winter work window (December 15 to March 1) during dredging operations will reduce but not eliminate potential impacts to a variety of aquatic resources. As in the analyses of previous dredging proposals, this DEIS understates the potential impacts of winter dredging operations, particularly effects on steelhead. For instance, it is inappropriate for the Corps to deduce that low angling pressure equates to "few, if any" steelhead at the confluence during winter months. During some winters, at least 40 percent of Clearwater B run steelhead remain in the Lower Granite pool during the winter work window. A steadily increasing number of juvenile fall Chinook also over-winter in the confluence and Lower Granite pool. Most, if not all, fish species present in Lower Granite are present near the confluence during the work window, though in lower densities.	The in-water work window is established by regulatory agencies as the period of time during which the fewest sensitive life stages of ESA-listed fish are present in any particular area. As such, the work window is the preferred timing for in-water work. We agree performing in-water work during the winter season would not completely avoid impact to steelhead or juvenile fall Chinook. However, this timing minimizes the potential for effects due to lower occurrence of each stock.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8800	We assume that project-specific NEPA will provide a far more detailed effects analysis of the dredging to improve flow conveyance option, but this programmatic EIS should provide at least enough detailed, scientifically supported information from which to tier decisions about when, how and where to use this management option (as well as others). Instead, based on the information provided in the DEIS we can only guess that the effects of dredging to improve flow conveyance would last a good deal more than "a few hours" and effect much more than "only a small portion" of the levee (as effects are described for maintenance dredging).	See response to Comment 8557 in Letter No. 91. Table 2-1 of the FEIS describes the measure "Dredge to improve conveyance capacity." Sections 2, 3, and 4 of the FEIS have been revised to provide more information on this measure and its effects.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8801	The DEIS indicates water temperature "may slightly increase" at or in the vicinity of dredge spoil shallows (and "may also cool off more at night," though why that is important is not explained). Monitoring similar to what we have suggested in previous comments, along with our stated concerns about potential increases in water temperature in Lower Granite Reservoir, would have informed this portion of the analysis. Monitoring of the Centennial Island site and past deposition area upstream of Knoxway would have provided temperature data that could be used to infer what to expect from new spoils deposition in the immediate future. These data, if they existed, could be used to predict temperature changes in Lower Granite as projected maintenance dredging operations increase shallow surface area in the future.	The water temperatures in shallow habitats such as the Knoxway Canyon bench can be expected to be influenced by incoming solar radiation during the day and heat loss at night when the air temperature decreases. Any increase in temperature at the created shallow water habitat area would have a negligible effect on temperature of the reservoir, given the large volume of water in the reservoir. Since the purpose of the bench is to supplement available fish habitat in the reservoir, any future biological monitoring would provide more information regarding possible beneficial use to the biota than long-term temperature monitoring.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8802	The DEIS includes, as a sediment management option, a proposal to raise the Lewiston levee because accumulating sediment may increase the risk of flooding in Lewiston (Page 2-18). However, this concern is contradicted in the DEIS, which states that "model simulation indicates that after 50 years of simulated sediment accumulation . . . the existing levee system is adequate to provide protection from overtopping in a severe flood event." (Page 3-77) Because raising the dikes in Lewiston would have no effect on sediment transport, and accumulation	The Corps determined it prudent to retain levee raise as a measure in the long-term implementation of the PSMP because environmental conditions change over time and model simulations have only a certain degree of accuracy. Sediment accumulation was "simulated" based on historic monitoring data. However, the Corps plans to adaptively manage the LSR system based on any changing conditions. Retaining the levee raise option was seen as a feasible measure to consider in the event of system changes. Including the measure in this programmatic evaluation would provide a more time and cost efficient process in the future should levee raise ever be considered a potential measure to address flow conveyance issues resulting from sediment accumulation. If this measure is considered for implementation in the

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			of sediment is very unlikely in the foreseeable future to cause flooding concerns (especially with other sediment management tools being effectively employed), we suggest this option should be eliminated as a "sediment management tool" and not be included as an option in this DEIS.	future, it would be subject to a tier-off NEPA analysis at that time.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8803	The DEIS would be greatly improved if it contained references to those section or pages of the Appendices where separate or more detailed analysis is provided of specific topics.	Provision of page numbers as part of referral is not easily accommodated in a document with multiple authors (including those writing technical reports for appendices) who are at different stages in the writing process at any given time. Multiple revisions as a result of editing result in changes to page numbers. Although the process could be conducted once all documents are finalized and no further edits would be applied, it would be extremely time consuming ... In lieu of providing page numbers, the Corps has attempted to provide section numbers whenever possible.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8804	Page 3-19. Bull trout sometimes hybridize with brook trout; "inbreeding" is not the correct term.	Text has been edited as noted
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8805	Page 4-3. It is inaccurate to say "many fish species" are not present during the in-water work window. Most species, if not all, are present during the work window; however, they are likely to be present in lower densities than at other times of year.	See response to Comment 8799 in Letter No. 97. Section 4.1 has been revised to clarify the effects of the alternatives on aquatic resources.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8806	Page 4-5 includes a statement that coho salmon, spring and summer Chinook salmon and sockeye salmon are not likely to be present during the winter work window for dredging. This is probably true. However, this section fails to indicate that fall Chinook and steelhead are likely to be present, and that bull trout may be present, or to consider effects on those species.	Section 4.1 of the FEIS, the Biological Assessment for the PSMP (in Appendix K), and the Section 404(B) (1) Evaluation (Appendix L) acknowledges the presence of these species during the winter work window.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8807	Similarly, page 4-6 says the work window would "avoid the presence of many salmon species in the area." For the sake of accuracy, it should say using the work window "may avoid" or "is likely to avoid" coho salmon, sockeye salmon and spring or summer Chinook.	Text has been revised as noted
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8808	Page 4-9. IDFG has trapped juvenile bull trout in the lower Clearwater River and Snake River traps: therefore, juvenile as well as adult bull trout may be present during project activities. The DEIS should consider this information in the effects analysis.	The FEIS and Biological Assessment for the PSMP acknowledge that bull trout are present in the project area.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8809	Page 4-15. The DEIS should clearly acknowledge that the disturbance and displacement of fish is an adverse effect. For instance, it is not appropriate to say that "sturgeon would not be affected . . . because they could actively avoid the temporary disturbance." If individuals of any species are present, they are present because they preferred that habitat for cover, food or other reasons. Disturbance displaces those fish into less desirable habitat and can affect the health and viability of those fish. Similarly, authors infer that displacement of sturgeon and "disruption" to benthic macroinvertebrate food sources for sturgeon is acceptable because sturgeon relocate to undisturbed areas where the benthic macros are undisturbed. This assumes that unoccupied and suitable habitat with an adequate prev base is available. No evidence is presented to	Section 4.1 of the FEIS has been updated to reflect the statements made in the comment, which are accurate. Displacement does result in an adverse effect, albeit temporary for mobile fish species.

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0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8810	support this conclusion. On page 4-16 it is stated that future spawning habitat may be "displaced" by sedimentation. Spawning habitat is not displaced by sediment; it is destroyed or at best made temporarily unsuitable	Section 4.1 of the FEIS has been revised to clarify the effects on the aquatic environment.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8811	No evidence is presented to support statements in the DEIS that sediment or turbidity from construction of structures like weirs or sediment traps would be the same as for dredging projects in volume, duration of disturbance, composition and size of material, etc. Sediment transport, composition, etc. would vary depending on location of sites. In fact, the DEIS clearly indicates the duration of the disturbances would vary greatly from dredging activities.	EIS Section 4.6.3.1 identifies water quality effects of in water structures as follows: "Mechanized construction equipment and in-water work would be required to construct bendway weirs, dikes, sediment traps, and the reconfiguration or relocation of existing facilities. In-water work has the potential to increase turbidity and TSS. These effects would be localized and temporary, and could be reduced with the implementation of protective measures." Water quality effects of these measures were identified in a general sense. As the comment notes, the effects would vary based on factors including the proposed location, duration of construction, and scope of the project. If Alternative 7 is the selected alternative and the PSMP is adopted to include measures such as these, project- and site-specific effects on water quality would be analyzed and documented for any proposed action as part of a tier-off NEPA analysis.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8812	Page 4-23. Regarding sediment management measures in boat basins and marinas: Habitat within the boat basins and marinas is distinctly different than the riverine/reservoir habitats described in the DEIS. These habitats and their biotic and abiotic components need to be described in greater detail, then analyzed and assessed both separately and in combination with other actions in the cumulative effects analysis. Questions that need to be addressed include: how much sediment will be dredged and is it the same as the riverine sediment in composition and chemistry (we suspect more fine sediment and, perhaps, contaminants will be present). Also, the assessment should consider if the Corps assumes in-water disposal of boat-basin materials has the same beneficial effects as they have for other dredge spoils (fine sediment would not be "beneficial") and how often does the Corps predict dredging of boat basins and marinas will need to be repeated based on current sediment models? We understand that a separate NEPA effect analysis would be conducted for boat basin and marina dredging proposals, but they need to be analyzed both as individual projects and in context with other options for sediment management.	See responses to Comment 8700 in Letter 68 and 8791 in Letter No. 97. Commenter is correct that boat basins and marinas are comprised of different habitat than that of the open Lower Snake River system. Text has been added to the FEIS to describe basin/marina habitat and potential effects. However, the exact quantities, chemistry and disposal method cannot be addressed at this time as there are no pending Corps actions associated with Corps operated basins or marinas. The Corps estimates dredging of recreation sites could require removal of 1,000 – 15,000 cubic yards of material every 3-9 years and Section 2.2.4 of the FEIS main report has been updated to include this information. Future Corps actions at these facilities would undergo an individual project and location-specific environmental analysis. Facilities that are not operated by the Corps are the responsibility of the operators/owners to maintain, evaluate impacts, and obtain permits when maintenance actions are required.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8813	The DEIS assumes that sediments from Lower Granite Reservoir projects, including the 2012/2013 dredging proposal, will be disposed in-water, for so-called "beneficial use." Other options for disposal are mentioned but do not appear to have been given any meaningful consideration and are not explored or analyzed in the DEIS	EIS Appendix L, Section 2 discusses dredged material disposal alternatives considered for the proposed current immediate need dredging action. Other alternatives considered included upland and open water (deep water) disposal, and in-water placement for beneficial use.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8814	Table 3-7. Typical Migration Timing does not correspond to all of the narrative descriptions of migration timing. For example, sockeye salmon may be present through November, according to the text on page 3-8; but Table 3-7 shows migrations from April through August. "Typical" does not have meaning without definition, and peak migration might be more appropriate based on the timing indicated.	This table (Figure 3-1) in Section 3 of the FEIS and the accompanying text has been revised.

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0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8815	On page 3-22 it is stated that "Due to their abundance, the most prevalent predator on juvenile salmonids is likely smallmouth bass (USAGE 1999b)." This statement is followed by a substantial amount of information that contradicts that statement, and no information to support it. The DEIS should either provide more information to resolve this discrepancy, or that statement should be removed.	Section 3.1.4.3 of the FEIS main report has been revised. The intent of the sentence was to state that smallmouth bass are the most abundant piscivorous predators in the affected area. The rest of the information that followed describes their predation impact to salmonids.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8816	Pages 3-75 and 3-76 include some discussion regarding sediment scouring and transport in the Snake/Clearwater confluence as it affects fine sediment deposition near Silcott Island, where most of the sediment currently drops out. Several of the management options are designed to increase scour and transport of larger sediment (medium to coarse sand) from the confluence into the lower reservoir. Changes in scour, composition and deposition of sediments are likely to have significant impacts on the reservoir. The DEIS does not address how changes in reservoir morphology from sediments that are transported further into the reservoir and deposited in new locales will affect the hydrology and biology of the affected portions of the reservoir.	The purpose of structural and system management measures is to keep suspended or resuspend sediments so that they spread and settle in a more evenly dispersed pattern rather than in a dense accumulation. Therefore, as the sediments settle over a larger area, the effects would be negligible. However, as noted in relation to seasonal drawdown, modeling indicates that material would tend to redeposit near Silcott Island, where dredging would be required if the desposition interfered with navigation. If such accumulations were to require dredging, the effects would be the same as analyzed in other sections of the FEIS.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8817	On page 4-3 the DEIS states that work windows will protect fish because "many of the fish species are not present". These statements should be revised for accuracy to say "when many fish species are present at lower densities." Many, if not all. Fish species may be present during the work windows. Similar statements about the work window avoiding the presence of many salmonid species should be modified to accurately reflect the potential for the project to occur while named fish are present. There is no time of year during which some species of fish will not be present and affected by the proposed actions.	Text has been edited as noted.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8818	On page 4-5 the DEIS cites a USACE document (2002b) saying, "Most research . . . has shown that disturbance to habitat is a natural process and can be beneficial," The inference is that dredging may benefit benthic organisms. Natural disturbances can be beneficial; but, unless evidence can be presented to show otherwise, we would suggest that dredging neither represents a natural event, nor has it been shown to be overly beneficial to aquatic biota.	Section 4.1 of the FEIS has been revised to clarify the effects on aquatic resources.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8819	We are concerned about the potential of increasing temperatures on already stressed fishery resources. This DEIS does not attempt to resolve our questions or concerns. Discussion in the DEIS about the potential changes in temperature are limited to qualitative speculation (P 4-35), where quantitative modeling and analysis should be have been used to try to project an effect. At the very least, the cumulative effects analysis should include an assessment of the potential increases in temperature resulting from periodic deposition of the dredge spoils in Lower Granite Reservoir, which will result in ever-increasing areas of shallow water in the reservoir without	See response to Comment 8700 in Letter No. 68 and 8791 in Letter No. 97 for information regarding cumulative effects analysis. See response to Comment 8794 in Letter No. 97 for temperature effects. Maintenance dredging operations for other than the proposed current immediate need action would require review through the tiered-off NEPA analysis. Quantitative results from CE-QUAL-W2 model runs corroborate the qualitative assessment provided in the FEIS. Model runs of Lower Granite Reservoir for June and July 2013, with and without placement of dredge disposal material at RM-116 as described in the EIS, result in an average temperature difference of 0.0004 °C to the river. There was no change in water temperature 72% of the time and, 98% of the time the difference was less than ±0.02 °C. All of these temperature differences are less than the accuracy and precision of field measurements. Additionally, the

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			additional manipulation.	model output historically shows that only about 5% of the heat input to the system is due to local weather conditions. The vast majority of the thermal input to the Lower Snake River originates at the upstream boundary conditions (i.e., Anatone on the Snake River, Dworshak Dam on the North Fork Clearwater, and the Clearwater River at Orofino, Idaho).
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8820	Page 4-40. The DEIS states that in-water structures such as weirs and dike fields would reduce sediment accumulation in areas where sediment would interfere with (navigation), and reduce the volume of dredging required. Sediment load and flow modeling could provide more specific projections about rates of deposition and the frequency of needing to dredge if such structures were to be constructed. This information is necessary for weighing the merits of various options and developing plans for their use. A programmatic EIS should include this kind of analysis, especially in the cumulative effects analysis.	Section 4.11 of the FEIS has been revised to clarify the potential cumulative effects of the viable alternatives. The Corps is not proposing to construct any structures, including weirs or dike fields, at this time. Once a long-term trigger is hit at known problem areas, the use of any appropriate measures (including structures) would be considered during the tier-off NEPA analysis.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8821	The focus in the DEIS is solely on effects on shipping and navigation not on the affected environment. Moving sediments from navigational "problem areas" to navigational "nonproblem areas," may avoid navigation issues, but could create new "problem areas" for fish and other biota. e.g. deposition of sediments on suitable fish habitat downstream. The environmental effects analysis should focus on and evaluate the impacts to habitat and biota that result from transport and deposition of sediments away from "problem areas" into other parts of the reservoir. Projecting changes in sediment transport and deposition are important at both the programmatic level, especially for assessing cumulative effects, and the project level. The analysis of effects is incomplete if it does not include some predictions of changes in sediment transport/deposition resulting from the various options.	The Corps considered fish habitat/biota in the EIS to the extent possible within a programmatic document. Impacts to fish habitat/biota potentially resulting from the potential implementation of specific measures in the future would be elucidated during the project-specific tier-off NEPA analysis. Further information on the programmatic-level review of environmental effects from implementing the various measures are discussed in Section 4 of the FEIS. Section 2.2.4 of the FEIS and Appendix F also discuss effects of the measures.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8822	On page 1-4 the statement is made that future actions "may require" project-specific environmental reviews. We believe that should be amended to say "will require," since there are no substantive effects analyses for any of management options except for the "immediate action" (2012/2013 Dredging, Appendix H).	Not all action would require a project-specific environmental review, although most action would. For example, adjusting reservoir levels (within the project's operating range) to maintain a 14-foot deep navigation channel depth outside of the juvenile salmonid outmigration season would not require environmental review.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8823	Appendix K, section 4.4.3.4.1. Historical Pressures on the Species infers that Snake River sockeye salmon in Redfish Lake were subject to eradication programs as a means to replace them with a rainbow trout fishery. This is simply not a factual statement for Redfish Lake sockeye.	Fish eradication was conducted in Pettit and Yellow Belly lakes in 1961 and 1962 and weirs were installed to keep warm water fish from getting into the lakes. This also kept sockeye from reaching the lakes (50 CFR 222.14057). Redfish Lake is not called out in the EIS as undergoing an eradication program. The following is taken directly from the EIS: "Snake River sockeye salmon have been impacted by a wide range of factors in the past. At one time, Snake River sockeye salmon were subject to eradication programs as a means to replace them with a more desirable rainbow trout fishery. Construction of dams, roads, railroads and levees/shoreline protection, as well as irrigation withdrawals has altered the migratory habitat of juveniles and adults. Increased predation on juvenile salmonids due to the habitat changes is also a contributor to the declining salmonid population."
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8824	Appendix K, sections 4.4.1.4.3 (Spring/Summer Chinook salmon), 4.4.3.4.3 (Sockeye salmon) and 4.4.4.4.3 (Steelhead) all contain misleading and incorrect information. For each species the main factor limiting recovery is identified as limited availability of high quality or suitable habitat, which we inferred	Thank you for your comment.

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			to reference tributary habitat. Throughout the Snake River basin, there has been some habitat degradation that has impacted each of the species. However, much of the tributary habitat available to and used by wild salmon and steelhead in Idaho is characterized as pristine or high quality habitat. It is neither the amount nor quality of this habitat that is limiting the recovery of Snake River salmon and steelhead.	
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8825	DEQ agrees with the ACOE's decision to select alternative #7 as the preferred alternative. Alternative 7 is the most comprehensive and flexible strategy presented and includes all options for sediment maintenance.	Thank you for your comment.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8826	Clearwater River water body ID17060306CLQ01_07 is listed as impaired in the Idaho 2010 Integrated Report for not supporting its cold water aquatic life beneficial use due to dissolved gas supersaturation. Snake River water body ID 17060103SL001 08 is listed as impaired for not supporting its cold water aquatic life beneficial use due to Temperature No increase in load, for the pollutant of concern, may occur to these waters as a result of the project	Thank you for your comment.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8827	Please note. Section 3.6.1, page 3-52, 1 paragraph. Special Resource Water is no longer a beneficial use designation in Idaho's water quality standards.	The text has been revised accordingly.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell Jeffery Sayer	8828	The way the sediment production is currently presented leads one to believe forest roads are producing sediment at the same scale as forest fire areas. The Watershed Sediment Production section (3.7.2) on page 3-63 states: "For example, USFS studies report that estimated levels of sediment yield from forested roads and from forest fire damaged areas can range from 285 tons/mi ² up to more than 5,000 tons/mi ² (Elliot et al. 2010). Elliot is a literature review and it is not directly clear which study this value is from, and while Elliot (which is included as Appendix C in the PSMP) separated forest road sediment from that of fire damage, and showed fire damage areas producing far more sediment, the PSMP lumps road sediment into the fire area sediment values that Elliot stated. The PSMP should utilize the Goode document and further segregate the sediment produced from forest roads from the vast amount of sediment produced from uncontrolled wildfire primarily on federally managed land.	Response: The values on Page 3-63, presented there as 'from 285 tons per square mile' and 'more than 5,000 tons per square mile' are based on the values given in Elliott et al, 2010; for the 'low end' value of the fire and roads section (1 Mg/Ha, Page 3 Elliott et al) and the 'high end' value of the fire section (20 Mg/Ha, Page 5 Elliot et al). 1 Mg/Ha converts to approximately 285.5 tons/sq. mile (rounded off to 285) and 20 Mg/Ha converts to approximately 5,710 tons/sq. mile (rounded down and stated to be 'more than 5,000'). Lower Granite reservoir's surface area is approximately 8,900 acres and it receives the sediment from a sediment contributing area of approximately 27,000 square miles. To give a perspective between the sediment source area and the sediment receiving area, to produce an average of one (1) foot of deposition over the entire 'receiving area' requires less than 0.001 foot average erosion over the entire 'source area.' For the purposes of the FEIS, it is felt that giving a 'potential range of low to high sediment yields' given the diversity and size of the 'sediment contributing area.' The Goode document (Appendix D of the EIS), in its Abstract, gives an observed 'long term average rate' for Central Idaho of 146 Tons/sq. kilometer/year (378 Tons/sq. mile/year) and also another range of values for experimental basins from 10 Tons/sq. kilometer/year (25.9 Tons/sq. mile/year) to 10,000 Tons/sq. kilometer/year (25,907 Tons/sq. mile/year). The noted 'average annual sediment accumulation' for Lower Granite Reservoir, based on data collected since 1974, is approximately 2,200,000 cubic yards/year. Assuming a unit weight of 90 lbs./cubic foot and a 'sediment contributing drainage area' of 27,000 square miles results in an average sediment yield value for Lower Granite Reservoir of 99 Tons/sq. mile/year. The 'drainage basin size' at which the sediment yield rates are measured likely appears to have an influence on the magnitude of the values computed, with the sediment yield values appearing to decrease as the computational drainage basin size increases.
0097	C.L. "Butch" Otter Virgil Moore John Cardwell	8829	The Port of Lewiston plays a vital role developing and managing property that has been successfully used to help existing Idaho businesses expand and to attract new businesses to Idaho. The	Thank you for your comment.

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	Jeffery Sayer		Port of Lewiston is a valued partner with the State of Idaho, the City of Lewiston, Nez Perce County, and local and regional economic development organizations in economic development and international and domestic commerce. We value the essential role of the U.S. Army Corps of Engineers maintaining navigable waterways, among the agency's many important responsibilities in the national interest.	
0098	Ruth Stemper	8631	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0098	Ruth Stemper	8632	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0098	Ruth Stemper	8633	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8461 in Letter No. 44.
0099	Tom Stuart	8634	Further, with the USACE currently constrained by reduced federal budgets and the recent sequester, it is wholly unreasonable and inappropriate for the Corps to consider or undertake a project that is so wasteful and unproductive.	See response to Comment 8360 in Letter No. 12.
0099	Tom Stuart	8635	Dredging sediment as proposed would harm ESA-listed salmon and steelhead, and is a wasteful alternative that doesn't solve long term problems.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0099	Tom Stuart	8636	examine the long-term costs and benefits of deauthorizing and removing one or more dams on the lower Snake River, with due consideration to affected stakeholders (electrical power generated by those projects is no longer a major issue, while shipping from the POL has declined 75% in the last decade);	See response to Comment 8368 in Letter No. 29.
0099	Tom Stuart	8637	Conduct a thorough and honest cost analysis of transportation alternatives, other than barging, with full consideration given to current subsidies.	See response to Comment 8360 in Letter No. 12.
0100	James Szatkowski	8638	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0100	James Szatkowski	8639	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0100	James Szatkowski	8640	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8461 in Letter 44.
0101	Dennis McVicker Bruce Reed	8641	Tidewater strongly supports the Corps' decision to commence maintenance dredging at the earliest possible opportunity in	Thank you for your comment.

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			order to restore the Lower Snake River navigational channel to its federally-authorized dimensions, which will ensure that navigation continues in an unimpeded and safe manner.	
0102	Heather Ray	8838	The Upper Snake River Tribes (USRT) are concerned that the USACE may prematurely seek authorizations on these great number of future additional actions without taking sufficient time to complete an up-front and thorough public review of these potential actions. USRT strongly suggests that the USACE reconsider their choice of Preferred Alternative 7 because of its significant environmental, cultural resources, and aquatic life impacts.	This is a programmatic EIS, therefore the environmental effects of the alternatives are discussed in broad terms. A tier-off environmental analysis would be performed to evaluate and compare alternative measures or combinations of measures to be enacted each time a trigger for action is reached in accordance with the PSMP (Appendix A of the EIS). The Corps would not seek authorization or funding for any future actions under the PSMP without performing the analysis and going through the public review process.
0102	Heather Ray	8839	USRT has serious concerns about the effect on water quality of the proposed dredging of 491,043 cubic yards of sediment under Alternative 7. USRT questions the assertion made in the DEIS, given the scope and scale of the project, that the mobilization of sediments from dredging and in-water placement would only occur “a short distance downstream (pg. 4-35),” for only “up to a few hours (pg. 4-35),” and that just “a small portion of the river would be affected (pg. 435).” The DEIS quantifies expected turbidity for dredging at the Ports of Clarkston and Lewiston, but nowhere else in the project area. USRT requests that the USACE provide in the DEIS turbidity projections for the entire project area, not just for the two selected urban areas.	<p>Turbidity was measured at three locations relative to the dredging zone during the 2005/2006 channel maintenance project: 300-ft upstream at the background station, 300-ft downstream at the compliance boundary, and 600-ft downstream at a remote station. The boundary and remote stations each consisted of one float with two sensors, one located 1-m below the surface and one situated 1-m above the sediment. The compliance stations consisted of two floats anchored about 100-ft apart. Each of those floats had two probes also placed 1-m below the surface and 1-m above the sediment. Changes to turbidity were determined by comparing average hourly data from the compliance and remote stations to background data. Dredging was stopped if exceedances above the applicable state standards occurred for four consecutive hours.</p> <p>There were no instances when turbidity exceeded the Idaho water quality standards when dredging occurred in the Clearwater River (collectively identified as the Port of Lewiston) during the 2005/2006 dredging activity.</p> <p>Dredging in the Snake River (collectively referred to as Port of Clarkston) did create some turbidity plumes that resulted in exceedances. When the data from the compliance boundary was pooled, the Washington State standard was surpassed 1.2% of the time using the 4-hour criteria. The percentage was the same at the remote station. Hourly differences exceeded 15 NTU less than 1% of the time at both downstream monitoring stations. It should also be noted that 7.1% and 11.5% of the combined hourly differences at the compliance boundary and remote location, respectively, were less than the background levels.</p> <p>The placement of turbidity monitoring stations at the in-water disposal location was similar to the dredging sites with a few exceptions. A background station was located 300-ft upstream of the disposal zone and two compliance floats were placed 300-ft downstream. Instead of a downstream remote station, a lateral station was located about 300-ft from the disposal zone in the direction of the thalweg. Four consecutive hours of data were again used to evaluate conformity with state standards. The pooled data from the compliance boundary floats showed that turbidity levels did not exceed the 5 NTU criteria 99.4% of the time, and that hourly turbidity measurements were lower at the compliance boundary than at the background station 27.7% of the time. The hourly composite turbidity was greater than 15 NTU 0.4% of the time. The results from the lateral station showed higher turbidity levels. However, the 4-hour criterion was still achieved 97.7% of the time when the surface and deeper data were pooled. 43% of the hourly turbidity data were less at the lateral station than at the background location, and 2.3% of the hourly values were greater than 15 NTU.</p> <p>The areas identified as “Port of Clarkston” and “Port of Lewiston” includes the federal navigation channel in the vicinity of the Port facilities. As such, the entire proposed dredge template near the confluence of the Snake and Clearwater Rivers is included in those two designations. The other proposed area to be dredged is downstream of the Ice Harbor</p>

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				navigation lock approach. All of the historic sediment sampling that has occurred in that reach has not identified any fines as a result of the relatively high velocities in that area. Therefore, downstream turbidity levels are anticipated to be minimal when the rock and cobble are disturbed.
				Section 4.6.2 of the FEIS main report and Appendix L have been revised to provide additional details regarding the effects of dredging and in-water disposal on turbidity as determined from the data collected during the 2005/2006 dredging project.
0102		8840a	Although there is a decline in shipping activity emanating from the Ports of Clarkston and Lewiston, the dredging project may encourage more shipping in the future. An increase in shipping will raise the potential for a spill or release of hazardous materials such as oil, grease, fuels, or hydraulic fluids into the river system. Increased shipping may also cause detrimental erosional effects within and downstream of the project area.	See response to Comment 8573 in Letter No. 91.
0102	Heather Ray	8840	Mobilization of toxic sediments may have significant consequences both in and downstream of the project area. While the DEIS acknowledges the potential of toxic materials entering the river from dredging machinery, it does not adequately discuss the long-term contribution of toxic materials to the river from continued shipping activities.	See response to Comment 9047 in Letter No. 77. Possible contributions of chemicals of concern to the river from shipping, recreational boats, or fishing related activities are not the focus of this FEIS, but are within the purview of other State and Federal regulatory agencies. The focal point of this document is sediment management. As such, the sediments in the dredge template are sampled and analyzed following the protocols established by the Regional Sediment Evaluation Framework and the Dredged Material Management Program. Concentrations of listed chemicals of concern (including compounds that could originate from shipping activities or other vessels) are compared to available screening limits to ensure that none of the analytes are present at levels considered detrimental to the aquatic environment, and that the sediments are suitable for in-water disposal. The Corps acknowledges that watercraft, both commercial vessels and recreational boats, can release toxic chemicals (primarily petroleum products) into the river. However, results from numerous sediment sampling efforts in the navigation channel, port berthing areas, and recreational boat basins have shown these chemicals are present in concentrations below any regulatory threshold.
0102	Heather Ray	8841	Due to the potential of adverse effects to water quality during and after the dredging project, USRT requests that the USACE selects an alternative much less comprehensive than that of Alternative 7. Preferably, USACE would select Alternative 1 and focus their efforts on removal of the four Lower Snake River dams rather than pour money into a project with little benefit to the public and widespread negative impacts to the ecosystem.	See response to Comment 9047 in Letter No. 77 and 8368 in Letter No.29. The potential for adverse effects to water quality from the proposed current immediate need dredging and disposal is low. The Corps has sampled the sediments and tested them for chemicals of concern. The Seattle Dredged Material Management Office and the regional Dredged Material Management Agencies have determined the material is suitable for unconfined in-water disposal. Any increased turbidity during the proposed dredging and disposal would be short-lived and would dissipate rapidly.
0102	Heather Ray	8842	Long-term adverse effects to aquatic resources, in particular to the several species of Endangered Species Act (ESA) listed salmon, are cited for implementation of Preferred Alternative 7 measures. USRT finds these threats to these critically important species, as well as to ESA unlisted fish, unacceptable.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0102	Heather Ray	8843	Preferred Alternative 7, if implemented, would have profound and unacceptable impacts to USRT member tribe's cultural resources. We believe the No Action Alternative at this time would do the least harm to cultural resources.	The Corps agrees that the No Action Alternative in this case has the least potential to impact cultural resources. However, the Corps has determined that the preferred alternative will result in no significant effects to cultural resources. This is consistent with the NHPA Section 106 consultation, which resulted in the determination that the preferred alternative would result in 'no historic properties affected'.
0102	Heather Ray	8844	There appears to be an enormous level of uncertainty about the	All future actions would require site-specific tier-off NEPA analysis. These would be conducted

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			level of adverse impacts to terrestrial habitat and wildlife utilizing these newly created habitat features resulting from reconfigured facilities and any upland disposal of sediments removed from the navigation channel. Any long-term benefits for wildlife are uncertain without a thorough analysis and understanding of habitat limiting factors for specific wildlife species.	to determine the most effective measure(s) to address the specific problem. Elements such as habitat limiting factors would be examined in tiered analysis. The PSMP (Appendix A of the FEIS) provides more detail as to how the Corps would determine when an action is necessary and the process the Corps would follow prior to full implementation of a measure or combination of measures.
0103	Thomas Schirm	8642	WDFW agrees that Alternative 7, Comprehensive (Full System and Sediment management Measures) is the preferred alternative of the draft EIS/PSMP. Within that alternative, however, there are specific areas for which we have questions or believe that this document could be strengthened.	Thank you for your comment.
0103	Thomas Schirm	8643	The EIS provides few details of how Alternative 7 measures as outlined in 2.2.5.7 pg 2-31 would be implemented other than the dredging. The lack of specific implementation information makes evaluation of the measures within the Alternative difficult. WDFW has the following questions about how Preferred Alternative 7 would be implemented: 1. How and when would other measures in the alternative besides dredging get implemented? 2. What is the public process for this, and how would the proposals be vetted? 3. Would implementation of other measures require further NEPA process, or; how do outside agencies and entities stay engaged in proposed future measures and activities? Missing within this document is how and under what criteria measures would be selected and implemented that would complement traditional dredging.	Appendix A, the PSMP, has been revised to more clearly reflect the process for measure selection prior to full implementation of a measure or combination of measures. In addition, if a need has been determined, measures would undergo site-specific tier-off NEPA analysis to determine the most effective measure(s) to address the specific problem. Section 2.2.4 has also been revised to include more information on the circumstances in which the retained measures would most likely be used.
0103	Thomas Schirm	8644	Non-Feasible Measures: Many of measures included in Alternative 7 were addressed earlier in the document as not technically feasible, i.e. Agitation of sediments, bubble curtains, etc. Is this because the measures were evaluated individually, but in the preferred alternative they potentially would be used in conjunction with other measures, and therefore could be feasible?	Refer to Sections 2.2.2 and 2.2.3, which have been revised to more closely reflect the screening process. Once a measure was dismissed, it remains dismissed.
0103	Thomas Schirm	8645	Flow Modification and Authorized Use: Page 2-9. Section 2.2.4, Table 2-4 System management. The table states that modifying flows to flush sediment (drawdown) does not apply to the authorized use of Navigation. This may be true during the drawdown itself, but is a component of sediment removal from the navigation channel that would benefit navigation upon refilling the reservoir(s).	Table 2-4 of the FEIS has been revised to indicate the "Modify flows to flush sediment (drawdown)" measure would be applicable for navigation.
0103	Thomas Schirm	8646	Potential Impacts to Winter Resident Fish not Fully Presented: Throughout the EIS, the studies cited emphasize a data gap regarding winter abundance, distribution and habitat use studies for salmonids and sturgeon, as well as other resident species. There are virtually no winter studies cited and little sampling has been done during the winter work window period.	The Corps did not revise the FEIS text as winter abundance, distribution and habitat use by salmonids, white sturgeon, and lamprey are already discussed and references provided. Winter abundance, distribution and habitat use for resident fish have generally been a low priority and therefore not been studied due to available funds and lack of regional interest.
0103	Thomas Schirm	8647	Figure 3-1 does not extend through the work window period (December through March). It should show adult steelhead and sturgeon presence, in relatively high abundance, extending through December and into April.	See response to Comment 8586 in Letter 91. The text and the figure have been revised.
0103	Thomas Schirm	8648	In addition, sturgeon were not given much consideration in the	. Section 3.1.4.3 of the FEIS has been revised to clarify the information on white sturgeon.

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			EIS. The relative abundance and habitat use of sturgeon during winter and the potential effects of the dredging and in-water disposal should be reflected in the text and Figure 3-1. Lower Granite Reservoir is recognized as a sturgeon nursery area with fast growth rates. At least one study indicates that the highest densities of sturgeon occur in upstream portions of Lower Granite reservoir where dredging is proposed, and also in the in-water disposal site (Bennet et al. 1993).	
0103	Thomas Schirm	8649	Freshwater mussels are mostly ignored in the EIS, but they are an important component of the ecosystem.	<p>A general description of the Phylum mollusca is presented in the affected environment section (3.1.2). The text has been revised as follows: the following is from Appendix M of Corps 2000 FCRPS EIS and Frest TJ and EJ Johannes. 1992. Effects of the March 1992 Drawdown on the Freshwater Mollusks of the Lower Granite Lake Area, Snake River, SE WA, & W ID. Deixis Consultants, Seattle, Washington.</p> <p>3.1.2 Mollusc diversity has been greatly reduced by the impoundment of the Snake River. Prior to impoundment, the lower Snake River likely supported 34 species of molluscs, 33 of which were native to the river (Frest and Johannes, 1992). Sampling done during the test drawdown in the early 1990s produced only seven mollusc species (Frest and Johannes, 1992). The current mollusc fauna is dominated by the non-native Asian clam (<i>Corbicula fluminea</i>), which became established in the Columbia River in the 1940s (Frest and Johannes, 1992). Species observed in small numbers with limited distributions included the California floater (<i>Anodonta californiensis</i>) (a species of concern for the USFWS), the shortface lanx (<i>Fisherola nuttallii</i>), the western floater (<i>A. kennerlyi</i>) (a species of concern for the USFWS), knobby rams horn (<i>Vorticifex effuse</i>), creeping ancylid (<i>Ferrissia rivularis</i>), and the bivalve, western ridged mussel (<i>Gonidea angulata</i>) (a species of concern for the USFWS). Frest and Johannes (1992) reported that <i>A. californiensis</i>, <i>A. kennerlyi</i>, and <i>G. angulata</i>, now appear to be extirpated from the Lower Granite Dam Reservoir.</p> <p>Pool and Ledgerwood (1997) described the relative composition of major benthic taxa found in three soft-substrate, shallow-water sampling areas (pooled data) of Lower Granite Reservoir from 1994-1995 comprised 80% Oligochaeta, 11% Insecta (Including chironomids), 2% Bivalvia, 1% Crustacea, and 6% other taxa.</p> <p>Pool, S. S., R. D. Ledgerwood. 1997. Benthic invertebrates in soft-substrate, shallow-water habitats in Lower Granite Reservoir, 1994-95. Report to the U.S. Army Corps of Engineers, Contract E86940115, 96 p. 3.1.4 Text will be revised to state recolonization is dependent on the time of year with short time to recolonization during periods of higher productivity. The USACE expects recolonization to occur between 6 months to a year but may occur sooner dependent on water temperatures and productivity. Delayed recolonization of benthic organisms could be important from a secondary and cumulative effects perspective as it applies to threatened and endangered species through community interactions (predator/prey relationships) although these are likely to be minimal with localized effects since the impacted area is relatively small compared to the available undisturbed habitat.</p>
0103	Thomas Schirm	8650	Juvenile Fall Chinook Impacts: Page 3-8, the EIS states that fall Chinook juveniles may spend several weeks to several months in the Snake River reservoirs, and in other places in the document it states they may remain for up to a year and emigrate as yearlings. This appears to be a significant adaptation by fall Chinook to a successful rearing strategy that increases adult returns, and its importance is underemphasized	We agree that a significant portion of fall Chinook have adapted to remain in the reservoirs for up to a year, and this is discussed in the FEIS in Section 3.1.4.2 under the Fall Chinook Salmon subheading. The opening paragraphs of the section have been revised so the information on fall Chinook rearing time is consistent.

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0103	Thomas Schirm	8651	when discussing potential dredging or disposal impacts. There is inconsistent and/or contradictory information given on sub yearling Chinook salmon. Throughout the EIS and in this section, it repeatedly states that Chinook prefer shallow water habitat. Then a study is referenced that states Chinook prefer deep water habitats in fall and winter, and shallow water habitats in spring and summer. Yet later a statement is made that few fall Chinook juveniles would be present in dredging or disposal areas because they prefer shallow water habitats. Dredging and disposal activities would take place in the winter work window, which is when Chinook should be using deeper water habitats that may include both areas, particularly disposal sites. This potential impact on juvenile Chinook needs to be clearly stated and understood.	See response to Comment 8799 in Letter No. 97 regarding presence during the work window. The Corps has revised the FEIS to ensure that Chinook habitat use is appropriately described. Subyearling fall Chinook are known to utilize shallow water habitat during the spring and summer periods as they outmigrate through the lower Snake River (e.g., Tiffan and Connor 2012; Arntzen et al. 2012; Tiffan and Hatten 2013; Bennett et al.). Other salmonids such as steelhead and spring Chinook are more pelagically oriented and/or transition through shallow water habitat at a faster rate during spring outmigration periods (e.g., Tiffan and Connor 2012). A small portion of the juvenile fall Chinook population is known to overwinter in the lower Snake River and are typically pelagically oriented during this winter time period (e.g., Tiffan and Connor 2012).
0103	Thomas Schirm	8652	Effects on Plankton and Benthic Community: Page 4-3. First paragraph, last line, states, "Recovery of benthic invertebrates which form the majority of the food consumed by bottom feeding fish would occur within a few months." What research is this based on? Please cite references. This would seem reasonable for many benthic invertebrate species, but what about those that are not mobile, or do not have free ranging larval stages? Is this true of the preferred prey species of fall Chinook and sturgeon for example?	Citation was added. The Corps has based information provided in the FEIS on published research results including Arntzen et al 2012, Bennett et al. 1990; 1991, Cochnauer 1981, Gottfried et al. 2011, McCabe et al., 1992a; 1992b, Muir 1988, Sprague et al. (1993) and Tiffan and Connor 2012. Sturgeon diet varies with size and includes crayfish, fish, and macroinvertebrates and as such do not strictly rely on benthic organisms that are not mobile which will be displaced for short periods of time. Tiffan et al. 2014 found fall Chinook consumed aquatic insects (e.g., Diptera, Ephemeroptera, and Trichoptera), of which a high proportion was represented by adult, terrestrial forms. In the reservoir, subyearlings also consumed aquatic insects but also preyed heavily at times on nonnative lentic amphipods <i>Corophium</i> spp. and the mysid <i>Neomysis mercedis</i> . Thus fall Chinook diets are primarily comprised of macroinvertebrates that tend to be mobile and/or free ranging larval stages.
0103	Thomas Schirm	8653	It is stated that sturgeon can move to avoid impacts, but no mention is made about if critical or important habitat is dredged or is used as a disposal site, and the impacts of those actions to the sturgeon's major food sources like crayfish and larval fish.	Dredging and associated dredge material placement can disturb foraging habitat for sturgeon. A statement reflecting such disturbance, including potential permanent loss of foraging habitat for prey species, has been added to Section 4.1 of the EIS. Dredging and associated dredge material placement can disturb foraging habitat for sturgeon. The areas being proposed for dredging as part of the current immediate need action have relatively small footprints within the lower Snake River. As the proposed dredging activities will deepen areas from an approximate minimum depth of 7' to a maximum of 16', the river in regards to sturgeon use will remain relatively similar and the period of disturbance will be relatively short. Areas where dredge material will be placed (i.e., Knoxway Bench, RM 116) will become shallower in localized areas upon completion of activities. This area is a relatively small area within the lower Snake River but is anticipated to provide valuable shallow water rearing habitat for subyearling fall chinook (Tiffan and Connor 2012; Tiffan and Hatten 2013) while minimally impacting sturgeon habitat areas including food source production areas.
0103	Thomas Schirm	8654	Dredging Equipment Potential Impacts: Page 4-12, 3rd paragraph; Structural Sediment management Measures. This paragraph talks about the potential for accidental releases into the water of fuel, lubricants, hydraulic fluids, and other contaminants from equipment used to construct these structures. Yet this same equipment would be used for dredging activities and no mention is made of this potential contaminant release in the discussion of dredging until a brief mention near the end of the document. It is mentioned more than once in relation to the structure options, and is listed as an adverse	Section 4 has been revised to clarify the anticipated environmental effects of the alternatives.

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			effect of fish. A consistent application of this potential impact should occur.	
0103	Thomas Schirm	8655	BOD Impacts from Dredging: Page 4-13. Paragraph 4, last sentence mentions if sediment management structures are constructed, and the sediment mobilized in construction contains organic materials in an anaerobic state, re-suspension of these sediments will increase the Biological Oxygen Demand and depress dissolved oxygen. Again this would be true of dredging activities as well, but is not mentioned in the dredging discussion sections. Again, a consistent application of this potential impact should occur.	Section 4 has been revised to clarify the anticipated environmental effects of the alternatives.
0103	Thomas Schirm	8656	Turbidity Impacts from Drawdown Minimal: Page 4-16, 3 rd paragraph. This paragraph states that a drawdown/flushing operation is likely to adversely affect salmonids due to increased turbidity. With the river drawn down and functioning more like a natural river in winter months, this seems to be a minimal concern. The discussion in this section should focus on any potential effects on winter rearing for anadromous and resident fish, aquatic invertebrates, habitat conditions and productivity of those habitats throughout the year.	The description of a drawdown in Section 2.2.4 of the FEIS has been revised to clarify this would take place during the spring high flows. The appropriate text locations in Section 4 of the FEIS have been revised to describe the effects of this drawdown scenario.
0103	Thomas Schirm	8657	Levee Augmentation: If levee heights potentially need to be raised for public safety, that is understood. However, WDFW would be concerned if this measure is used in place of other sediment management practices, especially because raising levees does not address sediment deposition or management.	See response to Comment 8643 in Letter No. 103 for determining which measure or measures to implement.
0103	Thomas Schirm	8658	Extent of Shallow Water Habitat Creation: The dredged materials are proposed to be deposited to create shallow water habitat at river mile 116 near Knoxway Canyon, which is shown to be beneficial to salmonids. The EIS should include a description of the USACE's expectation for how much, and where, the creation of shallow water habitats would occur during the first 10 years and in subsequent 10 year increments. What is expected to be the maximum extent of the in-water disposal for creation of shallow water habitats? Also, there is no information regarding the expected frequency of deposition of dredge materials and the expected duration between disposal events so the newly created shallow water habitats can become fully functional and productive for aquatic invertebrates preferred by juvenile salmonids, sturgeon, and other resident fish species. How will it be determined when the optimum amount of habitat has been created? If this PSMP is proposed to be in effect indefinitely, it would seem that the volume of dredged materials to be disposed of may exceed the optimum habitat requirements over time and may eventually become an adverse effect instead of benefit.	See response to Comment 8643 in Letter No. 103. Long-term projections of sediments potentially placed for beneficial use (as suggested in the comment) would depend on the measure or measures evaluated during a tier-off NEPA analysis.
0103	Thomas Schirm	8659	Collaborative Sediment Management: WDFW would encourage the USACE to prioritize collaboration and strengthen sediment management actions with other Snake River watershed stakeholders. The preferred alternative focuses on channel and structural measures, but does not list working collaboratively	See response to Comment 8744 in Letter No. 76.

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			with other entities to limit sediment input into the river systems, which would seem to be a critical long term sediment management action.	
0104	Celia Barton	8886	It is difficult to have both long range plan and immediate action plan woven into the same document. Most comments apply to multiple sections and documents associated with this plan, please apply comments generally as appropriate.	Thank you for your comment. See response to Comment 8771 in Letter No. 76.
0104	Celia Barton	8887	Executive Summary (ES) - p3 ES-p.3: DNR Aquatics does not see a clear mechanism suggested in plan "to continually evaluate potential sediment reduction measures within the watershed and sediment management measures within the LSRP through an adaptive management process." The U.S. Corps, Walla Walla District, should take an active lead role in ensuring this occurs regularly. The Preferred Alternative 7 relies on "continued upland sediment reduction measures by the Corps, and other land managers/owners"(at current levels of implementation). To rely on current management effort is unlikely to result in improvement without strong leadership from the U.S. Corps. ES-p.6: The "expansion or increase of practices beyond current levels of implementation is assumed. Sediment reduction measures would be implemented on public and private lands in contributing drainage areas through programs and actions by agencies other than the Corps". We cannot assume more funding will be available. It will take strong collaboration and leadership for efforts to lead to a measurable improvement. For example, some efforts will by nature be episodic, such as erosion control after a forest fire. Plans must already be in place so they can be implemented as part of the rehabilitation that normally occurs after a fire.	See responses to Comments 8742, 8744 8746, and 8754 and 8755 in Letter No. 76.
0104	Celia Barton	8889	ES-p.9: For all dredging activity identified in both the Preferred Alternative and the Immediate Needs actions - a Suitability Determination must be completed prior to dredging, that looks at the dredge prism as well as the exposed surface after dredging which must meet the AntiDegradation Standard (in Washington State). This is especially important for material intended as placement for beneficial use, especially an in-water use for fish habitat. Additionally, in Washington State, upland beneficial use placement should have approval from the local Department of Health.	The Corps is aware of this requirement. Walla Walla District worked with Seattle District Dredged Material Management Office and the Dredged Material Management Program agencies and obtained a Suitability Determination on February 18, 2014 for unconfined in-water disposal for the proposed current immediate need action. The Summer 2013 sediment sampling included z-layer samples from the sediment core locations. These samples were archived but not analyzed since the dredge prism results were below the screening limits
0104	Celia Barton	8890	ES-p.10 - Alternative 7: Will sediment from the immediate need dredge at Port of Lewiston (ID), intended for placement at the Knoxway Canyon site (WA), be tested and held to the Washington State Sediment Standards? A Suitability Determination for the dredge prism must be completed and the material must be approved, prior to dredging and placement at the beneficial use site in Washington. . . . Document - Section Three - Affected Environment EIS-3.6.2 p. 3-54. Regarding the immediate need proposed dredging, will a Suitability Determination of the dredge prism be compared to Washington State Sediment Standards prior to placement at the Knoxway	Yes, sediments from the Port of Lewiston were evaluated using the same guidelines provided by the Dredged Material Management Office (i.e., the 2006 Regional Sediment Evaluation Framework [SEF], the Dredged Material Management Program [DMMP] User's Guide, and the WADOE 2013 Sediment Management Standards [SMS]) for sediments collected from all other areas. The characterization process starts by first considering the applicable guidelines presented in the SMS. For chemicals of concern that are not identified in the SMS, the next step is to check whether interim guidelines are listed in the 2006 REF. If so, those values are used for the evaluation. For all other chemicals of concern that are not listed in the SMS or SEF documents, the DMMP guidelines are utilized. The results of the 2011 and 2013 sediment sampling are included in Appendix I of the EIS. The Corps received a Suitability Determination from the Seattle District Dredged Material Management Office on February 18,

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0104	Celia Barton	8891	Canyon site in Washington State? ES-p.10 - Alternative 7: Placement of any structures (including weirs), or placement of beneficial use material, need permission from the underlying land owner. For both Alternative 7 and 5, check with Washington DNR Aquatic Resources for ownership of state-owned aquatic lands (SOAL) early in the planning effort. Management of Washington state-owned sediments, dredged from state-owned portions of the river, also must follow RCW 79.140.110.	2014. The Corps acknowledges the State of Washington is the legal owner of submerged land below the original high water mark of the Snake River before construction of the dams and creation of the reservoirs. However, under Federal navigational servitude, the Corps has a dominant right to use such land for navigation purposes, without compensation. The Corps would coordinate with Washington Department of Natural Resources during the tier-off planning and environmental review process for implementation of measures, but would not need permission from the State to implement the selected measure.
0104	Celia Barton	8892	ES-p.13 - Table ES-2: Both Alternative 5 and Alternative 7 do not address water quality issues from in-water placement of dredged material at Knoxway Canyon.	Table ES-2 is a summary table of the programmatic plan alternatives and the intent is to keep the effects brief and the reader can refer to the text for additional detail. As such, in-water placement is considered to be part of "...sediment management activities" and "...implementation of various measures" that are identified in the table. The in-water placement at Knoxway Canyon is specific to the proposed current immediate need maintenance action and was not included in the summary table for plan alternatives.
0104	Celia Barton	8893	Document - Section Four - Environmental Effects of Alternatives EIS - 4.1.3 p. 4-13. Without characterization of the dredge material there is a potential risk to endangered species from chemical contamination.	See responses to Comments 8460 in Letter No. 44, comment 8694 in Letter No. 68, and 9051 in Letter No. 77. Additional characterization of proposed dredged material was conducted by the Corps (Appendix I) in support of the Clean Water Act Section 404 (b) (1) evaluation (Appendix L). –Section 4.6 of the FEIS has been revised to reflect results of dredged material analyses.]
0104	Celia Barton	8894	EIS p. 4-38. Please provide the documentation that the "agitation" method had the same effect on water quality as dredging.	Agitation would have water quality effects similar to those of dredging. The original statement has been revised in the FEIS text. It should be noted that effects would vary based on location, duration of agitation and other factors.
0104	Celia Barton	8895	Appendix H - Summary of Proposed 2013/2014 Dredging Appendix H p.I- Material dredged from a Washington state-owned portion of the river must be managed according to RCW 79.140.110. Contact Washington DNR for state ownership determinations and management of those dredged sediments. Appendix H 4.1.1 p.I 1- Any structures placed on Washington state-owned lands will require authorization from the State of Washington DNR.	See response to Comment 8891 in Letter No. 104.
0104	Celia Barton	8897	Appendix H 4.2 p. 12 - We will need more detail on alternate in-water disposal options and effect on habitat for white sturgeon and salmonid prey species. We suggest including in analysis of "least costly" option. What is the monitoring plan for these disposal sites?	Appendix H has been incorporated into Appendix L, the Clean Water Act Section 404(b) (1) evaluation for the proposed current immediate need maintenance action and the analysis of the disposal alternatives has been revised... The monitoring plan is in Appendix J. The monitoring plan applies only to the preferred disposal option of creating shallow water habitat at River Mile 116, Knoxway Canyon.
0104	Celia Barton	8898	Appendix H 4.3 p. 19. A relatively complicated dredging and placement of substrate types will require a well defined dredge prism characterization, and a manageable dredge unit.	See response to Comment 8901 in Letter No. 0104. The Corps has revised the Dredged Material Management Units (DMMU's) and performed additional sediment sampling and analyses to better characterize the material the Corps proposes to dredge for the current immediate need action. Appendix I has been updated with this revised sediment sampling plan and analyses... Appendix H has been incorporated into Appendix L, the Clean Water Act Section 404(b)(1) Evaluation. The description of the in-water placement at River Mile 116 (Knoxway Canyon) has been revised to reflect the current placement sequence.
0104	Celia Barton	8899	Appendix H 4.4 p. 20. Consider placement of dredged material at multiple sites. All 422,000 cy do not need to go to the same location.	The Corps has incorporated Appendix H into the Clean Water Act Section 404(b)(1) evaluation in Appendix L. Appendix L now includes a revised the description of the alternative disposal sites considered by the Corps for the proposed current immediate need maintenance action. The Corps considered using combinations of disposal sites in addition to single sites.
0104	Celia Barton	8900	Appendix I- p.ii - Last sentence- the material proposed to be dredged has not yet received a Suitability Determination which would then qualify the statement in this document. The	Another set of sediment samples was collected and analyzed during summer and fall of 2013. The results from this sediment sampling and the follow-on bioassay tests were presented to the Dredged Material Management Program agencies for the suitability determination. The

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			exception is the Port of Clarkston Crane dock which has received a Suitability Determination.	Corps has received a suitability determination from the Seattle District Dredged Material Management Office on February 18, 2014.
0104	Celia Barton	8901	Appendix K - Snake River Channel Maintenance 2013/2014, Lower Snake River, PM-BC-20070001, Biological Assessment Appendix K - 3.6 p.30- the Knoxway site disposal plan will require a complicated placement of specific material. Have the dredge units been characterized well enough, and are they manageable units, so that the correct material can be placed, in sequence, at the habitat site?	Refer to Comment 8774, Letter No. 76. The Corps has taken sediment samples from each of the dredged material management units (DMMU's) and determined the grain size for each. All material proposed to be dredged from the Snake/Clearwater Rivers confluence area is predominantly sand, and meets the criteria for the sand cap on the disposal site. The material from the Ice Harbor navigation lock approach is cobble. The Corps has simplified the disposal sequence. The cobble from the Ice Harbor navigation lock approach would be placed first. The material from the Snake River DMMU's, both for the federal channel and the Port of Clarkston berthing areas, would be placed on top of the cobbles and would form the base of the embankment. The coarser sand from the Clearwater River would then be placed on top to provide the cap.
0104	Celia Barton	8902	Appendix K - 3.8 p.31- We would like to see an active plan for the Corps to "encourage" other agencies to reduce sediment contribution.	See response to Comment 8744 in Letter No. 76. The Corps intends to promote sediment reduction through the Local Sediment Management Group. However, the analyses prepared for this FEIS indicated sediment reduction actions in the watershed would not have noticeable or measurable effects on the types or amount of sediment that interferes with the existing authorized project purposes in the reservoirs downstream.
0104	Celia Barton	8903	Appendix K - 3.8.1. p.31. Please explain what is meant by "near real-time" for water quality monitoring during dredging and disposal. What is the mitigation plan for water quality exceedences?	Water quality measurements will be recorded at 15-minute intervals, and then transmitted to the server. As such, the reporting every 15 minute is considered "near real-time" since it is not instantaneous.
0105	James Waddell	8927	The plan must include an alternative that assesses breaching the Lower Granite Dam in some manner. This of course would allow the sediment to drop out far enough downstream to avoid most flooding issues in the Lewiston/Clarkston area.	See response to Comment 8368 in Letter No. 29.
0105	James Waddell	8928	The plan as written seems to imply that because navigation is "authorized", alternatives that curtail it cannot be studied or considered viable alternatives. This is incorrect. Authorization does not provide a mandate to ignore alternatives that could save tax dollars, reduces the flooding threat caused by the Lower Granite Dam and reduces the damaging effects to Salmon and other species.	See response to Comments 8684 and 8686 in Letter No. 68.
0105	James Waddell	8929	This alternative, along with the other alternatives, should include an economic analysis of the benefits and costs of dredging.	See response to Comment 8360 in Letter No. 12.
0106	Michael Wells	8936	Retired federal judge Redden told you and the other agencies presiding over the demise of my wild Snake River salmon and steelhead to evaluate the possibility of breaching the four lower Snake River dams. You didn't do that in this report	See response to Comment 8368 in Letter No. 29.
0106	Michael Wells	8937	I believe it is absurd to subsidize barging when the same cargo can be more efficiently transported on existing railroad. I also believe it absurd that you continue to pour money into the Lower Snake River as a transportation corridor considering the market advantage Puget Sound ports hold over the Port of Portland.	See response to Comment 8360 in Letter No. 12.
0106	Michael Wells	8939	Dredging will threaten those endangered salmon and steelhead and other wildlife and fishes.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0106	Michael Wells	8940	You'll never catch up to the increased sediment load in the river system from these catastrophic forest fires we keep having within the watershed. In other words, Lewiston will flood, the wild salmon and steelhead will go extinct and you'll still be wasting my money fleecing America.	See response to Comments 8742, 8746, 8755 in Letter No. 76 and Comment 8361 in Letter No. 14. PSMP Appendix D, titled 'Enhanced Sediment Delivery in a Changing Climate in Semi-Arid Mountain Basins: Implications for Water Resource Management and Aquatic Habitat in the Northern Rocky Mountains,' was prepared by Jaime R. Goode, Charles H. Luce, and John M.

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				Buffington of the United States Forest Service Rocky Mountain Research Station as part of the PSMP Draft EIS. Figure 1 of their report is a conceptual plot of sediment yield relative to hydroclimate and the regulating role of vegetation. The sediment yield curve for Figure 1 is based on the published work (December 1958 in Transactions, American Geophysical Union) of W.B Langbein and S.A. Schumm, titled 'Yield of Sediment in Relation to Mean Annual Precipitation.' From these two references, it can be seen that the maximum sediment yield generally occurs where the effective precipitation is on the order of 10 inches per year. This annual precipitation is generally experienced over a large portion of the effective drainage basin for Lower Granite reservoir. Therefore events such as climate change and forest fires should likely not significantly increase the basin's sediment yield since it appears that present basin climactic conditions might already provide the maximum long-term sediment yield conditions.
0107	Sara Wolff	8951	I am asking for Alternative Number 1 to be implemented which is the action of no action and until you come up with an environmental impact assessment that clearly considers all the authorized purposes stated in your document, I believe nothing should be done.	See response to Comment 9047 in Letter No. 77.
0107	Sara Wolff	8952	It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives 1) fish and wildlife conservation with respect to wild salmon and 2) recreation.	See response to Comment 9048 in Letter No. 77. Both alternatives would address sediment that interferes with all four of the affected existing authorized project purposes (navigation, recreation, fish and wildlife, flow conveyance). Section 2.2.5 of the FEIS main report and Appendix A, the proposed programmatic plan, have been revised to clarify how they would address all four affected project purposes.
0107	Sara Wolff	8953	Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery but instead would most likely have a negative effect.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. Incidental impacts to listed species were considered and evaluated.
0107	Sara Wolff	8954	Also stated in the Environmental Impact Assessment is that the Army Corps of Engineers plan to consider the potential benefit of using dredged material to create submerged fish habitat. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir? If this sediment was detrimental for salmon in the first four reservoirs than why would it be of any benefit for salmon in a different reservoir.	See response to Comment 9051 in Letter No. 77. For the proposed current immediate need action, only two reservoirs are involved: the part of McNary reservoir immediately downstream of Ice Harbor Dam and Lower Granite reservoir. The Federal Channel, Port of Lewiston, and Port of Clarkston are in Lower Granite reservoir. None of this sediment is detrimental to salmon.
0107	Sara Wolff	8955	Another factor not being considered within alternatives 5 and 7 is recreation. After dredging the contaminated sediment from these reservoirs the amount of contaminants that would be dislodged and sent downstream would be considerable. Dredging the sediment in these reservoirs would directly impact the recreational potential of both the Snake and Columbia rivers anywhere downstream.	See response to Comment 9051 in Letter No. 77.
0108	John Wolverton	8660	The Army Corp of Engineers needs to conduct a system-wide evaluation of COE maintained infrastructure and set priorities on which are more important, which have the least environmental impact, and which have a suitable cost/benefit ratio in relation to how they serve the public interest.	See response to Comment 8360 in Letter No. 12 and Comment 8368 in Letter No. 29.
0108	John Wolverton	8661	The lower Snake River and Port of Lewiston dredging no-longer ascends to a level of necessary infrastructure maintenance, considering the many other financial and infrastructure challenges that our country now faces. It is no-longer in the best	See response to Comment 8360 in Letter No. 12.

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0108	John Wolverton	8662	public interest to continue this dredging project. The dredging of the lower Snake River and in the Port of Lewiston should be terminated and alternatives to river-barge-hauling of inland freight should be more thoroughly analyzed and pursued.	See response to Comment 8360 in Letter No. 12.
0109	Philip Rigdon	9061	Monitoring must be a fundamental component of any proposed action. We note that the term, "monitoring" is used extensively throughout certain parts of the DEIS, but nowhere does the document describe a monitoring plan to examine potential effects to key species. Specifically, sufficient sampling must be undertaken to determine the characteristics of the substrates and the presence/absence of lamprey, before and after the proposed activities.	See response to Comment 8589 in Letter No. 91, and Section 4.1 of the FEIS main report. The Corps is not proposing to perform ongoing monitoring of key species. The only ongoing monitoring would be navigation channel condition surveys, sediment range cross sections, and reports from commercial and recreational vessels. Monitoring to determine the presence or absence of key species would be performed on a case-by-case basis, as needed to evaluate measures when a trigger is hit.
0109	Philip Rigdon	9062	The Yakama Nation strongly supports the investigation of potential ecological benefits that could be realized by distributing dredged sediments in a pattern that is designed to create specific habitat types. This is an interesting and potentially powerful new concept that could have significant implications for dredging activity throughout the Columbia Basin. However, the ecological benefits, if any, of such constructed habitats are by no means understood. The Corps should provide adequate monitoring to verify that the putative benefits of constructed SWH associated with the proposed project are real and measurable.	See response to Comment 8778(r) in Letter No. 76. The Corps performed biological monitoring of the shallow water habitat created as part of the 2005/2006 maintenance dredging and disposal. This monitoring indicated the Corps was successful in creating habitat now being used by juvenile fall Chinook salmon. The Corps is also proposing to perform biological monitoring of the additional shallow water habitat created as part of the proposed current immediate need action. The ability to perform this monitoring, and any future monitoring, will be subject to the availability of funds.
0109	Philip Rigdon	9063	We further request that the Corps revisit the narratives in the DEIS specifically concerning Pacific lamprey. As the Corps is aware, these fish are especially important to the Yakama Nation. Given the recent elevation of lamprey awareness regionally and within the Corps itself, and given that actions contained within this DEIS will disturb, if not completely destroy, juvenile Pacific lamprey habitat, considerable attention should be given to the evaluation of the alternatives and the description of the proposed action. For example, in Section 4.1.2.1 lamprey are discussed, almost as an afterthought, and the conclusion that areas to be dredged "are not likely to be heavily populated" is completely unfounded. In fact, the reason that very few are encountered (noted by Arntsen, 20 12) is because Corps dams have blocked passage of adult lamprey, essentially extirpating them from the Snake River. It is likely that with ongoing and future recovery efforts, there will actually be Pacific lamprey back in the Snake River and these juveniles will likely be found in areas to be dredged. Also, we believe that the notion that rearing juveniles "are mobile and could actively avoid dredging activities" is misleading, and probably not true. Although we understand and agree that the winter "work window" will reduce risk for migrating adults, some evidence suggests that the later winter months appear to be a time for juvenile movement. We also note that the issue is not so much about dredging impacts to actively migrating fish, but rather to juveniles that inhabit these substrates year after year throughout all seasons.	The Corps recognizes and appreciates the importance of lamprey to the Yakima Nation as well as our other regional partners. Section 3.1.4.2 of the FEIS has been revised to incorporate additional information regarding Pacific lamprey including information on presence/absence and sampling methodologies.

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0109	Philip Rigdon	9064	Finally, the Yakama Nation agrees that Alternative 7 is the preferred Alternative, as it provides the greatest potential use of various "tools" (as identified in Table 4-1). However, what is not clear is the potential to actually use these various tools and the potential benefits that each of these might provide. There is little or no information providing even a basic understanding of whether the use of these tools is realistic or even effective. An expansion of Table 1, including additional narratives that address these interests, would provide clarity to the reader and potentially guide future site-specific actions covered under this Programmatic EIS.	See response to Comment 8754 in Letter No. 76. As described in Section 2 of the FEIS, the measures retained as part of Alternative 7 were developed through a collaborative process that included a series of workshops involving technical experts from the Corps and other agencies, and input from scoping and stakeholders. Measures were only retained for further consideration if they were determined to be feasible (i.e., realistic) and would reasonably contribute to resolving sediment-related problems (i.e., effective). Use of a specific measure will be determined on a project-by-project basis and will be selected based on the location-specific characteristics and nature of the problem (chronic problem area, intake blockage, navigation channel, high water velocities). No one measure provides the solution to problem accumulation at every location. Table 4-1 is meant to be brief for the purposes of the Section 4 discussion. More detailed information regarding applicable use of each measure is provided in Section 2.2.4. This section in the FEIS main report has been revised to provide additional details on the applicability of the measures.
0110	Mark Anderson	8663	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0110	Mark Anderson	8664	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0110	Mark Anderson	8665	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8461 in Letter No. 44 and Comment 8361 in Letter 14.
0110	Mark Anderson	8666	Please stop wasting our tax dollars with this endless cycle of dredging for no real good reason.	As described in Section 2 of the FEIS main report and Appendix A, dredging is one of many measures the Corps could consider using to address sediment accumulation that interferes with existing authorized project purposes.
0111	Stephanie Utter	8960	The proposed implementation of the preferred alternative for the PSMP/EIS should not adversely impact Reclamation operations or irrigation diversions within the project areas, such as the pumping facilities in close proximity to the confluence of the Snake and Columbia rivers near Burbank, Washington.	Thank you for your comment. The Corps would consider effects to applicable Reclamation facilities when implementing any sediment management measures.
0112	Tom Lorz	8964	Staff does not agree with the decision to assume that light loading barging cannot be used to mitigate the effects of sedimentation on the navigation channel during Minimum Operating Pool (MOP) operations until other alternatives can be reviewed and implemented. The document appears to choose meeting the full 14 foot navigation channel versus implementing BiOp operations both of which have Congressional authority.	See Comment Response 8691 in Letter No. 68.
0112	Tom Lorz	8965	While evident, it is not fully acknowledged in the document that the EIS is both a current, specific EIS for dredging the Lower Snake in the near term, and a programmatic EIS for future actions. This is confusing and obscures the current action in the larger programmatic format.	See response 8771 in Letter No. 76.
0112	Tom Lorz	8966	As to the programmatic EIS, the analysis is unclear as to how alternatives will be selected for use in the future to meet sediment issues. A number of the alternatives will take extensive	The Corps acknowledges some of the measures could take a long time to implement and/or be effective. The Corps may need to implement current immediate need actions until the long-term action is implemented and takes effect. The tier-off analysis would include these short-

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			time to implement and even more time to take effect. If the Corps waits until a criterion is met before beginning the selection process, then most of the alternatives will be screened out simply by the passage of time. This begs the question; when would these alternatives ever be implemented and why are they included in this document? Staff would encourage the Corps to begin a process to identify alternatives that can deal with these reoccurring locations now instead of waiting for a trigger to be met.	term actions in the long-term (future) action. All measures listed in the Plan are viable. As with any Federal project, however, funding is not guaranteed. If a need for action is determined, a tier-off NEPA analysis will be completed. If a long-term measure(s) is selected for a site-specific action, the Corps will request further funding.
0112	Tom Lorz	8967	Staff has serious concerns with the likelihood that several of these measures could ever occur, and thus whether Alternative 7, as a whole, will really occur. Several of the measures are extensive projects that will require significant budget commitments, but no funding has been identified to construct these projects. Given the current status of Corps' budget, it is unlikely that funding will be made available for these large projects. While we applaud the Corps' efforts to consider a wide range of alternatives, the document needs to identify which of them can be currently implemented and a better description of the selection process that will be used to select an alternative in the future.	See response to comment 8966 in Letter No. 112.
0112	Tom Lorz	8968	Staff would recommend that the Corp conduct further surveys before the dredging takes place to insure that juvenile lamprey are not present at these locations or, if they are present, that they are not typically present when the dredging operation occurs. It is unclear if the surveys were conducted when dredging operations would take place.	See response to Comment 8589 in Letter No. 91.
0112	Tom Lorz	8969	The document identifies the Knoxway Canyon at RM 116 in the Lower Granite Pool as the disposal site of the dredge material. Staff would again caution the Corps of using this site or other sites without first conducting surveys and coordinating with the Lamprey Task Group on potential impacts to lamprey in the area and the time periods when lamprey might be present. It is unclear in the document if that has occurred.	Juvenile lamprey are known to rear in sandy substrate in tributary streams and at the confluences of stream/river systems where suitable rearing conditions exist. Even though Knoxway Bench (RM 116) is located in the lower Snake River and not in the vicinity of any stream/river system confluences, the Corps conducted two surveys in the area as part of lamprey surveys in 2011. No lamprey were found in the Knoxway Bench area, including the area where sediment disposal occurred in 2005. Therefore, the Corps believes impacts associated with disposal will likely be minimal during the creation of shallow water habitat for juvenile fall Chinook salmon. The Corps has discussed the PSMP and proposed current immediate need action with members of the FCRPS Lamprey Task Group. The Corps will continue to work with our regional partners, including interested tribal parties, to evaluate lamprey within the lower Snake River basin. While the Corps has not specifically met with the Lamprey Task regarding this FEIS, the Corps is open to such requests in the future.
0112	Tom Lorz	8970	The document discusses the potential benefits of using the disposal of material at Knowway Canyon to enhance shallow water habitat for salmonids. We would suggest that the Lamprey Task Group be consulted to determine if there are possible techniques of disposal that could benefit lamprey as well. Also, while staff is encouraged by findings that the creation of shallow water habitat may have some benefits for sub-yearlings, there needs to be monitoring at the proposed disposal site to determine if benefits are actually realized at this location. The	See response to Comment 9062 in Letter No. 109. The Corps looks forward to working with the Lamprey Task Group in the future in regards to development of disposal methods that may benefit lamprey in addition to subyearling fall Chinook. Research to date has indicated that subyearling fall Chinook benefit to the greatest degree by creation of shallow water habitat in the lower Snake River (e.g., Bennet et al., Tiffan and Connor 2012, Tiffan and Hatten 2013) and have continued to be the focus of in-water disposal efforts. The Corps is open to ways to maximize benefits associated with in-water disposal efforts for multiple species if possible.

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			site appears to be much larger than those identified in the studies, which included ribbons of less than 6 feet deep shallow water habitat. Monitoring at this larger site will help verify if benefits are also achievable in large shallow benches as proposed in the analysis. Staff is somewhat skeptical of the claim that other species beside fall Chinook, i.e., steelhead, spring/summer Chinook, sockeye and bull trout, will receive some benefit from these actions as well.	As described in the FEIS and Appendix J, monitoring of the Knoxway Canyon disposal site will be evaluated in future years, subject to availability of funds.
0113	Betty Hayzlett	8667	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0113	Betty Hayzlett	8668	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0113	Betty Hayzlett	8669	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8361 in Letter No. 14 and Comment 8461 in Letter No. 44.
0114	Bonita Parodi	8670	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0114	Bonita Parodi	8671	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0114	Bonita Parodi	8672	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8361 in Letter No. 14 and Comment 8461 in Letter No. 44.
0115	Margaret Rosenthal	8673	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0115	Margaret Rosenthal	8674	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0115	Margaret Rosenthal	8675	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8361 in Letter No. 14 and Comment 8461 in Letter No. 44.
0116	Richard Rusnak	8676	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more	See response to Comment 8360 in Letter No. 12.

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			efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	
0116	Richard Rusnak	8677	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round. Haven't we done enough to destroy salmon habitat, stop these measures now.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0116	Richard Rusnak	8678	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8361 in Letter No. 14 and Comment 8461 in Letter No. 44.
0117	Various Authors	8986	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0117	Various Authors	8988	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0117	Various Authors	8989	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8361 in Letter No. 14 and Comment 8461 in Letter No. 44.
0118	Del Groat	9010	We support navigation to the inland seaports on the Snake/Columbia River system. We know that a properly functioning river deposits sediment during the spring run-off and/or summer storm cells within the watersheds (natural events). Having the ability to remove the build-up of sediment in areas that could, in the future, affect infrastructure or human life is warranted. We appreciate the comprehensive examination undertaken by the U.S. Army Corps of Engineers (USACE) to examine depositional areas and formulate long term solutions so that navigation from our region to the Pacific Ocean and beyond can continue effectively and efficiently. We support the USACE proposing to implement a long-term plan to manage, and prevent if possible, river sediment accumulation, or "depositions" that are interfering with "authorized project purposes" of the USACE's Lower Snake River Projects (LSRP) and reservoirs in southeastern Washington and north central Idaho.	Thank you for your comment.
0118	Del Groat	9011	We believe that USACE has properly identified a range of alternatives and assigned the right priority to navigation solutions that allow for continued barging, as well as providing for safety (flood control) for the Clarkston/Lewiston valley.	Thank you for your comment.
0118	Del Groat	9012	We support Alternative 7 Comprehensive (Full System and Sediment Management Measures) of the draft EIS/PSMP.	Thank you for your comment.
0118	Del Groat	9013	While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to implementation of the following measures: Reconfiguring/relocate affected	See response to Comments 8407 and 8408 in Letter No. 22.

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			facilities: Raise Lewiston levees to manage flood risk: Bendway weirs and dikes and dike fields: Programmatic approach to permitting for dredging: We believe it is important that USACE does not have to start from scratch each time dredging is needed.	
0118	Del Groat	9014	It is obvious the USACE's EIS aims for compliance with the National Environmental Policy and the Endangered Species Act (ESA). We support the emergency actions the dredging of four sites to improve navigation safety during a winter 2013-2014 work window.	Thank you for your comment. The proposed current immediate need dredging action is a routine maintenance action, not an emergency action.
0118	Del Groat	9015	It is a significant short coming that the DRAFT EIS prepared by the USACE didn't identify areas to implement required Off-Site Mitigation when completing projects. All upstream watershed plans identify sediment management Best Management Practices and the USACE could use those to help off-set their required mitigation; which would be cost-effective relative to dealing with future sediment in reservoirs.	See response to Comment 9048 in Letter No. 77. The Corps has not identified any required off-site mitigation associated with the PSMP and current immediate need action.
0118	Del Groat	9016	Additionally, it didn't appear impacts to juvenile sturgeon or other species of concern were considered.	Section 4.1 of the FEIS main report has been revised to clarify the effects to sturgeon and other species of concern are.
0119	Various Authors	9022	*** Dredging sediment is harmful to salmon and steelhead: Dredging the lower Snake and Clearwater Rivers is harmful to salmon and steelhead and the habitats they depend on for survival; this DEIS fails to fully consider these impacts and ways to mitigate or minimize them. The DEIS states without justification that the dredging alternatives are the most ecologically friendly. Wishing for dredging to be beneficial to salmon and steelhead does not make it so.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. Adverse effects of dredging on salmon and steelhead are acknowledged and discussed in detail in the FEIS. Section 4.1.2.2 notes, with respect to the proposed current immediate need action: "The immediate action "may affect" and would "likely adversely affect" Snake River fall Chinook salmon, Snake River spring/summer Chinook salmon, and bull trout; and "may affect" but "not likely to adversely affect" Upper Columbia spring Chinook salmon, steelhead and sockeye salmon (Appendix K)." Beneficial use of dredged material to create shallow water habitat has been demonstrated to be effective, but the FEIS still acknowledges that there would be an effect on fish. The Corps did not characterize any of the alternatives as "ecologically friendly" but rather identified the "environmentally preferable alternative" from among the action alternatives. Alternative 7 was identified as such because it provided sediment management measures that would potentially reduce the need to dredge in the future.
0119	Various Authors	9023	The Corps DEIS fails to explore all available options, including the removal of the four lower Snake River dams, the costs and benefits of the current barge transportation system, or the potential replacement of the waterborne transportation by rail, trucks, and other means.	See response to Comment 8368 in Letter No. 29, Comment 8686 in Letter No. 68, and Comment 8360 in Letter No. 12.
0119	Various Authors	9025	*** The DEIS fails to adequately address and incorporate the intensifying impacts from climate change. These anticipated impacts must be adequately described and fully analyzed in terms of costs, impacts on reservoir capacity, dredging activity, flood control, and levee-raising - analyses that are absent from the DEIS.	See response to Comment 8461 in Letter No. 44 and Comment 8361 in Letter No. 14.
0119	Various Authors	9026	** The DEIS fails to accurately or transparently assess if lower Snake River dredging - along with maintenance and investment in this water transportation system - is actually a high funding priority for the Corps and the Northwest in an era of tremendous project backlogs and tightening federal fiscal resources. The DEIS provides no assessment of the value and priority of this project in comparison to other proposed projects, costs or	See response to Comment 8360 in Letter No. 12.

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			benefits; nor does it include an assessment of the likelihood of available funding in an era of across-the-board spending reductions by the federal government.	
0119	Various Authors	9027	Corps must include in the final EIS a full cost-benefit analysis of dredging the lower Snake over the next 20 years.	See response to Comment 8360 in Letter No. 12. As described in Section 2 of the FEIS main report and Appendix A, dredging is one of many measures the Corps could consider using to address sediment accumulation that interferes with existing authorized project purposes.
0120	Darcy Vansteelant	8679	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0120	Darcy Vansteelant	8680	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0120	Darcy Vansteelant	8681	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8361 in Letter No. 14 and Comment 8461 in Letter No. 44.
0121	Mr Gary Mcfarlane	9309	The Corps now seeks to move ahead with the PSMP while the public review process for that proposal is underway and well before the Corps can permissibly issue a final EIS or make a formal decision at the end of the NEPA process. Indeed, the public comment period for the DEIS had not closed before the Corps indicated its intent to move forward with that plan by proposing the issuance of a Section 404 permit. Rather than rush to proceed with what appears to be the Corps' foregone conclusion to maintain the channel through dredging this winter, the Corps must address the public's and other agencies' concerns about the shortcomings of its analysis in the DEIS and complete the NEPA process.	See response to Comment 8693 in Letter No. 68. The Corps is not proposing to make a decision on Section 404/10 permit applications by the Ports of Lewiston and Clarkston before the EIS is finalized. The EIS and associated Section 404(b)(1) evaluation (Appendix L) are intended to inform/support the permit decisions.
0121	Mr Kevin Lewis	9317	The Public Notice does not explain how the Corps will satisfy the substantive provisions of the Clean Water Act in executing its proposed 2013-2014 dredging or the PSMP.	The Public Notice includes all of the information required under 33 CFR 336.1, Factors to be Considered in the Evaluation of Army Corps of Engineers Dredging Projects Involving the Discharge of Dredged Material into Waters of the U.S. and Ocean Waters. The Corps has complied with the Clean Water Act and the Corps regulations by preparing a Section 404(b)(1) evaluation (Appendix L) for the proposed in-water disposal of dredged material. The Corps is not issuing itself a Section 404 permit as the Corps does not process and issue permits for its own activities. Rather, the Corps authorizes its own discharges of dredged material by applying all applicable substantive legal requirements of the CWA, including public notice, opportunity for public hearing, and application of the section 404(b)(1) guidelines.
0121	Linwood Laughy	9318	We are concerned that the Corps apparently intends to rely on the DEIS to satisfy its CWA obligations. See Public Notice at 9. Even if the DEIS had adequately analyzed the impacts of the PSMP – and it did not – there is a fundamental disconnect between the broad scope of the actions analyzed in the DEIS and the specificity of the actions that must be analyzed before the Corps can issue a 404 permit under the CWA. Indeed, the action proposed in the Public Notice is different than the dredging outlined in the DEIS in its scope – and therefore in	The final EIS is intended to satisfy NEPA requirements for the PSMP, the proposed current immediate need action (consistent with the PSMP) to reestablish the federal navigation channel, as well as for related Section 404/10 permit decisions for the Ports of Lewiston and Clarkston. Section 4 of the EIS includes an analysis of the potential effects associated with formal adoption of the PSMP, as well as site-specific effects of the proposed current immediate need dredging action and related permit decisions. Appendix L to the EIS is the Section 404(b)(1) evaluation for the proposed current immediate need action and related permit decisions for berthing area maintenance by the Ports. The action described in the Public Notice is the same proposed action described and evaluated in the EIS. The Public

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			environmental effects and socioeconomic costs. This disconnect between the two projects prevents the Corps from blindly relying on its DEIS to support its actions here.	Notice has the updated dredged material quantities based on the 2012 survey while the EIS has quantities based on the 2011 survey, but that does not change any of the environmental review requirements or the potential environmental effects. The Corps does not need a Section 401 water quality certification from Idaho Department of Environmental Quality (IDEQ) as the Corps would not be discharging any dredged material into waters of the U.S. in Idaho. Incidental fallback from dredging is no longer considered to be a discharge and is not regulated under Section 404/401. The Corps has requested a revised Short Term Activity Exemption (STAE) from IDEQ for the proposed dredging as a matter of comity and the Corps expects to receive the revised STAE from IDEQ before the Corps signs the Record of Decision.
0121	Pat Ford	9319	A PUBLIC INTEREST REVIEW PURSUANT TO THE CLEAN WATER ACT CANNOT BE BASED SOLELY ON INFORMATION CONTAINED IN THE DEIS FOR THE PSMP. As we have explained, the Corps' evaluation of environmental impacts in the DEIS is insufficient and fails to provide a foundation from which the Corps may conduct an adequate public interest review.	See response to Comment 9318 in Letter No. 121. The decision document(s) for the Section 404/10 permit applications from the Ports of Lewiston and Clarkston concerning berthing area maintenance will include a public interest review, in accordance with 33 C.F.R. 320.4. The Corps does not issue itself a CWA Section 404/10 permit. Instead, it applies the substantive legal requirements of Section 404 of the CWA and the 404(b)(1) guidelines to its actions (Appendix L). The public interest associated with a federal Civil Works project is established when authorized by Congress and confirmed through O&M funding/appropriations. A separate public interest review is not required for formal adoption of a PSMP or for the proposed current immediate need action (consistent with the PSMP) to reestablish the congressionally authorized federal navigation channel.
0121	Steve Mashuda	9320	The Corps relied on its unsupported assumption that fish protected under the ESA will not be harmed by dredging because of the in-water work windows. But as the Corps admitted, Snake River steelhead and Snake River fall chinook are both likely to be in the reservoirs when dredging occurs, yet the Corps did not suggest or analyze measures to mitigate any impacts from dredging (including turbidity and water quality, and the effects of plumes of suspended sediments affecting fish downstream of the dredge locations). Nor did the Corps consider the impacts of dredging on spawning habitat.	See responses to Comments 8460 in Letter No. 44, comment 8694 in Letter No 68, and 8778(at) in Letter 76. The Corps proposes to conduct the current immediate-need dredging activities during the in-water work period to minimize impacts to ESA-listed fish. The monitoring plan (Appendix J) identifies metrics that will be used to reduce potential impacts. Adult salmonids that are in the project area during this time period are generally migrating upstream through the area with few, if any, expected to spawn in the immediate vicinity. Based on water quality monitoring performed for previous dredging actions in the Snake-Clearwater confluence, any turbidity plumes would be localized and short-lived. Other water quality parameters would not be expected to exceed state standards. The Ice Harbor Dam tailrace contains the only known potential spawning habitat within the footprint of the proposed current immediate-need action. The Corps will conduct a redd (spawning) survey prior to conducting activities in the tailrace of Ice Harbor Dam. If any redds are found, the Corps will consult with NMFS to determine how to address impacts to identified redds. The immediate need dredging templates in the upper Lower Granite Dam pool do not contain suitable spawning salmonid habitat. Adult salmonids are of sufficient size that they are expected to be able to actively avoid dredging and near-shore disposal activities. The limited numbers of juvenile ESA-listed salmonids that may be present in the project area during winter in-water work activities are pelagically oriented, generally in the upper portions of the water column and away from the shoreline. Due to this pelagic orientation of juvenile salmonids during the in-water work period (December-February), impacts to salmonids are expected to be minimal at both the dredging sites and at near-shore disposal site at Knoxway Canyon. However, the Corps recognizes that there may be some impact to ESA-listed species during dredging activities including and has identified anticipated impacts in the EIS. Additionally, the Corps engaged in formal consultation with NMFS and USFWS under Section 7 of the ESA (Appendix K) to address potential impacts to ESA-listed species. The results of ESA consultation will be addressed in the Record of Decision(s).
0121	Glen Spain	9321	The Corps overstates the environmental benefits of the proposed dredging activities. The Corps assumes that in-river disposal will create beneficial juvenile salmon habitat, but does	See responses to Comment 8695 in Letter 68 and Comment 8819 in Letter No. 97. The Public Notice does not state the cobble is needed for creating the shallow-water habitat. It just states how the cobble from the Ice Harbor navigation lock approach would be used at the

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			not assess the extent to which that habitat may become useless because of continued warming in the Lower Snake River. In the Public Notice, the Corps states that using dredge spoils for this habitat creation requires cobbles from the Ice Harbor lock approach, but does not discuss in the Public Notice or DEIS whether sufficient cobble material is available, nor where it proposes to obtain any necessary cobble now or in the future.	disposal site. Cobble is not needed for the proposed habitat creation.
0121	Michael Garrity	9322	The Corps has presented an incomplete and inadequate picture of the costs and benefits of the PSMP and of the dredging elements in particular. Readily available evidence demonstrates that the costs of the Corps' preferred alternative outweigh any benefits.	See response to Comment 8360 in Letter No. 12.
0121	Edwina Allen	9323	The assertion that barge transportation provides benefits because it is an inexpensive and efficient means for transporting goods, is based on irrelevant and outdated information. More recent and specific evidence demonstrates that rail transportation uses less fuel (and has lower emissions) than barge traffic, largely because it reduces the number of miles trucks must travel to reach facilities.	See response to Comment 8360 in Letter No. 12 and Comment 8698 in Letter No. 68.
0121	Bob Margulis	9324	The Corps did not adequately consider or discuss a full range of alternatives, including a true "no action" alternative, other transportation options in the Lower Snake River corridor, or other options that would provide water transportation without the need for dredging.	See responses to Comments 8686 and 8687 in Letter No. 68.
0121	Dustin Aherin	9325	The Corps did not adequately consider reasonably foreseeable cumulative impacts that affect the same resources impacted by this proposal, nor did it consider the impacts of reasonably foreseeable ongoing and future activities and events such as water temperature impacts and sediment volume increases from climate change.	See responses to Comments 8461 in Letter 44, Comment 8700 in Letter 68 and Comment 8819 in Letter 97.
0121	Save our Wild Salmon	9326	THE CORPS HAS NOT SHOWN HOW THE PROPOSED WINTER DREDGING WOULD COMPLY WITH THE 404(B)(1) GUIDELINES. We are concerned that the Corps will issue the permit without conducting the proper analysis or making the appropriate factual determinations as required under 404(b)(1). As with the public interest review, we must assume that the Corps intends to use the contents of its DEIS to satisfy the 404(b)(1) analysis. This would not suffice. As the Environmental Protection Agency has pointed out in its comments on the DEIS, the document does not "appear compliant with the 404(b)(1) Guidelines."	See responses to Comments 9309 and 9317 in Letter 121.
0121	Friends of the Clearwater	9327	THE CORPS CANNOT RELY ON ITS ADEQUATE ANALYSIS OF ALTERNATIVES IN THE DEIS TO COMPLY WITH 40 C.F.R. 230.10(a). As stated in our DEIS comments, the alternatives considered in the DEIS by the Corps will not be sufficient in determining whether any practicable alternatives exist because the Corps did not adequately consider non-dredging alternatives that would obviate the need for this project and because the programmatic evaluation in the DEIS does not focus on the specific details of this proposal. The seven	See responses to Comments 8684 and 8686 in Letter No. 68. Appendix J (Section 404(b)(1) Evaluation) of the EIS describes disposal options the Corps considered for the proposed current immediate need action to reestablish the congressionally authorized navigation channel. The Corps considers both upland and in-water disposal alternatives when dredging is proposed. For proposed in-water disposal, the disposal method is ultimately identified after evaluation of disposal alternatives under the substantive provisions of Section 404(b)(1) of the Clean Water Act (CWA), associated EPA guidelines (40 C.F.R. 230) and Corps regulations. When in-water disposal is proposed, the Corps is required to identify and utilize the lowest cost, least environmentally damaging, practicable alternative as

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			alternatives the Corps presented in the DEIS substantially overlap with one another and all are built upon the legally incorrect assumption that the Corps must maintain a fourteen-foot channel at all times of the year. Non-dredging or reduced dredging alternatives, such as dam removal, sediment flushing through reservoir drawdown, or lighter barge traffic, were ignored.	its disposal method (33 CFR 335.7). The alternatives analysis in the Section 404(b)(1) evaluation is incorporated into the NEPA process and ultimately identifies the Corps proposed/preferred disposal alternative.
0121	Idaho Rivers United	9329	The Corps has thus far failed to make the factual determinations under the 404(b)(1) Guidelines to determine whether the proposed dredging would cause significant degradation of the waters of the United States. And again, the Corps gives no indication in its Public Notice as to how or when it intends to conduct this statutorily-required analysis.	See response to Comment 9317 in Letter No. 121. The Section 404(b)(1) Evaluation in Appendix L has been revised to better address the requirements of the Section 404(b)(1) guidelines.
0121	Sierra Club	9330	The Guidelines require that all appropriate and practicable steps be taken to minimize potential adverse impacts of the discharge on the aquatic system before the Corps may issue a permit. Aside from the overly optimistic hope that habitat will be created by removing sediment from one part of the river and replacing it in another, there is no detailed discussion as to how the Corps plans to mitigate for the impacts of the project.	The Corps is not proposing to mitigate for effects of the proposed dredging and in-water disposal, except for actions taken to minimize effects are listed in Sections 3.1.5, 3.2.16, 3.3.4, and 3.5.3 of the Section 404(b)(1) Evaluation (Appendix L). Additionally, to help offset any negative effects of the proposed dredging and disposal action to ESA listed species, the Corps proposes to construct additional shallow water habitat for outmigrating juvenile salmon, primarily fall Chinook, with the dredged material – shallow water disposal at RM 116 (Knoxway Canyon). The Corps analysis of shallow water habitat created through previous dredged material placement actions shows continued use of the sites by juvenile salmon. National Marine Fisheries Service has stated the existing shallow water bench is having positive effects and they support the continued use of dredged material to provide this shallow water habitat as it is in short supply in the lower Snake River reservoirs.
0121	Pacific Coast Federation of Fishermen's Assoc. and Institute for Fisheries	9333	The Corps cannot rely on that analysis here and must complete an independent, and truly comprehensive, analysis of cumulative effects both as part of the public interest review and as required by the 404(b)(1) Guidelines. This analysis must include the proposed dredging in the context of the PSMP and the cumulative impacts of the activities contemplated in that plan.	See response to Comment 8700 in Letter No. 68.
0121	Earth Justice	9335	We urge the Corps to engage in a full public interest review, including details on how it will satisfy the 404(b)(1) Guidelines, before it issues the 404 permit for Winter 2013-2014 dredging activities. In contrast to the DEIS, this review must be searching, comprehensive, and substantive to pass muster under the CWA. Unless and until the agency completes an adequate assessment of the impacts of this action under NEPA and the CWA, the Corps must deny the permit.	See responses to Comments 9317, 9318 and 9319 in Letter 121.
0122	Vicki Anderson	9685	WITH ENDANGERED SALMON AND STEELHEAD DREDGING WOULD BE A DISASTER. THIS YEAR ALONE THE RUNS ARE AT A MINIMUM. THE SILT WOULD DO GREAT HARM TO WHAT FEW FISH WILL SPAWN THIS YEAR.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. The Corps will employ a monitoring plan and take corrective actions, if warranted, to minimize impacts to fish present in the project area. As part of consultation with USFWS and NOAA, the Corps is addressing potential impacts to fish including impacts to spawning. Limited salmon spawning could occur downstream of Ice Harbor Dam, but a redd survey will be conducted to verify if any are there prior to the dredging. There will be no deposition of fine sediment on potential redds below Ice Harbor Dam. There is no salmon or steelhead spawning habitat at the disposal site or in the Lewiston/Clarkston dredging areas. Any silt mobilized by the proposed immediate-need action is not expected to have an adverse impact on fish.

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS

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0122		9686	DREDGING COSTS ARE AN ONGOING COST OF 3.2 MILLION PER YEAR. AT CURRENT SHIPPING RATES THIS AMOUNTS TO 18,900 DOLLARS PER BARGE LEAVING THE PORT OF LEWISTON.	See response to comment 8360 in Letter No. 12.
0122		9687	RAIL IS ALL THAT IS NEEDED, AND WOULD BE MORE EFFICIENT.	See response to Comment 8360 in Letter No. 12.
0123	Neil Babson	9688	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.	On May 20, 2013 the Corps responded to your letter of April 22, 2013, requesting a public hearing in response to the draft Lower Snake River Programmatic Sediment Management Plan Environmental Impact Statement (PSMP/EIS). We considered the reasons you provided for having a public hearing and determined a public hearing is not warranted. The concerns you raised have been included in the public record for this proposed action. While we acknowledge the proposed action is controversial, we believe the record contains adequate information regarding your concerns and a hearing would not serve to add clarity to the issue.
0123		9690	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0123		9710	Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much).	See response to Comment 9688 in Letter No. 0123.
0123		9711	In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 0123.
0124	Michael Burke	9712	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.	See response to Comment 9688 in Letter No. 123.
0124		9713	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0124		9715	Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much).	See response to Comment 9688 in Letter No. 0123.
0124		9716	In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 0123.
0125	Zeke Corder	9717	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more	See response to Comment 8360 in Letter No. 12.

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			efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	
0125		9718	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. The Corps recognizes that ESA-listed salmonids are present in the lower Snake River year-round. The proposed in-water activities will be implemented during the in-water work period (December-February) to minimize impacts to ESA-listed salmonids and will be done in consultation with USFWS and NMFS under the ESA. While there are short term impacts associated with the proposed near-term action, the long term impacts associated with the disposal action at Knoxway Canyon is to provide beneficial shallow water rearing habitat for fall Chinook.
0125		9719	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8461 in Letter No. 44 and Comment 8361 in Letter No. 14.
0126	Cary Newman	9720	I support and am for the planned dredging on the Snake River	Comment noted.
0127	Kevin Edeline	9721	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.	See response to Comment 9688 in Letter No. 123.
0127		9722	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0127		9723	Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much).	See response to Comment 9688 in Letter No. 123.
0127		9724	In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 123.
0128	Justine Barton	9697	The EPA often supports in-water disposal/placement of dredged material; however, the Corps should more rigorously document that in-water disposal for the immediate maintenance action complies with the Guidelines.	The Corps has revised Appendix L, the Clean Water Act Section 404(b)(1) evaluation for the proposed current immediate need action, to better comply with the Guidelines in response to EPA's comments. The Corps incorporated Appendix H, the description of the action, into Appendix L, then revised and expanded the descriptions of the disposal alternatives. The Corps added Section 2.4 to screen the alternatives using criteria from the Guidelines. Section 2.5 provides the rationale for selecting the preferred disposal alternative.
0128	Laura Inaouye	9698	The EPA is concerned about potential turbidity effects on water quality both during dredging and placement, especially with the flat-top barge/bulldozer disposal option, and during reworking of placed sediments. Final underwater regrading of the material into a gradually sloping bench, and placing the final 10 foot thick dressing of sandy material along a 3,500 foot long linear segment of the reservoir may prove to be particularly difficult to manage. While it may be decided that the short-term turbidity	See Section 2.3.2.1, In-water- Placement to create habitat at Knoxway Canyon, RM 116 in Appendix L. The Corps is no longer considering using flat-top barges for disposal for the current immediate need preferred alternative. The Corps has modified the disposal sequence for the Knoxway Canyon site. The final placement will be the material dredged from the Clearwater, which is sand with few fines. By placing this material on the top of the embankment, turbidity generated by the reshaping activities on the surface of the embankment is expected to be reduced from that generated during the 2005/2006 reshaping activities.

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			effects are reasonable and unavoidable in order to accomplish the final shaping/dressing of the benches, these effects should be anticipated, past actual results should be clearly summarized and be t management practices discussed with water quality agencies, especially the Washington Department of Ecology. How long will turbidity remain relatively high, how far is turbidity likely to be dispersed and how will turbidity issues be better addressed this dredging/placement cycle?	The Corps has discussed the proposed current immediate need action with Washington Department of Ecology and has modified Appendix J, the monitoring plan for this action, accordingly.
0128	Celia Barton	9700	Based on the available information, we do not believe the proposed disposal action (placement at the Knoxway Canyon site) has been clearly demonstrated to be the least environmentally damaging practicable alternative. The identification of practicable alternatives to be analyzed is constrained only by the definition of a practicable alternative. Both the project description in the DEIS Appendix Hand the Evaluation in Appendix L acknowledge that dredged material has previously been placed in uplands, and that dredged material could be discharged in upland areas or in-water. As such, it is our understanding that the proposed discharge resulting from the immediate maintenance action is not a water dependent activity. The disposal of dredged material does not require access or proximity to, or siting within, a special aquatic site to fulfill its basic purpose. In summary, the Corps needs to more clearly demonstrate selection of the LEDPA (augmenting Appendix L), and we recommend the Corps clearly address the alternatives analysis for future disposal of dredged material as well as the cumulative impacts from continued disposal of dredged material, should in-water disposal be the LEDP A.	See response to Comment 8772 in Letter No 76 and 9697 in Letter No. 128. The Corps has revised Appendix L better meet the requirements of the Section 404(b)(1) Guidelines. Appendix L now demonstrates in-water placement to create shallow water habitat at Knoxway Canyon is the LEDPA. The Corps is not proposing any dredging or in-water disposal actions other than the current immediate need action.
0128	Lauran Warner	9701	The project purpose does not clearly support in-water disposal. The purpose of the immediate proposed maintenance dredging is to restore the authorized depth of the Federal navigation channel and to remove sediment from adjacent port areas. Reestablishment of the navigation channel is an entirely different purpose than the proposed creation of shallow water habitat. We also understand that dredging may sometimes be necessary in order to achieve the desired 14-foot deep navigation channel. Since dredged material disposal is not a water dependent activity, however, we emphasize that for any proposed discharge of dredged or fill material into waters of the U.S., there must be a very clear purpose and need, and that any final action must always be demonstrated to be the LEDPA. In summary, we recommend that the Corps demonstrate the need to create shallow water habitat for juvenile salmonids at the Knox way Canyon site, should in-water disposal prove to be the LEDP A.	The project purpose is the maintenance of the federally authorized navigation channel. Dredging has been identified as the only alternative that meets the immediate need. Any dredging action requires a corresponding disposal action. In water disposal has been identified as the only practicable alternative for disposal (See response to Comment 8772 in Letter No 76 and Comment 9700 in Letter NO. 128). Additionally, creation of shallow water habitat creation has been identified as a conservation measure in the biological assessment. National Marine Fisheries Service is no longer considering shallow-water habitat creation to be experimental and they have now indicated they support its use.
0128	Chris Warren	9702	Corps has not clearly assessed whether disposal alternatives other than in-water disposal exist. the EPA has concerns about the Guidelines' consideration of cost in comparison to the Civil Works' federal standard for disposal of dredged material, defined as, "[T]he least costly alternatives consistent with sound	See response to Comments 8772 in Letter No. 76 and 9700 in Letter No. 128.

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			<p>engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process ... " (emphasis added) (33 CFR 335.7). Since the Guidelines apply to civil works projects, as stated under 33 CFR Part 335.2, alternatives that are practicable, but more expensive, must be considered in determining the LEDP A. Both Appendix H and the Evaluation in Appendix L state that upland disposal is more expensive than in-water disposal, rendering them impracticable. We recommend the Corps compare the environmental impacts upland alternatives against the in-water disposal alternative. Once all environmental impacts of the various practicable alternatives have been compared, the Corps can only authorize the practicable alternative which generates the least environmental damage. If the cost of an upland alternative is so prohibitively high, that it renders it unavailable and incapable of being done, this must clearly be demonstrated. At present, the Evaluation in Appendix L does not adequately address how cost, existing technology, and/or logistics render upland alternatives unavailable and/or incapable of being done. In summary, we recommend that a full suite of disposal alternatives (e.g. uplands, in-water and combination thereof, at individual or multiple sites) be more fully evaluated for practicability.</p>	
0128	Environmental Protection Agency	9703	<p>DMMP Findings. The review found that additional information will be necessary to determine suitability for the majority of the project. This finding is based on several lines of evidence: The DMMP carefully considered whether the proposed dredged material could be given a Tier 1 suitability determination based on existing information. Although much of the sediment meets the general guidelines for physical characteristics, it is clearly exposed to potential sources of contamination, and cannot be considered "far removed" from those potential sources. The DMMP also considered whether a suitability determination could be issued based on the results of previous characterizations or other existing information. However, the most recent previous characterization occurred in 2003, ten years ago. Both SEF and DMMP guidelines give seven years as the maximum time for which data can be considered in a suitability determination. The locations and level of effort of the specifics of the 2011 testing did not fulfill the level of effort or information required per SEF and DMMP guidance.</p>	<p>See response to Comments 8774 in Letter No. 76 and 9051 in Letter No. 76. The Corps received a determination from the Dredged Material Management Office on February 18, 2014 stating the material was suitable for unconfined in-water placement.</p>
0128		9704	<p>Sampling Reaches. According to descriptions and data given, the DMMP recognized five separate sections, or reaches, of the proposed dredging prism that should be considered separately for sampling/characterization purposes. These five reaches are: 1. Ice Harbor Lock (sufficient data available for tier 1 evaluation, no further testing needed) 2. Clarkston West (including both the Federal Navigation Channel (FNC) and the Port of Clarkston Grain Elevator) 3. Clarkston East (including the Federal Navigation Channel) 4. Port of Clarkston (including only areas</p>	<p>See response to Comment 8774 in Letter No. 76. The Corps clarified the locations and boundaries of the DMMU's in the Sample and Analysis Plan (see Appendix I).</p>

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			identified in Figure 20 of subject report) 5. Lewiston (including the Federal Navigation Channel and the Port of Lewiston) These areas were identified based on apparent shoaling patterns and sediment characteristics. Please note that these are not DMUUs, which are described below. "	
0128		9705	Based on core logs from the 2011 sampling, as well as on shoaling patterns often seen in such areas, Clarkston West, Clarkston East, and Lewiston reaches can all be considered homogenous, and ranked of low concern. Clarkston West showed some indications of heterogeneity, but the DMMP agencies determined that grab samples would represent the mixture of fines and sand that were observed in the core samples.	See response to Comment 8774 in Letter No. 76.
0128		9706	Chemicals of Concern. Based on the subject report, the list of chemicals of concern can be reduced from the standard DMMP list. Those chemicals and classes of chemicals which were demonstrated to have no or very low detections over multiple characterizations will not require analysis.	
0129	Mr Jeff Fagerholm	9679	There is no way that this should happen. There is too much sediment in the whole area and over a short period of time, the money wasted by dredging will be lost due to it filling back in. The taxpayer should not be accountable for this.	See response to Comment 8360 in Letter No. 12.
0130	Bridget Frank	9592	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0130		9593	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to Comment 8460 in Letter No. 44, comment 8694 in Letter No. 68, and Comment 9718 in Letter No. 0125.
0130		9594	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8461 in Letter No. 44 and Comment 8361 in Letter No. 14.
0131	Mike Herbert	9584	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 123.
0131		9585	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process	See response to Comment 9051 in Letter No. 77.

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			would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	
0132	Edward Kerns	9576	I am writing to request a public hearing in response to the lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Walla Walla, WA was not easily accessible -thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Walla Walla for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 123.
0132		9577	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0133	Sarah Kerns	9572	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible -thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 123.
0133		9573	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0134	Mike Lauro	9561	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 123.

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0134		9562	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0135	A. McLanther	9556	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0135		9557	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 123.
0136	Jan Melton	9553	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 123.
0136		9554	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0137	Silas Whitman	9534	The Tribe has concluded that the Corps has not adequately analyzed the proposed dredging activities under NEP A or met the requisite permit requirements under Section 404 of the Clean Water Act and accordingly the permit for the proposed 2013-14 dredging and disposal activities should not be authorized.	Comment noted.
0137	Nez Perce Tribal	9535	As the Tribe stated in its March 26, 2013 comments on the	See response to Comment 8686 in Letter No. 68.

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	Executive Committee		PSMP/DEIS, it does not support the Corps' preferred Alternative 7 and has determined that the PSMP/DEIS is inadequate for many reasons. The PSMP is the product of an unreasonably narrow purpose and need that relies on dredging while eliminating from consideration viable options such as increased implementation of sediment reduction measures, maintenance of the Lower Snake River navigation channel at the less than 14 feet depth as has been occurring using light-loading of barges, and partial breaching of the Lower Snake Dams. As a result of the narrow purpose and need, the Corps failed to fully evaluate a reasonable range of alternatives. To safeguard and advance the Corps' treaty and trust responsibilities to the Tribe, the Tribe requests that the Corps fully analyze and adopt a new alternative that prioritizes the additional measures above as well as components of Alternatives 2, 3 and 4 in a manner that provides a regional sediment management approach which emphasizes non-dredging-based sediment control measures.	
0137		9538	The PSMP/DEIS fails to analyze the project's impacts on Tribal treaty rights, Tribal cultural resources, and socioeconomics.	See response to Comment 8550 in Letter No. 91. Section 5.1 in the EIS has been updated. EIS – New Section 5.1 (Treaties with Native American Tribes): Treaties between the United States and regional mid-Columbia/lower Snake River tribes document agreements reached between the Federal government and the tribes. In exchange for ceding much of their ancestral land, the government established reservation lands and guaranteed that the government would respect the treaty right, including fishing and hunting rights. These treaties, as well as statutes, regulations, and national policy statements originating from the Executive Branch of the Federal Government provide direction to Federal agencies on how to formulate relations with Native American tribes and people. Treaties with area tribes (e.g., Treaty of June 9, 1855, Nez Perce Tribe, 12 Stat. 957 (1859)) explicitly reserved unto the Tribes certain rights, including the exclusive right to take fish in streams running through or bordering Reservations, the right to take fish at all usual and accustomed places in common with citizens of the Territory, and the right of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed lands. These reserved rights include the right to fish within the project area identified in the FEIS. The Corps takes tribal reserved treaty rights very seriously. The potential environmental effects associated with the PSMP were evaluated on a programmatic level and a site-specific level for the immediate need action to re-establish the congressionally authorized navigation channel. The proposed actions would have no long-term, adverse impacts on important treaty resources. Meaningful consultation on the EIS and PSMP (Appendix A) with area Tribes is described in Section 6.2.
0137		9539	The PSMP/DEIS inadequately analyzes the project's effects on ESA-listed species and lamprey.	See response to Comment 8460 in Letter No. 44, Comment 8694 n Letter No. 68, and 8589 in Letter No. 91. The Corps has added additional information to Section 4.1 of the EIS in regards to the projects effects on ESA-listed species and lamprey.
0137		9540	The economic analysis regarding the costs and benefits of the proposal is inaccurate and incomplete.	See response to Comment 8360 in Letter No. 12.
0137		9542	The Corps also offers no analysis or meaningful explanation in the Public Notice addressing how the Corps' proposed dredging activities will comply with the Clear Water Act. See Public Notice at 9 ("The Corps' analysis of the environmental impacts associated with the proposed maintenance dredging activity is	See response to Comment 9317 in Letter No. 121. The proposed current immediate need dredging is addressed in the main report of the EIS, and Appendix L. The Record of Decision will include a description of the public interest review results.

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0137		9543	<p>addressed in the PSMP/DEIS dated December 2012"). Relying on the PSMP/DEIS NEPA analysis alone will not fulfill the substantive requirements of Section 404(b)(1). As the Corps is aware, the agency must perform a public interest review which includes an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. In addition the Corps must perform, among other mandates, an evaluation of practical alternatives that may obviate the need for dredging; assess whether the proposed dredging and disposal activities will result in no significant degradation of U.S. waters; and ultimately base a determination on sufficient information reasonably justifying compliance with the Section 404(b)(1) Guidelines. The Tribe is unable to identify any evidence that the Corps performed this substantive analysis required under the Clean Water Act.</p>	
0137		9544	<p>The Tribe is also concerned with the Corps' reliance on the DEIS for the Section 404 permit because the DEIS is still undergoing public review. Yet the Corps published the 30-day Public Notice while the DEIS was still in the public comment period, demonstrating, in the Tribe's view, the Corps' commitment to proceed with dredging even before the agency had received any comments from the Tribe or others concerning the PSMP/DEIS. The Corps should have completed the NEPA process rather than relying on a draft EIS to justify NEPA compliance with the Section 404 permit.</p> <p>THE CORPS HAS FAILED TO PERFORM A COMPREHENSIVE PUBLIC INTEREST REVIEW REQUIRED UNDER THE CLEAN WATER ACT. The Tribe is concerned that the only discussion of environmental impacts in the Public Notice is a statement asserting that the activity "is addressed in the PSMP/DEIS dated December 2012." This assertion is erroneous because, as the Tribe's March 26 comments make clear, the Corps' DEIS inadequately evaluates the environmental impacts arising from the "immediate need" to dredge and therefore cannot be used to satisfy the required public interest review that the agency is required to perform under the CW A. First, the DEIS fails to evaluate the impacts of dredging on the Tribe's interests. The Corps provides no identification of treaty and trust resources that may be affected by the project, and performs no evaluation at all of the project's impacts on treaty rights. The PSMP/EIS also fails to evaluate the Tribe as an affected population for environmental justice purposes, and performs no analysis of the project's socioeconomic impacts to the Tribe. The Corps also provides an inadequate analysis of the impacts to Tribal cultural resources. Second, the DEIS also fails to provide sufficient information supporting its assertion that in water disposal of dredge spoils to create shallow water habitat will, in fact, benefit juvenile fall Chinook. Third, there is an inadequate analysis concerning the impacts of predation on juvenile fall Chinook salmon that may</p>	<p>The CEQ Regulations [40 CFR 1500.4(j) and 1502.25] direct Federal agencies to integrate NEPA requirements with other environmental review and consultation requirements. It is standard practice for the Corps to integrate the Clean Water Act Section 404(b)(1) evaluation with the NEPA documentation for a proposed action that involves placement of dredged or fill material in waters of the U.S.</p> <p>See response to Comment 9317 in Letter No. 121, Comment 9319 in Letter No. 121, Comment 8550 in Letter No. 91, Comment 8552 in Letter No. 91, Comment 8778(r) in Letter No. 76, Comment 8460 in Letter No. 44, Comment 8589 in Letter No. 91, Comment 8361 in Letter No. 14, Comment 8819 in Letter No. 97, Comment 8576 in Letter No. 91, Comment 8360 in Letter No. 12, Comment 8694 in Letter 68 and Comment 9545 in Letter No. 137. The Record of Decision will include the results of the public interest review.</p>

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			<p>use this new shallow habitat, as well as the impacts to sturgeon due to the decrease in mid-depth habitat for sturgeon. The Tribe comments also noted that the Corps' analysis of impacts to lamprey was based on flawed methodologies. Fourth, the Corps also did not perform an evaluation of the thermal impacts, including climate change, on aquatic resources caused by the creation of shallow water from dredging and the in water disposal of dredge spoils. The agency also did not look at the impacts of potential changes to Columbia River administration arising from the Columbia River Treaty. Fifth, the DEIS also failed to adequately analyze the impacts of dredging on barge traffic, socioeconomics, and environmental justice. Sixth, the Corps did not adequately assess dredging's impacts to cultural resources.</p>	
0137		9545	<p>The Nez Perce Tribe remains very concerned about the adequacy of the efforts to identify and protect cultural resources in the proposed dredging and disposal areas. The Corps acknowledges that dredging will occur on two pre-contact archaeological sites, but assumes that all cultural remains in the dredge corridor have been destroyed by previous dredging events. To our knowledge, the Corps has made no effort to confirm this assumption, so cannot guarantee that no intact cultural remains will be impacted. The Corps also appears to be unsure if there are archaeological remains at the in-water disposal site at Knoxway Canyon. The Corps assumes that burying any potential archaeological sites is a benefit, as it might discourage erosion impacts. Finally, and perhaps most disturbing, is the potential for redeposited ancestral and archaeological remains in the sediment to be dredged in Lewiston and Clarkston. The Corps asserts that there will be no impact to these resources as long as they remain in the Snake River, and thereby bolsters the case for in-water disposal. The Corps should not make this assumption without Tribal consultation, as the Nez Perce Tribe attaches cultural and religious significance to ancestral remains, even those found in disturbed contexts.</p>	<p>The Corps has consulted with the Nez Perce Tribe on impacts to cultural resources. In accordance with Section 106 of the NHPA we have consulted with interested parties, including regional Tribes and State Historic Preservation Officer. The Idaho SHPO declined to comment as the dredging template in Idaho was consistent with previous dredging actions, and the WA SHPO concurred that the dredging would not result in "no historic properties affected". More recently the Corps responded to three comments from the Nez Perce Tribe regarding that determination of effect, and the only outstanding comment from the Nez Perce is the issue with Knoxway Canyon. The Corps maintains that the proposed disposal will not intersect with the only known site in that area, and we are providing additional maps to the Tribe to illuminate this fact. No other follow-up questions have come from any of the other regional Tribes (The CTUIR, CCT, Yakama, and Wanapum Band) in respect to the Corps' determination that the proposed current immediate need action would result in no effects to historic properties.</p>
0137		9546	<p>The Corps Cannot Conclude That No Practical Alternative to the Proposed Discharge Exists. The Tribe's March 26 comments on the PSMP/DEIS indicate that the Corps failed to evaluate a reasonable range of alternatives. By narrowly defining the purpose and need to require maintenance of the navigation channel at no less than 14 feet by 250 feet year-round, and then applying two levels of screening criteria for the alternatives development that eliminate alternatives which, according to the Corps, interfere with authorized purposes (again maintaining the navigation channel at no less than 14 feet year-round), the Corps has impermissibly limited the range of alternatives it believes it must analyze to just two alternatives which both include dredging. Such an excessively narrow range of alternatives for a programmatic document is unreasonable and</p>	<p>See response to Comments 8684 and 8686 in Letter No. 68 and Comment 9700 in Letter No. 128.</p>

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			does not satisfy NEPA. The Tribe recommended that the Corps develop and fully evaluate a new alternative that protects tribal treaty rights and resources by, for example, including measures that would include maintaining the navigation channel at less than 14-feet, increasing upland sediment reduction measures, and dam breaching.	
0137		9547	THE CORPS HAS NOT DEMONSTRATED THAT THE PROPOSED DREDGING WILL NOT RESULT IN SIGNIFICANT DEGRADATION TO U.S. WATERS. The Tribe raised concerns in its DEIS comments concerning the lack of analysis regarding temperature impacts from the creation of shallow water habitat from dredge spoils. The Tribe also noted the lack of any analysis concerning the impacts of climate change on Snake River water temperatures and how changing climate may affect the Corps' proposal to dredge, among other measures.	See response to Comment 8819 in Letter No. 97, Comment 8361 in Letter No. 14, Comment 9051 in Letter No. 77.
0137		9548	The Tribe also agrees with concerns EPA raised in its March 26 EIS comments concerning uncertainties with sediment quality. EPA also noted in its comments that "[t]he DEIS not include the most recent water quality results from the 2006 Water Quality Monitoring Report, which provides real-time results applicable to active dredging activities as well as placement and regarding activities at the previous placement site, adjacent to the current proposed placement site. EPA comments at 13. The Corps has therefore not addressed significant questions from the Tribe and EPA regarding how dredging will be not result in significant degradation to U.S. waters.	Section 4 of the EIS and Appendices J and L have been revised to include more information from the 2006 Water Quality Monitoring Report and proposed monitoring plan for the current immediate need action.
0137		9549	THE CORPS HAS INSUFFICIENT INFORMATION TO MAKE A REASONABLE JUDGEMENT THAT THE PROPOSED 2013-4 DREDGING AND DISPOSAL ACTIVITIES WILL COMPLY WITH THE GUIDELINES. A Section 404 permit must also be denied if "[t]here does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with the[] Guidelines." 40 C.F.R. § 230.12(a)(3)(iv).	See response to Comment 9700 in Letter No. 128. The Section 404(b)(1) evaluation (Appendix L) has been revised to better comply with the Guidelines and better address the disposal options.
0137		16122	Additional analysis is also necessary to address the impacts of climate change, as well as impacts from potential future changes in flood storage contemplated in the Columbia River Treaty. Despite the many problems with the PSMP/DEIS, the Corps is relying on the inadequate DEIS to satisfy its obligations under NEP A for the proposed dredging activities.	See response to Comment 8361 in Letter No. 12 and Comment 8576 in Letter No. 91. Section 4 of the EIS addresses the effects of both the programmatic plan and the proposed current immediate need action.
0138	Claudia Parsons	9522	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0138		9523	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to Comment 8460 in Letter No. 44, Comment 8694 in Letter No. 68, and Comment 9718 in Letter No. 0125.
0138		9524	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of	See response to Comment 8461 in Letter No. 44, Comment 8361 in Letter No. 14, and Comment 8360 in Letter 12.

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			Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers	
0139	Dr Stephen Pauley	9518	This is a good time to reevaluate the cost / benefit ratio of the four lower Snake dams. Do the dredging costs make sense if the useful life of the 4 Snake dams is short. Calculate the decommissioning costs for these dams vs repairs vs continuing dam improvements for fish passage. Do they warrant dredging? Figure the costs of govt. subsidies to operate the 4 dams and the zero cost to the barge and tour boat companies. The govt. should not in the business of keeping the Army COE fully employed at the sake of losing native salmon populations.	See response to Comment 8360 in Letter No. 12.
0139		9519	Is the COE complying with the NW Power Act of 1980 that mandates that fish receive equal consideration as does energy production? Smolt barging has not increased native returns to sustainable levels. The summer water temps below some Snake dams is higher than permitted for fall chinook survival.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68. The Pacific Northwest Electric Power Planning and Conservation Act of 1980 (16 U.S.C. § 839-839h) is intended to assure the Pacific Northwest of an adequate, efficient, economical and reliable power supply; facilitate coordination/consultation between power generating facilities, states, local governments, and consumers; ensure development of regional plans and programs related to energy conservation; and protecting, mitigating and enhancing the fish and wildlife, including related spawning grounds and habitat (particularly for anadromous fish), obtainable from the management and operation of Federal Columbia River Power System and other power generating facilities on the Columbia River and its tributaries. The existing authorized purposes identified in the EIS and PSMP, however, do not include hydropower production. The purpose and need statement in the EIS (Section 1.2) is focused solely on maintaining the LSRP by development of a PSMP for managing sediment that interferes with existing authorized purposes of commercial navigation, recreation, fish and wildlife conservation (i.e., Lower Snake River Compensation Plan) and flow conveyance at Lewiston, Idaho. It does not include the authorized purpose of hydropower production, as sediment deposition is not expected directly or indirectly interfere with hydropower. The Corps acknowledges that it must consider discretionary authority across all project purposes and authorities when making project operation and maintenance (O&M) decisions. Additionally, the Corps understands that other Federal environmental laws (e.g., the ESA) can influence or place additional requirements on the Corps discretionary O&M authorities. The EIS and PSMP, however do not address any discretionary authority for hydropower production. The Act, therefore, does not inform or influence the EIS or PSMP. The EIS does, however, consider the effects of the Federal Columbia River Power System, as well as other past and reasonably foreseeable future actions, on aquatic resources (e.g., anadromous fish) in the cumulative effects section (Section 4.11).
0139		9520	Figure the costs of dredging into the future. Will dredging be needed too often to justify the expense?	See response to Comment 8360 in Letter No. 12.
0139		9521	Does dredging violate the CWA and the ESA?	No, dredging does not violate the Clean Water Act or the Endangered Species Act. The Corps performs the required analyses and consultation and incorporates necessary conditions and pertinent best management practices to ensure the dredging and disposal action comply with all applicable laws and regulations.
0140	Theodore Pearson	9485	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0140		9486	I am writing to request a public hearing in response to the Lower	See response to Comment 9688 in Letter No. 123.

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			Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	
0141	David Peterson	9483	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 0123.
0141		9484	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0142	Wanda Keefer	9481	The Port of Clarkston's position is that in-water disposal of dredged materials is a well-established beneficial use. The planned method to dredge, transport and place dredged materials is optimal for species in or near the river. Placement will follow natural, existing contours of land. Additionally, the Corps proposes to perform the dredging during the winter in-water work window, thereby minimizing any potential impacts.	Comment noted.
0142	Port of Clarkston	9482	We encourage approval of the work to move forward.	Comment noted.
0143	David Doeringsfeld	9479	The Port of Lewiston supports the efforts thus far conducted by USACE to restore and maintain the federal navigation channel to its Congressionally authorized dimensions of 14 feet deep by 250 feet wide at minimum operating pool. Sediment accumulation has negatively impacted the Port of Lewiston and its customers to safely maximize the economic benefits barging offers to industry stakeholders. As a marine highway, maintenance is necessary to keep commerce moving.	Comment noted.
0143	Jaynie Bentz	9480	In-water disposal of accumulated sediment into identified areas that support habitat is a balanced approach to maximize the multiple use benefits of the Columbia-Snake River System. The Port of Lewiston supports the location of the proposed in-water disposal site and the need to implement this project.	Comment noted.
0144	Scott Levy	9474	"As good stewards of the environment, we always seek to	See response to Comment 9051 in Letter No. 77.

Letter No.	Commenter	Comment No.	Comment	Response
			<p>prevent pollutants from entering the river," said District Commander Lt. Col. David Caldwell in a statement (Tri-City Herald, February 4, 2012). Hoping that this is a true statement and that the Tri-City Herald's Annette Cary did not misquote the Lieutenant Colonel, I am curious to know why the same ACOE district would seek to dispose of dredge spoils into the Lower Snake River. The Corps Draft Environmental Impact Statement (December 2012) clearly states that the dredge spoils are not anticipated to be free of pollutants. I read that the recently established (1998) criteria for disposal were met by most of the samples, as such, the ACOE feels comfortable with putting this soils back into the river. Not being free of pollutants, this approach in which dredge spoils are deposited into the river appears to contradict the District Commander's assertion.</p>	
0144		9475	<p>It seems to me that it would be a better environmental choice to place the dredge spoils upon the land, rather than back into the river. Is that not correct? Depositing dredge spoils on land appears to make sense because one of the main reasons the Federal Action Agencies, of which the ACOE is a major part, decided against partial removal of four Lower Snake River dams is due to "Uncertainty about possible harmful effects associated with the potential resuspension of contaminants in sediments." (Glen Squires, Wheat Life, April 2002).</p>	<p>See response to Comment 9051 in Letter No. 77 and Comment 9700 in Letter No. 128. The sediment quality issue associated with dam removal is different than that associated with dredging. With dam removal, all sediment exposed by the receding reservoirs would be subject to erosion and any contaminants within that sediment could be resuspended. With dredging, the Corps takes samples from the sediment it proposes to dredge and analyses that sediment for chemicals of concern. The Corps follows the Regional Sediment Evaluation Framework for the Pacific Northwest to ensure harmful levels of these chemicals are not released back into the river.</p>
0144		9476	<p>In the proposal now under consideration, it is my understanding that the ACOE will not be requiring sampling of soils before dredge spoils are placed back in the river. Apparently the limited amount of samples already taken are good enough for the ACOE to feel confident that the uncertainty "associated with the potential resuspension of contaminants" has been addressed. If that were to be accurate statement of the ACOE position, then the same methodology could be applied to reduce the uncertainty "associated with the potential resuspension of contaminants" in considering the Dam Breach alternative of the "Lower Snake River Juvenile Salmon Migration Feasibility Report / Environmental Impact Statement (FR/EIS)."</p>	<p>See response to Comment 9501 in Letter No. 77. Dam breaching is outside of the scope of the Programmatic Sediment Management Plan FEIS. While it would be physically possible to sample sediment that might be resuspended if the four lower Snake River dams were breached, the sampling and analyses would need to follow the regional sediment evaluation framework and would be very expensive and time-consuming.</p>
0144		9477	<p>If the current dredge project takes one percent (or tenth of one percent) of the sediment that has accumulated in the Lower Snake reservoirs, then taking 100 times (1000 times) as many samples could sufficiently reduce the uncertainty "associated with the potential resuspension of contaminants."</p>	<p>See response to Comment 8368 in Letter No. 29. Dam breaching is outside of the scope of the PSMP/EIS.</p>
0144		9478	<p>It seems a viable alternative would be put forward, an alternative that the "Lower Snake River Juvenile Salmon Migration Feasibility Report / Environmental Impact Statement (FR/EIS)" failed to mention in studying the Natural River Drawdown Alternative. To concisely put what I am trying to say, the two reports should be consistent as they come from the same ACOE district separated by less than fifteen years in time. If your agency does not believe that these reports need to be consistent then a response to this point is to be expected to be forthcoming.</p>	<p>See response to Comment 8686 in Letter No. 68 and Comment 8774 in Letter No. 76. The two documents are looking at sediment in different situations and at different scales. In the case of the FR/EIS, all four LSRP reservoirs would be drawn down and the earthen portions of the dams would be removed. The drawdown would result in uncontrolled movement of sediment from the shoreline or river bed, depending on the amount of energy the moving water had to mobilize sediment. All accumulated sediment, including sand and silt that has been "stored" in the four reservoirs could be subject to either movement associated with the higher velocity flows or erosion over time from rainfall, snow melt, and wind. The concern for that project was there was no way to target only "clean" sediment and not resuspend any sediment that might have unacceptable levels of chemicals of concern.</p>

Letter No.	Commenter	Comment No.	Comment	Response
				For the proposed current immediate need dredging action described in the PSMP, the removal of the sediment would be a controlled action at targeted small areas within two reservoirs. The Corps has performed sediment sampling and laboratory analysis for those sediments it proposes to dredge for the immediate need action. None of those sediments have levels of chemicals of concern that would preclude using unconfined open water disposal. The majority of the material the Corps proposes to dredge is sand, which has a coarse grain size that doesn't readily bind with contaminants. The Corps has received a suitability determination from the Seattle Dredged Material Management Office and the Dredged Material Management Plan agencies for placing the dredged material in-water.
0145	Becky Reisch	9471	In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.	See response to Comment 8360 in Letter No. 12.
0145		9472	The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.	See response to Comment 8460 in Letter No. 44, Comment 8694 in Letter No. 68, and Comment 9718 in Letter No. 0125. The Corps recognizes that ESA-listed salmonids are present in the lower Snake River year-round. The proposed in-water activities will be implemented during the in-water work period (December-February) to minimize impacts to ESA-listed salmonids and will be done in consultation with USFWS and NMFS under the ESA. While there are short term impacts associated with the proposed near-term action, the long term impacts associated with the disposal action at Knoxway Canyon to provide beneficial shallow water rearing habitat for fall Chinook.
0145		9473	Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.	See response to Comment 8461 in Letter No. 44, Comment 8361 in Letter No. 14, and Comment 8360 in Letter 12.
0146	Gregory Rinehart	9469	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No.123.
0146		9470	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0147	Mr Nick Serrano	9468	I am an avid fisherman and think this is a terrible idea. Please do not dredge the lower snake river!	Comment noted
0148	Sabrina Tanner	9466	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan	See response to Comment 9688 in Letter No. 0123.

Letter No.	Commenter	Comment No.	Comment	Response
			Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	
0148		9467	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0149	Brett Tourtillott	9464	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0149		9465	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 0123.
0150	John Trunn	9462	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 0123.
0150		9463	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology	See response to Comment 9051 in Letter No. 77.

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS

Letter No.	Commenter	Comment No.	Comment	Response
			and recreational potential of both the Snake and Columbia all the way downstream.	
0151	unknown	9460	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 0123.
0151		9461	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0152	Joseph Widener	9456	I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement. Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation.	See response to Comment 9047 in Letter No. 77.
0152		9457	Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect.	See response to comment 8460 in Letter No. 44 and comment 8694 in Letter No. 68
0152		9458	Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir. If this sediment was detrimental for salmon in the first four reservoirs than why would it be of any benefit for salmon in a different reservoir	See response to Comment 8460 in Letter No. 44, Comment 8694 in Letter No. 68, Comment 9051 in Letter No. 77, and Comment 9718 in Letter No. 0125.
0152		9459	Another factor not being considered within alternatives 5 or 7 is recreation. By dredging the contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and sent downstream would be considerable. I live in Portland Oregon, near the Columbia River, and I don't want this contaminated sediment in my river where my kids and I play.	See response to Comment 9051 in Letter No. 77.
0153	Joseph Widener	9340	I am writing to request a public hearing in response to the Lower	See response to Comment 9688 in Letter No. 0123.

Letter No.	Commenter	Comment No.	Comment	Response
			Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible -thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	
0153		9341	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.
0154	Ronald Wittman	9339	I am in total support of the continued dredging of the Snake and Clearwater rivers for the purpose of river barge traffic up to and back out of the Ports of Lewiston, Clarkston and Wilma.	Comment noted
0155	Sara Wolf	9337	I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland/Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible -thank you very much). In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states over 500 river miles) you might consider having two different hearings one in Lewiston for the upper watershed and one in Portland for the lower watershed.	See response to Comment 9688 in Letter No. 0123.
0155		9338	I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream.	See response to Comment 9051 in Letter No. 77.

0001_Bradford

From: [James Bradford](#)
To: [PSMP](#)
Subject: Lower Snake River Programmatic Sediment Management Plan /Environmental Impact Statement (PSMP/EIS)
Date: Wednesday, January 23, 2013 4:04:40 PM

I think the above plan is short sided and wasteful. Keeping the Port of Lewiston open to river traffic is totally un-necessary when barge traffic could move from the Port of Wilma without the cost of dredging. Dredging is simply another piece of pork offered to the Port of Lewiston.

James Bradford
388 W. Shiloh Drive
Lewiston, ID 83501
jbbrad@cableone.net

8353 costs and
funding



The Confederated Tribes of the Colville Reservation
History/Archaeology Program
P.O. Box 150, Nespelem, WA 99155

(509) 634-2693
(509) 643-2694



0002_CCT-Moura

December 14, 2012

HA: U12-525
12.0644

Sandy Shelin, Environmental Coordinator
Walla Walla Corps of Engineers
N 3rd Ave.
Walla Walla, WA. 99362-1876

RE: Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (EIS)

Ms. Shelin:

8354 Cultural Resources

Please be advised your proposed undertaking lies within the traditional territory of the Palus Tribe. The Palus Tribe is a constituent member of and represented by the Confederated Tribes of the Colville Reservation [Colville Confederated Tribes (CCT)]. The CCT is governed by the Colville Business Council (CBC). The CBC delegated to the Tribal Historic Preservation Officer (THPO) the responsibility of representing the CCT with regard to cultural resources management issues throughout the traditional territories of our constituent tribes under Resolution 1996-29. This area includes most of eastern Washington, parts of northeastern Oregon, south central British Columbia, and parts of north central Idaho. In 1996, the CCT also entered into an agreement with the National Park Service to assume state historic preservation officer responsibilities as outlined in Section 101 (d) (2) of the National Historic Preservation Act. The assumption agreement explicitly tasks the THPO to advise and assist Federal and State agencies and local governments in carrying out their historic preservation responsibilities and for the CCT to carry out their responsibilities for review of federal undertakings in regard to cultural resources matters.

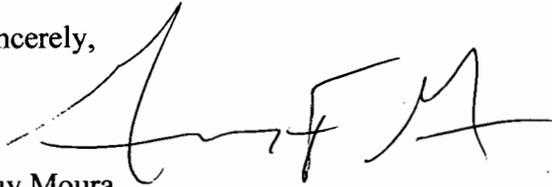
We received your letter requesting comments regarding *Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement*. The project entails excavation (dredging) of sediment within the navigation channel, placing dredge sediment at selected areas, and installation of weirs and sediment traps. There work will take place within the rivers and upland areas for sediment placement and sediment traps to reduce the flow of sediment into the river.

The EIS acknowledges that the project activities have the potential of adverse effects on historic properties and the THPO concurs with these findings and requests an archaeological assessment or investigation be conducted in the various project areas, and the resulting report be sent to the THPO for review prior to the commencement of the project.

8383 NEPA process (compliance on a project by project basis)

These comments are based on information available to us at the time of the project review. We reserve the right to revise our comments as information becomes available. If you have any questions or concerns, please contact Arrow Coyote at (509) 634-2736. Thank you for your time and efforts related to this matter. If you wish to speak to me, my information is below.

Sincerely,

A handwritten signature in black ink, appearing to read 'Guy Moura', written over a horizontal line.

Guy Moura
Tribal Historic Preservation Officer
(509) 634-2695 office; (509) 634-2694 FAX

cc: Dr. Whitlam DAHP
File (AC)
Chrono.

**THE CONFEDERATED TRIBES
of
THE COLVILLE RESERVATION**

POST OFFICE BOX 150-NESPELEM WASHINGTON 99155

PHONE (509) 634-2200

HISTORY/ARCHAEOLOGY DEPARTMENT



Sandy Shelin, Environmental Coordinator
Walla Walla Corps of Engineers
N 3rd Ave.
Walla Walla, WA. 99362-1876



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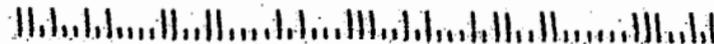
Mailed From 99155

12/14/2012

031A 0005181134

August 2014

99362-1876 0002



G-198

0003_Elliot

From: [Elliot, William J -FS](#)
To: [PSMP](#)
Cc: [Turner, Richard C NWW](#); [Jan Boll \(jboll@uidaho.edu\)](#); [Barber, Michael Ernest \(meb@wsu.edu\)](#); [Elliot, William J -FS](#)
Subject: Review Comments on the PSMP/EIS Draft
Date: Friday, December 14, 2012 12:31:07 PM

Colleagues,

8355 hydrology and sediment; watershed sediment production

The EIS is generally well written, with useful graphs and figures. I noted few editorial concerns.

The EIS addresses the issues concerning sediment from forests quite well. This is a significant improvement from the previous draft and I think it is adequate for the purpose intended.

I have two concerns, with the EIS, however. The first is that no mention is made of the effects of rangeland management and the rangeland areas on sediment delivery, including bank erosion associated with overgrazing too close to upland streams. No mention is made of the area in rangeland or any of the attributes of the rangeland areas. I raised this concern at the 2011 meetings in Walla Walla and Clarkston.

There is also frequent mention of irrigated agriculture in the upland watersheds. Irrigation is minimal in the upland watersheds, as the majority of agriculture is dry land farming. The emphasis in the agricultural areas should be on the importance of soil conservation practices, which are becoming widely adopted, and have been shown to be effective in minimizing sediment delivery. Drs. Barber and Boll made this point at the Walla Walla meeting in 2011.

8384 Hydrology and Sediment

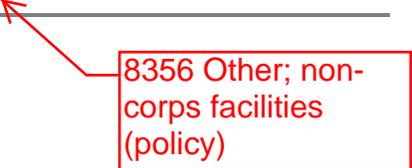
Bill Elliot, Research Engineer and Director's Representative . o
Air, Water and Aquatic Research Program . o o .
Rocky Mountain Research Station . o . o
1221 South Main, Moscow, ID 83843 o . o .
Office: 208 883 2338; Mobile: 208 301 4511; email: welliot@fs.fed.us
<<mailto:welliot@fs.fed.us>> o

XX

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0004_HellsCanyonRVPark

From: [Hells Canyon Resort](#)
To: PSMP; Jockpring@netscape.net
Subject: Concerning the dredging for the Lewiston Clarkston area?Why have the two marinas we have been excluded from the dredging project?We have been serverly impacted and without dredging will be out of business.Jock
Pring Hells Canyon Resort and Hells Gate ...
Date: Friday, December 14, 2012 9:59:23 AM



8356 Other; non-
corps facilities
(policy)

0005_Friends of the Clearwater

From: [Gary Macfarlane](#)
To: [PSMP](#)
Subject: Comment Extension Request, Snake River Sediment Plan DEIS
Date: Wednesday, January 09, 2013 4:44:28 PM
Attachments: [Time extend.pdf](#)

Please see attached.



FRIENDS OF THE CLEARWATER

PO Box 9241 Moscow, ID 83843
ph (208)882-9755 FAX call first
www.friendsoftheclearwater.org

January 10, 2013

Sandra Shelin, CENWW-PM-PD-EC
US Army Corps of Engineers
Walla Walla District, PSMP/EIS
201 North Third Avenue,
Walla Walla WA 99362-1876

Sent Via Email to: psm@usace.army.mil

Dear Ms. Shelin:

8393 NEPA;
comment period
extension

We would like to ask you for additional time, 60 days is preferable but at a minimum 45 days, to review the Lower Snake River Programmatic Sediment Management Plan Draft EIS. Reasons for the request are listed below.

The DEIS is voluminous. It contains 300 plus pages without the appendices. When counting the appendices, the number is over 1500 pages. It will take much time to read and understand the DEIS.

The DEIS was released during this holiday season. This is a time citizens hope to spend with their families. Furthermore, those who may have had questions about this DEIS would likely have difficulty contacting anyone because of the holidays.

This document has been years in the making. The citizens of this country require adequate time to be involved in these important decisions. In other words, it is poor policy to shortchange the public involvement process when so much time has already been taken for preparation of this document.

A comment extension should not delay project implementation. Dredging usually takes place in winter and it is too late to conduct that activity this winter regardless of the length of the comment period. A reasonable extension of the public comment period now won't affect potential dredging next winter if public comment, legal analysis, impact analysis and economic factors allow such dredging to occur next winter.

This document will guide dredging activity for the next 50 years. A short public comment period for such a long-term plan is inappropriate.

Thanks very much for your consideration in this matter.

Sincerely,

Gary Macfarlane

0006_Save Our Wild Salmon

From: [Joseph Bogaard](#)
To: psmp@usace.army.mil
Subject: RE: Sediment EIS - Request for 45-day extension of the public comment period
Date: Wednesday, January 09, 2013 4:19:07 PM
Attachments: [SOS.ACOE.Sediment.DEIS.Jan.2013.pdf](#)

Hello Ms. Shelin,

Please see the attached PDF document from the Save Our Wild Salmon Coalition re: our request for a public comment extension for the recently released Sediment DEIS.

Please confirm receipt when you have moment, and do not hesitate to contact me if you have questions or concerns.

Thank you very much for your consideration of our request.

JB

--

Joseph Bogaard
Save Our Wild Salmon Coalition
206-286-4455, x103
206-300-1003 (cell)
www.wildsalmon.org



Main office: 200 First Avenue W, Suite 201 • Seattle, WA 98119 • (206) 286-4455 • (206) 286-4454 fax

Field offices: 406 Pueblo Street • Boise, ID 83702 • (208) 345-9067 • (208) 343-9376 fax
35 W Main Avenue, Suite 200 • Spokane, WA 99201 • (509) 747-2030 • (509) 456-8400 fax

January 9, 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
ATTN: Sandy Shelin, CENWW-PM-PD-EC
201 North 3rd Avenue
Walla Walla, WA 99362-1876

Dear Ms. Shelin,

I am writing with an urgent request concerning the official public comment period for the draft Programmatic Sediment Management Plan Environmental Impact Statement that was released on December 14, 2012. As currently scheduled, all public comments must be received by the ACOE no later than February 8, 2013.

The Save Our Wild Salmon Coalition appreciates the opportunity to submit public comment and we intend to do so. However we respectfully request that the Corps extend their comment deadline by at least 45 days. The Corps' long-term plans for managing the sediment accumulating behind Lower Granite Dam is an important issue affecting the protection and restoration efforts for ESA-listed wild Snake River salmon and steelhead. Because this is a complex and technical issue, we and other interested parties want to ensure that we have sufficient time to fully review this lengthy document and formulate and submit our comments.

The already short comment period - less than 60 days - has been effectively further reduced by at least 14 days due the release of the DEIS just a few days before the start of the holidays.

We see no compelling reason for the compressed comment period. Indeed, the Corps released the DEIS more than four years later than scheduled. Given this extended timeline, the complexity and long-term importance of this issue, it is critical that members of the public have adequate time to provide thoughtful, meaningful feedback on the content of the DEIS. The Corps' current timeline undermines the ability of interested and affected parties to do this.

We urge that the ACOE act quickly to extend its public comment period by at least 45 days and thereby allow sufficient time for public review and input on these critical issues.

Thank you for your consideration of our request.

Sincerely,

Joseph Bogaard, deputy director
Save Our Wild Salmon Coalition
Seattle, WA
joseph@wildsalmon.org

8394 NEPA;
comment period
extension

- Alaska Trollers Association
- American Fly Fishing Trade Association
- American Rivers
- American Whitewater
- Association of Northwest Steelheaders
- Boulder-White Clouds Council
- Coast Range Association
- Columbia Riverkeeper
- Conservation Northwest
- Defenders of Wildlife
- Earthjustice
- Endangered Species Coalition
- Federation of Fly Fishers
- Friends of the Clearwater
- Friends of the Earth
- Idaho Conservation League
- Idaho Rivers United
- Idaho Steelhead and Salmon Unlimited
- Idaho Wildlife Federation
- Institute for Fisheries Resources
- Izaak Walton League of America
- Lands Council
- Long Live the Kings
- The Mountaineers
- National Wildlife Federation
- Natural Resources Defense Council
- North Cascades Conservation Council
- Northwest Resource Information Center
- Northwest Sportfishing Industry Association
- NW Energy Coalition
- NW Guides and Anglers
- Oregon Guides and Packers Association
- Oregon Natural Desert Association
- Oregon Trout
- Oregon Wild
- Oregon Wildlife Federation
- Pacific Coast Federation of Fishermen's Associations
- Pacific Environmental Advocacy Center
- Pacific Marine Conservation Council
- Puget Sound Harvesters
- Purse Seine Vessel Owners Association
- Salmon For All, Inc.
- Salmon Protection and Watershed Network
- Sierra Club
- Trout Unlimited
- United Anglers of California
- U.S. Public Interest Research Group
- Washington Kayak Club
- Washington State Food & Nutrition Council
- Washington Trollers Association
- Washington Wilderness Coalition
- Washington Wildlife Federation
- Water Watch of Oregon
- Wild Steelhead Coalition
- The Wilderness Society
- Wild Snake Riverkeeper



From: [Kevin Lewis](#)
To: [PSMP](#)
Subject: Idaho Rivers United Request for Extension
Date: Thursday, January 10, 2013 9:59:53 AM
Attachments: [IRU Request for Extension.pdf](#)

Sandra,

Attached is Idaho Rivers United's request for an extension of the comment period.

Thanks!

Kevin

If you love a river...

Kevin Lewis

Conservation Program Director

Idaho Rivers United

www.idahorivers.org <<http://www.idahorivers.org>>

Office (208) 343-7481

Fax (208) 343-9376

Cell (208) 830-4870



PO Box 633
Boise, ID 83701
800-547-7481
Fax 208-343-9376
www.idahorivers.org

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January 10, 2013

US Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue, Walla Walla WA 99362-1876
e-mail: psmp@usace.army.mil

RE: Lower Snake River Programmatic Sediment Management Plan Draft EIS—Request for an Extension of Comment Period

Greetings,

8395 NEPA;
comment period
extension

Idaho Rivers United respectfully requests an extension of the public comment period for the LSRPSMP Draft EIS of at least 45 days. The reasons for my request are the following:

1. The Notice of Availability in the Federal Register was scheduled to appear on Friday, December 21, 2012, just at the beginning of the Christmas and New Years' holidays. Many people were away from their desks and normal activities until January 2, 2013, a period of 11 days, or 20% of the time the Corps has allocated for public comment.
2. The Draft EIS including appendices is over 1,500 pages in length. Reading and providing meaningful and substantive comment will require more than the six weeks currently allocated.
3. The Draft EIS refers to dredging at the confluence of the Snake/Clearwater Rivers in 2013/2014 and the need to confine dredging to periods of the year when this activity will have the least negative impact on ESA listed fish species. If public comment, legal analysis, impact analysis, and economics allow the Corps to dredge next winter, a reasonable extension of this comment period should not affect that timetable.
5. The Draft EIS states the LSRPSMP will direct the Army Corps' actions with respect to sediment management on the Lower Snake River for the next 50 years. Implementation of the plan will require a large, on-going federal subsidy during times of scarce fiscal resources. Rushing the public comment period is clearly unwise under such circumstances.

Thank you for your consideration of this request.

Kevin Lewis
Conservation Director
Idaho Rivers United
P.O. Box 633
Boise, ID 83701

kevin@idahorivers.org

0008_Laughy

From: linwood.laughy
To: [PSMP](#)
Subject: LSRPSMP request for extension
Date: Tuesday, January 15, 2013 12:53:58 PM

January 15, 2013

US Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue, Walla Walla WA 99362-1876
e-mail: psmp@usace.army.mil

RE: Lower Snake River Programmatic Sediment Management Plan Draft EIS—Request for an Extension of Comment Period

Greetings,

8396 NEPA; comment period extension

I hereby request an extension of the public comment period for the LSRPSMP Draft EIS of at least 45 days. The reasons for this request are:

1. The Notice of Availability in the Federal Register was scheduled to appear on Friday, December 21, 2012, at the exact beginning of the Christmas and New Years holidays. Many people were away from their desks and normal activities until January 2, 2013, a period of 11 days, or 20% of the time the Corps has allocated for public comment.
2. The Draft EIS contains 1574 pages. No Cliff Notes are available, and people can't watch the movie. I am discovering that reading and understanding this document requires hard work and much time.
3. The Army Corps of Engineers has thus far spent seven years and \$16 million in the preparation of this plan and Draft EIS. Surely the public deserves more than seven weeks to review such an important document.
4. The Draft EIS refers to dredging at the confluence of the Snake/Clearwater Rivers in 2013/2014 as well as the need to confine dredging to periods of the year (historically December-March) when dredging will have the least negative impact on fish. A reasonable extension of the comment period

would not delay this schedule.

5. The Draft EIS states the LSRPSMP will direct the Army Corps' actions with respect to sediment management on the Lower Snake River for the next 50 years. The plan's implementation will also cost many millions of dollars. Rushing the public comment period is clearly unwise under such circumstances.

Thank you for your consideration of this request.

Linwood Laughy 5695 Highway 12 Kooskia, Idaho 83539

From: zephyr.moore
To: [PSMP](#)
Subject: Dredging Snake River reservoirs
Date: Sunday, January 20, 2013 12:45:54 AM

January 19, 2013

psmp@usace.army.mil

U.S. Army Corps of Engineers

Walla Walla District

PSMP/EIS

Attention: Sandy Shelin

CENWW-PM-PD-EC

201 North Third Avenue

Walla Walla Washington 99362-1876

Dear Sandy,

In 2000 the Corps asked citizens whether the Snake River dams should remain or be removed. I testified in Goldendale, Washington:

“SALMON ARE LIVING ART AND FOOD. WE CAN AND MUST PRESERVE THEIR MASTERPIECE.

1. Before removing the dams, dredge the reservoirs then spread the sediment on uplands from where it came.
2. Get the cows away from streams to restore riparian zones of plants and animals and instantly increase storage of precipitation.
3. Grow industrial hemp for food, fuel-lubricants and fiber while reducing negative impact of cultivation on the land.”

The dams remain in place. Where to dispose of silt to increase its value? How to dredge and transport silt with the least effort and expense? Lifting silt to hilltop then farmland solves the problem of storage. How to lift silt from reservoir to farmland?

1. Dredge silt to a submerged barge with a fence to contain flowing silt. Pour silt to fenced barge supported on bendable legs of some dimension. After filling containment area on top of barge, add air to bladders that lift barge. Let elevated silt drain to reduce weight. Move barge to dock where silt is moved to transport container on railroad wheels. Silt is transported to farmland.

8380 Management measures: beneficial use

Rather than air bladders, silt filled barge may be elevated to surface between two floating barges. The silt barge remains below surface. The three barges move to dock.

The barge with silt is on legs like saw horses. The legs support the load after it is elevated from water. Silt barge is floats and is anchored over rail road section that floats. Rail section is elevated to lift silt barge from water. The rail section with silt barge on legs is floated to grade of the rail line. Rail road wheels are positioned beneath fixtures on barge to hold the wheels. The bendable leg sawhorses of the silt barge are flexed so lower the barge onto wheels. Container with dried silt is slowly moved uphill on railroad tracks to landing on hilltop.

Silt barge may be pulled slowly on tracks straight uphill with cable connected to block and tackle. From hilltop landing, transfer dry silt to truck that transports it to farmland. I imagine that silt spread across farmland improves health of soil-watershed.

Rail is the most economical way to transport huge loads. Since the silt is already on rails, this is the easiest way to transport it to distant farm land. Use rail cars to transport the silt resource to distant landscapes. At a remote rail side track, silt is transferred to soil truck with large tread area. Large tread distributes weight of silt over more road surface. Road base is protected from overweight loads. Or simply have a lot of small dimension loads of silt on common wheeled vehicles. Involve as many citizens as possible at returning the silt to its geologic home on the headlands.

The hilltop landing may be elevated so silt flows to truck bed by gravity.

The rail line at each reservoir is constructed once. The block and tackle is engineered and constructed once. The block and tackle may be moved from one reservoir to the next where dock and rail are in place. Move the flock of silt barges from one reservoir dredging to the next reservoir through locks at each dam.

Imagine a submerged rail road line that is elevated to fit beneath silt laden barge. The barge is floated above railroad section. Beside rail are guide posts that position the floating barge as the rail lifts into place. The barge rests on supports like a car's jack stands. Air is pumped beneath or on pontoons, beside silt barge that lifts the rail section to rail grade. Rail trucks are rolled beneath barge on legs. Barge is lowered onto rail trucks. Silt barge is rolled and parked in drain area for a time so most water disappears. Less water = less weight to lift to farmland. Effort to move dry silt is less than wet silt.

Imaging ten or more loaded silt barges out of the water draining while waiting to trek up to the landing for transport to distant fields then unloading to trucks. While waiting they lose water weight. Effort to roll uphill is less with less weight. Dry sand is easier for a truck to move than wet sand because it is lighter. Smaller load on the engine reduces oxygen-fuel to power the engine. Transporting less weight cuts tires-brakes-pavement to support and move it. Less effort results in less toxic gas and petroleum covered grit down the storm drain. Salmon like that. W.W.S.D.?

The dry silt in silt transporter may become like concrete. To increase ease of removing silt to truck, insert spacers, walls or pipes into wet, still submerged silt barge. At top of hill these spacers removed allow dense dry compacted-concrete soil a place to break into when disturbed with forklift, front loader scoop or jackhammer before loading onto truck. The broken chunks of silt are easier to move from silt transporter to truck.

The spacers may be removed at hilltop with lever through hole in top edge of spacer. The spacer may be designed to increase air flow and evaporation. All movement of silt requires work. Dry silt is easier to move. How might the spacers be designed to increase air flow-evaporation?

The spacers may be in place on the barge's empty deck before being sunk to receive silt dredged and poured from reservoir bottom. Silt will flow to fill the area between spacers like clay between spacers that form brick.

How much effort or cost to move dirt to hilltop? With traction of rubber wheels, effort and oxygen-fuel plus wheel rubber-pavement will be huge. With block and tackle cabled to railroad wheeled silt transporter, friction is not used to turn wheels. With block and tackle, oxygen-fuel consumed to power block and tackle then transport silt to hilltop may be smaller.

My dad, who logged in the 1930s, could figure out block and tackle that would allow a small power source to very slowly bench press a load of silt straight up a hillside. I'm visualizing the slopes above the reservoirs of Snake River Dams as topographically sloped hillside like east of the Columbia Gorge National Scenic Area. There may be three or four places on each reservoir where a railroad line may lay on the land for a straight up the hill with little disturbance to the land compared to cut in hillside to make a steady grade for motor vehicles.

A rail switchback could have silt rail cars pull up one slope to a landing. Then change direction and pull at an angle the opposite direction to another landing. Switch directions again to another landing repeatedly till the top.

Is there a land where massive weight of wet silt is dredged and transported first from the Snake River bottom then lofted to restore farmland with no impact on the salmon?

Simple words written here, evolving as they appeared on the page. Forever changing and waiting for your input and influence. To progress on some of these ideas please phone Zephyr Moore 503 641 2798 or salmonneedshade@gmail.com. HELPLANTREES 503 641 2798.

HOW ARE WE GOING TO PAY FOR ALL THIS ENGINEERING AND CONSTRUCTION TO MOVE SILT?

The Corps of Engineers can save money and time plus get funding for this, and other projects using AMSOIL Synthetic Oil, grease and advance filters. In an engine, AMSOIL Synthetic Oil doesn't oxidized volatilize or shear so an engine is clean, it starts easy, operates efficiently and stays cool. In normal driving the oil change interval is extended to one-year or 25,000 miles. You will save money and time maintaining and operating motor vehicles, boats and tools plus operation of the dams using AMSOIL Synthetic Oil and grease, among other products. See PERFORMANCE TESTS for gas and diesel, PRODUCT LOOK UP and more at amsoil.com <<http://amsoil.com/>> referral 2017327. < That's my account at AMSOIL.

We can set up a fundraising account so profit on your and cohorts ongoing purchases of oil, filters, grease, fuel additives, transmission fluid and gear lube plus windshield wipers and most items essential to maintain and operate on and off road vehicles, tools and dam components is donated month after month, over years and decades to support Corps projects.

Please contact me at itlbfun@gmail.com <<mailto:itlbfun@gmail.com>> or 503 641 2798 <tel:503%20641%202798> to explore using AMSOIL to boost performance, economy and longevity of Corps vehicles along with components of the dams.

Sincerely,

Zephyr T. Moore

A few days past while clearing ancient file folders from 1996, title bar WATER:

Six-pages written by Denzel Ferguson, are in WATER file. The close of the first paragraph introduced a report: "The following is the text of a seminar I [Denzel] presented at Portland State University in April, (1994)."

"Sacred Cows and Science: Why all the fuss?"

"Little more than a century ago, we were signing treaties with native Americans tribes that were binding "so long as the rivers shall flow." That flowery euphemism was mistakenly thought to be synonymous with the word "forever".

“But today, the Umatilla River is a shameful trickle where it reaches the Columbia, the upper Grande Ronde disappears in most years soon after leaving the mountains, and the Lostine River fails to reach its confluence with the Wallowa. Thousands of headwater streams are now intermittent or mere dry gullies, including many of the trout streams I fished as a youngster. Similar examples are plentiful throughout the West.”

The paper has on upper left margin: Society Advocating Natural Ecosystems.

Denzel passed away recently. The Oregon Natural Desert Association in Bend, Oregon may have access to Denzel's writing.



US Army Corps
of Engineers®

Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement COMMENT FORM

0010_BuddPubMtg

Name (please print): Gary Budd, Manager/Director	
Organization (if applicable): Lewis Clark Terminal	
Street Address: PO Box 12 Uniontown Cooperative Assn	
City, State, and Zip Code: Uniontown WA 99179	
Telephone: 509-229-3828	E-mail:
Preferred method of contact: (CHECK ONE) <input checked="" type="checkbox"/> U.S. mail <input type="checkbox"/> E-mail	

8357 general project support

Please provide your comments by **March 26, 2013.**

For nearly 42 years I have depended on the River system to ship grain to market for the companies I have worked for. Grain from North Dakota west into Washington State & Idaho. There is no rail system in this area to handle the shipping load. As far as costs, we pay the dredging costs at the Bights we have at Lewiston and Clatskanie. I believe dredging, when needed, is mandated by law in order for the River system to operate. Continue to use this valuable system that has worked so well over the past 40+ years.

From: [John Claassen](#)
To: [PSMP](#)
Cc: [Vikki Bonfield](#)
Subject: Response to the PSMP/EIS Plan 0011_Claassen
Date: Thursday, January 24, 2013 6:42:03 PM
Attachments: [Response to PSMP-EIS.pdf](#)

Ms. Shelling,

Thanks for sharing the results of your research. Please find attached a signed copy of my response to the PSMP/EIS plan.

I hope I have provided some useful insights.

John Claassen

PS: It would be helpful to know whether this response was received.

100 Appleford Drive
Asotin, WA 99402-0778
January 24, 2012

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-IEC
201 North Third Avenue, Walla Walla WA 99362-1876

8358 Dredging

Dear Ms. Shelin:

Thank you for sharing the PSMP/EIS Plan with the communities and people of the Valley today. The Corps has brought some hope today with regards to restoring and revitalizing navigable channels within the rivers of our communities. I am pleased that you had regarded supporting Recreation and Fish & Wildlife Conservation as important goals in your plan. It was also noble and worthy that the Corps embraced a pro-active and long term approach. However, from what I heard today I am having a hard time believing that your research didn't promise much hope beyond dredging, a routine Corps activity, as a solution.

You have identified a trigger for justifying dredging the waterways; however I found no triggers for supporting Recreation and Conservation. Instead Corps policies appear to be obstacles to making any progress in these areas. I find it extremely discouraging that the bases for these policies were not made apparent nor has anyone challenged the policies even if they were established by Congress.

As a retired citizen of the City of Asotin who sometimes provides technical insight to his community, I am grateful that Dr. Greg Teasdale performed conceptual studies that provided limited insight on how a marina might be designed to prevent sediments from accumulating in the basin. I am disappointed that the studies were not carried further to establish a definitive basis. These more definitive efforts should include a small scale demonstration project. The simplest demonstration could be done right at the Clarkston boat ramp near the Corps offices where a simple tube open to up river flow under the launch ramp could be used to drift the sediment away at the entrance/exit.

I am disappointed that the Corps and its collaborators offered no hope for addressing erosion at the source. Yes the slopes are steep and rainfall is limited; however, I can't accept the finding that there is no practical way of stabilizing the soil. I have more confidence in Nature's methods of healing than I have in dredging. For example, I know of a case in the southern hemisphere where large communities of beech trees, evergreens common to the southern hemisphere, were burned over extensive areas both flat and steep. The beech trees didn't reseed themselves but savannah grasses with help from people did. In some areas ponderosa pine like trees were planted sparsely to create a sparsely forested savannah. It took 50 years. This savannah was much like the semi-arid savannahs found in the mountains of New Mexico only a little wetter.

It is clear that deeper research and inquiry is required to achieve your noble objectives.

Respectfully,



John Claassen, PhD

Copy to Asotin Mayor Vikki Bonfield

8359 Hydrology and sediment;
watershed sediment production



US Army Corps
of Engineers®

Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement COMMENT FORM

0012_FisherPubMtg

Name (please print): <u>John Fisher</u>	
Organization (if applicable):	
Street Address: <u>25216 Arrow Highline Rd</u>	
City, State, and Zip Code: <u>Juliaetta ID 83535</u>	
Telephone: <u>208-843-7159</u>	E-mail: <u>jwfisher@starband.net</u>
Preferred method of contact: (CHECK ONE) <input type="checkbox"/> U.S. mail <input checked="" type="checkbox"/> E-mail	

Please provide your comments by **March 26, 2013.**

If subsidies were eliminated for large Transportation unit trains for (grain) would be more cost effective for moving material & goods to west coast markets Portland & Seattle. I remember a unit train during the draw down in the early 90's that was just about the cost of barg trans

8360 Other; costs and funding

0013_LewisClarkTerminal



LEWIS-CLARK TERMINAL INC.

1534 3RD AVENUE N. / LEWISTON, IDAHO 83501-1668 / (208) 746-9685

8397 Dredging

Walla Walla District Corp of Engineers

Dear Sirs,

After multiple conversations with the Corps of Engineers and port officials it was agreed to include our port of Clarkston barge loading berth in their dredge plans. I was surprised to see that the Corps of Engineers recent scope of dredge work showed LCT Clarkston berth was not included.

Please consider this formal notice to secure any permits necessary to perform any dredging work necessary at LCT Clarkston barge loading berth and our barge loading berths in the Port of Lewiston.

As always LCT will work through our area ports in the allocation dredging costs.

Sincerely

Arvid Lyons

General Manager

Lewis- Clark Terminal Inc.

LEWISTON - NEZ PERCE COUNTY OFFICE OF

EMERGENCY MANAGEMENT

P.O. BOX 896 • NEZ PERCE COUNTY COURTHOUSE • LEWISTON, IDAHO 83501 • (208) 799-3084

0014_LewisNezPerceEmerMgt

January 24, 2013

TO: U.S. Army Corps of Engineers

SUBJ: Comment on Draft EIS

I have reviewed the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement, and offer the following from a public safety perspective. The Lewiston levee system was designed to standard Corps of Engineers project flood specifications. Levee height will contain a 300-year flood event, with five feet of freeboard. In our hazard analyses, we identified siltification at the confluence of the Snake and Clearwater Rivers as an emerging hazard.

Effectively, this sediment accumulation raises the river bed [or lowers the levee height] over time. Consequently, a river flow rate that would have been contained by the levees as initially constructed (for example, a 100-year event), may overtop them. This would have significant the impact on people, property and the environment in the inundation area.

To maintain the project flood specifications I believe the most practical, cost-effective solution is dredging and available system and structural measures. I concur with the US Army Corps of Engineers selection of Alternative 7 as the preferred alternative to manage sedimentation. This is the clear choice to protect people, property and the environment.

Mel Johnson

Melvin Johnson,
Director

8361 General
project support



US Army Corps
of Engineers®

Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement COMMENT FORM

0015_LyonsPubMtg

Name (please print): <u>Arvid Lyons</u>	
Organization (if applicable): <u>Lewis Clark Terminal</u>	
Street Address: <u>1539 3rd ave N</u>	
City, State, and Zip Code: <u>Lewiston Id 83501</u>	
Telephone: <u>208-746-9685</u>	E-mail: <u>arvidlct2@microwavedsl.com</u>
Preferred method of contact: (CHECK ONE) <input type="checkbox"/> U.S. mail <input checked="" type="checkbox"/> E-mail	

Please provide your comments by **March 26, 2013.**

I am Mgr for LCT with barge terminal in Port of Clarkston + Port of Lewiston.

- 4/3/2012 we ground a Tide water barge at 9'6" at our Clarkston Elevator
- 12/18/2012 a loaded barge from LCT (TW 71) ran aground drafts of 13'0" + 12'0"
- we have been light loading at Clarkston + Lewiston (during low mop levels)
 - berth + channel have become a safe concern.
- for the thousand of truck that would be on the Hwy, for the cleaner air we breath, + for those who are unfamiliar with the Col/Snake river sys, LCT appreciates the Corp unbiased role in its management

Arvid

8362 general project support



US Army Corps
of Engineers®

Lower Snake River Programmatic Sediment Management Plan
Draft Environmental Impact Statement
COMMENT FORM

0016_MagnusonPubMtg

Name (please print): <i>Cynthia Magnuson</i>	
Organization (if applicable): <i>Great Old Broads for Wilderness Palouse</i>	
Street Address: <i>326 East A</i>	
City, State, and Zip Code: <i>Moscow, ID 83843</i>	
Telephone: <i>208 882 1606</i>	E-mail: <i>cmcindyidaho@gmail.com</i>
Preferred method of contact: (CHECK ONE) <input checked="" type="checkbox"/> U.S. mail <input type="checkbox"/> E-mail	

Please provide your comments by **March 26, 2013**.

Other; 8379 costs
and funding

I know that I'm naive on the topic but I'd like to know if a cost comparison has been run on: ① This project ie - dredging and possibly very lifting for years (20?) to come; *** ② Tearing down the dams and allowing the river to clean itself and letting the fish return.

If you've studied other U.S. rivers you'll know that they are in desperate need of maintenance, crumbling bridges and silt build-up. Soon our dams will be requiring massive maintenance.

We also learned/heard that the smolts do not need a "resting" spot, but rather a quick trip to avoid predators.

8378;
dam
removal

*** With so few barges I feel this project should be put on hold until many other issues: economic, need, the channel @ the ocean, and other needs in higher priority rivers of the US

BUILDING STRONG®

G-221

August 2014

United States Department of Agriculture



0017_NRCS

Natural Resources Conservation Service
9173 W. Barnes Dr., Suite C
Boise, Idaho 83709
Phone: (208) 378-5700
Fax: (208) 378-5735

JAN 25 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Ave.
Walla, Walla, WA 99362-1876

Dear Ms. Shelin,

NRCS has reviewed the Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS) to evaluate potential effects on the issues listed below.

- (i) Soil suitability and limitations
- (ii) Provisions for erosion, sediment, and dust control
- (iii) Considerations for soil and water conservation management systems
- (iv) Water discharges
- (v) Effects of disruption to the natural drainage patterns and severance of private land units
- (vi) Impact on previously installed soil and water conservation management systems
- (vii) Impacts on prime and unique farmland
- (viii) Impacts on ecosystems
- (ix) Impact on other NRCS-related projects

8398 Management measures

The Corps should take into account the productivity, capability, and erodibility of soils when siting future actions under the preferred alternative and incorporate provisions for erosion, sediment, and dust control into future project designs. Impacts to Prime and Unique Farmland from the Management Measures are probably unlikely given their planned general locations, but if such areas are identified when planning future actions, they should be avoided to the maximum extent practicable. If impacts cannot be avoided, the Farmland Protection Policy Act (Public Law 97-98, 7 U.S.C. 4201) may apply.

NRCS encourages the installation of new and maintenance of previously installed soil and water conservation management systems in the study area. Examples of such systems are identified as Upland Sediment Reduction Management Measures in the draft PSMP/EIS.

8400 Management measures

8399 Management measures

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NRCS does not anticipate adverse effects to private land resulting from installation of Structural Sediment or System Management Measures that may alter natural drainage patterns.

We also do not anticipate any adverse impacts related to other NRCS-related projects in the study area resulting from implementation of the preferred alternative.

The EIS identifies adverse impacts to aquatic ecosystems and water quality resulting from Dredging and Dredged Material Management Measures. Some minimization measures, such as timing of dredging activities, are described in Section 4 of the draft PSMP/EIS. NRCS encourages the Corps to incorporate all known practicable avoidance, minimization, and/or mitigation measures that will eliminate or reduce adverse effects on aquatic ecosystems and water quality into the descriptions of the Management Measures identified in Section 2.

We appreciate the opportunity to review and comment on the draft PSMP/EIS. If you have any questions on these comments, please contact Karen Fullen, State Biologist at 208-378-5725.

8401 Management
measures


JEFF BURWELL
State Conservationist

Cc: Eugene Schock, ASTC, Technical Services, Boise, ID
Bob Tribelhorn, ASTC, Operations - West, Moscow, ID
Treg Owings, District Conservationist, Lewiston, ID

Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

**UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE**

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BOISE ID 83709-1574

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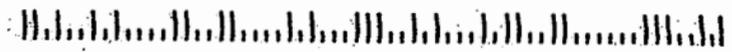
US POSTAGE
\$ 00.45
CORRECTION

Mailed From 83709
01/25/2013
031A 0004189367

**U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Ave.
Walla, Walla, WA 99362-1876**

August 2014

99362#1876



G-224

From: [Ron Wittman](#)
To: [PSMP](#)
Subject: PSMP-Walla Walla District 0018_Wittman
Date: Friday, January 25, 2013 10:32:29 AM

Dear Corps,

I am in total support of the continued dredging of the Snake and Clearwater rivers for the purpose of river barge traffic up to and back out of the Ports of Lewiston, Clarkston and Wilma. The continued use of the river system for receiving and delivering product in and out of our area is critical to the economies of many states, not just our own. This system was put into place after much thought and consideration way before my time on this earth. It is vital to the strengths of the agricultural industry, timber industry, power industry, tourism industry and many many more. My father (B.H. Bob Wittman) was a Port of Lewiston commissioner for around 22 years and I was proud to hear of the great things that this river system provides. I would hate to see his time and dedication, along with all the other port commissioners, managers and supporters who have fought so hard to keep this a vital and prosperous "Highway system" to the rest of the world, be discontinued because of the idle meaningless threats from the people opposing this project. I keep hearing of the costs associated with dredging. Why doesn't the opposition bring into the equation the costs associated with the upkeep/rebuilding of our highways, railroads and other infrastructure needs if this system goes away? Because of their narrow vision and self-serving interests. We need to look at this project openly and farsighted into the future for all our wellbeing. The costs associated with the savings of fuel alone should be enough. Not to mention the one lane in each direction highways leading into the Lewis-Clark Valley and on to the east, south, and north. The river system is our freeway and we need it just as any city/town along an interstate freeway system. I thank you for your time and hope that you continue on with dredging and maintaining our river system as it was intended.

8363 general
project support

Ronald J. Wittman
Former Nez Perce County Commissioner 2003-11'
and now private citizen

From: [John W. Fisher](#)
To: [PSMP](#)
Subject: Comments on Lower Snake Sediment Plan.
Date: Sunday, January 27, 2013 3:54:08 PM
Attachments: [COE letter Jan 2013.docx](#)

0019_Fisher

See attached

John W. Fisher

Attn: Sandy Sheling Re: Lower Snake River Sediment Management Plan Comments:

This is an expansion of my oral and written comments made at the Lewiston Hearing on Sediment Management hosted by the Corps of Engineers Jan 2013.

Lack of credibility:

8402 Costs and funding

Corps of Engineers: After decades of adverse rulings by Judge Redden against the Corps of Engineers over Fish passage and Salmonid recovery there is no credibility on Corps recommendations on almost anything.

Environmental Groups: Just like the COE and supporters of Barging/Port Districts/Farmers etc. there is also no credibility by the general public, though they are usually more honest.

Lewiston/Clarkston and area Port Districts and Chambers of Commerce: The decades of virulent opposition to discussions of Salmonid survival and fish passage have been dominated by lies, distortions and intimidation against local businesses who might support even a discussion of a full range of options for fish survival.

Before any more money is spent on dredging an economic analysis of past, present, and future costs of barging needs to be made by an impartial and competent panel:

- If the Corps can spend in excess of 13 million dollars studying silt accumulation and engineering the disposal then:
- They should be able to contract a few tens of thousands of dollars for an economic analysis of the actual costs of barging vs. rail (trucking is obviously too destructive and inefficient) using economists and analysts from U of I or WSU.
- All the entities already have the requisite data. All we need is an honest independent analysis of the true costs and comparison.
- Instead of heavy subsidies which have been given to the barging system for decades if we can find out the true costs:
- And if the barge operators and Port Districts are charged the full costs in the future it may be apparent that barging is not economically viable and:
- In turn dredging may not be necessary and a much simpler way of ridding the silt might be lowering the pool level during the highest spring runoff to evacuate silt build up around the Lewiston/Clarkston dikes and levees.

With trillion dollar deficits there is no justification for wasting tens of millions of dollars sending good money after bad.

8403 Costs and Funding

John W. Fisher

25216 Arrow Highline Rd

Juliaetta ID 83535

jwfisher@starband.net Use this email to contact me not regular mail.

208-843-7159

Idaho/Lewiston area resident 45 yrs.

Environmental Science, Zoology, Chemistry, Biology, Geology HS teacher, retired: BA + 4 years

From: [Bill Chetwood](#)
To: [PSMP](#)
Subject: Emailing: Army Corps. comment
Date: Monday, January 28, 2013 7:59:58 PM
Attachments: [Army Corps. comment.odt](#)

0020_Chetwood

Your message is ready to be sent with the following file or link attachments:
Army Corps. comment

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Public Information meeting
Lewiston, Ida.

Comment:

We all know what the Corps can do regarding silting in the bars. 8404 Costs and Funding is obvious that we cannot raise the dikes indefinitely, or maybe even in the near term.

What is missing here for the average citizen is justification of the sustained use of the waterway as transportation...the *relative* cost, and the longevity of the current proposal relative to the *continued* cost. In more concise terms, what is the cost/benefit ratio compared to alternative methods of transport.

People are aware that significant silting in the Chief Timothy park area is already inhibiting the wide use of sail boats. They know that the Port of Clarkston has virtually no shipments. They know that the number of barge shipments from Port of Lewiston has decreased significantly. They know that the cost of barge traffic is affected by the “dead-heading” up river. They know that barge traffic is heavily subsidized and that the fuel tax is inadequate to cover all costs of maintaining the waterway. They know that the Snake River barging subsidies are low priority on the Federal transportation expenditures. They know that a very large amount of the wheat shipped from the Palouse goes directly to ocean ports via rail.

What people are not sure of is the accurate cost comparison between rail versus barge freight from the Inland Empire to destined ports. The Corps admits that the 8405 Costs and funding piddling amount of silt already removed and proposed is not a long range solution. If the Corps wants public support, give us an accurate cost//benefit analysis and if it doesn't pencil out, go to a reasonable cost effective and environmentally acceptable alternative. Even if it is impossible to remove the dams, let them 'silt up' and carve their own channels if a tax-payer burden is unreasonable. People are angry over these “public hearings” that tell us what the Corps has already decided to do. Defend your proposals with future planning facts and knock off the “mushroom” treatment.

All of the intelligent and futuristic thinking people are not in Washington D.C. or employed by the Corps. It is time for a reasonable and defensible plan for the Snake River barge traffic. Tap dancing is for lawyers and politicians and it doesn't pay the rent.

Respectfully,

W.E. Chetwood
932 Stewart, Lewiston, Id. 83501 wechetwood@cableone.net



NEZ PERCE COUNTY

BOARD OF COUNTY COMMISSIONERS

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Lewiston, Idaho 83501-0896

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U.S. Army Corps of Engineers, Walla Walla
District PSMP/EIS
Attn: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

August 2014

G-230

99362-1876 0002





NEZ PERCE COUNTY

BOARD OF COUNTY COMMISSIONERS

0021_NezPerceCoCommissioners

1225 Idaho Street
P.O. Box 896
Lewiston, Idaho 83501-0896
(208) 799-3090
FAX (208) 799-3149

January 29, 2013

U.S. Army Corps of Engineers, Walla Walla District PSMP/EIS
Attn: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876
psmp@usace.army.mil

Dear Ms. Shelin:

The Nez Perce County Board of Commissioners unanimously endorse the Corps of Engineers proposal to manage, reduce and prevent sediment accumulation using dredging and other sediment and watershed management measures

This alternative is comprehensive. Upper watershed measures reduce the amount of soil erosion at the source; other measures further reduce sediment deposition - extending the time between maintenance.

The benefits are also comprehensive.

8364 general project support

- Fish and wildlife conservation is enhanced by minimizing sediment in water for hatcheries
- Recreational use is enhanced by maintaining proper water depth
- Commercial navigation is unimpeded
- Flood potential is reduced by maintaining levee freeboard

Alternative 7 best addresses the immediate need to re-establish the Congressionally-authorized dimensions of the navigation channel. It establishes a programmatic plan to address long-term sediment accumulation. Alternative 7 has our full support.

Alternatives (need to add Issue Category)

Sincerely,

BOARD OF COUNTY COMMISSIONERS

Douglas A. Zenner
DOUGLAS A. ZENNER, Chairman

Douglas W. Havens
DOUGLAS W. HAVENS, Member

Robert H. Tippet
ROBERT H. TIPPETT, Member

0022_Thomason

January 30, 2013

U. S. Army Corps of Engineers; Walla Walla District
PMSP/EIS, Attn: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: PMSP/EIS Comments

Dear Ms. Shelin:

8406 General
project support

Thank you for the opportunity to provide input concerning the draft Programmatic Sediment Management Plan (PMSP) and Environmental Impact Statement (EIS). I also appreciated the opportunity to attend the informational meeting held in Lewiston on January 24, 2013. I went home with a clearer understanding that the final outcome will have profound impacts on both the environment and the economy of Lewiston, ID and Clarkston, WA, as well as significant financial impacts on the agricultural and manufacturing sectors of the regional economy.

I personally support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PMSP/EIS because I feel it is the most efficient, cost effective and quickest solution to an issue that is already impacting barge traffic in the Snake River. I believe barge hauling to be the most cost efficient way for our local natural resource based industries to ship products to market. Not only is it the most cost effective option, it seems to me to be the most environmentally friendly option. With all the concern about global warming and carbon in the atmosphere, it just makes sense to use barges rather than a larger numbers of trains or trucks. It's my hope that you will be able to expedite the dredging operations of the Snake and Clearwater Rivers.

8407 Management
measures

While I am in favor of dredging, there are other options suggested in Alternative 7 which I personally do not favor. Those alternatives include: raising the height of the levies, relocating existing affected facilities and drawing down the rivers. All three of these alternatives would have negative effects I would like to avoid. It has been suggested that the Corps be able to utilize the current NEPA analysis for future maintenance dredging in an effort to expedite the process and cut the cost of doing everything over each time. I concur with that suggestion.

8408 NEPA/Programmatic
Approach

Thank you again for traveling to the L/C Valley to hear our questions and share your process specifics. I appreciate your consideration of my comments.

Sincerely,

Michael D. Thomason

Mike Thomason
3850 Country Club Drive
Lewiston, ID 83501

Mike Thomason
3850 Country Club Dr.
Lewiston, Idaho 83501

Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

30 JAN 2013 PM 4 L



U.S. Army Corps of Engineers
WW District
PMSP/EIS Attn: Sandra Shelin
201 N. Third Ave.
Walla Walla, WA
99362-1876

August 2014

99362187601

|||||G-233

From: [Sue Schuetze](#)
To: [PSMP](#)
Subject: Comments on Draft PSMP/EIS, U.S. Army Corps of Engineers (UNCLASSIFIED)
Date: Friday, February 01, 2013 2:33:50 PM

0023_BentonCoPublicWorks

Benton County Public Works has no comments on this proposal:

8409 General
project support

The Walla Walla District of the U.S. Army Corps of Engineers (Corps) has extended the public comment period for the draft Lower Snake River Programmatic Sediment Management Plan /Environmental Impact Statement (PSMP/EIS) to March 26, 2013. This extends the previous comment deadline of February 8, 2013.

Comments must be e-mailed or postmarked by March 26, 2013, and must include a name and e-mail address or return mailing address to be considered. You may submit comments via e-mail to psmp@usace.army.mil . You may mail comments to:

U.S. Army Corps of Engineers, Walla Walla District PSMP/EIS, ATTN: Sandy Shelin, PM-EC

201 North Third Avenue

Walla Walla, WA 99362-1876

Sent on behalf of Sandy Shelin

by Cora Edwards

Contractor to Walla Walla District

Sue Schuetze

Engineer II

Benton County Public Works

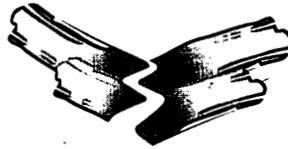
P.O. Box 1001

Prosser, WA 99350

509-786-5611 Prosser

509-736-3084 Tri Cities

509-786-8912 Cell



lewis clark valley
chamber of commerce

February 6, 2013

0024_LewisClarkValleyChamber

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: PSMP/EIS Comments

8410 General
project support

Dear Ms. Shelin:

The Lewis Clark Valley Chamber of Commerce appreciates the opportunity to provide comments on the draft Programmatic Sediment Management Plan (PSMP) and Environmental Impact Statement (EIS). The outcome of the PSMP/EIS has significant impacts to the environment and economy of Lewiston, Idaho and Clarkston, WA.

We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that it is imperative that the Corps of Engineers maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.

While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures:

- **Modify flows to flush sediments (drawdown)**
 - The Corps of Engineers conducted an operational/str...
Snake River in 1992. This experimental drawdown was a disaster to our local economy and environment. Businesses were severely impacted and the river system contiguous to the L/C Valley became a stinking mud hole. Further, drawdown in our valley resulted in undesirable environmental releases from the old landfill on the north side of the river within the Clarkston city limits. We understand that roadways in other parts of the region collapsed as a result of the water being no longer there to support the roads. The implications of this potential solution are more significant than is immediately evident on the surface.
- **Reconfiguring/relocate affected facilities**
 - It simply is not feasible to relocate the local marinas, or the Ports of Clarkston, Lewiston and Wilma. Millions of private and public dollars have been invested in

8411 Management
measures

(509) 758-7712 · fax (509) 751-8767

502 Bridge Street · Clarkston, WA 99403 · lcvalleychamber.org

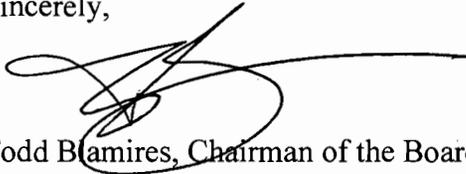
marine facilities. Sediment control through periodic dredging is clearly more cost effective than relocating established ports and marinas.

- **Raise Lewiston levees to manage flood risk**
 - Raising the levee system in Lewiston would simply prohibit public access to the Snake and Clearwater Rivers by erecting barriers without addressing sediment accumulation.

We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.

Again, thank you for the opportunity to comment.

Sincerely,



Todd Blamires, Chairman of the Board

LEWIS CLARK VALLEY CHAMBER OF COMMERCE

8412
NEPA/Programmatic
Approach

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS



lewis clark valley
chamber of commerce

502 Bridge Street
Clarkston, WA 99403



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U.S. Army Corp of Engineers, Walla Walla Dist.
PSMP/EIS, Attn: Sandra Shelin
201 North Third Avenue
Walla Walla, Washington

August 2014

99362187601

99362187601

From: [Burnette, Eric](#)
To: [PSMP](#)
Subject: COMMENT: Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS).
Date: Wednesday, February 06, 2013 12:24:55 PM
Attachments: [2013.02.06_Snake R PSMP EIS Comment .pdf](#)

0025_PortOfPortland

Dear Ms. Shelin,

Port of Portland thanks you for the opportunity to comment on the Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS). You will find our comment letter attached electronically, with a confirming copy you be sent by surface mail.

Best regards.

Eric Burnette

Eric Burnette
Sr. Waterways Planner
Port of Portland
503 . 415 . 6791 w
541 . 400 . 0727 m



Mission: To enhance the region's economy and quality of life by providing efficient cargo and air passenger access to national and global markets.

February 6, 2013

U.S. Army Corps of Engineers
ATTN: Sandy Shelin
Walla Walla District, PSMP/EIS
CENWW-PM-PD-EC
201 North 3rd Avenue
Walla Walla, WA 99362-1876
psmp@usace.army.mil

0025_PortofPortland

Comment: Programmatic Sediment Management Plan / Environmental Impact Study

Dear Ms. Shelin:

8385 Alternatives

The Port of Portland recognizes the need for a Programmatic Sediment Management Plan for the Lower Snake River and endorses your designation of Alternative 7 in the draft EIS as the preferred alternative. As indicated in your evaluation, Alternative 7 will both restore navigational function to the Lower Snake River and be protective of the environment.

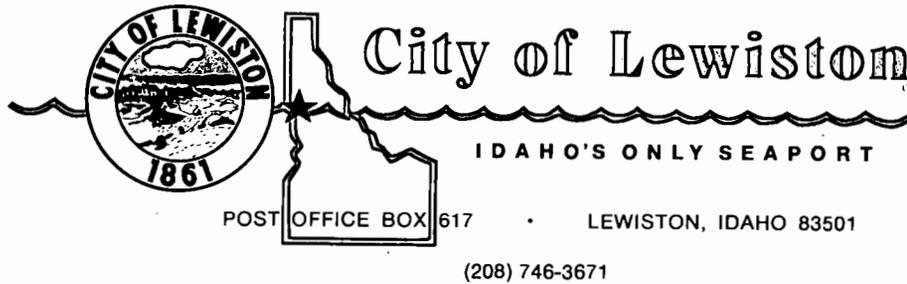
The Columbia-Snake system is now the largest wheat export gateway in the US and the third largest grain gateway in the world. Navigation on the Lower Snake River is critical to that export trade. The Port of Portland is concerned that the Army Corps has not performed any maintenance dredging in the Lower Snake River navigation channel since the winter of 2005-2006 and, as a result, the operational depth of the channel has been reduced in places to 7-9'.

We believe this PSMP will help the Army Corps of Engineers resume routine maintenance dredging in an environmentally protective manner.

8365 general project support

Sincerely,

Eric Burnette
Sr. Waterways Planner
Port of Portland



February 7, 2013

0026_CityOfLewiston

U.S. Army Corps of Engineers, Walla Walla District
PMSP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: PMSP/EIS Comments

Dear Ms. Shelin:

8413 General project support

The City of Lewiston appreciates the opportunity to provide comments on the draft Programmatic Sediment Management Plan (PMSP) and Environmental Impact Statement (EIS). The outcome of the PMSP/EIS has significant impacts to the environment and economy of Lewiston, Idaho and Clarkston, WA.

We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PMSP/EIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that it is imperative that the Corps of Engineers maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.

While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures:

- **Modify flows to flush sediments (drawdown)**
 - The Corps of Engineers conducted an operational/structural drawdown of the Snake River in 1992. This experimental drawdown was a disaster to our local economy and environment. Businesses were severely impacted and the river system contiguous to the L/C Valley became a stinking mud hole. Further, drawdown in our valley resulted in undesirable environmental releases from the old landfill on the north side of the river within the Clarkston city limits. We understand that roadways in other parts of the region collapsed as a result of the water being no longer there to support the roads. The implications of this potential solution are more significant than is immediately evident on the surface.
- **Reconfiguring/relocate affected facilities**

8414 Management measures



- It simply is not feasible to relocate the local marinas, or the Ports of Clarkston and Lewiston. Millions of private and public dollars have been invested in marine facilities. Sediment control through periodic dredging is clearly more cost effective than relocating established ports and marinas.
- **Raise Lewiston levees to manage flood risk**
 - Raising the levee system in Lewiston would simply prohibit public access to the Snake and Clearwater Rivers by erecting barriers without addressing sediment accumulation.

We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.

Again, thank you for the opportunity to comment.

Sincerely,



Kevin Poole, Mayor
City of Lewiston

8415 NEPA/Programmatic
Approach



U.S. Army Corps of Engineers, Walla Walla
District
PMSP/EIS, ATTN: Sandra Shelin, CENWW-PM-
PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

August 2014

99362187601



G-243

0027_IUOElocal370

From: [jim_arnett](#)
To: [PSMP](#)
Date: Thursday, February 07, 2013 9:05:01 AM

We (IUOE Local 370) represent over 2000 members and we support dredging to maintain shipping on the Snake and Columbia Rivers. Jim Arnett, 1914 13th Street, Clarkston, WA 99403

8375 general
project support





Confederated Tribes and Bands of the Yakama Nation
Established by the Treaty of June 9, 1855

Post Office Box 151
Toppenish Washington 98948

February 8th, 2013

0028_YakamaNational-CulturalResources

Sandra Shelin,
U.S. Army Corps of Engineers, Walla Walla District
Programmatic Sediment Management Plan
201 North Third Avenue
Walla Walla, WA 99362-1876

Subject: *Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement.*

Dear Ms. Shelin,

Thank you for contacting the Yakama Nation regarding the *Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement*. The proposed project lies in part within the Ceded Lands of the Yakama Nation as outlined in the Treaty of 1855 (12 stat., 951) with the United States Government. The Treaty set forth that Yakama Nation shall retain the rights to resources upon these lands and, therefore, it is with the assistance and backing of the United States Federal Government that Yakama Nation claims authority to protect traditional resources.

The Yakama Nation Cultural Resource Program (YNCRP) has reviewed the draft sediment management EIS plan and request a face to face meeting to address the following concerns.

- Although we understand cultural resource properties within the scope of the management plan have been partially evaluated; it is our understanding that this evaluation is currently incomplete. We have been involved in the ongoing analysis of cultural property studies within these reservoirs and are aware of the incomplete inventory.
- We would like to know what plans will be made to evaluate existing cultural resource properties that are inundated (wet sites) or to identify potential unknown properties that may be present in the inundated portions APE. The Portland District has made such measures for the Umatilla Town Site. The Yakama Nation does not consider all inundated sites as being ineligible. A determination of ineligibility based on inundation alone is not an accepted methodology.
- The presence of Traditional Cultural Properties (TCPs) not only occurs throughout the land adjacent to the river but also occur within the river. The presence of TCPs inundated by the construction of the dams can still be eligible regardless of whether they are inundated. Our ancestors have lived during times when water covered these sacred resources; they hunted, fished, and conducted ceremonies at these locations. They may be

8374
Cultural
resources

8386 Cultural
resources

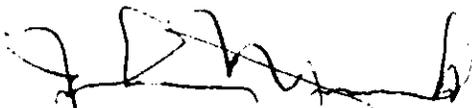
under water today, but they are still significant to our heritage and our way of life. We need to help protect these resources and to secure the reserved rights to those who will be the future of our people. These resources help to define our cultural heritage as Yakama people.

We look forward to meeting with you in order to further discuss our concerns so that we may find the appropriate steps to consider the archaeological and cultural properties contained within proposed undertaking.

If you have questions to that which is written above please feel free to contact me at 509-865-5121 ext. 4737, or CRP Archaeologist Noah Oliver at ext. 4756.

Sincerely,

cultural resources



Johnson Meninick, Program Manager
Cultural Resources Program

CC: Elizabeth Sanchez, Yakama Nation Environmental Program Manager
Jon Shellenberger, Yakama Nation Wildlife Program Archaeologist
Rob Whitlam, Department of Archaeology and Historic Preservation
Scott Hall, Walla Walla District United States Army Corps of Engineers

From: [Jessica Lally](#)
To: [PSMP](#); [Roberts, Alice K NWW](#); [Hall, Scott M NWW](#)
Cc: [Elizabeth Sanchey](#); ["Whitlam, Rob \(DAHP\)"](#); [Jon Shellenberger](#); [Noah Oliver](#)
Subject: Lower Snake River Programmatic Sediment Management Plan DEIS
Date: Friday, February 08, 2013 3:18:32 PM
Attachments: [Lower Snake River Programmatic Sediment Plan DEIS 2-8-2013.pdf](#)

Please see attached comments.

Jessica Lally
Yakama Nation Archaeologist
Cultural Resources Program
509-865-5121 x4766

From: [grundy](#)
To: [PSMP](#)
Subject: Dredging the Snake
Date: Sunday, February 10, 2013 9:55:24 AM

0029_Caldwell

Please do not waste my money in this way...get rid of the dams and let nature recover.

Thank you

Bill Caldwell MD
Moscow Idaho

8368 other; dam
removal





City of Clarkston

City Hall: (509) 758-5541 • Police: (509) 758-1684 • Fire: (509) 758-8681 • Fax: (509) 769-6018

829 5th Street • Clarkston, WA 99403 • www.clarkston-wa.com

0030_CityOfClarkston

February 11, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: PSMP/EIS Comments

Dear Ms. Shelin:

8416 General project support

The City of Clarkston appreciates the opportunity to provide comments on the draft Programmatic Sediment Management Plan (PSMP) and Environmental Impact Statement (EIS). The outcome of the PSMP/EIS has significant impacts to the environment and economy of Lewiston, Idaho and Clarkston, WA.

We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that it is imperative that the Corps of Engineers maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.

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8417 Management measures

h:\corr2013\snakeriversystemstatement.doc



water being no longer there to support the roads. The implications of this potential solution are more significant than is immediately evident on the surface.

- **Reconfiguring/relocate affected facilities**
 - It simply is not feasible to relocate the local marinas, or the Ports of Clarkston, Lewiston and Wilma. Millions of private and public dollars have been invested in marine facilities. Sediment control through periodic dredging is clearly more cost effective than relocating established ports and marinas.
- **Raise Lewiston levees to manage flood risk**
 - Raising the levee system in Lewiston would simply prohibit public access to the Snake and Clearwater Rivers by erecting barriers without addressing sediment accumulation.

We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.

Again, thank you for the opportunity to comment.

Sincerely,

Kathleen A Warren

8418 NEPA/Programmatic
Approach

Kathleen A. Warren: Mayor



City of Clarkston

829 Fifth Street • Clarkston, WA 99403

Return Service Requested

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS

Hasler

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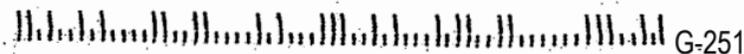


ZIP 99403
011D10610994

U.S. Army Corps of Engineers, Walla Walla Dist.
PSMP/EIS, Attn: Sandra Shelin, CENWW-PM-PD-EC
201 N. 3rd Avenue
Walla Walla, WA 99362-1876

August 2014

99362-1876 C002



G-251



US Army Corps
of Engineers®

0031_Boeckman

Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement COMMENT FORM

Name (please print):	Paula Boeckman		
Organization (if applicable):	US Coast Guard Auxiliary, Hells Canyon Boat Club		
Street Address:	PO Box 397		
City, State, and Zip Code:	Asotin WA 99402		
Telephone:	509-243-1134	E-mail:	pboeckman@tds.net
Preferred method of contact: (CHECK ONE)	<input type="checkbox"/> U.S. mail	<input checked="" type="checkbox"/> E-mail	

Please provide your comments by March 26, 2013.

Please dredge the Asotin Marina!
As USCGA crew members on patrol boats
Asotin Marina would be the ideal place
to stage patrols to the Hells Canyon

8369 Other;
Non-corps managed
facilities



US Army Corps
of Engineers®

Lower Snake River Programmatic Sediment Management Plan

Draft Environmental Impact Statement

COMMENT FORM

Name (please print): PAUL BOECKMAN	
Organization (if applicable): US COAST GUARD AUXILIARY HELLS CANYON BOAT CLUB	
Street Address: P.O. Box 397	
City, State, and Zip Code: ASOTIN, WA 99402	
Telephone: 509 243-1134	E-mail: pboeckman@tds.net
Preferred method of contact: (CHECK ONE) <input type="checkbox"/> U.S. mail <input checked="" type="checkbox"/> E-mail	

Please provide your comments by **March 26, 2013.**

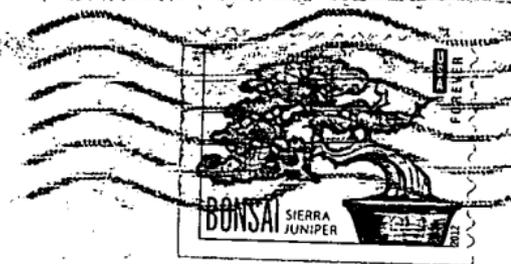
I agree that maintaining the shipping channel is the top priority.
But I strongly urge you to consider to focus on your authorized purpose of recreation. Specifically, the Asotin boat ramp/marina should be brought up to full use. Dredging and redesign are needed.



P. Boeckman
P.O. Box 397
Asotin, WA 99402

SPOKANE WA 990

14 FEB 2012 09:21



U.S. ARMY CORPS OF ENGINEERS
PSMP/EIS ATTN: SANDY SHELIN
201 NORTH THIRD AVE.
WALLA WALLA, WA
99362

August 2014

G-254

99362187601



From: [John Hillman](#)
To: [PSMP](#)
Subject: Attn: Sandy Shelin
Date: Tuesday, February 19, 2013 9:49:29 AM
Attachments: [LSRPSMP.doc](#)
[LSRPSMP.pdf](#)

0032_Hillman

Sandy:

Please include the attached letter to the LSRPSMP. I have attached it in both .doc and .pdf format for your convenience.

Thank you,

JH

John Hillman
1408 13th Avenue
Lewiston, Idaho 83501
(503) 332-2026
johnnyidaho@yahoo.com

As a life-long resident of Lewiston, Idaho and a concerned citizen, it is my duty to comment on the Army Corp of Engineers Lower Snake River Programmatic Sediment Management Plan (LSRPSMP) and Draft EIS.

It is stated in the LSRPSMP that the Federally Authorized purposes of the management plan are to provide a commercial navigational channel, recreational opportunities, as well as fish and wildlife conservation and safety. Alternative 7 is the preferred plan by the Army Corp of Engineers (ACE); however, I have additional questions and concerns that should be addressed by the ACE before giving my support to Alternative 7 or any other proposed Alternative.

Let me briefly address these issues:

8419 Socioeconomics;
transportation

8420 Recreation

Commercial navigation: In my opinion, commercial navigation from the Lewiston and Clarkston ports is no longer necessary. This is an outdated and over-subsidized benefit to the region. Since it was built, the Port of Lewiston has never been a financially independent operation. Annual property taxes have been used to keep the doors of operation open, yet there has been a steady decline in the tonnage of commodity being shipped to and from the port in recent years. There is little reason, financially, to keep the shipping channel operational. Millions of dollars are annually coming from the local economy to keep the ports and lock system operational. Please show definitive evidence that sediment management will financially benefit my community.

Recreational Opportunity: The management plan asserts that dredging is necessary to keep boat basins along the Snake and Clearwater Rivers operational. The Lewis-Clark area is a hub of aquatic recreational opportunity, but the boat basins along the current reservoir are not necessary. Several boat basins have been built along the free flowing sections of the Snake and Clearwater Rivers and it is a fallacy to think that the reservoir is the key to access for these rivers. As an avid recreational rower, I enjoy the benefits of having a reservoir in my back yard, but not at the cost of millions of dollars per year. I would more than willing to find other places to recreate in my rowing shell if it meant saving my community money.

Fish and Wildlife Conservation: It is a well-known fact that the anadromous fish species in the Columbia Basin survive in a free flowing river system. They did it for thousands of years. Barging wild salmonid smolt around the life threatening dams and reservoir does not increase their survivability, and persisting to think that barging should be a critical piece of the recovery process and management is a perverse use of logic. The recovery of native, wild anadromous fish populations stands its best chance of being accomplished by restoring a free flowing river system. It is time to seriously address this issue. How will ACE address the recovery of these quickly disappearing fish populations through the persistence to maintain a costly reservoir?

8421 Aquatic resources; general aquatic
resources

Safety: The LSRPSMP states that it [redacted] they, yet there is no indication as to how this will be provided. The document does not address flood prevention beyond 20 years from now. We can buy time now by raising the levees, but what will happen in 30 or 50 years? Downtown Lewiston is currently threatened by a 100-year flood event, and the preferred alternatives give no indication as to how flood prevention will be provided. Who will be financially responsible for a flood should it occur? Please do not let Lewiston become the next New Orleans.

Although ACE prefers the “all of the above options” provided in Alternative 7, I believe that it falls far short of providing strong evidence as to why the public should support this option as well. Please address my concerns or accept this letter as my strong opposition to the proposed management plan.

8422 Hydrology and
Sediment/Flood Risk Mgmt

- John Hillman
Lewiston, Idaho



United States
Department of
Agriculture

Forest
Service

Region One

Northern Region
200 East Broadway
Missoula, MT 59802

File Code: 2520

Date: FEB 19 2013

0033_USForestServicRegionalForster

Sandy Shelin
U.S. Army Corps of Engineers, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

Dear Ms. Shelin:

Thank you for providing us the opportunity to collaborate in the development of the DRAFT Environmental Impact Statement (DEIS) for the Lower Snake River Programmatic Sediment Management Plan (PSMP). We are pleased that Rocky Mountain Research and National Forest System personnel were able to assist with this effort. Overall we feel the document has done a good job in disclosure. The following are a few suggestions for your consideration to further strengthen the EIS and its Appendices. We have also commented on a few concerns that need to be addressed.

1. The Executive Summary, *Upland Sediment Reduction Measures* states: “For the purposes of this EIS, the expansion or increase of practices beyond current levels of implementation is assumed.” The Forest Service is committed to increasing the rate of restoration of the National Forest System lands. Recently the Forest Service has invested in restoration projects under the Collaborative Forest Landscape Restoration Act, created a Watershed Condition Framework to guide watershed restoration in priority restoration, increased the use of stewardship contracting, partnered with the National Forest Foundation to establish Treasured Landscapes, and pursued a number of other policies to increase the pace of restoration. We will implement these programs within the limits of uncertain budget appropriations. Ongoing activities include road decommissioning, road maintenance, post fire Burned Area Emergency Response (BAER) program that initiates erosion control and road stabilization measures following significant wildfires, and riparian area improvement projects. The results of these programs will vary over space and time.
2. Appendix A Section 4.1 describes the U.S. Army Corps of Engineers monitoring plan. The Forest Service will participate as a cooperator in meetings as appropriate and provide data derived from ongoing monitoring and reporting activities that may be relevant to the PSMP. These could include:
 - a. Burned Area Emergency Response (BAER) assessments of significant fires.
 - b. Miles of road decommissioned or improved and the effectiveness of these practices.

8372
Management
measures
(1 comment)

8373 PSMP



8387
PSMP

3. Appendix A Section 4.2 leaves the impression that every agency or jurisdiction will use the same set of BMPs. The USDA Forest Service has recently published National Best Management Practices for Water Quality Management (Volume 1: National Core BMP Technical Guide FS-990a, April 2012). State agencies, Tribes, and other federal agencies may use slightly different practices. Clarification on this statement may be necessary.
4. Tetra Tech EC, Inc. report on grazing effects on riparian conditions found in Appendix B section 5.1.5 page 37 states that, “Approximately one-third of the National Forest is actively managed for timber or rangeland and much of BLM land is managed for rangeland for a total of approximately 40 percent of the Federal land”. In addition, other land ownerships also graze livestock. Table 40 on page 116 of the Tetra Tech report indicates that several watersheds have high rangeland disturbance ratings, given the large percentage of the study area used for grazing. We suggest that grazing practices may be an area that could be addressed more fully in the document.

Overall, the Forest Service reviewers felt that this was a very thorough analysis and that pertinent project description, geographic setting, issues, and concerns were fully disclosed. Please feel free to contact Bruce Sims, Northern Region 406-329-3447, Brian Staab, Pacific Northwest Region 503-808-2694, Greg Bevenger, Inter Mountain Region 801-625-5755, Bill Elliot Rocky Mountain Research Station 208-883-2338, or Charlie Luce 208-373-4382 Rocky Mountain Research Station if you have further questions.

8388 Hydrology and
sediment: Watershed
Sediment and
production

Sincerely,

for Faye L. Krueger
FAYE L. KRUEGER
Regional Forester

cc: Bruce D Sims, Brian Staab, Greg Bevenger, Charlie Luce, William J Elliot, Linda Ulmer

U.S. DEPARTMENT OF AGRICULTURE

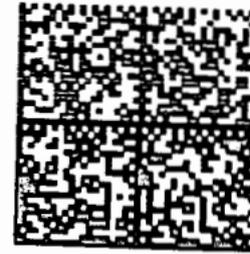
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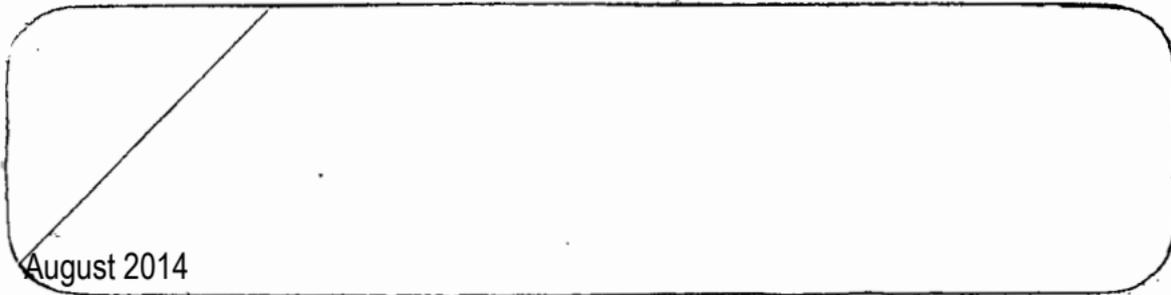
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August 2014

G-259

9936281876 C002



0033_US Forest Service Regional

From: [Sims, Bruce D.-FS](#)
To: [PSMP](#); [Grass, Charlene G \(Contractor\) NWW](#); [Sandy.Shelin@usace.army.mil](#)
Cc: [Luce, Charlie -FS](#); [Staab, Brian -FS](#); [Linda Ulmer](#); [Bevenger, Greg -FS](#); [Elliot, William J -FS](#)
Subject: USDA Forest Service Comments-Snake River Programmatic Sediment Management Plan DEIS
Date: Tuesday, February 19, 2013 2:17:37 PM
Attachments: [2-19-13Comments on Draft EIS.doc](#)

Attached are a few comments for your consideration. Thank you for the opportunity to review this document, we recognized and appreciate the large amount of effort.

Bruce

Bruce Sims
Regional Hydrologist
Northern Region
USDA Forest Service
200 E. Broadway
Missoula, MT 59802
(406) 329-3447
FAX (406) 329-3171

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File Code: 2520

Date: February 19, 2013

Sandy Shelin
U.S. Army Corps of Engineers, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

Dear Ms. Shelin:

Thank you for providing us the opportunity to collaborate in the development of the DRAFT Environmental Impact Statement (DEIS) for the Lower Snake River Programmatic Sediment Management Plan (PSMP). We are pleased that Rocky Mountain Research and National Forest System personnel were able to assist with this effort. Overall we feel the document has done a good job in disclosure. The following are a few suggestions for your consideration to further strengthen the EIS and its Appendices. We have also commented on a few concerns that need to be addressed.

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2. Appendix A Section 4.1 describes the U.S. Army Corps of Engineers monitoring plan. The Forest Service will participate as a cooperator in meetings as appropriate and provide data derived from ongoing monitoring and reporting activities that may be relevant to the PSMP. These could include:
 - a. Burned Area Emergency Response (BAER) assessments of significant fires.
 - b. Miles of road decommissioned or improved and the effectiveness of these practices.

3. Appendix A Section 4.2 leaves the impression that every agency or jurisdiction will use the same set of BMPs. The USDA Forest Service has recently published National Best Management Practices for Water Quality Management (Volume 1: National Core BMP Technical Guide FS-990a, April 2012). State agencies, Tribes, and other federal agencies may use slightly different practices. Clarification on this statement may be necessary.
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Overall, the Forest Service reviewers felt that this was a very thorough analysis and that pertinent project description, geographic setting, issues, and concerns were fully disclosed. Please feel free to contact Bruce Sims, Northern Region 406-329-3447, Brian Staab, Pacific Northwest Region 503-808-2694, Greg Bevenger, Inter Mountain Region 801-625-5755, Bill Elliot Rocky Mountain Research Station 208-883-2338, or Charlie Luce 208-373-4382 Rocky Mountain Research Station if you have further questions.

Sincerely,

/s/ Jane L. Cottrell (for)
FAYE L. KRUEGER
Regional Forester

cc: Bruce D Sims
Brian Staab
Greg Bevenger
Charlie Luce
William J Elliot
Linda Ulmer

Whitman County Commissioners

ART SWANNACK, Lamont, District I
DEAN KINZER, Pullman, District II
MICHAEL LARGENT, Colfax, District III
Email: commissioners@co.whitman.wa.us

Maribeth Becker, CMC, Clerk of the Board
E-mail: maribethb@co.whitman.wa.us

400 N. Main Street • Colfax, WA 99111
(509) 397-5240 • (509) 397-6355 FAX

www.whitmancounty.org



0034_WhitmanCoCommissioner

Date: February 19, 2013

To: U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attention: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, Washington 99362-1876

Subject: Draft EIS of Programmatic Sediment Management Plan

To: U.S. Army Corps of Engineers and Sandy Shelin,

8389 Alternatives

We the Board of Commissioners for Whitman County, Washington wish to express support for Alternative 7- Comprehensive (System and Sediment Management). We believe agencies should always be good stewards of their resources, especially in these times of reduced funding. By utilizing alternative 7, the Corps will have the ability to use all available resources to best solve both immediate and longer term sedimentation problems in the Snake River drainage. This alternative will reduce costs and red tape. The Corps will be able to be innovative and not restricted to only dredging as a fix to the long term issue of sedimentation in the Snake River area. We heartily support Alternative 7.

8366 general support

Sincerely,

The Whitman County Board of Commissioners

Michael Largent
Michael Largent-Chair

Art Swannack
Art Swannack

Dean Kinzer
Dean Kinzer

Appendix G – Public Involvement

Lower Snake River Programmatic, Sediment Management Plan – Final EIS

Whitman County Commissioners

400 N. Main Street • Colfax, WA 99111



Häslar

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02/20/2013

Mailed From 99111

US POSTAGE

ATTN: SANDY SHELIN, CENWW-PM-PD-EC
US Army Corps of Engineers
Walla Walla District
PSMP/EIS
201 North Third Avenue
Walla Walla, WA 99362-1876

August 2014

G-264

99362#1876 C002



From: [Lucy Yanz](#)
To: [PSMP](#)
Subject: managing the lower Snake River
Date: Thursday, February 21, 2013 4:26:39 PM

0035_Yanz

To Whom it May Concern:

Please remove the dams in the Lower Snake, and invest the money spent on their upkeep in the infrastructure to get goods to market a better way. Salmon are important and the hatchery system has not succeeded in mitigating the impacts of dams as had once been hoped. It is time to admit that the environmental cost of the dams is just too high.

Thank you for considering,
Lucy Funkhouser Yanz
6253 Maxwellton Rd
Clinton WA 92836

8370 other; dam
removal





**Port of
Whitman
County**

302 N. Mill St.
Colfax, WA 99111

T / 509.397.3791
F / 509.397.4758

www.portwhitman.com

0036_PortOfWhitmanCo

February 23, 2013

U.S. Army Corps of Engineers, Walla Walla District
PMSP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: PMSP/EIS Comments

Dear Ms. Shelin:

8423 General
project support

The Port of Whitman County appreciates the opportunity to provide comments on the draft Programmatic Sediment Management Plan (PMSP) and Environmental Impact Statement (EIS). The outcome of the PMSP/EIS has significant impacts to the environment and economy of Lewiston, Idaho and Clarkston, WA.

We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PMSP/EIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that maintaining the congressionally authorized 14-ft. navigation channel is a priority for the Army Corp of Engineers. The Ports on the Snake River system are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.

While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures:

- **Modify flows to flush sediments (drawdown)**
 - The Corps of Engineers conducted an operational/structural drawdown of the Snake River in 1992. This experimental drawdown was a disaster to our local economy and environment. Businesses were severely impacted and the river system contiguous to the L/C Valley became a stinking mud hole. Further drawdown in our valley resulted in undesirable environmental releases from the old landfill on the north side of the river within the Clarkston city limits.

8424 Management
measures

We understand that roadways in other parts of the region collapsed as a result of the water no longer being there to support the roads. The implications of this potential solution are more significant than is immediately evident on the surface.

- Reconfiguring/relocate affected facilities
 - It simply is not feasible to relocate the local marinas, or the Ports of Clarkston and Lewiston. Millions of private and public dollars have been invested in marine facilities. Sediment control through periodic dredging is clearly more cost effective than relocating established ports and marinas.
- Raise Lewiston levees to manage flood risk
 - Raising the levee system in Lewiston would simply prohibit public access to the Snake and Clearwater Rivers by erecting barriers without addressing sediment accumulation.

We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.

Again, thank you for the opportunity to comment.

Sincerely,

Port of Whitman County Commissioners

8425 NEPA/Programmatic
Approach

John E. Love, President

Tom Kammerzell, Vice President

Daniel W. Boone, Secretary



**Port of
Whitman
County**

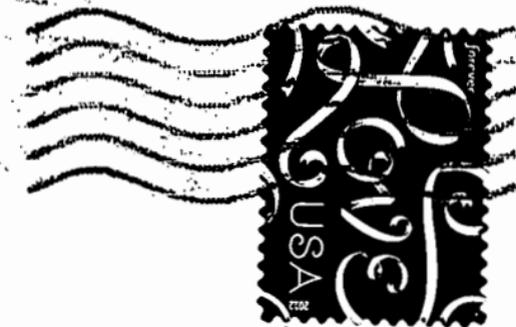
Appendix G – Public Involvement

Lower Snake River Programmatic Sediment Management Plan – Final EIS

302 N. Mill St.
Colfax, WA 99111

SPOKANE WA 990

24 JAN 2013 PM 3 L



U.S. Army Corps of Engineers, Walla Walla District
PMSP/EIS, ATTN: Sandra Shelin
CENWW-PM-PD-ED
201 N Third Avenue
Walla Walla, WA 99362-2876

August 2014

99362187601

99362187601 G268

From: [Rob Rich](#)
To: [PSMP](#)
Subject: PSMP public comment
Date: Thursday, February 28, 2013 10:13:23 AM
Attachments: [PSMP.docx](#)

Hello,

We at Shaver Transportation Company have enclosed our public comment correspondence as well as sending by regular mail.

Thank you for this opportunity.

Best regards, Rob.

Rob Rich

V.P. Marine Services

Shaver Transportation Company

"Providing The Power Since 1880"

Phone: 503-228-8850 Fax: 503-274-7098

Cell: 503-781-7635

e-mail: rdr@shavertransportation.com

www.shavertransportation.com

February 28, 2013

Sandy Shelin, PM-EC
U. S. Army Corps of Engineers
Walla Walla District PSMP/EIS
201 North Third Avenue
Walla Walla, WA 99362-1876

0037_Rich

Dear Ms. Shelin,

I am writing to you on behalf our company, Shaver Transportation Company. We are a 133 year old family owned towboat line that operate a fleet of grain barges and tugs. We serve all Snake River ports and terminals, from Burbank WA to Lewiston ID. Though we transit the Snake River every week, it is not uncommon for us to be loading 3 or 4 barges at a time up and down the area encompassing the PSMP.

Shaver Transportation Company fully supports the position and comments made by PNWA/IPNG. The Snake River navigation system was authorized, constructed and implemented with a minimum 14' barge navigation channel. Periodic maintenance dredging has been successfully performed to keep this most fuel efficient mode of transport efficiently moving. This efficiency was developed around fully loaded barges at 13.5 feet of draft, up to 4 barges per tow, with resultant transport costs that enable producers in the Inland Empire to compete in world markets.

8390 Dredging

It is imperative that areas of shoaling and sedimentation impeding the authorized federal navigation channel be dredged. This clearance also must be extended to allow private terminals and public ports to perform their berth and marina maintenance dredging as well. Allowing further delay only adds to the costs and impacts of the dredging, adds system risk to groundings of tows, and reduces the ability to safely navigate on the river system.

Lighter loading of barges due to draw down or facility reconfiguration or relocation is not an alternative. It significantly increases costs, navigation risks, and doesn't change the fact that the tugs themselves are of fixed draft. These facilities and vessels were purpose built, and their cargo shipped to conform to the inland navigation system and its' unique efficiencies.

8371 NEPA programmatic

We additionally support the Corps' ability to utilize the NEPA analysis of this project to tier off for future maintenance dredging. Regular maintenance dredging, without the continued threat of litigation, is essential to manageable channel maintenance costs and safe navigation-the hallmarks of the Lower Snake River navigation channel.

8391 general support

Sincerely,

Rob Rich, V.P. Marine Services



0038_Port of Walla Walla

310 A Street
Walla Walla Regional Airport
Walla Walla, Washington 99362-2269

Phone: (509) 525-3100 • FAX: (509) 525-3101 • www.portwallawalla.com • www.wallawallaairport.com

March 6, 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Ave
Walla Walla, WA 99362-1876

Re: Comments - Draft PSMP and DEIS

Dear Ms. Shelin:

The Port of Walla Walla Washington has reviewed the Corps of Engineers' Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS). These much anticipated documents provide a necessary way forward towards maintaining a fully functional congressionally authorized federal navigation project. The Columbia/Snake River System is a vital transportation link for the states of Idaho, Montana, Oregon and Washington. The economies of these four states rely on the trade and commerce that flows up and down the most important commercial waterway of the Northwest. Barging on the inland Columbia/Snake River System moves some 10 million tons of cargo valued at \$3 billion annually.

The Port of Walla Walla is uniquely located to facilitate the movement of goods and services thru the Snake River waterway. As an authorized State of Washington Public Port and Municipal Corporation, the Port is responsible for fostering economic development throughout Walla Walla County. Walla Walla County is bounded on the North by the Snake River and on the West by the Columbia River. The Port owns and operates a high dock facility and two barge slips along the Snake River at Burbank Washington. Additionally, thru a Port executed lease with the Corps of Engineers and Northwest Grain Growers, Northwest Grain Growers barges wheat from Sheffler Washington for foreign export. In 2012, 7.9 million bushels of wheat (66 barges) was transported from Sheffler, by barge and destined for foreign markets. A fully functioning year around federal navigation channel from the Snake Rivers' confluence with the

Sandra Shelin
Page 2
March 6, 2013

0038_PortofWallaWalla

Columbia River to Lewiston Idaho is critical to meeting our mission in Walla Walla County.

8376 Dredging → Appendix H of the draft PSMP/EIS adequately characterizes the need for immediate action to restore the Snake River navigation channel to full authorized depths for its entire length. We believe that undertaking immediate dredging is the least cost, environmental sensitive means to restore current diminished authorized navigation depths. Immediate dredging would also remove accumulated sediment that has caused the Corps of Engineers to compromise its Endangered Species Act obligations to maintain to minimum operating pool. We believe the Corps has accomplished sufficient sediment evaluation. Thus, we fully support the Corps' intention to use dredged material to create additional shallow water habitat for juvenile salmonids.

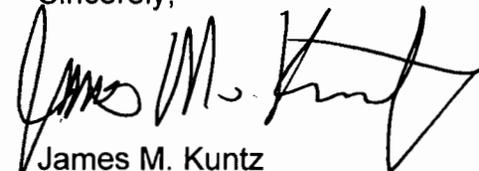
8392 Management Measures →

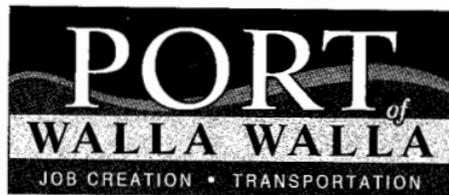
The Port also suggests that final documents clearly identify how the Corps of Engineers intends to use the EIS as the foundation for future maintenance activities. As currently written, we find the document vague on what level of analysis, if any, might be required to support continuous routine maintenance. Ports along the Snake River make long term business decision relying on a fully functional project. It is difficult to develop long term economic development plans if the Corps intends to "reinvent the wheel" each time maintenance activities beyond the proposed dredging action are required.

8377 NEPA programmatic approach →

Finally, we fully endorse the comments provided by the Pacific Northwest Waterways Association.

Sincerely,


James M. Kuntz
Executive Director



310 A Street
Walla Walla Regional Airport
Walla Walla, Washington 99362-2269

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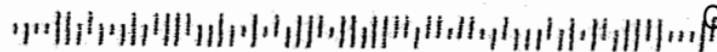


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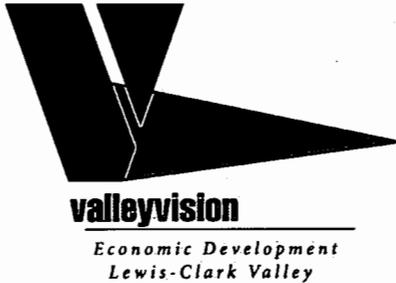
U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Ave
Walla Walla, WA 99362-1876

August 2014

99362-1876



G-273



0039_ValleyVision

March 6, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: PSMP/EIS Comments

Dear Ms. Shelin:

Valley Vision, Inc., is a private non-profit economic development company created by the business community of the Lewiston, Idaho, and Clarkston, Washington Snake River Valley. Our mission is to foster economic growth for our community through actions that improve the business climate. The ability to move freight up and down the Snake River system is paramount to the success of many of our local companies.

Valley Vision appreciates the opportunity to provide comments on the draft Programmatic Sediment Management Plan (PSMP) and Environmental Impact Statement (EIS). The outcome of the PSMP/EIS has significant impacts to the environment and economy of Lewiston, Idaho and Clarkston, WA.

We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia/Snake River System is critical to the natural resource based economies of north central Idaho and eastern south east Washington. We believe that it is imperative that the Corps of Engineers maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting operations. We ask that the Corps of Engineers pursue dredging of the Snake and Clearwater Rivers as soon as possible.

8426
Alternatives

VALLEY VISION, INC.

111 Main street – Ste. 130 Lewiston, ID 83501 (208) 799-9083 FAX: (208) 799-9082

August 2014

e-mail: vvision@lewiston.com web-site: <http://www.lewis-clarkvalley.org>

G-274

8427 Management
measures

We do not support the System Management measure under Alternative 7 to raise the height of the Lewiston Levee. Implementing measures to control sediment buildup, and ongoing maintenance dredging is far more acceptable than additional levee height that would further cut the community off from its historical river access.

We believe it is important that the Corps is able to tier off the current NEPA analysis for future maintenance dredging, so the Corps does not have to start from scratch the next time dredging is needed.

Again, thank you for the opportunity to comment.

Sincerely,



Doug Mattoon
Executive Director
Valley Vision, Inc.
(208) 799-9083

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS



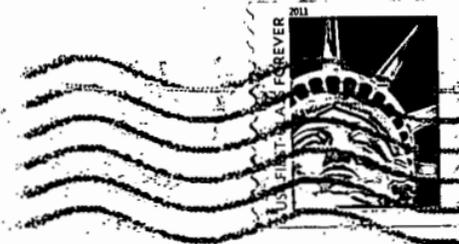
valleyvision

*Economic Development
Lewis-Clark Valley*

111 Main Street - Suite #130 Lewiston, ID 83501

SPOKANE WA 990

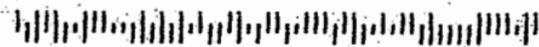
06 MAR 2013 PM 4 L

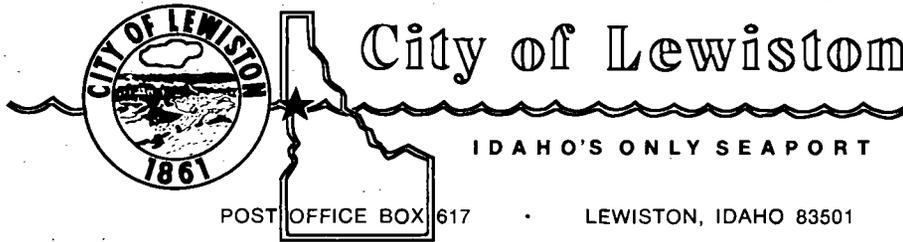


U.S. Army Corps of Engineers, Walla Walla
District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-
PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

August 2014

99362187601





(208) 746-3671

March 1, 2013

0040_CityOfLewiston_VonTersch

U.S. Army Corps of Engineers, Walla Walla District
 PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
 201 North Third Avenue
 Walla Walla, WA 99362-1876

RE: PSMP/EIS Comments

Dear Ms. Shelin:

This letter is intended to serve as public input on the December 2012 Lower Snake River Programmatic Sediment Management Plan, Draft Environmental Impact Statement (The Draft). I submit this letter as a vested resident of the City of Lewiston and as a professional land use planner with strong background in natural resource management, public parks and recreation, economic development and community design.

8428 Alternatives

I have reviewed The Draft and submit for your consideration that none of the alternatives defined in The Draft are the best alternative. The best alternative needs to address the stated "purpose and need" in addition to being in the best interests of the local, affected communities. More disturbingly, the preferred alternative chosen by the Corps (#7, Comprehensive) contains system management measures which are clearly harmful to some very important interests of the local communities. It also contains measures which don't even address the stated "purpose and need" (sediment management), such as raising the Lewiston levees to "manage flood risk," relocating "affected facilities," and reconfiguring "affected facilities."

8429 Alternatives

I submit that the chosen alternative should include the following measures, in order to achieve the stated "purpose and need" without significant detriment to the local communities:

- Navigation objective reservoir management
- Continued upland sediment reduction measures by the Corps; other land managers/owners (at current levels of implementation)
- Expanded implementation of structural and nonstructural sediment reduction measures by other land managers/owners
- ◆ Vegetation filter strips
- ◆ Streambank erosion control
- ◆ Structural forest practices
- ◆ Forest vegetation management



TREE CITY USA

- ◆ Agriculture conservation measures
- Bendway weirs
- Dikes and dike fields
- Agitation to resuspend sediments
- Trapping upstream sediment (in reservoir)
- Navigation and other dredging
- Dredging to improve flow conveyance capacity
- Beneficial use of dredged material
- In-water disposal of dredged material
- Upland disposal of dredged material

8430 Management Measures

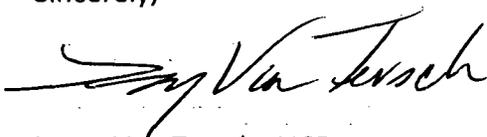
I strongly oppose any alternative which would include the following:

- Modify flows to flush sediments (drawdown)
- Reconfigure affected facilities
- Relocate affected facilities
- Raise Lewiston levees to manage flood risk,

8431 Management Measures

as such measures either do not expressly address the stated purpose and need of The Draft and/or they have significant adverse impacts to the economies and quality of life of the local, affected communities.

Sincerely,



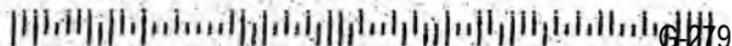
Laura Von Tersch, AICP
Community Development Director



U.S. Army Corps of Engineers, Walla Walla
District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-
PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

August 2014

9936231876 0002



From: [Costello, Terri \(ECY\)](#)
To: [PSMP](#)
Subject: Comments-Draft Lower Snake River Programmatic Sediment Management Plan
Date: Thursday, March 21, 2013 5:02:07 PM
Attachments: [\(Shelin, S\)201205917.pdf](#) **0041_WA_SEPA_Costello**

Comments from:

Terri Costello

SEPA Coordinator

WA State Department of Ecology

4601 N. Monroe Street

Spokane, WA 99205

Email: terri.costello@ecy.wa.gov

Terri

Terri Costello | SEPA Coordinator | Dept of Ecology Eastern Office | (509)329-3550 | Fax (509)329-3529

For more information about the Washington State Environmental Policy Act, go to:

www.ecy.wa.gov/programs/sea/sepa



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

March 21, 2013

Ms. Sandy Shelin
Walla Walla District
U.S. Army Corps of Engineers
201 North Third Avenue
Walla Walla, WA 99362-1876

Re: Draft Lower Snake River Programmatic Sediment Management Plan, PSMP/EIS

Dear Ms. Shelin:

Thank you for the opportunity to comment on the Draft EIS for the Lower Snake River Programmatic Sediment Management Plan (Proponent-U.S. Army Corps of Engineers). The Department of Ecology has reviewed the documents and submits the following comments:

Water Quality Program

The following comments address the proposed immediate dredging action and meeting water quality requirements.

Monitoring & Operations

The plan states a spill prevention, control, and countermeasures (SPCC) plan will be in place prior to beginning in-water work. Near real-time water quality monitoring will be employed around dredging and barge disposal sites before, during, and after work to ensure water quality standards are met. The following hypothetical monitoring and operations plan was discussed. If measurements exceed water quality standards over a one hour period, the instrument will be checked for signal noise, debris fouling, or other factors that could alter performance. If the threshold is exceeded again the following hour, additional steps will be taken to verify the instrument is functioning properly. If the threshold is exceeded again the next hour (3 hrs after first exceedance), operations will be adjusted and monitoring will continue. If water quality standards continue to be exceeded, dredging would cease until water quality meets standards again. The proposed monitoring and operations plan calls for waiting at least 3 hrs after water quality standards are violated to make adjustments to operations. The plan should call for altering dredging operations as soon as water quality standards are violated and simultaneously

Water quality, and sediment quality; water quality (comment continued on next page)

Ms. Sandy Shelin, PM-EC
March 21, 2013
Page 2

8452 Water quality, and sediment quality; water quality (comment continued from previous page)

working to determine if the operation is causing the exceedance, or if there is a problem with the monitoring equipment.

Turbidity:

8453 Dredged materials disposal

Dredge spoils will either be dumped in one mass from the bottom of a barge, or pushed off the barge deck with a dozer. Placing the spoils in water in large aggregations should reduce turbidity by reducing surface area available for water and sediments to mix. Spoils will be placed along the shoreline in shallow water which should reduce the opportunity for turbidity plumes to be carried downstream. The majority of sediments (>90%) are sand and cobble with low silt content. The low silt content should reduce the chances of turbidity plumes from dredging and spoils disposal activities.

Temperature:

High summer water temperatures are a concern in portions of the Snake River. The plan states temperatures are unlikely to be affected by dredging and in water spoils disposal. This is likely true since dredging will occur in winter and will not increase the surface area of the reservoirs, reduce riparian shading, or reduce flows.

Toxics:

The plan states that sediments in dredge areas were tested for contamination in 2011 and sediments at all sites met U.S. Army Corps of Engineers 2009 sediment evaluation framework (SEF) and 2012 Ecology draft sediment management standards (SMS) for unconfined open in-water disposal. The majority of sediments (>90%) are sand and cobble with low silt content which will reduce risks from toxics since they tend to accumulate in fine sediment. However, the majority of sediment analyses were performed at the Port of Lewiston, Port of Clarkston, and Ice Harbor Navigation Lock Approach. The proposal calls for dredging 14,350 CY of sediments from these three sites (<4% of sediments proposed for dredging) and 406,595 CY of sediments from the federal navigation channel at the confluence of the Snake and Clearwater Rivers. Only one sediment sample was collected in this vicinity, Clarkston Bend, and it was not tested for toxics. Dredging at the Snake-Clearwater confluence represents over 96% of the proposed dredging. Neglecting to collect and analyze more sediment samples at the Snake-Clearwater confluence is a concern. More sampling should take place at this site prior to performing dredging. Toxaphene was not included in the toxics testing. This banned chlorinated pesticide has 303(d) listings in the Snake River and has been found in many southeast Washington streams. Toxaphene should be included in any future toxics testing.

pH:

8454 Water quality, and sediment quality; sediment quality

pH is typically altered by nutrient inputs to surface waters that cause algal blooms during the summer months. Dredging will occur during the winter months which makes algal blooms unlikely. The

Ms. Sandy Shelin, PM-EC
March 21, 2013
Page 3

sediments proposed for dredging are primarily composed of sand and cobble and have low silt content. Silts tend to accumulate nutrients, particularly phosphorus. The low silt content makes it unlikely that nutrient inputs will be increased through resuspension of sediments through dredging and spoils disposal activities; therefore, pH should not be affected.

Dissolved Oxygen:

9072 Environmental laws and regulations

Dissolved oxygen concentrations are typically altered by nutrient inputs to surface waters that cause algal blooms during the summer months as well as temperature increases from reduced shading, reduced flows, and increases in surface area of water exposed to the sun. The dredging activities proposed will not increase the surface area of the reservoirs, reduce riparian shading, or reduce flows, so they shouldn't affect water temperatures or dissolved oxygen levels.

Additionally, any future in-water projects (i.e. bendway weirs, sediment traps, agitation, etc.) should be reviewed by Ecology for potential water quality impacts prior to commencing work.

If you have questions or concerns, please contact Mike Kuttel, Jr. at (509) 329-3414.

State Environmental Policy Act (SEPA)

Ecology's comments are based upon the information submitted for review. As such, they do not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

Sincerely,



Terri Costello
SEPA Coordinator
Phone: (509) 329-3550
Email: temi461@ecy.wa.gov

201205917

From: [Vicki Anderson](#)
To: [PSMP](#)
Subject: DREDGING
Date: Wednesday, March 20, 2013 3:12:43 PM

0042_Anderson

ABSOLUTELY NOT!!!!!!!!!!!!!!!!!!!!

8455 General Project
Opposition



BRIAN SHINN
COMMISSIONER, FIRST DISTRICT

JIM JEFFORDS
COMMISSIONER, THIRD DISTRICT



P.O. BOX 250
ASOTIN, WASHINGTON 99402-0250
PHONE (509) 243-2060
FAX (509) 243-2005

JIM FULLER
COMMISSIONER, SECOND DISTRICT

VIVIAN BLY
CLERK OF THE BOARD/BENEFITS

March 11, 2013

0043_AsotinCoCommission

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla WA 99362-1876

re: PSMP/EIS Comments

Dear Ms. Shelin:

The Board of Commissioners for Asotin County appreciates the opportunity to provide comments on the draft Programmatic Sediment Management Plan (PSMP) and Environmental Impact Statement (EIS). The outcome of the PSMP/EIS has significant impacts to the environment and economy of Lewis-Clark Valley, of which Asotin County is a part.

We support navigation to the inland seaports on the Snake/Columbia River system. We know that a properly functioning river deposits sediment during the spring run-off and/or summer storm cells within the watersheds (natural events). Having the ability to remove the build-up of sediment in areas that could, in the future, affect infrastructure or human life is warranted. We appreciate the comprehensive examination undertaken by the U.S. Army Corps of Engineers (USACE) to examine depositional areas and formulate long term solutions so that navigation from our valley to the Pacific Ocean and beyond can continue effectively and efficiently.

We believe that USACE has properly identified a range of alternatives and assigned the right priority to navigation solutions that allow for continued barging, as well as providing for safety (flood control) for the Clarkston/Lewiston valley. We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia/Snake River System is critical to transportation movement in north central Idaho and eastern south east Washington. We believe that it is imperative that USACE maintain the Congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are experiencing shallow draft and conditions that are affecting freight moving operations.

8456
Alternatives

Ms. Sandra Shelin
March 11, 2013
Page 2

8457 Management measures

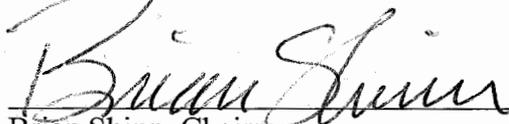
While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures:

- **Modify flows to flush sediments (drawdown):** USACE conducted an operational/structural drawdown of the Snake River in 1992. This experimental drawdown was a disaster to our local economy and environment. Further, drawdown in our valley resulted in undesirable environmental releases from the old landfill on the north side of the river within the Clarkston city limits. Downriver Road on the north side of the Snake River (partially in Whitman County, WA and partially in Nez Perce County, ID) suffered damage as a result of the water being no longer there to support the roadway. The implications of this potential solution are more significant than is immediately evident on the surface.
- **Reconfiguring/relocate affected facilities:** It simply is not feasible to relocate the local marinas, or the Ports of Clarkston, Lewiston and Wilma. Millions of private and public dollars have been invested in marine facilities. Sediment control through periodic dredging is clearly more cost effective than relocating established ports and marinas.
- **Raise Lewiston levees to manage flood risk:** Raising the levee system in Lewiston would simply prohibit public access to the Snake and Clearwater Rivers by erecting barriers without addressing sediment accumulation.
- **Programmatic approach to permitting for dredging:** We believe it is important that USACE be able to tier off the current NEPA analysis for future maintenance dredging, so USACE does not have to start from scratch the next time dredging is needed. (This is addressed in Appendix A.)

With regard to addressing a special affect area—slightly outside the programmatic initiative--we urge USACE to pursue dredging at the confluence of the Snake and Clearwater Rivers as soon as possible.

Again, thank you for the opportunity to comment.

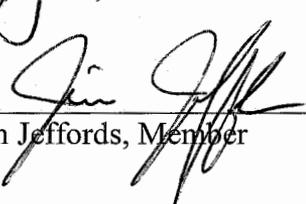
Sincerely,
ASOTIN COUNTY BOARD OF COMMISSIONERS



Brian Shinn, Chairman



Jim Fuller, Vice Chair

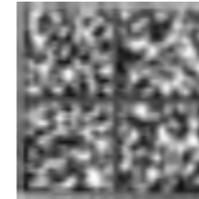


Jim Jeffords, Member

(B)



**BOARD OF COMMISSIONERS
HUMAN RESOURCES DEPARTMENT**
P.O. BOX 250
ASOTIN, WA 99402



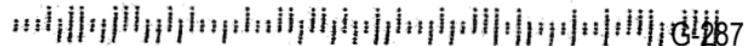
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U.S. Army Corps of Engineers
Walla Wall District
201 North Third Avenue
Walla Walla WA 99362-1876
attn: Sandra Shelin

August 2014

99362-1876 0002



GL287

0044_Beattie

From: [JANE H BEATTIE](#)
To: [PSMP](#)
Subject: Lower snake river dredging
Date: Friday, March 15, 2013 6:41:28 PM

8458 Costs and Funding

8459 Costs and funding

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad.

The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round. Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8460 Aquatic resources; threatened and endangered species (aquatic)

8461 Hydrology and sediment; watershed sediment production

From: [Shelin, Sandy L NWW](#)
To: [Grass, Charlene G \(Contractor\) NWW](#)
Subject: RE: Public Notice - Snake/Clearwater nav dredging (UNCLASSIFIED)
Date: Monday, March 18, 2013 3:46:04 PM

0045_BentonCoPublicWorks

Classification: UNCLASSIFIED
Caveats: NONE

Charlene,

Would you please make a pdf of the County's e-mail to you and include it in the comments folder on V drive?

Thanks.

Sandy

-----Original Message-----

From: Grass, Charlene G (Contractor) NWW
Sent: Monday, March 18, 2013 8:41 AM
To: Shelin, Sandy L NWW
Subject: FW: Public Notice - Snake/Clearwater nav dredging

Forwarded to you.

Charlene Grass
Contractor
Technical Information Processing
509-527-7437

8462 General project support

-----Original Message-----

From: Sue Schuetze [<mailto:Sue.Schuetze@co.benton.wa.us>]
Sent: Monday, March 18, 2013 8:38 AM
To: Grass, Charlene G (Contractor) NWW
Subject: RE: Public Notice - Snake/Clearwater nav dredging

Benton County Public Works, Courthouse, Prosser, WA has no comments on this proposal.

From: Grass, Charlene G (Contractor) NWW [<mailto:Charlene.G.Grass@usace.army.mil>]
Sent: Monday, March 11, 2013 12:21 PM
To: Grass, Charlene G (Contractor) NWW
Subject: Public Notice - Snake/Clearwater nav dredging

Attached are the Public Notice and the Notice of Application for Water Quality Certification for the immediate need navigation dredging the Walla Walla District Corps of Engineers is proposing to perform in the lower Snake River and lower Clearwater River as soon as the winter of 2013/2014. This action is addressed in the Corps' Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS). The comment period for the Draft PSMP/EIS closes March 26. However, the Public Notice provides two additional opportunities for the public to comment on the water quality aspects of the proposed dredging project.

Public comments to the Corps about Section 404 requirements for the dredging and in-water disposal of dredged materials are due no later than April 11, 2013. Comments may be emailed to

psmp@usace.army.mil or sent via U.S. Mail to U.S. Army Corps of Engineers, Walla Walla District, PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC, 201 N. 3rd Avenue, Walla Walla, WA 99362-1876. U.S. Mail comments must be postmarked by April 11.

Public comments to the Washington Dept. of Ecology about Section 401 water quality certification are also due no later than April 11, 2013. Comments may be emailed to ecyrefedpermits@ecy.wa.gov or sent via U.S. Mail to Washington Department of Ecology, ATTN: Federal Permit Coordinator – SEA Program, P.O. Box 47600, Olympia, WA 98504-7600. U.S. Mail comments must be postmarked by April 11.

If you have questions or need more information, please contact Ms. Sandy Shelin, Environmental Coordinator, at (509) 527-7265 or Mr. Richard Turner, Project Manager, at (509) 527-7625.

Sandy Shelin
Environmental Resources Specialist
Walla Walla District
Corps of Engineers
(509) 527-7265

Sent on behalf of Sandy Shelin by Charlene Grass
Contractor to Walla Walla District

Classification: UNCLASSIFIED
Caveats: NONE

From: [Jeremy Boswell](#)
To: [PSMP](#)
Subject: Lower Snake Dredging
Date: Friday, March 15, 2013 5:59:35 PM

0046_Boswell

To whom it may concern,

8463 Costs and funding

I am writing you in regards to the proposed dredging on the Lower Snake River. I am in opposition to the proposed dredging. The proposed dredging is waste of limited federal tax dollars and the Corps should conduct an honest cost-benefit analysis. Also, the effects of the dredging has a negative impact on reservoirs and threatens Endangered Species Act especially relating to salmon and steelhead.

Finally, why would any government agency want to spend a bunch of money to increase flood risk to its citizens? Lewiston could possible flood due to your actions, due you really want to take that risk?

Please use common sense and eliminate the proposed dredging plan. Thank you for your time.

Jeremy Boswell
White Cloud Rafting
1-800-571-7238

8465 Hydrology and
Sediment; Flood Risk
Mgmt.

8464 Aquatic resources; threatened and
endangered species (aquatic)

From: [Richard Carr](#)
To: [PSMP](#)
Cc: [Congressman Mike Simpson](#); [Senator Mike Crapo](#)
Subject: Lower Snake Dredging
Date: Friday, March 15, 2013 2:50:43 PM

0047_Carr

Dear Corp of Engineers –

First let me say that I am a retired civil engineer. And I am against the massive dredging project on the lower Snake River.

1. Dredging the lower Snake River at an annual cost of over \$3 million does not make economic sense to me. The cost benefits simply do not work.

2. In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad.

3. The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

Thank you for your consideration.

Richard Carr

8466 Costs and funding

8468 Aquatic resources;
threatened and endangered
species (aquatic)

8467 Costs and
Funding

From: [Ann Christensen](#)
To: [PSMP](#)
Subject: Dredging sediments from the lower Snake River
Date: Friday, March 15, 2013 9:09:24 PM

0048_Christensen

To whom it may concern,

8469 Costs and
funding

I am concerned about the Army Corps of Engineers' draft plan to remove sediment from the lower Snake River. As money is being cut in so many areas of government, I urge you to do a common-sense cost benefit analysis to determine that the benefits of this dredging outweigh the \$3.2 million per year costs. This subsidy of almost \$20,000 per barge on the lower Snake River seems outrageous since the cargo could be moved much more economically by the existing railroad.

Dredging has environmental consequences, including the dumping of the spoils. Damage to the habitat of endangered salmon and steelhead stocks must be considered in this decision. This cost must be added to the obvious ones.

Please know that tax payers do not want their hard earned dollars squandered on dredging.

--
Ann Christensen
PO Box 8000
Ketchum, ID 83340
208-726-3668
208-720-8183 (mobile)
2annchris@gmail.com

8470 Aquatic resources;
threatened and endangered
species (aquatic)

From: [Bruce Collier](#)
To: [PSMP](#)
Subject: Lower Snake dredging
Date: Sunday, March 17, 2013 9:20:28 AM

0049_Collier

Gentleman:

8471 Costs and
funding

It certainly seems disproportionately expensive to dredge the lower Snake to facilitate the minimal barge traffic. There is a high cost in taxpayer money and a high price in environment degradation. Please consider your options very carefully.

Thank you,

Bruce Collier
KNEELAND, KORB, COLLIER & LEGG PLLC
128 Saddle Road, Suite 103
Post Office Box 249
Ketchum, Idaho 83340
Telephone (208) 726-9311
Facsimile (208) 726-4515

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From: [Veronica Erbe](#) 0050_Erbe
To: [PSMP](#)
Subject: Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement
Date: Saturday, March 16, 2013 12:11:13 PM

Veronica Erbe
5504 SE 136th Avenue
Portland, OR 97470

March 11, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876
psmp@usace.army.mil

RE: Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement, Evaluation of aquatic biological resources, specifically wetlands.

Greetings:

My name is Veronica Erbe and I am a student at Portland State University taking an Environmental Impact Assessment class. It has been my task to review how the Corps addressed the wetlands attribute of the above-mentioned EIS. I understand that this is a draft EIS, which is often not as detailed as a final EIS. I also understand that this region is semi-arid and located in a geographic region that is not conducive to wetlands except in riparian areas on the river, which has been altered by over a century of damming, and also now to areas behind dams.

8472 Terrestrial
Resources/Wetlands

It was extremely hard to determine how well the Corps addressed the wetlands portion of the assessment. This was surprising considering the USACE's involvement in this area. Although assessments of potential wetlands impacts are made throughout the document, there is not a section that pertains only to wetlands. I did not find a map indicating where the wetlands existed but did find in Appendix L the proposal of Knoxville Canyon as a potential site for creation of a shallow water habitat from sediment disposal. No impacts from this action were indicated other than improvement in habitat for threatened and endangered migrating salmonid juveniles. How pre-existing conditions were determined was not given; however, I did find some information scattered throughout the document that indicated some of the pre-existing conditions. Some predictions of impacts were able to be found by reading through other sections. Determinations of significant impacts also had to be found by reading through many sections of the document. Finally, no specific mitigation for wetland impacts was

found. ← 8473 Terrestrial Resources/Wetlands

I believe that it would have been easier to inform the public about this proposal and gather their input if wetlands considerations had been addressed under a separate heading which showed the models used to identify and assess impacts.

Sincerely,

8474 Terrestrial resources; wetlands

Veronica Erbe

From: [Erbeveronica](#)
To: [PSMP](#)
Subject: Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement
Date: Saturday, March 16, 2013 12:16:52 PM

Veronica Erbe
5504 SE 136th Avenue
Portland, OR 97470

March 11, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876
psmp@usace.army.mil

RE: Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement, Evaluation of aquatic biological resources, specifically wetlands.

Greetings:

My name is Veronica Erbe and I am a student at Portland State University taking an Environmental Impact Assessment class. It has been my task to review how the Corps addressed the wetlands attribute of the above-mentioned EIS. I understand that this is a draft EIS, which is often not as detailed as a final EIS. I also understand that this region is semi-arid and located in a geographic region that is not conducive to wetlands except in riparian areas on the river, which has been altered by over a century of damming, and also now to areas behind dams.

It was extremely hard to determine how well the Corps addressed the wetlands portion of the assessment. This was surprising considering the USACE's involvement in this area. Although assessments of potential wetlands impacts are made throughout the document, there is not a section that pertains only to wetlands. I did not find a map indicating where the wetlands existed but did find in Appendix L the proposal of Knoxville Canyon as a potential site for creation of a shallow water habitat from sediment disposal. No impacts from this action were indicated other than improvement in habitat for threatened and endangered migrating salmonid juveniles. How pre-existing conditions were determined was not given; however, I did find some information scattered throughout the document that indicated some of the pre-existing conditions. Some predictions of impacts were able to be found by reading through other sections. Determinations of significant impacts also had to be found by reading through many sections of the document. Finally, no specific mitigation for wetland impacts was found.

I believe that it would have been easier to inform the public about this proposal and gather their input if wetlands considerations had been addressed under a separate heading which showed the models used to identify and assess impacts.

Sincerely,

Veronica Erbe

Erbeveronica
erbeveronica@aol.com

From: [Michael Hinman](#)
To: [PSMP](#)
Subject: Dredging the Snake
Date: Friday, March 15, 2013 3:04:01 PM

8475 Dredging

0051_Hinman

8476 Costs and funding

I am totally opposed to dredging the Snake river. Please do a real cost benefit analysis of this ridiculous idea. The money would be better spent to remove the dams and restore a free flowing river that may allow for recovery of the salmon and steelhead runs. During this time of budget crisis there is no way any federal money should be wasted on such a ridiculous and never ending project as digging sludge out of the river for a cost ineffective port. Thankyou for considering my comments. Mike Hinman 651 J St Idaho Falls ID 83402

From: atlatl_1@yahoo.com howard
To: [PSMP](#)
Subject: COE Draft LSRPSMP and Draft EIS comments
Date: Friday, March 22, 2013 12:39:53 PM
Attachments: [Lower Granite Dam Dredging comments EIS.docx](#)

0052_Howard

Attached are my official comments for the record concerning subject action of dredging near Lewiston, Idaho with the Lower Snake River..Lower Granite Dam pool for the purposes of improving barging transportation.

Rich Howard
"Never give up on the sagebrush sea."

March 22, 2013

To: Walla Walla District, Army Corps of Engineers

Subject: Army Corps' Draft Lower Snake River Programmatic Sediment Management Plan and Draft EIS (LSRPSMP and DEIS)

I'm submitting my official comments for the record concerning subject action and document. I am extremely concerned about federal efforts to initiate and complete the proposed actions as it will affect both salmon and steelhead runs into the Snake and other tributaries..i.e. Salmon River, Lochsaw River, South Fork Clearwater, Selway River.

The LSRPSMP and justifying DEIS document are deeply flawed and contain serious inaccuracies and institutionally driven cultural biases that imbedded within the COE and BPA way of conducting business. The subject documents fail to provide the clear, critical information I need as a citizen and taxpayer about the direct and indirect impacts that navigation corridor maintenance has on salmon and steelhead over 5, 10, 30, 50 year time periods. Though the report has huge numbers of pages, the information presented fails to clearly and accurately detail the status and entire economic cost cycle of barging transportation on the lower Snake River when compared to other transportation options in the lower Snake River corridor.

8477 Aquatic resources; threatened and endangered species (aquatic)

8478 Costs and Funding

Below are specific LSRPSMP deficiencies that must be address in the Final EIS:

Dredging sediment is harmful to salmon and steelhead no matter what the season.

The DEIS needs to examine the option of deauthorization of the four lower Snake River dams and conduct a thorough cost analysis of transportation alternatives besides barging.

The DEIS fails to adequately address and incorporate the intensifying impacts from climate change.

8479 Climate change

The DEIS fails to accurately assess if lower Snake River dredging...along with operations and maintenance of the water barging transportation system is actually a high funding priority for the COE and the Northwest in an era of sequestration, project backlogs, and tighten federal fiscal resources. At the very least the Corps must include in the final EIS a full cost-benefit analysis of dredging the lower Snake over the next 20 and 50 years.

There should also be mention in the Final EIS as to how the above actions may affect the re-negotiation of the Flood Control Act of 1950 between Canada and the U. S.

Remember, “change happens by listening and then starting a dialogue with the people who are doing something you don’t believe is right.” Jane Goodall

Thank you for the opportunity to submit these comments for the official record for the LSRPSMP and Dredging Draft EIS.

8481 Environmental laws
and regulations

8480 Costs and
funding

Sincerely,

Rich Howard

3511 South Bayporte Pl.

Boise, ID 83706

From: atlatl_1@yahoo.com howard
To: [PSMP](#)
Subject: COE Draft LSRPSMP and Draft EIS....my official comments on these documents
Date: Friday, March 22, 2013 12:47:09 PM
Attachments: [Lower Granite Dam Dredging comments EIS.docx](#)

Attn: Sandra Shelen, CEN WW-PM-PD-EC
US COE, Walla Walla District, PSMP/EIS

Attached are my official comments for the record concerning subject action documents.

Rich Howard
"Never give up on the sagebrush sea."

March 22, 2013

To: Walla Walla District, Army Corps of Engineers

Subject: Army Corps' Draft Lower Snake River Programmatic Sediment Management Plan and Draft EIS (LSRPSMP and DEIS)

I'm submitting my official comments for the record concerning subject action and document. I am extremely concerned about federal efforts to initiate and complete the proposed actions as it will affect both salmon and steelhead runs into the Snake and other tributaries..i.e. Salmon River, Lochsaw River, South Fork Clearwater, Selway River.

The LSRPSMP and justifying DEIS document are deeply flawed and contain serious inaccuracies and institutionally driven cultural biases that imbedded within the COE and BPA way of conducting business. The subject documents fail to provide the clear, critical information I need as a citizen and taxpayer about the direct and indirect impacts that navigation corridor maintenance has on salmon and steelhead over 5, 10, 30, 50 year time periods. Though the report has huge numbers of pages, the information presented fails to clearly and accurately detail the status and entire economic cost cycle of barging transportation on the lower Snake River when compared to other transportation options in the lower Snake River corridor.

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There should also be mention in the Final EIS as to how the above actions may affect the re-negotiation of the Flood Control Act of 1950 between Canada and the U. S.

Remember, “change happens by listening and then starting a dialogue with the people who are doing something you don’t believe is right.” Jane Goodall

Thank you for the opportunity to submit these comments for the official record for the LSRPSMP and Dredging Draft EIS.

Sincerely,

Rich Howard

3511 South Bayporte Pl.

Boise, ID 83706

From: [john karpenko](#)
To: [PSMP](#)
Subject: Dredging the Lower Sanke For Barge traffic and Inland Ports
Date: Friday, March 15, 2013 2:57:05 PM

0053_Karpenko

At a time when everything is on the table in terms of government funding it seems absurd to continue to provide welfare for the inland ports and barge traffic on the Snake River/Columbia system. Not only do I oppose the welfare for the barge industry I am also very sensitive to the aquatic life. We are supposedly trying to do everything we can to sustain the salmon and steelhead populations and dredging has proven to be detrimental to these species and many others. Please reconsider this subsidy. I stand oppose to it. Thank you for taking the time to read and weigh my opinion in this matter.

John J. Karpenko
11457 N Summit Loop
Hauser, Idaho
83854

8483 Aquatic resources;
threatened and endangered
species (aquatic)

8482 Costs and Funding

From: [Jo](#)
To: [PSMP](#)
Subject: U.S. Army Corps of Engineers, Walla Walla District
Date: Friday, March 15, 2013 10:41:00 PM

0054_Kirkpatrick

To:

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS

ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue

Walla Walla WA 99362-1876

Dear USAC of E,

You have come up with a draft plan to remove sediment from the lower Snake River corridor at an ongoing cost to taxpayers of \$3.2 million per year in the Lewiston Area.

8484 Costs and Funding

Pursuant to the public comment period, I submit that you have not done the job properly. You need to first do a cost-benefit analysis of this project as part of the EIS for the following reasons:

a) In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines IF the benefits of this proposal outweigh the costs.

b) The effects of dredging, including dumping dredge spoils into the reservoirs, will threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round. Dredging on this order of intensity will result in worse damages than what the silt is doing now.

PRESERVE OUR HABITAT AND NATURAL RESOURCES FROM COMMERCIAL DEMANDS.

Respectfully submitted,

Joanna Kirkpatrick, PhD
Retired
2005 N 17th ST
Boise, ID 83702

8485 Aquatic resources; threatened and endangered species (aquatic)

0055_Knudtsen

From: [karen.knudtsen](#)
To: [PSMP](#)
Subject: Lower Snake Dredging
Date: Friday, March 15, 2013 7:02:15 PM

8486 Costs and funding

Please rethink this project. It seems to be outrageously expensive and fiscally not sustainable. I think an HONEST cost benefit analysis needs to be done. Rail transportation might be a much less costly approach and less threatening to the already endangered salmon. Rally, the cost is ridiculous! I smell a fish here!

Sincerely,

Karen Knudtsen
Boise, Idaho 83703

From: [Tom Kovalicky](#)
To: [PSMP](#)
Subject: Dredging the Snake
Date: Friday, March 15, 2013 4:24:27 PM

8487 Costs and
funding

0056_Kovalicky

Please do a cost Benefit Analysis for your Proposed Dredging Operation on the Snake River...And
Please do not forget Salmon, we really need them economically..... tomkovalicky PO BOX 48
Grangeville, Idaho

From: [Roberta Larsen](#)
To: [PSMP](#)
Subject: Dredging/barging vs. railway
Date: Friday, March 15, 2013 3:59:47 PM

0057_Larsen

Gentlemen:

Please stay away from unwarranted, costly, unnecessary and heedless dredging. Just because it can be done doesn't mean it's the best solution.

* In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

Roberta Larsen
PO Box 578
Coeur d'Alene ID 83816
208.664.6215 208.659.1986

8488 Costs and
funding





**Nez Perce County
Brammer Building
Lewiston, Idaho 83501**

0058_NezPerceCoWaterwaysCom

March 5, 2013
U.S Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CEMWW-PM-PD-EC
201 North Avenue
Walla Walla, WA 99362-1876 email: psmp@usace.army.mil

Ms. Shelin,

8489 Non-Corps
Managed Facilities

We are submitting these comments on behalf of the Nez Perce County Waterways Committee, concerning the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement issued December 2012. Sediment management, including dredging has a direct effect on our river.

The Lewiston Clarkston area is subject to large amounts of sediment. When the water slows in areas, sediment accumulates. These sediment areas are often times in front of or in channels entering marinas, and boat docks used by private and commercial boaters alike. It is imperative that these channels remain open for safety to the American boating/ watercraft citizens.

We are of the opinion that the plan must include dredging of all necessary areas, including Marinas and not restricted to just the port areas. Water recreation safety and the economy of our community would be very much negatively affected if these areas are not kept open and safe for all users.

We support most of the measures listed for Alternative 7 with two exceptions:

1. Raising the levees should be a last resort. The cost would be enormous and the heightened levees would further detach our communities from the river.
2. The plan should encompass all of the navigation infrastructure including marinas, not just the ports.

We appreciate your consideration of our comments and would like to be informed as this process moves ahead.

Sincerely,

D. Richard Wyatt PE
Chairman
CC: Doug Havens NPCC Chairman

8491 Non-Corps
managed facilities

8490 Management
measures



**Nez Perce Waterways Committee
Brammer Building
Lewiston, Id 83501**



**071V00691940
83501
000001314**



**U.S. Army Corps of Engineers
Walla Walla District , PSMP/EIS
ATTN: Sandy Shelin CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla Washington 99362-1876**

August 2014

G-311

From: [Jerry Nielsen](#)
To: [PSMP](#)
Subject: Snake River channel dredging
Date: Friday, March 15, 2013 2:52:42 PM

0059_Nielsen

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS
ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla WA 99362-1876

Dear Ms. Shelin,

Warren Buffet, the second richest person in America, just bought the BNSF railroad.

Mr. Buffet didn't purchase BNSF because he has a burning desire from his childhood to be a railroad engineer. He purchased the railroad because it is the most cost effective method of transporting raw materials, manufactured goods, consumer merchandise, and a variety of imports, both containerized and loose. Mr. Buffet's vision includes hauling coal from the mines in Wyoming, agricultural products from the heartland of America, automobiles after they arrive in our ports from factories located around the world, and the myriad of consumer goods manufactured around the Pacific Rim.

Mr. Buffet isn't purchasing barges because they are a poor investment in the future of shipping. They are limited in their application, they are ineffective, and they require public infrastructure that is far more costly than can be justified through their use. At a cost of almost \$20,000.00 per barge, spending \$3,200,000.00 per year to dredge the Snake River channel near Lewiston, Idaho, is a bad idea. And to make a bad idea even worse, the environmental consequences of disposing of the dredged sediments will grow exponentially over time.

It is time to abandon the notion that the Port of Lewiston can ever be a cost effective port and it is time to stop wasting tax payer dollars to subsidize a poor method of shipping goods from 400 miles inland.

Sincerely,
Jerry Nielsen

4990 Lakes Edge Place
Garden City, Idaho 83714
(208) 629-5199

8492 Costs and funding

8493 Dredged materials disposal

From: [Sheryl Nims](#) 0060_Nims
To: [PSMP](#)
Subject: dredging
Date: Thursday, March 21, 2013 2:39:53 PM

8494 Costs and funding

Sandra,
We're concerned about the Army Corp of Engineer's plan to do a major dredging at the confluence of the Snake and Clearwater Rivers to facilitate barging. There are several points for consideration, one of which is the actual cost of the dredging, and benefits. Another is that there is actually less need for barging, with the trains available. So the importance of barging is less important, given that .1 of 1% of waterborne commerce uses this system. The other major consideration is the effect on salmon of the dredging process. The salmon are already stressed by the locks and dams.

Please note that this is a private business supplemented by lots of our tax dollars. I don't imagine dredging is cheap!

Thank you,
Sheryl and Larry Nims
131 Linder Lane
Kamiah, ID 83536
208-935-0578

8496 Aquatic resources; threatened and endangered species (aquatic)

8495 Socioeconomics; rails

0061_Obray

From: priestyman@aol.com
To: psmp@usace.army.mil
Subject: Lower Snake Dredging Plan
Date: Monday, March 18, 2013 7:53:57 PM

8498 Costs and Funding

Army Corps of Engineers:

8497 Aquatic resources; threatened and endangered species (aquatic)

As an avid hunter and fisher living in Idaho, dredging the lower Snake River is very concerning to me. The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

Increased sediment load due to large forest fires – a result of climate change – will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

Please do NOT dredge the Lower Snake!

Greg Obray
1708 Glacier
Pocatello, ID 83201

8499 Hydrology and sediment; watershed sediment production

Port of Lewiston

0062_PortOfLewiston

PORT COMMISSIONERS

President
Mary Hasenoehrl
Vice President
Jerry Klemm
Secretary-Treasurer
Mike Thomason

ADMINISTRATION

General Manager
David R. Doeringsfeld
Assistant Manager
Jaynie K. Bentz
Traffic Manager
Linda Heitstuman

1626 6th Avenue N. • Lewiston, ID 83501
(208) 743-5531 • Fax (208) 743-4243
E-mail: portinfo@portoflewiston.com
Container Yard
(208) 743-3209 • 1-877-777-8099

March 22, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: PSMP/EIS COMMENTS

Dear Ms. Shelin:

The Port of Lewiston appreciates this opportunity to provide comments on the draft Programmatic Sediment Management Plan (PSMP) and Environmental Impact Statement (EIS).

We appreciate the efforts taken, and entrusted, to the U.S. Army Corps of Engineers (USACE) to maintain the balance of all Congressionally authorized functions provided by the Columbia-Snake River System (CSRS). And, we appreciate the unprecedented comprehensive examination undertaken by USACE to analyze the impacts of sediment on the CSRS. We believe it is imperative that the USACE maintain the Congressionally authorized 14-ft navigation channel.

The CSRS is designated as one of America's Marine Highway Corridors by the U.S. Department of Transportation Maritime Administration. It contributes to the long-term competitiveness of the United States and the region due to its ability to serve Midwest and Pacific Northwest companies. Together, there has been significant private and governmental investment made to maintain this competitiveness.

Because the Port of Lewiston is at the end of the CSRS navigable channel, the port acts as a natural funnel for importing and exporting goods from Idaho, Washington, Oregon, Montana, the Dakotas, Wyoming and Canada. The Port of Lewiston is the most inland port on the west coast, it is the largest inland port shipping containerized goods on the CSRS, and is Idaho's only multimodal transportation hub (barge, truck and rail facilities). Therefore, the outcome of the PSMP/EIS has significant impact on freight movement and keeping U.S. exports competitive in the global marketplace.

8500 Management
measures

The Port of Lewiston, the Port of Clarkston and Lewis Clark Terminal, Inc. are experiencing shallow draft conditions that are affecting freight movement operations. As a specific example, in April, 2012, a river barge loaded with bulk grain ran aground in the turning basin located directly in front of the Port of Lewiston and Lewis Clark Terminal.

The Port of Lewiston supports Alternative 7 with the caveats described below. The Port of Lewiston is opposed to the implementation of the following measures:

- **Modify flows to flush sediments (drawdown):** USACE conducted an operational/structural drawdown of the Snake River in 1992. This experimental drawdown was a disaster to our local economy and environment. Drawdown resulted in undesirable environmental releases from the old landfill on the north side of the Snake River within the Clarkston city limits. Highway 128 on the north side of the Snake River (partially in Whitman County, WA and partially in Nez Perce County, ID) suffered damage as a result of dewatering the road embankment.
- **Reconfiguring/relocate affected facilities:** It simply is not feasible to relocate the local marinas, or the Ports of Lewiston, Clarkston and Wilma. Millions of private and public dollars have been invested in marine facilities. Sediment control through periodic dredging is clearly more cost effective than relocating established ports and marinas.
- **Raise Lewiston levees to manage flood risk:** Raising the levee system by erecting barriers in Lewiston does not address sediment accumulation. It does prohibit public access to the Snake and Clearwater Rivers.
- **Programmatic approach to permitting for dredging:** We believe it is critical that USACE be able to tier-off the current NEPA analysis for future maintenance dredging. USACE should not have to start from scratch each time dredging is needed in order to maintain the Congressionally authorized depth to maintain this marine highway.

The Port of Lewiston strongly supports the Corps' effort to finalize the PSMP as soon as possible, as well as the first action that has been proposed; maintenance dredging to restore the federally authorized channel on the Lower Snake River.

Sincerely,
PORT OF LEWISTON



David R. Doeringsfeld
Port Manager

cc: Port Commission President, Mary Hasenoehrl; Port Commission Vice-President, Jerry Klemm; Port Commission Secretary/Treasurer, Mike Thomason



310 A Street
Walla Walla Regional Airport
Walla Walla, Washington 99362-2269

Phone: (509) 525-3100 • FAX: (509) 525-3101 • www.portwallawalla.com • www.wallawallaairport.com

March 6, 2013

0063_PortOfWallaWalla

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Ave
Walla Walla, WA 99362-1876

Re: Comments - Draft PSMP and DEIS

Dear Ms. Shelin:

The Port of Walla Walla Washington has reviewed the Corps of Engineers' Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS). These much anticipated documents provide a necessary way forward towards maintaining a fully functional congressionally authorized federal navigation project. The Columbia/Snake River System is a vital transportation link for the states of Idaho, Montana, Oregon and Washington. The economies of these four states rely on the trade and commerce that flows up and down the most important commercial waterway of the Northwest. Barging on the inland Columbia/Snake River System moves some 10 million tons of cargo valued at \$3 billion annually.

The Port of Walla Walla is uniquely located to facilitate the movement of goods and services thru the Snake River waterway. As an authorized State of Washington Public Port and Municipal Corporation, the Port is responsible for fostering economic development throughout Walla Walla County. Walla Walla County is bounded on the North by the Snake River and on the West by the Columbia River. The Port owns and operates a high dock facility and two barge slips along the Snake River at Burbank Washington. Additionally, thru a Port executed lease with the Corps of Engineers and Northwest Grain Growers, Northwest Grain Growers barges wheat from Sheffler Washington for foreign export. In 2012, 7.9 million bushels of wheat (66 barges) was transported from Sheffler, by barge and destined for foreign markets. A fully functioning year around federal navigation channel from the Snake Rivers' confluence with the

Sandra Shelin
Page 2
March 6, 2013

Columbia River to Lewiston Idaho is critical to meeting our mission in Walla Walla County.

8501 General project support

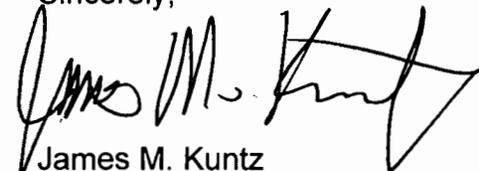
Appendix H of the draft PSMP/EIS adequately characterizes the need for immediate action to restore the Snake River navigation channel to full authorized depths for its entire length. We believe that undertaking immediate dredging is the least cost, environmental sensitive means to restore current diminished authorized navigation depths. Immediate dredging would also remove accumulated sediment that has caused the Corps of Engineers to compromise its Endangered Species Act obligations to maintain to minimum operating pool. We believe the Corps has accomplished sufficient sediment evaluation. Thus, we fully support the Corps' intention to use dredged material to create additional shallow water habitat for juvenile salmonids.

The Port also suggests that final documents clearly identify how the Corps of Engineers intends to use the EIS as the foundation for future maintenance activities. As currently written, we find the document vague on what level of analysis, if any, might be required to support continuous routine maintenance. Ports along the Snake River make long term business decision relying on a fully functional project. It is difficult to develop long term economic development plans if the Corps intends to "reinvent the wheel" each time maintenance activities beyond the proposed dredging action are required.

Finally, we fully endorse the comments provided by the Pacific Northwest Waterways Association.

8502 NEPA/Programmatic Approach

Sincerely,



James M. Kuntz
Executive Director



310 A Street
Walla Walla Regional Airport
Walla Walla, Washington 99362-2269

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03/06/2013
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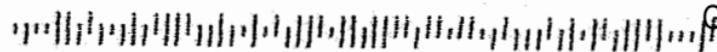


ZIP 99362
041L10225822

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Ave
Walla Walla, WA 99362-1876

August 2014

99362-1876



G-319



0064_SchoeslerWAsenate

Washington State Senate

Olympia Address:

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Senator Mark Schoesler
Republican Leader
9th Legislative District

Residence:

1588 E. Rosenoff Rd.
Ritzville, WA 99169
Res: (509) 659-1774
FAX: (509) 659-4545
Hotline: 1-800-562-6000

March 15, 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, Washington 99362-1876

RE: Comments to Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement

Dear Ms. Shelin:

Thank you for the opportunity to comment on the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement (EIS). I commend the Corps for its thoughtful and deliberate review of sediment management options to meet the requirements of the National Environmental Protection Act (NEPA). It is vital we protect the accessibility of our Pacific Northwest Waterways critical to promoting transportation, trade, tourism, and energy.

I write this as someone who has a unique combination of interests in the Snake River. One is as a Washington State Senator whose legislative district includes the entire length of the lower Snake River in our state, which naturally includes the four dams and the part above Lower Granite Dam slated for dredging. As such, I represent people on both sides of the river from Clarkston to west of State Route 127, and those on the north side all the way to U.S. Highway 12 and Burbank – many of whom hold one stake or another in the well-being of the river.

My other interest is as a fulltime grower of wheat and canola on land in Adams County that has been farmed by my family for five generations. If anyone can appreciate the need to keep the Snake viable for shipping, as a marine counterpart to our paved highways and rail lines, it's me.

In the draft EIS, the Corps proposes to implement a long-term plan to manage, and prevent if possible, river sediment accumulation that is interfering with the authorized project purposes of the Corps' Lower Snake River Projects dams and reservoirs. Authorized project purposes potentially affected by sediment include commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation and mitigation. Most alarmingly, the channel is as low as seven to nine feet in locations which is interfering with commercial navigation.

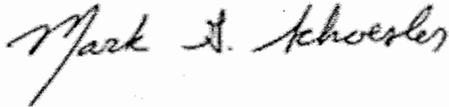
The draft EIS identifies and evaluates the environmental effects of a broad range of seven sediment management strategies known as alternatives. The draft EIS identifies Alternative 7 as the preferred alternative because it provides the Corps with a "complete toolbox" for addressing the sediment accumulation problem, including the use of dredging and non-dredging options. I support dredging the channel because it is the only available short-term solution to restore the federal navigation channel to its required dimensions. The Corps also proposes to use the dredged material to create additional shallow water habitat for juvenile salmonids recognizing that this was beneficial to the environment.

8503
Dredging

It is important to remember that barging on the inland Columbia Snake River System moves 10 million tons of cargo valued at \$3 billion annually. The river system also provides the most fuel-efficient mode of transportation; barging carries more cargo and utilizes less energy than trucking and rail combined. Each year, barging keeps 700,000 trucks off the highways that run through the Columbia River Gorge. The lower Snake River area supports multiple ports. These ports move commerce in and out of the Pacific Northwest and play a vital role in their local communities through job creation, revenue generation, and property taxes. The Columbia/Snake River System benefits the region, local communities and the nation-at-large. It is the most important U.S. export gateway for wheat and barley, the lead West Coast exporter of wood products and mineral bulks, and third largest grain export gateway in the world.

Again, I commend the Corps for its hard work for producing a sediment management plan that includes dredging that will benefit the region for years to come. I appreciate the opportunity to comment and thank you for your consideration.

Sincerely,

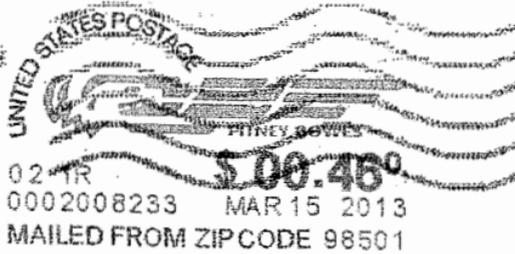
A handwritten signature in cursive script that reads "Mark A. Schoesler".

Senator Mark Schoesler
9th Legislative District



Washington State Legislature

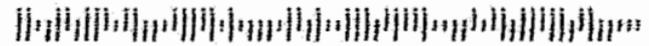
Legislative Building
Olympia, WA 98504-0482



U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, Washington 99362-1876

August 2014

99362187601

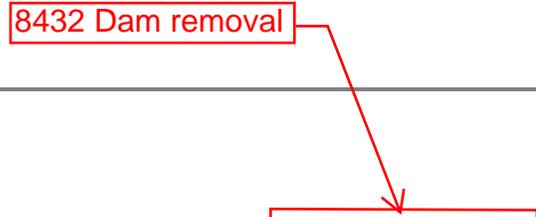


G-322

From: [Erik Spinney](#)
To: [PSMP](#)
Subject: Lower Snake River
Date: Friday, March 15, 2013 10:26:13 PM

0065_Spinney

8432 Dam removal



Dear Sir or Madam,

I am writing to you in regards to the proposed Lower Snake River dredging plan. I would ask the Corps to reconsider its plan to dredge. Independent research has shown the most financially responsible option for this issue is the removal of the four dams. The cost of maintaing the federally protected Idaho Salmon runs far outweigh the value of these dams. Throwing millions of additional dollars at band-aids like dredging, is not fair to tax-payers.

Sincerely,

Erik Spinney

From: [Debbie Stempf](#)
To: [PSMP](#)
Subject: Snake River dredging, etc.
Date: Friday, March 22, 2013 10:41:13 AM
Attachments: [Corp of Engineers letter.doc](#)

0066_Stempf

Please see the attached comment letter on the proposed dredging.
Thank you,
Debbie Stempf
4111 E Prairie Lane Ct.
Spokane, Wa 99223
509-448-9922

8433 Aquatic resources; threatened and endangered species (aquatic)

Walla Walla District of the Army Corps of Engineers:

To the Walla Walla District of the Army Corps of Engineers:

I am writing to submit my official comment for the record concerning the Lower Snake River Programmatic Sediment Management Plan and Draft Environmental Impact Statement. I am very concerned about federal efforts to protect and restore wild salmon and steelhead in the Columbia and Snake Rivers.

Below are a number of specific LSRPSMP shortcomings that must be addressed in the Final EIS:

*** Dredging sediment is harmful to salmon and steelhead: Dredging the lower Snake and Clearwater Rivers is harmful to salmon and steelhead and the habitats they depend on for survival; this DEIS fails to fully consider these impacts and ways to mitigate or minimize them. The DEIS states without justification that the dredging alternatives are the most ecologically friendly. Wishing for dredging to be beneficial to salmon and steelhead does not make it so.

*** The DEIS needs to look at lower Snake River dam removal and transportation alternatives: The Corps DEIS fails to explore all available options, including the removal of the four lower Snake River dams, the costs and benefits of the current barge transportation system, or the potential replacement of the waterborne transportation by rail, trucks, and other means.

Thank you for the opportunity to submit these comments for the official record for the LSRPSMP and Dredging Draft EIS. I look forward to seeing these important issues and shortcomings addressed in the Final EIS.

Sincerely,

Debbie Stempf
4111 E Prairie Lane Ct.
Spokane, Wa 99223
509-448-9922

8448 NEPA; range of alternatives

From: [Charlie Costanzo](#)
To: [PSMP](#)
Subject: American Waterways Operators PSMP Comments
Date: Tuesday, March 26, 2013 9:05:59 PM
Attachments: [AWO PSMP Comments 3 26 13.docx](#)

0067_AmericanWaterwaysOperators

Sandy -

Attached please find the comments of the American Waterways Operators for the draft Environmental Impact Statement (for the Lower Snake River Programmatic Sediment Management Plan.

Please let me know if you have any difficulties with the attachment.

Thanks,
Charlie Costanzo

March 26, 2013

Sent via email: psmp@usace.army.mil

Ms. Sandy Shelin, CENWW-PM-PD-EC
U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
201 North Third Avenue
Walla Walla, WA 99362-1876

Re: Draft Environmental Impact
Statement (EIS) for the Lower Snake
River Programmatic Sediment
Management Plan (PSMP)

Dear Ms. Shelin:

The American Waterways Operators is the national trade association for the U.S. tugboat, towboat and barge industry. The industry safely and efficiently moves over 800 million tons of cargo each year, including more than 60 percent of U.S. export grain, energy sources such as coal and petroleum, and other bulk commodities that are the building blocks of the U.S. economy. The fleet consists of more than 4,000 tugboats and towboats engaged in barge towing, ship escort, marine construction and harbor services throughout the nation, including many that operate on the Columbia/Snake River System (CSRS) in the states of Washington and Oregon.

The tugboat and barge industry provides the means to transport agricultural commodities out of Washington and Oregon via the CSRS and ensures that river ports remain viable for shippers and exporters. Waterborne commerce on the CSRS reduces congestion on the region's highways while producing fewer pollutants than trucks and trains. In addition, harbor and ship assist tugboats perform shipdocking, escort and fueling services for vessels calling in the lower Columbia River.

AWO appreciates the opportunity to submit comments on the U.S. Army Corps of Engineers' Draft Environmental Impact Statement (EIS) for the Lower Snake River Programmatic Sediment Management Plan (PSMP). We believe this project will benefit navigation on the CSRS.

8434 General project support



AWO strongly supports the Corps' decision to commence maintenance dredging at the earliest possible opportunity in order to restore the lower Snake River navigational channel to its federally authorized dimensions, which will ensure that navigation continues in an unimpeded and safe manner.

Maintenance dredging has not occurred on the lower Snake River since 2006, and shoaling has become a serious problem in this area. Shoaling has caused the Corps to operate the Lower Granite Dam Project one to two feet above Minimum Operating Pool since 2010, which has reduced the depth of the navigation channel to seven feet in some areas, creating safety issues for commercial navigation and access problems at port berthing areas and navigation locks.

Barge operators rely on a 14-foot navigation channel in order to safely and economically transport goods to export facilities down river. The lack of channel depth could negatively impact the national economy if barges have to be light-loaded or the lower channel depth causes delays in getting products to market.

AWO encourages the Corps to approve the PSMP, issue the final EIS, and ensure that dredging occurs during the next fish window. We appreciate the Corps' hard work to produce a long-term sediment management plan that will benefit the nation for years to come.

Please feel free to contact me should you have any questions.

Sincerely,

Charles P. Costanzo

0068_AmRiversEtAl

**AMERICAN RIVERS • CITIZENS FOR PROGRESS • EARTHJUSTICE • FRIENDS OF
THE CLEARWATER • BORG HENDRICKSON • LINWOOD LAUGHY • IDAHO
RIVERS UNITED • INSTITUTE FOR FISHERIES RESOURCES • PACIFIC COAST
FEDERATION OF FISHERMEN’S ASSOCIATIONS • SAVE OUR WILD SALMON •
SIERRA CLUB • WILD STEELHEAD COALITION**

March 26, 2013

U.S. Army Corps of Engineers,
Walla Walla District
PSMP/EIS, Attention: Sandy Shelin, CENWW-PM-PD-EC,
201 North Third Avenue
Walla Walla, Washington 99362-1876
psmp@usace.army.mil

via electronic mail and U.S. Mail

Dear Ms. Shelin:

This letter is written on behalf of American Rivers, Citizens for Progress, Earthjustice, Friends of the Clearwater, Borg Hendrickson, Linwood Laughy, Idaho Rivers United, Institute for Fisheries Resources, Pacific Coast Federation of Fishermen’s Associations, Save Our Wild Salmon, Sierra Club, and Wild Steelhead Coalition to comment on the Draft Environmental Impact Statement (“DEIS”) for the Lower Snake River Programmatic Sediment Management Plan (“PSMP”) prepared by the U.S. Army Corps of Engineers (“Corps”). We appreciate this opportunity to comment on the Corps’ DEIS.¹

Representing the voices of more than 6,000,000 people, these individuals and organizations share a common goal of restoring Snake and Columbia River Salmon to healthy, sustainably harvestable levels. Many of these groups were involved in litigation in 2002 and 2004 over the Corps’ previous plans to dredge the navigation channel in the Lower Snake River. That litigation was settled in 2005 to allow interim dredging while the Corps completed a comprehensive long-term study of sediment management options for the navigation channel. For salmon advocates and others, that study presented the opportunity to consider a broad range of alternatives to business-as-usual in the Lower Snake River and to consider the environmental, economic, and social impacts of a number of different alternatives that allow goods to move to markets, provide for recreational and commercial uses of the river, and that would enhance and restore salmon and steelhead populations.

Unfortunately, the Draft EIS for the PSMP does not seize that opportunity. Instead, after over seven years of study and at least \$16 million dollars spent so far, the Corps has returned with a proposal that once again asks a the same narrow question and answers it with the same

¹ We and other interested parties had requested an extension of the comment deadline for this DEIS. Thank you for your consideration with regard to this extension.

8682 Costs and
funding

foregone conclusion: dredging. But the Corps' analysis is based on outdated and incorrect assumptions about the benefits of maintaining the navigation system and incomplete consideration of the harms and costs imposed by that continual maintenance. There is far more public information relevant to the Corps' decision than presented in the DEIS, which the Corps has apparently failed to consider. For example, the Corps' unanalyzed assumptions about the net economic benefits of the navigation system are no longer valid, even if they may have been at some time. To the contrary, the most up-to-date available information shows that the costs of the existing system are approximately double the benefits provided; dredging to maintain the channel will return less than a dollar in benefits for every dollar spent. Cargo moving down the river has declined dramatically in the past decade, and alternative options to ship goods for export will likely accelerate that decline. Climate change will continue to alter the landscape that influences the Snake River, exacerbating the sediment build-up behind the dams, driving up the costs of channel maintenance over time. Climate change will also make an already too-hot river even hotter for salmon, steelhead, and other cold-water fish. Salmon and steelhead that depend on the Lower Snake River to access the cold-water refugia in the central Idaho wilderness continue to decline and are in dire need of a scientifically and legally valid restoration plan. Flood risk from the buildup of sediment behind Lower Granite dam (regardless of dredging the narrow navigation channel) continues to threaten Lewiston, Idaho and will require difficult and expensive choices about the existing levee system during the period of the PSMP. On top of all of this, new opportunities exist for regional stakeholders to together craft solutions that would save salmon, enhance clean energy, and develop more efficient and economical transportation options while retaining and enhancing the non-barging economic benefits provided by port facilities.

The Corps should not pretend that Snake River navigation system exists independently of these other important factors and must explore the relative benefits of alternatives to continued harmful and expensive dredging. If nothing else, the Corps should not be moving ahead with a major long-term project with serious impacts to the river and river communities without the hard look the region deserves at all of these issues and transparent consideration of the all the costs (environmental, economic, social) of continuing the business-as-usual approach that the Corps prefers. The law – including the National Environmental Policy Act, Endangered Species Act, Clean Water Act, and Northwest Power Act – demands it. To satisfy these requirements, the Corps must significantly alter its approach to the analysis in the DEIS and complete an analysis that provides the information necessary for the public and the Corps to make an informed decision. The following comments are meant both to identify many of the flaws in the DEIS and to provide the Corps with the information and framework necessary to fulfill the purposes of NEPA.²

I. THE DEIS DOES NOT FULFILL THE LEGAL REQUIREMENTS OF NEPA.

The fundamental purposes of NEPA are to guarantee that: (1) federal agencies take a “hard look” at the consequences of their actions before the actions occur by ensuring “that the agency, in reaching its decision, will have available, and will carefully consider, detailed

² We support the comments submitted by the Nez Perce Tribe on this DEIS and incorporate them here by reference. Where applicable, we emphasize specific elements of those comments below.

information concerning significant environmental impacts,” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989); and (2) “the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of that decision,” *id.* at 349; 40 C.F.R. § 1502.1 (EIS “shall” inform decision-makers and public of reasonable alternatives and environmental impacts); *see also Marsh v. ONRC*, 490 U.S. 360, 369 (1989) (“NEPA promotes its sweeping commitment to ‘prevent or eliminate damage to the environment and biosphere’ by focusing Government and public attention on the environmental effects of proposed agency action.”). In short, NEPA requires federal agencies to look before they leap.

To satisfy the requirement that it take a “hard look” at the environmental consequences of its actions, an agency must engage in a “reasoned evaluation of the relevant factors” to ensure that its ultimate decision is truly informed. *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1992). The DEIS must be searching, detailed and comprehensive; “[g]eneral statements about ‘possible’ effects and ‘some risk,’ do not constitute a ‘hard look’ absent a justification for why more definitive information could not be provided,” *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998). An agency’s failure to include and analyze information that is important, significant, or essential renders an EIS inadequate. Without such detailed information, there is no way for the public or the agency to adequately assess the impacts of a proposed action. *See California v. Belgrade*, 483 F. Supp. 465, 495 (E.D. Cal. 1980), *aff’d sub nom, California v. Block*, 690 F.2d 753 (9th Cir. 1982) (by failing to disclose key data, “the Forest Service effectively undercut the twin goals of environmental statements: informed decision-making, and full disclosure”).

It is hence of critical importance that an EIS be factually accurate and well supported. 40 C.F.R. § 1502.24 (agencies must ensure the scientific integrity of an EIS). An agency’s failure to use the most up-to-date information and tools available undermines the public’s confidence in the EIS and renders it legally defective. *Tribal Village of Akutan v. Hodel*, 869 F.2d 1185, 1192 n.1 (9th Cir. 1989) (EIS “which is incomplete due to the omission of ascertainable facts, or the inclusion of erroneous information, violates the disclosure requirement”); *Seattle Audubon Soc. v. Espy*, 998 F.2d 699 (9th Cir. 1993) (agency cannot rely on “stale” science or “ignore reputable scientific criticism”); *Coleman*, 521 F.2d at 676 (rejecting agency position that uncertainty is grounds for not disclosing potential impacts). While “perfect” knowledge is not required, the EIS at least is required to disclose data gaps and the basis for assumptions. 40 C.F.R. § 1502.22 (agency shall make clear where information is inadequate or unavailable).

As detailed further below, the PSMP DIES fails to satisfy these requirements: its purpose and need is impermissibly narrow, it fails to consider an adequate range of alternatives, it fails to consider the full impacts of the proposed alternative and the cumulative impacts, and it fails to present a full picture of the economic and social costs and benefits of the alternatives. The sum total of these shortcomings are a DEIS that fails to inform the public or decision-makers about the consequences of the proposed – or any other – action.

8684 NEPA;
purpose and need

II. THE CORPS' NARROW PURPOSE AND NEED STATEMENT IS BASED ON AN ERRONEOUS LEGAL CONCLUSION.

Although the Corps continues to believe otherwise, Congress has never indicated that navigation – via a fourteen-foot or any other depth of channel – must be preserved at all times on the Snake River. Congress originally authorized the Snake River navigation system with the Rivers and Harbors Act of 1945. *See* Pub. L. No. 79-14 (1945), *adopting* H.R. Doc. No. 75-704. According to the authorizing legislation, the four lower Snake River dams are authorized to provide for slackwater navigation, irrigation, and power generation. *Id.* The authorizing report indicates that the lower Snake River dams would provide navigation on average for ten months a year. H.R. Doc. No. 75704, at 9, 39.

The Flood Control Act of 1962, which authorizes several new projects, includes a provision that reads: “The depth and width of the authorized channel in the Columbia-Snake River barge navigation project shall be established at fourteen feet and two hundred and fifty feet, respectively, at minimum regulated flow.” Flood Control Act of 1962 Pub. L. No. 87-874, 76 Stat. 1173, 1193 (Oct. 23, 1962). Minimum regulated flow is not defined. Nothing in the 1962 Act alters or qualifies Congress’s expectation that navigation through the project would be unavailable a few months each year, as indicated in House Doc. 704. Instead, when it passed the Flood Control Act of 1962, Congress was operating with the background of House Document number 704. Congress is presumed to know that law and is presumed to know the background against which it passed the 1962 Flood Control Act. *See South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329, 351 (1998) (citing *Miles v. Apex Marine Corp.*, 498 U.S. 19, 32 (1990)). If Congress meant to reverse course and require the Corps to maintain a fourteen-foot channel depth 365 days a year, it would have said so explicitly. *See In re Operation of the Mo. River Sys. Litig.*, 363 F. Supp. at 1151. Absent “a clearly expressed congressional intention,” repeals by implication are disfavored. *Branch v. Smith*, 538 U.S. 254, 273 (2003) (citations omitted).

Moreover, the Corps’ authority to provide for navigation as part of the projects is not dominant over other uses and purposes of the River but is one of many Congressionally-authorized uses. The Snake River projects are authorized to fulfill multiple other purposes equally on par with navigation. For example, in the Northwest Power Act, 16 U.S.C. §839 *et seq.*, Congress provided a clear and “affirmative conservation mandate” for the agencies to protect fish and wildlife, specifically including salmon. 16 U.S.C. § 839b(h)(11) (requiring “equitable treatment” of fish and wildlife). *See also NRIC v. Northwest Power Planning Council*, 35 F.3d 1371, 1388 (9th Cir. 1994) (Act passed to put fish and wildlife “on par with energy” and other uses/purposes of the dams).³ Congress requires the Corps to consider several purposes – including fish and wildlife conservation, power generation, recreation – rather than to pursue navigation alone at the expense of all other uses. Were Congress to wish to require the Corps to maintain a fourteen-foot channel at all times of the year, at the expense of all other uses

³ The ESA similarly mandates that the Corps take no action that will jeopardize listed species or adversely modify critical habitat. That provision is unambiguous, and in our view, requires that the Corps further consider additional scenarios and alternatives, such as alternative means of moving goods through this corridor, that would have less impact on salmon.

the Snake River system, it could certainly do so through a clear expression of intent, but it has chosen not to do so. *See Yankton Sioux Tribe*, 522 U.S. at 351; *Branch*, 538 U.S. at 273.

In a similar case, the Eighth Circuit found that the Flood Control Act of 1944 did not mandate a particular length of navigation season in the Missouri River, instead finding that it requires the Corps to consider navigation in addition to other competing interests. *In re Operation of Mo. River Sys. Litig.*, 421 F.3d 618, 631 (8th Cir. 2005). In that case, the district court found that nothing in the statute or case law required the Corps to maintain a specific channel depth, especially at the expense of other uses of the River. *See In re Operation of the Mo. River Sys. Litig.*, 363 F. Supp. 2d 1145, 1151 (D. Minn. 2004) *aff'd in part, vacated on other grounds in part*, 421 F.3d 618 (8th Cir. 2005). The same is true here – Congress made no such express provision in either the Flood Control Act of 1962 or any other statute to give priority to navigation or to elevate a specified channel depth over other uses of the river.

Given that Congress has neither mandated a fourteen-foot channel nor the promotion of navigation without consideration of other goals, the Corps cannot credibly assert that Congressional “authorization” to maintain a particular channel depth is the same as an absolute requirement from which it cannot vary no matter the circumstances. A few miles downstream, the Corps has demonstrated as much. The Columbia River authorized navigation channel depth is 27 feet to the Dalles Dam. Nonetheless, the Corps admits that it is only maintained to a 17 foot depth to reflect “the needs of vessels using this reach.” U.S. Army Corps of Engineers, *Dredged Material Management Plan and Environmental Impact Statement* (Final: July 2002) at 1-4. There is no principle of law or logic that would allow the Corps to claim that Congress’s authorization on the Columbia allows Corps discretion but that the same is not also true on the Snake. Indeed, the Corps has historically exercised its discretion not just to decrease the channel depth but to halt all navigation on the Snake and/or the Columbia for weeks or months at a time for maintenance. In the winter of 2010 - 2011, the Corps eliminated navigation for fifteen weeks to accommodate navigation lock work on Snake and Columbia dams. Through its actions, the Corps has rightly acknowledged that Congressional authorization to maintain a specified channel depth in the Snake is not an ironclad mandate but instead allows the Corps discretion to maintain bigger-picture, authorized uses through departures from what it sees as its mandate. The same authorization allows the Corps to consider other alternatives to a fourteen-foot channel depth.

Nor is the Corps’ narrow view of the Flood Control Act of 1962 relevant for purposes of NEPA. In *NWF v. NMFS*, 235 F.Supp.2d 1143, 1156 & n.7 (W.D. Wash. 2002), the Court “expresse[d] no opinion regarding whether the Corps is authorized to maintain the navigation channel at a depth of less than fourteen feet,” but held that “[e]ven if the Corps were not presently empowered to maintain the channel at a depth of less than fourteen feet, it would not be permitted to disregard a reasonable alternative” that may alter the depth of the channel or even shut it down for some parts of the year. That is, even if a fourteen-foot channel depth were required – though clearly it is not – the Corps may not blindly adopt that depth requirement without considering other alternatives.

Yet despite the wide discretion afforded in these statutes and the case law, the Corps defines the purpose and need for the proposed action by saying that “immediate action is needed to reestablish the navigation channel to its authorized dimensions”, i.e. fourteen feet. DEIS at 1-4. The Corps’ purpose and need, while acknowledging other purposes generally, is far too

narrowly-defined, focused in the near term only on deepening the channel. Under this purpose and need, dredging is a foregone conclusion.

Courts have been clear, however, that “an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, [which would cause the EIS to] become a foreordained formality.” *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991). Where “the agency constricts the definition of the project’s purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role.” *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 666 (10th Cir. 1997). See also *Forelaws on Board v. Johnson*, 743 F.2d 677, 683 (9th Cir.1985) (“NEPA’s legislative history reflects Congress’s concern that agencies might attempt to avoid any compliance with NEPA by narrowly construing other statutory directives to create a conflict with NEPA.”).

As noted above, Congressional authorization to maintain a navigation channel to a certain depth is not to be confused with a requirement that the Corps do so. In fact, as the Corps is well aware, it is under multiple legal obligations to manage the river in certain ways, some of which may conflict with one another at any given time. The purpose and need for this DEIS should be focused more broadly on transportation of products from Lewiston downstream. Barge navigation is not an end in itself, but rather a means of shipping various products, primarily grain exports, to and from Lewiston. There are multiple different ways to transport products that don’t require the full navigation channel, or even any barge navigation at all, and that would also retain and enhance the non-barging economic benefits provided by port facilities. This DEIS should evaluate the relative merits, costs, and environmental risks presented by different transportation regimes, including barge navigation, so that Congress and the public can have a complete picture of the situation.

8685 Socioeconomics; transportation

III. THE CORPS DOES NOT CONSIDER ALL REASONABLE ALTERNATIVES.

NEPA requires that an EIS contain a discussion of the “alternatives to the proposed action.” 42 U.S.C. § 101(2)(C)(iii). The discussion of alternatives is at “the heart” of the NEPA process. 40 C.F.R. §1502.14. The CEQ regulations require the agency to “[r]igorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. §1502.14(a). All federal agencies shall, to the fullest extent possible, “[s]tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4322(2)(E); *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519-20 (9th Cir. 1992). A federal agency must look at every reasonable alternative within the “nature and scope of the proposed action,” *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982), “sufficient to permit a reasoned choice,” *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810, 815 (9th Cir. 1987), rev’d on other grounds sub nom. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989), and cannot limit its consideration to only those alternatives that it believes it has the current authority to implement, *NRDC v. Morton*, 458 F.2d 872 (D.C. Cir. 1972). The failure to consider all reasonable alternatives is fatal to the adequacy of an agency’s NEPA analysis. *Idaho Conservation League*, 956 F.2d at 1519 (“The existence of a viable, but unexamined alternative renders an environmental impact statement inadequate.”).

8686 NEPA; range of alternatives

By presenting a range of alternatives far too narrow to serve NEPA’s goals, the Corps has failed even to pay lip service to these fundamental requirements of NEPA. Owing to its improperly narrow purpose and need statement, the Corps has nominally presented seven alternatives, which consist of five alternatives and two combinations.⁴ The “alternatives,” are hardly stand-alone options that would amount to any marked difference in strategy or provide the basis for comparative discussion. The first two alternatives are dismissed essentially out of hand, and the remaining three alternatives are aggregated to form the preferred alternative. Each, including the “no action” alternative is measured against the Corps’ erroneous criterion of creating a 14-foot channel, and the Corps has provided no discussion of true alternatives to that strategy. Setting the purpose and need as “maintaining a 14-foot channel” may be accurately restated as “dredging a 14-foot channel” since according to the Corps, there is no other way – at least in the short-term – to maintain such a channel in the immediate way the Corps envisions; an alternative that includes dredging is a therefore a preordained conclusion. The Corps’ improperly narrow purpose and need statement also underlies its rejection of several reasonable alternatives without sufficient explanation.

8687 NEPA; no action alternative

A. The Corps’ “No Action Alternative” is Not a True No Action Alternative and Did Not Receive Adequate Consideration.

NEPA requires that the EIS contain a “no action” alternative. 40 C.F.R. §1502.14. The no action alternative must be “considered in detail,” *Alaska Wilderness Recreation and Tourism Ass’n v. Morrison*, 67 F.3d 723 (9th Cir. 1995) (citing *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988)), and it “serves as the benchmark by which the effects of all action alternatives are measured.” *Id.* at 730. CEQ guidelines explain both the import and the necessity of the “no action” alternative.

[T]he regulations require the analysis of the no action alternative even if the agency is under a court order or legislative command to act. This analysis provides a benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the action alternatives. . . . Inclusion of such an analysis in the EIS is necessary to inform the Congress, the public, and the President as intended by NEPA.

46 Fed. Reg. 18,026 (March 16, 1981) (“Forty Most Asked Questions Concerning CEQ Guidelines to NEPA Regulations”), available at <http://ceq.hss.doe.gov/nepa/regs/40/1-10.HTM#3> (accessed March 20, 2013) (“Forty Questions”). That is, the Corps should provide a true no action alternative regardless of what it perceives to be its obligations.

The Corps has defined the no action alternative, Alternative 1, as “no change in current practices.” DEIS at 2-22. It describes this alternative as “represent[ing] a continuation of the Corps’ current operational practices of managing the LSRP through navigation objective reservoir operations in the lower Snake.” *Id.* Under this alternative, the Corps would address

⁴ The preferred alternative, Alternative 7, consists of Alternatives 3, 4, 5, and 6. Alternative 6 is a combination of Alternatives 3 and 4.

navigation through operating reservoirs as close to MOP as possible at some times of the year and eventually up to “maximum operating pool,” which it concludes would not address future needs as further sediment accumulates and limits the amount the water level can be raised . *Id.* at 2-24.⁵

The Corps’ “no action” alternative suffers from two major problems. The first is that rather than “no action” it involves substantial action and cannot form the proper baseline for evaluating the PSMP. The second problem is that while it is not a “no action” alternative, Alternative 1 still deserves – but did not receive – full consideration as an alternative to dredging.

1. *Alternative 1 is not a true no- action alternative.*

The Corps’ erroneous conclusion that it must provide a 14-foot navigation channel permeates even its “no action” alternative. Rather than providing a true alternative of no action, the Corps has simply hypothesized a means to achieving a 14-foot navigation channel using different actions than its other alternatives. This is an action alternative, not a no action alternative.⁶

What constitutes an appropriate “no action alternative” depends on the nature of the action under consideration. CEQ Forty Questions. If the action is a decision on a proposal for a project, “‘no action’ . . . would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.” *Id.*; *see also Or. Natural Res. Council v. U.S. Forest Serv.*, 445 F. Supp. 2d 1211, 1225 (D. Or. 2006) (finding that the Forest Service did not consider true no action alternative when it failed to consider abandoning timber sales, even though timber contracts were in place); *Western Watersheds Project v. Rosencrance*, Case No. 4:09cv298 (D. Id. 2011) (when deciding whether to renew livestock grazing permits, BLM must consider denial of the permit, and no subsequent grazing, as the no action alternative). But where “ongoing programs initiated under existing legislation and regulations will continue,” it may be appropriate to consider a no action alternative of continuing existing management. CEQ Forty Questions.

Here, as in *Oregon Natural Resource Council*, there is no “ongoing program” to provide a 14-foot navigation channel. While the Corps is authorized to provide efficient transportation of goods in and out of the region insofar as it is consistent with the other purposes of the Snake River projects, barging through a 14-foot channel is only one piece among many in that puzzle. Likewise, as discussed above, the Corps’ obligations in the Lower Snake River include much more than maintaining its vision of navigation, such as power generation and preservation of fish

⁵ The Corps’ description of this operation is itself a fiction. Under the terms of the Biological Opinion for the Federal Columbia River Power System, the Corps is prohibited from raising MOP as the Corps envisions to continue to provide for year-round navigation.

⁶ Indeed, this alternative shares many of the same measures and features of the “action” alternatives – including the preferred Alternative 7 – discussed in the DEIS. A no action alternative cannot mirror the actions contained in the preferred alternative.

and wildlife. *See supra* Section II. The Corps has no obligation to maintain a 14-foot navigation channel. *Id.* Indeed a federal district court confirmed that the Corps has historically addressed sediment by dredging on an as-needed basis, rather than through an ongoing program. *NWF v. NMFS*, C02-2259L, Order Granting Preliminary Injunction (filed Nov. 1, 2004); *see also* DEIS at 1-9 to 1-10.⁷ There was no programmatic sediment management plan in place for the Lower Snake River prior to 2002, and the Record of Decision for the Dredged Material Management Plan was withdrawn in 2005. Since 2005, there has been no overall management plan for the lower Snake River in place. DEIS at 1-2. Although the Corps dredged three areas in the winter 2005-2006, this was a one-time action. DEIS at 1-11.

Thus, a true no action alternative would not have as its goal the maintenance of a 14-foot channel and would not involve navigation oriented reservoir management. Under such a plan, there would be no programmatic sediment management plan, and sediment would continue to accumulate in the river with the Corps doing nothing beyond necessary dam maintenance. This sort of true no action alternative would allow an examination of the consequences of not maintaining the channel at a 14-foot depth against the action alternatives provided by the Corps. That no action alternative would form the NEPA-required baseline to measure its effects on navigation – in addition to the Corps’ other competing responsibilities in the Lower Snake river – against the action alternatives provided by the Corps.⁸

2. *Inadequate evaluation of the Corps’ “no action alternative”*

The second major flaw in the Corps’ presentation of its “no action alternative” is that it fails to provide a rigorous analysis of that alternative. Again, while the Corps’ “no action alternative” is not a true no action plan, it still qualifies as an alternative that must be evaluated fully. The Corps, however, has provided nothing but the most surface-level evaluation of its “no action alternative.” Rather than considering that plan in the context of the many and varied interests the Corps must consider in the Lower Snake River, the Corps dismisses Alternative 1 out of hand because it may eventually result in less than a 14-foot navigation channel. When that would occur is not specified.

The Corps should have considered light-loading and other alternatives that would render Alternative 1 a workable solution (within the MOP constraints imposed by the FCRPS BiOp) and that might obviate the perceived need to maintain a 14-foot channel in perpetuity. The Corps’ responsibility on the Lower Snake River is not to provide a 14-foot channel for the sake of a 14-foot channel but only to do so if it is justified under the various economic and statutory considerations the Corps must consider. Failing to give due consideration to Alternative 1 is further evidence the Corps has neglected that responsibility; the Corps doomed this alternative when it formulated its narrow and mistaken purpose and need.

⁷ As explained above, neither the governing statutes nor the regulations require the Corps to manage sediment to maintain a 14-foot navigation channel during all months of the year, so there is similarly no “ongoing program” to provide a year-round 14-foot navigation channel.

⁸ As noted below and addressed more fully in the attached comments prepared by Natural Resource Economics, a true no action alternative is vital for the Corps to understand and present an accurate and balanced discussion of the benefits and costs of its alternatives and proposals.

8690 NEPA; range
of alternatives

B. The Corps Failed to Consider A Range of Reasonable Alternatives.

The Corps' cursory analysis of its non-dredging alternatives – along with entirely failing to consider other viable options – is a new application of the familiar law of the instrument fallacy: when you have a clamshell bucket, every problem looks like it should be dredged. An agency must consider all reasonable alternatives to a proposed action. 42 U.S.C. § 4332(2)(C)(iii); *Alaska Wilderness Recreation v. Morrison*, 67 F.3d 723, 729 (9th Cir.1995). What constitutes a “reasonable” alternative depends on the nature of the proposal. CEQ’s Forty Questions. Generally speaking, “[t]he stated goal of a project necessarily dictates the range of ‘reasonable’ alternatives and an agency cannot define its objectives in unreasonably narrow terms.” *See City of Carmel-By-The-Sea v. United States Dep’t of Transp.*, 123 F.3d 1142, 1160 (9th Cir. 1997) (citing *Citizens Against Burlington*, 938 F.2d at 196). Of course, the agency cannot narrow the purpose and need in order to limit the choice among alternatives. *See supra* Section II.

Where an agency identifies an alternative but drops it from further analysis, the agency must offer a sufficient and reasonable explanation for doing so. 40 C.F.R. § 1502.14(a); *N. Alaska Env’tl. Center v. Kempthorne*, 457 F.3d 969, 978-79 (9th Cir. 2006). The elimination of a reasonable alternative from detailed consideration on a basis that is legally incorrect is, of course, insufficient and unreasonable.

Here, the Corps identified and then rejected without detailed consideration four reasonable alternatives based on the assumption that it must maintain a 14-foot navigation channel year round: navigation-oriented reservoir management (Alternative 1), the implementation of system management measures only (Alternative 3), the implementation of structural management measures only (Alternative 4), and a combination of system management and structural management (Alternative 6). DEIS at 2-25 to 2-28, 2-30. The Corps entirely failed to consider alternatives or a combination of alternatives that would involve maintaining the navigation channel at less than 14 feet.

The Corps briefly identified and then summarily dismissed a “system management” measure to maintain channel depth at less than 14 feet. *See* DEIS at 2-5, 2-8. This measure should have been analyzed. It would have overlapped with the true no action alternative the Corps should have considered. Even if it were not the true no action alternative, however, managing the river for a different channel depth would still be a reasonable alternative in its own right inasmuch as it could meet the various obligations of the Corps in the Lower Snake River system. Managing the river for channel depth of less than 14 feet, or for 14 feet only during certain months of the year, is a reasonable alternative under the broader purpose and need that the Corps should have used in preparing NEPA analysis for a sediment management plan. The Corps’ proposed action is to adopt a plan that manages sediment that interferes with the authorized purposes of the LSRP. DEIS at 1-2. “The authorized purposes of the LSRP include commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation.” *Id.* at 1-4.

A channel depth of less than 14 feet is consistent with both the production of hydroelectric power and wildlife conservation. Nor would a change in channel depth preclude

navigation on the lower Snake River. As the DEIS itself acknowledges, “[m]aintaining the federal navigation channel at a less than 14-foot depth could be accomplished through establishing another depth as a minimum (such as 12 foot, 10 foot, etc.), or maintaining the 14-foot channel on a periodic basis . . .” DEIS at 2-5. In the former case, shippers could still use the river by “adjust[ing] their vessels and/or shipping practices to accommodate the new paradigm.” *Id.*

Despite the fact that adjusting channel depth is consistent with the broader purpose and need, the Corps summarily rejected this alternative – giving it a total of two sentences of analysis – on the grounds that it did not meet the purpose and need of the management plan: “The Congressionally-authorized channel depth is 14 feet.” *Id.* at 2-8. Even if the Corps were correct in its reading of the Flood Control Act of 1962 (and it is not, for the reasons discussed above), it cannot reject an alternative merely because it lacks current authority to implement it. *NWF v. NMFS*, 235 F.Supp.2d at 1154-1155. In rejecting this management measure for consideration among the alternatives, the Corps also foreclosed consideration of the feasibility and comparative advantages of light-loading barges. As a result, the Corps has provided no discussion of true alternatives to maintaining a 14-foot channel that might have allowed the public to evaluate the Corps’ vision for barging in the larger context of the movement of goods and other goals

The Corps relied on the same rationale as a basis for elimination of Alternative 3 from detailed consideration. Implementation of Alternative 3 would have addressed sediment problems by raising and lowering the level of the reservoir, adjusting flows to draw sediment downstream, and modifying or moving existing facilities affected by the sediment. *Id.* at 2-25 to 2-26. The Corps found that such system management measures would partially address long-term sedimentation problems and flood risk. *Id.* at 2-33. Alternative 3 was thus consistent with the purpose and need of developing a sediment management plan, the proposed action, because it would have had the potential to “manage, reduce and . . . sediment accumulation in areas of the lower Snake River reservoirs that interfere with federally authorized purposes.” DEIS at 1-3. Nevertheless, the Corps eliminated Alternative 3 on the grounds that “[f]urther system management measures would not reestablish the navigation channel.” *Id.* at 2-24. This again illustrates the unduly narrow scope of the purpose and need defined by the Corps.

Likewise, the Corps relied on its erroneously narrow definition of the purpose and need in eliminating Alternatives 4 and 6 from detailed consideration. Alternative 4 would have authorized the construction of structures such as bendway weirs and dikes, as well as activities like agitation to suspend sediment at existing structures. *Id.* at 2-27. Alternative 6 is a combination of Alternatives 3 and 4. *Id.* at 2-30 to 2-31. Neither of these alternatives received due consideration because they would not fulfill the Corps’ incorrect 14-foot channel purpose and need.

As a result of eliminating the alternatives that would not provide for an immediate 14-foot channel, the Corps ultimately considered only two alternatives in detail: Dredging Based Management (Alternative 5) and “Comprehensive” (Alternative 7). While there is no minimum number of alternatives that must be discussed in an EIS, the agency must consider a range of alternatives sufficient to “foster[] informed decision-making and informed public participation.”

California v. Block, 690 F.2d 753 (9th Cir. 1982). Having only two real alternatives, both involving the same primary action – dredging – and with a goal to “initiate action to reestablish the authorized dimensions of the navigation channel,” DEIS at 2-22, the DEIS does not fulfill this purpose.

As explained more fully in comments from the Nez Perce Tribe (which we adopt and incorporate here by reference), Alternative 7, the Corps’ chosen alternative, amounts to a “we’ll tell you later” approach; it is not a real action alternative. It contains no real plan but is just a limited menu of options the Corps may consider at some unspecified point after dredging, or perhaps after dredging another time, or another. There is no limiting principle to Alternative 7; it is essentially a license to take whatever actions on the list the Corps chooses, whenever it chooses, without actually selecting which options would be better than others or describing what standards the Corps will apply when choosing among these options. And as the Corps has demonstrated repeatedly, dredging will always be its default choice. Without establishing a hierarchy of measures and any standards or benchmarks for those measures, the Corps cannot evaluate the environmental or socioeconomic impacts of this Alternative.

15566
PSMP

The purpose of analyzing alternatives to a proposed action is to “identify and assess the reasonable alternatives to the proposed action that will avoid or minimize adverse effects of these actions upon the human environment.” 40 C.F.R. § 1500.2(e). The Corps’ failure to give detailed consideration to any alternative that does not rely on dredging is fatal to the legality of its NEPA analysis. See *Or. Natural Desert Ass’n v. BLM*, 531 F.3d 1114, 1145 (9th Cir. 2008) (holding that BLM violated NEPA’s alternatives requirement because, “[i]t considered no alternative that proposed closing more than a fraction of the planning area to ORV use”); *Or. Natural Desert Ass’n v. Singleton*, 47 F. Supp. 2d 1182, 1194 (D. Or. 1998) (holding that BLM unreasonably failed to consider “an alternative which simply eliminates cattle grazing, without compromising the rivers’ scenic, geologic, wildlife and cultural values” in preparing a management plan for Owyhee Rivers designated as Wild and Scenic). The DEIS does not accomplish any of these goals. By looking only narrowly at a set of alternatives designed to achieve a narrow predetermined outcome, the DEIS fails to satisfy NEPA’s requirement that it take a “hard look” at alternatives to its proposed action.

8693 General DEIS

IV. THE CORPS HAS UNLAWFULLY PREDETERMINED THE OUTCOME OF THE NEPA PROCESS.

The requirement that an agency must look before it leaps is a bedrock principle of the NEPA process. *Save the Yak Comm. v. Block*, 840 F.2d 714, 718 (9th Cir. 1988). An agency may not decide to proceed with a proposed action until after it has considered the action’s potential environmental impacts. The CEQ regulations require federal agencies to begin preparing NEPA documents as early as possible in the decision-making process “so that preparation can be completed in time for the final statement to be included in any recommendation or report on the proposal.” 40 C.F.R. 1508.25 (emphasis added). An EIS “shall be prepared early enough so that it can serve practically as an important contribution to the decision-making process and will not be used to rationalize or justify decisions already made.” *Id.* This is important because, “[a]fter major investment of both time and money, it is likely that more environmental harm will be tolerated” than would otherwise be acceptable if the agency

had considered that harm before it acted. *Confederated Tribes and Bands of the Yakima Indian Nation v. FERC*, 746 F.2d 466, 471-72 (9th Cir.1984).

The Corps has violated these key principles by deciding to adopt a sediment management plan, and specific contents of that plan, before completing the NEPA process. The DEIS “provides a menu of potential measures that may be applicable for sediment accumulation issues.” DEIS at 1. These options include dredging and dredged materials management. *Id.* at 13. Although it has not officially adopted Alternative 7 or the draft plan in Appendix A, the Corps is seeking a permit to authorize maintenance dredging activities at three locations in the Lower Granite Reservoir and at Ice Harbor Dam under Section 404 of the Clean Water Act. Specifically, on March 11, 2013, the Corps issued a press release inviting public comments on the proposed Clean Water Act Permit.⁹ While members of the public are diligently preparing comments on the DEIS in order to provide the Corps with full information, the Corps is proceeding with other actions as if it had already adopted Alternative 7 and the draft plan included in Appendix A in a Record of Decision.

The Corps’ pursuit of a Clean Water Act permit tiered to an as-yet unfinished NEPA process demonstrates that the Corps has predetermined the result of this NEPA process. This defeats the purposes of NEPA and is unacceptable. The Corps should abandon its intent to undertake any activities tiered to the PSMP or its EIS until *after* the NEPA process has been completed. In addition, unless the Corps makes substantial changes to the EIS and/or the PSMP in response to public comments, it can be presumed that the final EIS and PSMP will be predetermined results that do not satisfy NEPA.

V. THE DEIS FAILS TO ADEQUATELY EVALUATE THE ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES IT DOES PRESENT.

A. The DEIS Fails to Adequately Consider Effects to ESA-Listed Salmon and Steelhead.

There are two categories of direct effects that dredging or other in-water construction actions will have on threatened and endangered salmon and steelhead in the Snake River. The Corps’ discussion of both effects raises more questions than it answers. First, dredging will affect any fish in the river at the time through potential entrainment in dredge equipment, turbidity, noise, and other water quality impacts. The Corps repeatedly dismisses these impacts as unlikely or minimal because in-water work would occur during the “work windows” when “the fewest ESA-listed fish are found in the reservoir[s].” DEIS at 4-5. But as the Corps acknowledges, some Snake River Fall chinook overwinter in the reservoirs and steelhead may also be present during these work windows. The DEIS does not discuss whether or how the work windows will minimize impacts to these fish, does not consider impacts that will not be

⁹ See <http://www.nww.usace.army.mil/Portals/28/docs/programsandprojects/psmp/Pubnotice-2013-14drdg.pdf> (accessed March 20, 2013). Although the Corps seeks to rely on the DEIS for the NEPA review required for the 2013-2014 dredging, the dredged quantity identified in it Public Notice exceeds the amount discussed in the DEIS by 69,368 cubic yards.

8694 Aquatic resources;
threatened and endangered
species (aquatic)

avoided, and does not present or discuss any additional mitigation to address the impacts to fish that are there during the work window months. The DEIS cites several studies about Fall chinook that overwinter but does not attempt to quantify the number or percentage of overwintering fish or how affecting overwintering fish would affect the overall population. DEIS at 3-11 to 3-13, 4-5.

Second, dredging impacts salmonid habitat. The entire lower Snake River is designated critical habitat for Snake River Fall chinook salmon spawning, rearing and migration. The Corps notes that Snake River Fall chinook do spawn in the tailrace areas downstream of the four dams and that its most recent survey data (from 2006-2009) identified a number of Fall chinook redds in the tailrace portions of all four Lower Snake River dams. *Id.* at 3-10 to 3-11. The Corps also notes that the lock approaches in the downstream tailraces of these dams contain suitable habitat for spawning, but emphasizes that redds have not been detected in these areas recently. *Id.* at 4-5. Many of these lock approaches will be dredged under the dredging alternatives. *See id.* at 1-8 to 1-9 (each of the lock approaches listed as a “problem area”). Based on this data, the Corps appears to believe that dredging will not harm salmon spawning habitat. This conclusion is speculative and is based, at best, on outdated information. As the Corps and other federal agencies have touted in several other forums over the past three years, Snake River Fall chinook returns have, on average, increased in the past five years. Redd surveys last completed when these returns were up to 50% lower do not constitute complete or accurate information about what habitat is important for Fall chinook spawning now or in the future.

B. The Benefits Predicted from “Habitat Improvement” Resulting from In-Reservoir Deposition of Dredge Spoils are not Justified.

The DEIS assumes that in-river disposal will create effective “habitat” for salmon and other species. While we would support valid salmon habitat restoration measures, we are concerned that the benefits of in-river disposal are overstated and the risks have been ignored. We are primarily concerned that in-river disposal is being pursued primarily for economic, not environmental, reasons. To the extent the Corps contends that this use of dredge spoils is beneficial, it must consider the value of this habitat over the life of the PSMP and whether it will benefit specific runs of threatened and endangered salmon and steelhead.¹⁰ Even now, water temperatures in the Snake River during the months of July-September routinely exceed 70 degrees, which not only harms salmonids and other cold-water fish, but also violates Washington’s water quality standards. While a large portion of this increase is caused and exacerbated by the increased surface area of the reservoirs and slow-moving water behind the dams, these temperatures exceedences are projected to increase in both severity and duration over the next 20 years due to the effects of climate change. As temperatures increase, the temperature exceedences in the Snake River – particularly in shallow-water areas – will become longer and more severe. The Corps’ creation of shallow-water habitat (even if successful structurally) may provide no benefit if summer rearing fall chinook using shallow water habitat are forced by higher temperatures to move downstream to the cooler Columbia mainstem. The Corps’ projections of benefits from its placement of dredge spoils does not account for this or

¹⁰ As the Nez Perce Tribe explains, for example, the Corps must consider whether its projected benefits extend to significant portion of fall chinook that rear in the Clearwater River.

15454 water quality and sediment quality; water temperature

15453 Aquatic resources; threatened and endangered species

8695 Dredged materials disposal

8696 Water quality, and sediment quality; sediment quality

any other risks. Before the Corps embarks upon such a risky and expensive project, more evaluation on the risks and benefits should be provided.

C. Mobilization of Toxics into the Water Column.

The DEIS largely dismisses the potential for dredging to stir up toxic wastes contained in sediments. DEIS at 3-54 (one-paragraph summary of several sediment samples). We believe that the risks presented could be far greater than those acknowledged by the DEIS. Previous data has shown sediment samples contaminated with dioxin and petroleum products, substances that will be activated in the river during dredging. Industrial facilities like the Clearwater Paper facility continue to pour out dioxin and many other toxics into this area. Other than the most general description, there is no information in the DEIS on the sampling sites or whether any targeted sediment sampling has been done in the river. The Corps should provide much more detailed information, including the results of recent comprehensive sampling and core tests throughout the areas to be dredged. Moreover, the Corps should provide more detailed information on how it intends to monitor the dredging to ensure that toxics “hot spots” do not cause habitat degradation. Forthrightly addressing the toxics issue is particularly important where sediments will be used to attempt to create shallow water habitat for salmonids.

D. The DEIS Fails to Evaluate Fully the Impacts of its Preferred Alternative.

Although the DEIS contains some – albeit limited and inadequate – information about some of the impacts of dredging, it contains little to no analysis of the impacts of other features of Alternative 7. For example, though it includes raising the levees in Lewiston in its menu of options under Alternative 7, the Corps does not analyze the social, economic, and environmental costs of raising the levees, but rather treats this measure as a hypothetical that may become necessary in the future. See DEIS at 2-18. Other than noting that construction associated with raising the levees may cause “short-term” recreation or socioeconomic effects, the Corps ignores the impacts of this measure.

8697 General DEIS

The levee that protects downtown Lewiston from flooding originally had 5 feet of freeboard. Much of that freeboard is now gone. In 2001, because of sediment accumulation, the Corps proposed raising the levee by 3 feet to decrease the risk of flooding downtown Lewiston. In the absence of any information that this measure is “off the table” (combined with the Corps’ failure to consider climate change and other risk factors – see *infra*), raising Lewiston’s levees seems inevitable – at least insofar as the Corps has presented no plan that would alleviate that need.¹¹

The Corps is no doubt aware that raising the levees is a controversial measure that would adversely affect Lewiston by, among other things, further separating the community from the

¹¹ The Corps’ failure to analyze the impacts of this measure also undermines its consideration of cumulative effects. Regardless of whether this measure is necessary for the Corps’ impermissibly narrow focus on maintaining the navigation channel, it is at least reasonably foreseeable that additional sediment accumulation in the Lower Granite reservoir outside the navigation channel will continue over the course of the PSMP and require the Corps to address how to protect Lewiston from flood risk.

river and by requiring major changes to existing infrastructure. It will also be expensive and by itself should compel the Corps to look at other remedies for the flood risk to Lewiston. The Corps' wish to avoid addressing such a costly, unpopular, but integrally connected, issue in the DEIS does not allow the agency to sweep it under the rug. To the contrary, NEPA requires a full examination of all of the impacts of the action and any cumulative effects. By selectively discussing only some of the aspects of the action, the Corps has blinded both itself and the public to the full effects of its preferred course of action.

E. The DEIS fails to Consider Climate Change Impacts.

The Corps fails to consider the extent to which continued operation of the navigation channel contributes to climate change. Climate change must be considered among the direct or indirect impacts of an action. *See Mid States Coal. for Progress v. Surface Transportation Board*, 345 F.3d 520 (8th Cir. 2003) (EIS that failed to consider the climate change impacts of the coal planned for transport on the proposed rail line being analyzed in the EIS was inadequate); *Border Power Plant Working Group v. Dep't of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003) (EA for new electricity transmission line was inadequate because it failed to consider the impacts to climate change from power plants). An indirect impact is one that is "caused by the action and later in time or farther removed in distance, but still reasonably foreseeable." 40 C.F.R. § 1508.8(b).

8698 Air quality; greenhouse gas

The continued use of the Lower Snake River navigation channel contemplated in DEIS will result in the emission of greater greenhouse gases. As identified in the attached comments from Natural Resource Economics, the current barge system results in higher carbon dioxide emissions – at least 1,259 million tons higher – than shipping by rail. *See Attachment A at 19* (Natural Resource Economics comments discussing reports showing reductions in CO2 from McCoy facility alone due to efficiencies and a reduction in the number of truck miles travelled to rail line grain facilities versus the river navigation system). Less reliance on trucking to the river and barging would result in a measurable net reduction in energy consumption and air pollution, but these effects are not captured anywhere in the Corps' analysis.¹²

16637 Socioeconomics; transportation

Moreover, climate change compounds the harm to salmon caused by the operation of the Lower Snake River dams, including for navigation. In a rapidly warming world, access to cold-water refugia, such as that in central Idaho and eastern Oregon, is vital for resilience and for survival and recovery of salmon and steelhead. These cold-water refugia in central Idaho and Oregon support the highest and longest migrating salmon group on earth, a unique feature cited by scientists as vital to maintain given its adaptive value during climate change.¹³ There is

¹² "[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of [the agency's] control ... does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming." *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008). Rather, "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *Id.*

¹³ *See, e.g., J.T. Martin, Climate and development: Salmon Caught in the Squeeze. Response to 2007 Draft Biological Opinion on the Federal Columbia River Power System and Mainstem Effects of the Upper Snake and Other Tributary Actions* (2007); L. Crozier, R. Zabel, and A.

15456 aquatic resources; threatened and endangered species

8699 Climate
change

widespread scientific agreement that the current configuration and operation of the Snake River dams – that the Corps seeks to perpetuate through the PSMP – precludes these fish from reaching and fully utilizing that habitat. While the Corps recognizes that the current system of slackwater lakes does result in higher and longer lasting water temperatures in the summer, DEIS at 4-60, it fails to analyze its decision to continue maintaining a navigation system (for the term of the PSMP or beyond) that perpetuates this exceedence, nor does it recognize or consider that increasing temperatures from climate change will make this current problem worse. *See, e.g., id.* at 4-66 (finding that Alternative 7 would not change current conditions and so will not contribute to cumulative effects to these species).¹⁴ In choosing to maintain this waterway, the Corps is making a decision to perpetuate these impacts and must fully consider them in its EIS.

VI. THE DEIS FAILS TO IDENTIFY AND ADEQUATELY ANALYZE CUMULATIVE IMPACTS.

NEPA requires a cumulative impacts analysis to: (1) catalogue past projects in the area; (2) assess the cumulative environmental impacts of those projects with the proposed project; and (3) analyze the additive cumulative impact of all reasonably foreseeable Federal and non-Federal actions, whether or not they have actually been proposed. *See City of Carmel-By-The-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 1160 (9th Cir. 1997) (rejecting cumulative impacts analysis that referred generally to other past “development projects” and did not discuss the additive impacts of foreseeable future projects); *Fritiofson v. Alexander*, 772 F.2d 1225, 1243 (5th Cir. 1985) (agency must consider reasonably foreseeable actions regardless of whether they have yet formally been proposed). Furthermore, NEPA requires that a cumulative impacts analysis provide “some quantified or detailed information” because “[w]ithout such information, neither courts nor the public . . . can be assured that the Forest Service provided the hard look that it is required to provide.” *Cuddy Mountain*, 137 F.3d at 1379; *Carmel-By-The-Sea*, 123 F.3d at 1160 (faulting EIS for describing other projects in inadequate detail to permit review of their cumulative impacts). The DEIS does not contain an analysis of cumulative effects that meets these requirements.

8700 Cumulative
effects

Hamlet, *Predicting Differential Effects of Climate Change at the Population Level with Life-cycle Models of Spring Chinook Salmon* (2008); *Global Change Biology* 14: 236-249 at 247 (study by NOAA Fisheries scientists and others concluding that because “[g]lobal warming will likely reduce potential habitat at lower elevations in the Pacific Northwest,” preserving high-elevation populations in the Snake basin is a “top conservation priority.”)

¹⁴ For example, according to Goniea, et al. (2006), “[t]he impoundment of the lower Columbia and Snake rivers [behind] a series of hydroelectric projects and the resulting flow manipulations have correlated with a trend of warmer water temperatures within the system. Over the last several decades, the main stem has steadily warmed earlier in the spring and cooled later in the fall. Warming due to impoundment and water diversion has been exacerbated by regional climate change.” Goniea, T.M., et al., *Behavioral Thermoregulation and Slowed Migration by Adult Fall Chinook in Response to High Columbia River Water Temperatures*, 135 *Transactions of the American Fisheries Society* 408, 408-19 (2008).

1. *The DEIS does not identify other reasonably foreseeable actions.*

First, rather than identifying and cataloguing the full suite of projects and impacts in the affected area (both past and present), the Corps cryptically states that, with the exception of Alternative 3, it will only consider activities that the Corps itself has or will undertake in its cumulative impact analysis. DEIS at 4-55. But the Corps' duty is to evaluate cumulative effects – including reasonably foreseeable effects – from all entities in the action area. Although the Corps assumes that the alternatives will not have cumulative effects with other projects in the action area, the DEIS does not contain information about any other projects that would allow the Corps to draw this conclusion. There is no discussion of impacts from, for example, timber sales or other activities planned in the watershed, other maintenance dredging at the Mouth of the Columbia or in the Lower Columbia River, impacts from the port of Lewiston's dock expansion and related dredging, or the future impacts of FCRPS management on salmon and steelhead. There are likely far more than just these actions that are reasonably foreseeable over the course of the PSMP, but the point is that none are even catalogued, let alone analyzed in the Corps' cumulative effects discussion.

2. *The cumulative effects analysis does not account for a changing baseline from climate change.*

The DEIS fails to incorporate climate change into its cumulative impacts analysis, either as part of its catalog of past projects and events, or as a reasonably foreseeable future impact. In fact, the only reference to "climate change" in the "Cumulative Effects" section of the DEIS uses climate change as an excuse to avoid estimating or providing a qualitative description of the amount of sediment entering the river from upland sources. See DEIS at 4-67 ("Conditions related to climate change could change sediment loading and transport dynamics in the cumulative effects study area. Therefore, Alternative 7 would not have a cumulative effect on hydrology and sediment."). This statement misses the point entirely.

It is a fact that increasing temperatures in the Snake River watershed will likely bring an increase in forest fires and an increase in the amount of sediment that reaches the river. See, e.g., DEIS at 1-16 (fires are responsible for the largest amounts of sediment in this basin). The frequency and severity of these fires has increased over the past 40 years, see *id.* at 1-21 to 1-23, and is expected to increase as the climate continues to warm. *Id.* at 1-25. The DEIS cites a recent study looking at the likely impacts of climate change on sediment loads in central Idaho. DEIS, App'x D (*Enhanced Sediment Delivery in a Changing Climate in Semi-arid Mountain Basins: Implications for Water Resource Management and Aquatic Habitat in the Northern Rocky Mountains*). A quote from this study is particularly applicable here.

Climate-modulated interactions among vegetation, wildfire, and hydrology suggest that sediment yields will likely increase in response to climate change. Within central Idaho recent climate-driven increases in wildfire burn severity and extent have the potential to produce sediment yields roughly 10-times greater than those observed during the 20th century. ...these elevated sediment yields are probably outside of the range of expectations for downstream reservoirs, which may have consequences for reservoir management and life expectancy.

It is at least reasonably foreseeable – and indeed, likely – that the sediment accumulation the Corps is attempting to address in the DEIS will increase and will require additional measures and additional costs over time.¹⁵ None of these increases, however, are factored into the Corps’ consideration of the environmental impacts from increased needs for channel maintenance over time and are not considered in any analysis of the benefits and costs of the PSMP. The Corps is not permitted to ignore the changing on-the-ground reality of its action over the term of the DEIS. By doing so, the Corps not only ignores a host of cumulative environmental impacts, but also fails to account for changes that will alter the economics of continuing to maintain a 14-foot navigation channel.

VII. THE DEIS PRESENTS INCONSISTENT AND INACCURATE INFORMATION.

Agencies are required to ensure the professional integrity of all discussions and analyses in an EIS, including economic analyses. 40 C.F.R. § 1502.24. The DEIS does not do so.

A. The DEIS Presents Contradictory and Inaccurate Information About Sediment Volumes.

8704 Hydrology and sediment, watershed sediment production

Due to the Corps’ erroneous and unspecific sediment deposition estimates, it is impossible to understand the environmental and economic costs of dredging. Based on dredging history, the area requiring 95% of past dredging in the Lower Granite Reservoir is generally referred to as the confluence of the Snake and Clearwater Rivers, or from the Port of Lewiston at RM 2.0 on the Clearwater to RM 137.69 just below the Port of Clarkston. The volume of sediment that accumulates in this area is the key element in any sediment management plan.

According to the DEIS, an estimated average 2.2 million cubic yards (mcy) of sediment arrives at the confluence of the Snake and Clearwater Rivers annually. This figure is based upon the Corps’ estimate that about 80 mcy of sediment has accumulated in the Lower Granite Reservoir between 1974 and 2010, or the previous 36 years. DEIS App’x A at 19. A small portion (estimated at .2 mcy) is transported over Lower Granite (fine sand and silt). The rest gets deposited in the upper reservoir, mostly around the confluence, with much of this deposit later moving down stream to deeper water.

¹⁵ Even apart from the increase in sediment predicted from the effects of climate change, the Corps’ sediment projections do not account for increases in sediment from other events. For example, the SWAT model the Corps relies on in Appendix F does not appear to account for mass wasting events that contribute massive amounts of sediment to river systems in one-time pulses. Nor does the Corps present the most recent information. *See, e.g.*, App. F at 163 (fire map does not include recent fires in the Selway-Bitterroot or Nez-Perce/Clearwater national Forests that burned over 50,000 acres in 2012). Finally, the Corps’ sediment projections do not account for reasonably foreseeable increases in timber harvest of federal (or any other lands) lands. The Forest Service seeks to increase logging in National Forests over this same time period – the sediment from that logging and associated road construction will result in increased sedimentation.

8703 Cumulative effects

The Corps, however, fails to provide any accurate information about historical sediment deposition at the confluence. Table 3.16 omits any figures for dredging in the most critical reach of the Lower Granite Reservoir – the confluence of the Snake and Clearwater Rivers, where most of the dredging occurs. Table 3.16 data includes 2.76 mcy as the amount of sediment dredged in Lower Granite Reservoir from 1974-2010. However, Table 1-3 of the DEIS and Appendix A list the total volume for all the dredging in Lower Granite reservoir as over 4.5 mcy, with about 95% of the total completed at/near the confluence.

These contradictory and confusing data infect other sections of the DEIS. In reality, sediment accumulation becomes less and less of an issue downstream from the Port of Wilma as reservoir depths increase. The DEIS needs to better evaluate sediment transport and deposition in the Clearwater River from the upper limits of the pool down to the confluence with the Snake River and in the Snake River from the upper limits of the pool downstream past the confluence with the Clearwater River and down to the Port of Wilma area. It is difficult for the Corps, let alone the public, to understand the environmental effects and the economic costs of dredging when it is unclear what volumes of sediment the Corps has dredged – and will need to dredge in the future – and from where.

B. The DEIS Fails to Adequately Discuss Flood Risks to Lewiston.

While Appendix F’s “Flood Risk Analysis” may appear robust at first blush, its analysis lacks important considerations and downplays the flood risk to the City of Lewiston. In 26 pages of discussion, tables, and figures, the issue of climate change is never mentioned, yet climate change will likely play an important role in the future flood risk for Lewiston.

Instead, the Flood Risk Analysis looks only at past flow events for its conclusions without modeling any of the contingencies Lewiston will face in the future. For example, a major cause of large flood events on the west coast and inland is a weather event known as a “Pineapple Express.” A Pineapple Express is a non-technical term for a meteorological phenomenon characterized by a strong and persistent flow of atmospheric moisture and associated with heavy precipitation from the waters adjacent to the Hawaiian Islands and extending to any location along the Pacific coast of North America.

8705 Hydrology;
flood risk mgmt

When a Pineapple Express follows a period of colder weather and lower elevation snow accumulations, large scale flooding is often the result. While northern and central California has been the historic recipient of these events (1955, 1964, 1986 and 1997) the Willamette Valley in 1996 and the Puget Sound region from Olympia, Washington to Vancouver, BC in 2006 experienced massive flooding from Pineapple Express storm cycles. The 1997 event centered in northern California still caused significant flooding in the state of Idaho.

To understand the magnitude of these storm cycles, the 1964 flooding in northern California was described as a 600-year flood event – well below the Corps’ 1,000 year System Probable Flood (SPF) determination. The Smith River, a watershed of only 719 square miles reached a peak flow of 228,000 cubic feet per second (cfs) and the Eel River with a larger watershed of 3,684 square miles exceeded 750,000 cfs. By comparison, the Clearwater River watershed covers 9,645 square miles yet the identified SPF for the Clearwater River is either 125,000 cfs or 150,000 cfs (depending on which section of Appendix F one is referencing).

Further, the total watershed of Lower Granite Reservoir is 27,140 square miles with a combined Snake & Clearwater River SPF of 420,000 cfs.

16721
climate
change

Clearly, if a strong Pineapple Express event followed a period of snow accumulation and was centered on the Clearwater and/or Snake watersheds, the potential exists for record streamflows well in excess of predicted SPF's and a significant flood threat to Lewiston.

At the very least, this analysis should evaluate the possible effects of climate change and the potential for shifting storm tracks instead of simply looking at the past.

8706 Costs and
funding

Additionally, Appendix F of the DEIS identifies significant uncertainty in its flood risk analysis even when looking at existing conditions. The DEIS lacks analysis on the possible effects of increased sediment delivery due to increased wildfire and mass wasting events that result from climate change. The impact analysis of increased sedimentation on flow conveyance, levee height & freeboard should include a benefit/cost assessment that includes information (including economic and social costs) on levee maintenance and expansion and sediment dredging for flow conveyance purposes.

The analysis should recognize that the major flood risk to Lewiston is the very existence of Lower Granite Reservoir. The ongoing accumulation of sediment, decreased channel capacity, and project operations guarantees an ongoing flood risk greatly in excess of the risk prior to the construction of Lower Granite Dam.

VIII. THE CORPS HAS FAILED TO TAKE A HARD LOOK AT THE SOCIETAL AND ECONOMIC EFFECTS OF MAINTAINING THE NAVIGATION CHANNEL.

A. NEPA Requires the Corps to Use Accurate Information and to Fully Assess the Economic and Social Impacts in the DEIS.

To satisfy NEPA's requirement to take a "hard look" at the consequences of its actions, an agency must engage in a "reasoned evaluation of the relevant factors." *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1992). An agency's failure to include and analyze information that is important, significant, or essential renders an EIS inadequate. 40 C.F.R. § 1500.1. These fundamental NEPA principles apply to both the economic and environmental analyses in an EIS. See *Animal Defense Council v. Hodel*, 840 F.2d 1432, 1439 (9th Cir. 1988); *Hughes River Watershed Council v. Glickman*, 81 F.3d 437, 446 (4th Cir. 1996) ("For an EIS to serve [its] functions, it is essential that the EIS not be based on misleading economic assumptions."); 40 C.F.R. § 1502.23 (cost-benefit analysis); 40 C.F.R. § 1508.8 (the "effects" that an EIS must evaluate include economic impacts), *id.* at § 1508.14 (requiring discussion of interrelated economic or social impacts in EIS). Agencies are additionally required to ensure the professional integrity of all discussions and analyses in an EIS, including economic analyses. *Id.* § 1502.24. Thus, an EIS that relies on misleading economic information or fails to include all relevant costs in its economic analysis cannot fulfill NEPA's purpose of providing decision-makers and the public a valid foundation on which to judge proposed projects. See, e.g., *ONRC v. Marsh*, 832 F.2d 1489, 1499 (9th Cir. 1987); *Animal Defense Council*, 840 F.2d at 1439.

Applying these principles in *Hughes River Watershed Council*, 81 F.3d at 446-48, the Fourth Circuit found the Corps violated NEPA because its EIS for a proposed dam construction

8707 costs and funding

project overstated recreation benefits and undermined the decision-makers' ability to balance the environmental impacts and economic benefits. Similarly, in *Van Abbema v. Fornell*, 807 F.2d 633, 640-42 (7th Cir. 1986), the Seventh Circuit concluded the Corps' economic analysis relied on inaccurate data, unexplained assumptions, and outdated reports. *See also Johnston v. Davis*, 698 F.2d 1088, 1094 (10th Cir. 1983) (unqualified use of artificially low discount rate in economic analysis, even though legally required, resulted in misleading EIS that violated NEPA); *Sierra Club v. Sigler*, 695 F.2d 957, 975-76 (5th Cir. 1983) ("There can be no 'hard look' at costs and benefits unless all costs are disclosed.").

The DEIS fails to satisfy any of these requirements. As explained more fully in the attached comments prepared on behalf of the undersigned organizations by Natural Resource Economics, the DEIS fails to discuss a host of relevant information, presents only one-sided and misleading information and conclusions about the benefits of the project, and fails to apply the requirements of NEPA, its own regulations, applicable standards and guidelines, and does not adhere to recognized professional standards for evaluating the benefits and costs of any of the alternatives. *See* Natural Resource Economics, *Comments On the Lower Snake River Programmatic Sediment Management Plan: Draft Environmental Impact Statement* (Mar. 25, 2013) at 3-14. Those comments are appended as Attachment A and fully incorporated by reference here. To correct these deficiencies, the Corps must start over and transparently evaluate the full suite of socioeconomic impacts of its preferred action and a full range of alternatives rather than relying on general statements and outdated assumptions about the costs and benefits of its preferred course.

8708
Costs and
funding

B. The EIS Presents Misleading and One-Sided Information to Show a Net Benefit From the Project and Ignores Available Information Demonstrating that the Costs Far Exceed the Benefits.

Because of the Corps' failure to comply with the above requirements, the DEIS (unlike past Corps EISs on this same issue), does not even estimate a benefit/cost ratio for the preferred – or any other – alternative. We question whether that failure is a mere oversight, or whether it reflects the fact that the available information shows that this ratio shows a net detriment would result from the PSMP.

Here, the entire justification for the Corps' proposal to maintain a 14-foot navigation channel in the Snake River is that the navigation system provides net economic benefits by reducing the costs of transporting freight. But all of the available information indicates that this action will not produce those benefits and will instead result in a loss for every dollar spent.

First, as detailed in Attachment A, the available information – much of which the Corps ignored or failed to find – paints a very different picture of the current value of the waterway and indicates that the trends undermining its value are likely to continue and accelerate. But even under current conditions, dredging costs alone likely will exceed the economic benefits, if any, of the Corps' Preferred Alternative.

The DEIS shows that, between 1982 and 2006, the Corps dredged about 4 million cubic yards of material above Lower Granite Dam, or more than 150,000 cubic yards per year, on average. DEIS at 1-10 and 1-11. The Corps estimated in 2005 that dredging this annual volume costs at least \$2 million. These

costs will at least carry forward and likely increase over the time period of the PSMP, especially as the volume of sediment likely will increase over time. Grain shippers – the primary beneficiary of the navigation system – avoid, on average, costs of about \$1–2 million per million tons of grain shipped by barge. In recent years, the Port of Lewiston, the primary beneficiary of dredging in the Lower Granite reservoir, has shipped about 500,000 tons of grain per year by barge. Assuming a continuation of these volumes (a conservative assumption given other developments in regional transportation),

grain shippers would incur additional costs of \$0.5–1.0 million per year, if they were unable to ship by barge. The avoidance of these costs represents the Preferred Alternative’s primary economic benefit. This benefit, \$0.5–1.0 million per year, however, falls short of the annualized cost of dredging of at least \$2 million.

Attachment A at 16. *See also id.* at 17 (explaining similarly negative cost/benefit ratio even when considering all cargo moving through Lower Granite navigation locks). In fact, at present levels of shipping from the Port of Lewiston, the subsidy for barge transport for channel dredging alone is \$11,000 for every full barge that leaves the port. If the \$16 million cost of the DEIS is amortized over the next 20 years and included as a cost of this dredging, that subsidy rises to \$18,000 per barge.

There is other information available, however, that shows the net costs of dredging the navigation channel are even larger than this. Shipments through the waterway have steadily declined over the past decade, with most of this decline occurring even before the recession that began in 2007. *See* Attachment A at 17 (summarizing a 47 percent decline in shipping over Lower Granite, 30 percent over Little Goose, 31 percent over Lower Monumental, and 33 percent over Ice Harbor).¹⁶ If these volumes continue to decline in the future, any potential benefits from maintaining the navigation channel, all else equal, will decline as well.

Indeed, although the Corps does not discuss the issue in the DEIS, further declines are likely. As long ago as 2003, close to one third of the grain from this region was already shipped by rail or truck. The Ritzville train loading facility completed in 2002 had an immediate and significant impact on shipping from this region. *See* Attachment A at 17-18 (discussing study showing 30 percent drop in barging and concomitant increase in rails use at Ritzville facility by 2005). The trend toward rail shipping continues. The soon-to-be-opened McCoy shuttle train

¹⁶ While the recession no doubt had an impact, this decline in barge shipping had been underway for the previous six years. Pulp and paper, wood products, and grains make up about 90% of what is barged on the Snake. In 2000, for example, the Port of Lewiston shipped 914,344 tons of wheat, by far its primary export. That number had declined steadily to 681,005 tons in 2005 and to 499,505 by 2011. Container shipments from the Port of Lewiston declined from 17,590 twenty-foot equivalent units (TEUs) in 2000 to 5735 TEUs in 2005 and to 3653 TEUs in 2011. Pulp and paper shipments at Lower Granite dam declined 85% from 2000 to 2005, then another 37% from 2005 to 2010, for a total 10-year decline of 90%. Wood products declined 40% over the ten-year period. The Port of Lewiston, for example, has not shipped any lumber for the past 5 years. For all products passing through the Lower Granite lock, tonnage declined 45% from 2000-2010, with more than half of this decline occurring before 2006. Changes at Lower Granite closely mirror changes at the other three Snake River dams.

loader facility near Oakesdale will provide yet another competitive alternative to trucking grain for shipment by barge on the waterway. In all likelihood, the facility will result in diverting even more grain to rail that otherwise would be shipped by barge. The DEIS does not discuss – or even mention – either of these developments or the likelihood that they further decrease any navigation-related economic benefits.

What little information on economics the Corps does present in the DEIS ignores all of this evidence and grossly exaggerates the volume of commercial freight transported on the lower Snake River and overestimates the benefits of the system. For example, the DEIS broadly – but without any explanation – asserts that approximately 10 million tons of cargo are transported annually on the lower Snake River. DEIS at 3-43. But the Corps' own figures reveal that this 10-million ton figure in the DEIS overstates the facts. According to the Corps' Waterborne Commerce Statistics Center (WCSC), the total tonnage passing Ice Harbor Dam (the first dam on the Snake River above the confluence with the Columbia) in 2010 was only about 2.9 million tons, roughly half of the tonnage that passes over McNary dam.¹⁷

The amount of cargo transported on the Snake River is even less significant when viewed on a national scale. The Lower Snake River carries 5 percent of total tonnage of the Columbia/Snake River System and about 1/2 of 1 percent of the nation's total tonnage on inland waterways. In terms of ton-miles, a more accurate reflection of a given river's relative importance in U.S. waterborne freight transport, the Lower Snake River accounts for a mere 1/10th of 1 percent of all freight transported on the U.S. inland waterway system.¹⁸

Moreover, the overall costs of maintaining the Columbia/Snake River system include much more than those required for channel dredging at the Snake/Clearwater confluence. For example, the Corps spent \$43.6 million on lock repairs on the Columbia/Snake River inland waterway in 2010/2011 after spending more than \$200 million for the lock replacement at Bonneville Dam. The cost of other lock and dam repairs since 2004 totals \$24 million. Thus over the past 8 years, the Corps has spent at least \$267.6 million for direct repairs and improvements needed to keep barges traveling up and down the Snake and Columbia Rivers. That figure does not include the Corps' operations and management costs or any share of the more than \$180 million of lower Columbia dredging expenditure to allow larger ocean-going ships to reach the ports at Portland or Vancouver. Nor does it include the costs (or even some percentage share of the costs) of failed measures to mitigate the impacts of the Snake River dams on salmon and steelhead, which would add hundreds of millions more to this total.

¹⁷ According to the WCSC, total tonnage passing through McNary locks in 2010 was only 5.5 million tons. All marine freight traveling from and to the Snake River and to ports in the mid-Columbia, including the Pasco, Kennewick and Richland area, passes through the McNary lock. Given this, it is difficult to understand how the Corps arrives at its 10 million tons per year figure for just the Snake River.

¹⁸ In 2010, total ton-miles on all U.S. inland waterways was 263.2 billion. In 2010, the entire Columbia-Snake River System provided 2.2 billion ton-miles to the national total, or 0.8 percent. The lower Snake River provided 0.3 billion-ton miles of waterborne freight movement, or 0.1 percent of all U.S. inland waterway freight movement.

15510 costs and funding

8710 Environmental laws and regulations

Recognizing the extent of its infrastructure and agency responsibilities, the growing rate of deterioration of its facilities and decreasing agency and federal budgets, the Corps recently requested the National Academy of Sciences to prepare a report on possible options. The resulting report: *Corps of Engineers Water Resources Infrastructure: Deterioration, Investment, or Divestment?* noted that the Corps is in “an unsustainable situation for maintenance of existing infrastructure. This scenario entails increased frequency of infrastructure failure and negative social, economic, and public safety consequences.” One major alternative outlined in the NAS

report suggests the possible divestiture or decommissioning of parts of the Corps’ infrastructure.

In light of the information provided above, the maintenance of barge transportation on the Lower Snake River appears to be a good candidate for such consideration. Given this recommendation,

the requirements of NEPA, and the Corps’ proposal to maintain the Snake River as a waterway through the PSMP, this DEIS is the place where the Corps should examine that alternative.

IX. THE CORPS’ FLAWED NEPA ANALYSIS ALSO INFECTS ITS RESPONSIBILITIES TO COMPLY WITH THE CLEAN WATER ACT

The Corps’ flawed NEPA analysis also infects its responsibilities to comply with the Clean Water Act. Like NEPA, the Clean Water Act (“CWA”) requires that, before proceeding with projects affecting water of the United States, the Corps conduct an analysis of the project’s potential impacts. The CWA seeks to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). One mechanism through which it serves these ends is by prohibiting the discharge of pollutants into navigable waters without a § 404 permit. 33 U.S.C. § 1344(a); 33 C.F.R. § 320.4(a)(1). The public interest review required to issue that permit is similar to NEPA and requires that “[t]he benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments.” *Id.*

Thus, just like NEPA, the CWA requires the Corps to conduct a comprehensive analysis of the impacts of dredging and levee construction before those projects may proceed. The Corps’ failure to do so in this DEIS therefore not only violates NEPA, but if not corrected, also infects its CWA permitting process. *See Friends of the Earth v. Hall*, 693 F. Supp. 904, 946 (W.D. Wash. 1988) (gaps in data and scientific uncertainty in Corps’ NEPA analysis fatally undermined its conclusion under § 404(b) guidelines that project would not “cause significant degradation”); *Van Abbema v. Fornell*, 807 F.2d 633, 643 (7th Cir. 1986) (Corps’ reliance upon NEPA analysis’s inaccurate economic information rendered CWA public interest review similarly invalid). Only with knowledge in hand can the agency determine what best serves the public interest. This EIS does precisely the opposite.

The undersigned groups will detail their CWA concerns further in commenting on the Public Notice issued by the Corps on March 11, 2013.

CONCLUSION

As detailed throughout these comments, the context in which the Corps is considering a long-term plan to maintain the navigation channel in the Lower Snake River has changed substantially since the Corps last considered the maintenance of the navigation channel. Those changes and the new information behind them, however, are not reflected in the DEIS; rather, the

Corps in the DEIS continues to take the same narrow view of its responsibilities and potential alternatives that has led to substantial controversy in the past. We urge the Corps in its final EIS to take a far broader – and more accurate – view of its legal responsibilities by giving adequate consideration to non-dredging alternatives and by properly disclosing the full costs, ecological and monetary, of its proposed actions.

If you have any questions about these comments, or would like to discuss any matter discussed in these comments, please contact any of the undersigned.

Sincerely,

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ATTACHMENT A

Comments

On the Lower Snake River Programmatic Sediment Management Plan: Draft Environmental Impact Statement

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These comments were prepared on behalf of American Rivers, Earthjustice, Friends of the Clearwater, Borg Hendrickson, Linwood Laughy, Idaho Rivers United, Institute for Fisheries Resources, Pacific Coast Federation of Fishermen’s Associations, Save Our Wild Salmon, and Sierra Club by Ernie Niemi of Natural Resource Economics, Inc., which is solely responsible for their content.

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I. Executive Summary

The Walla Walla District of the U.S. Army Corps of Engineers (Corps) has published a draft environmental impact statement (DEIS) for the Programmatic Sediment Management Plan (PSMP) for the Corps' Lower Snake River Project (LSRP). The Corps' Preferred Alternative for the PSMP, if adopted, would provide the programmatic framework for evaluating and implementing potential sediment management measures the Corps will define in the future. The Preferred Alternative would employ all available measures, including dredging and the construction of new structures, to manage sediment in the river to maintain a navigation channel that would enable barge traffic along the Lower Snake River from its confluence with the Columbia River to the Port of Lewiston, Idaho.

In preparing the PSMP DEIS, the Corps had an obligation, under the National Environmental Policy Act (NEPA) to provide details of the environmental consequences of the Preferred Alternative "to the fullest extent possible." The courts have interpreted this obligation as a "requirement of a substantial, good faith effort at studying, analyzing, and expressing the environmental issues in the EIS and the decisionmaking process,"¹ including the socioeconomic impacts of the action and its alternatives. The Corps also had obligations to satisfy widely accepted professional standards of analysis, as well as the agency's own analytical standards. Moreover, it had an obligation to formulate an alternative that would maximize net national economic development benefits, consistent with the authorized purposes of the LSRP, and to choose it as the one it prefers unless it could demonstrate that the beneficial effects of another alternative would outweigh the corresponding national economic development losses.

The PSMP DEIS fails completely to satisfy these obligations with respect to socioeconomics. Rather than presenting "to the fullest extent possible" the details regarding the socioeconomic consequences of the Preferred Alternative, it provides no details whatsoever. This gap does not stem from a lack of relevant information. Extensive socioeconomic information exists regarding major elements of the Preferred Alternative, such as the annualized dredging costs to maintain the navigation channel, the amount of freight that uses the channel, the benefits to shippers who realize cost savings when they send their freight via barge rather than use other transportation modes, investments in the rail system likely to extend its ability to draw future shipping traffic away from the barge system, the transportation system's likely response if the navigation channel were not maintained, and the impacts of a cessation of barge traffic in the Lower Snake on regional jobs and incomes.

Rather than present a "substantial, full faith effort at studying, analyzing, and expressing" the socioeconomic issues associated with the PSMP and the process that resulted in the selection of the Preferred Alternative, the DEIS presents vague, superficial generalities. The DEIS lacks quantitative substance of any kind regarding the Preferred Alternative's economic costs and benefits; its impacts on economic activity, jobs, and incomes in the surrounding region; and the uncertainties and risks that would accompany implementation of the Preferred Alternative. Contrary to professional standards established by the President, the Office of Management and Budget, and the Corp itself, the DEIS never identifies the effects on net national economic benefits (or costs) or on net regional jobs and incomes as relevant issues for evaluating the

¹ Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir., 1972).

various alternatives’ socioeconomic consequences. Nor does it report that the decision-making process for selecting the Preferred Alternative employed the maximization of these variables as relevant selection criteria. As a result, the DEIS provides no socioeconomic basis for the selection of the Preferred Alternative, nor does it come close to providing the public with the information it needs to judge the socioeconomic reasonableness of that decision.

The DEIS never formulates an alternative that would maximize net national economic development benefits, nor does it describe each alternative’s national economic development costs and benefits. Lacking this information, the DEIS makes no mention of the Preferred Alternative’s net national economic development benefits.

Substantial, readily available information, however, indicates that the Corps’ Preferred Alternative likely would have a negative net effect on national economic development, i.e., its costs would exceed its benefits. In contrast, this information suggests that taking no action likely would have a positive effect, by avoiding expenditures on dredging and sediment-control structures aimed at maintaining the navigation channel through the Lower Granite Pool. The dredging costs, alone, under the Preferred Alternative likely would exceed the economic benefits of maintaining barge traffic to and from this pool. Overall, maintaining the navigation channel, as proposed under the Preferred Alternative, likely would result in wasteful use of economic resources to subsidize barge traffic, reduce economic growth to the extent that those resources otherwise would be put to better use, and curtail opportunities for jobs and incomes associated with competing systems, especially rail, for moving freight into and out of the LSRP region. In other words, the DEIS presents information and selects a Preferred Alternative biased in favor of dredging and other activities that require taxpayer support and subsidies to the barge industry. Taking no action, however, would yield more desirable socioeconomic outcomes for everyone except the beneficiaries of those subsidies.

To rectify these shortcomings in the DEIS, the Corps must start over. It must identify socioeconomic issues – such as the net economic benefits (or costs) of sediment management and the long-term regional impacts on jobs and incomes – relevant for evaluating and choosing among alternatives for managing sediment in the LSRP. For each issue, the Corps must specify appropriate analytical methods and data for examining the absolute and relative effects of different management approaches. It then must define a baseline scenario that describes, from a socioeconomic perspective, the status of each issue without federal action, and employ the methods and data to describe in detail how each alternative would make the world different. For each alternative, it must, at a minimum, specify relevant assumptions and determine the benefits and costs and the changes in jobs and incomes relative to the baseline scenario, with a full discussion of the significant uncertainties and risks. With this detailed, comparative information in hand, it then must define the socioeconomic criteria appropriate for comparing the alternatives, apply the criteria, and explain, from a socioeconomic perspective, which of the alternatives is the Preferred Alternative.

II. Background

In December 2012 the Corps' Walla Walla District published a draft environmental impact statement (DEIS) for the Programmatic Sediment Management Plan (PSMP) for the Corps' Lower Snake River Project (LSRP).² Its stated purpose is to adopt and implement actions for emergency, short-term, and long-term management of sediment that interferes with the Corps' interpretation of the authorized purposes of the LSRP. These stated purposes are commercial navigation, recreation, and fish and wildlife conservation and mitigation. The PSMP attempts to provide a programmatic framework to evaluate and implement potential sediment management measures that, if the PSMP is adopted, will be developed in the future.

In developing the PSMP DEIS, the Corps formulated seven alternatives, but evaluated in detail only these three:

Alternative 1 - No Action (Continue Current Practices)

"The No Action Alternative represents a continuation of the Corps' current operational practices of managing the LSRP through navigation objective reservoir operations in the lower Snake River, and sediment reduction measures implemented in the Snake River watershed by other agencies and land managers."³

Alternative 5 – Dredging-Based Sediment Management

"Alternative 5 represents a continuation of the Corps historical practices of using dredging as the primary tool for managing sediment that interferes with authorized uses of the LSRP. The Corps would continue its current program of monitoring sediments that affect the authorized purposes of the LSRP. Sediment management would consist of dredging and dredged material management. Sediment management activities would be undertaken in response to or anticipation of sediment accumulation problems.

Agencies and land owners responsible for land management in the basins that drain into the LSRP (including federal and state agencies, tribes, and conservation districts) would continue to implement existing land management programs and practices related to erosion control, consistent with their current authorizations and funding. The Corps would continue implementing erosion and sediment control on lands adjacent to the LSRP."⁴

Alternative 7 – Comprehensive (Full System and Sediment Management Measures)

"Alternative 7 is a combination of Alternatives 5 and 6 and provides all available dredging, system and structural measures for the Corps to manage sediments that interfere with the authorized uses of the LSRP. The alternative includes dredging and dredged material management along with other sediment and system management measures, and provides the Corps with a complete toolbox for addressing sediment that interferes with the authorized purposes of the LSRP."⁵

The Corps selected Alternative 7 as its Preferred Alternative. In its socioeconomic evaluation leading to the selection, the PSMP DEIS concluded Alternative 7 would have the effects shown in Table 1.

² U.S. Army Corps of Engineers, Walla Walla District. 2012. *Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement*. Retrieved 4 February 2013 from <http://www.nww.usace.army.mil/Missions/Projects/ProgrammaticSedimentManagementPlan.aspx>.

³ PSMP DEIS, pp. 2-22, 23.

⁴ PSMP DEIS, p. 2-28.

⁵ PSMP DEIS, p. 2-31.

Table 1. Socioeconomic Effects of Alternative 7, Reported in the PSMP DEIS

- Beneficial use of dredged material for fish habitat creation or ecosystem restoration projects, which would have indirect benefits, including potential recreation benefits.
- Minor, short-term, beneficial direct effects on income and employment through construction activities.
- No long term impacts to population, employment, and income.
- No adverse impacts to the transportation and related sectors, because Alternative 7 includes actions to maintain current navigation operations.
- Temporary interruptions in commercial navigation, which would also affect port operations.
- Positive economic impact to the navigation and related industries in the region because navigation interests would not need to light load and would not have to take the extra measures they now take to position and move tugs and barges.
- Relocation or reconfiguring of affected facilities would temporarily interrupt economic activity associated with them.
- Construction activity associated with the relocation or reconfiguration would create a temporary local economic benefit.
- Modifying flows to flush sediments would have a temporary adverse impact on commercial and recreational navigation.
- Adverse impacts on the capacity of the rail or highway system whenever interruption of or constraints on the navigation system shifted shipments to other modes.
- A long-term beneficial effect on navigation, by improving the navigation channel.
- There may be some loss of grain sales if enough grain cannot be shipped out of the affected pool, but use of downstream storage facilities and shipping of grain prior to drawdown would minimize economic effects.
- Impairment of navigation would lead to stock-piling of commodities other than grain, such as fuel oil, gasoline, chemicals, and wood products. Trucks or rail could be used to transport these commodities for short-term supply. This will temporarily increase costs to those who usually use the river system for the transportation of commodities, but the increases should be small.
- Loss of hydroelectric power sales for the region.
- Potential disruption by reservoir drawdown of cruise ship traffic, causing economic loss for the cruise industry and the local supporting industries in the affected area.
- Potential adverse effects from reservoir drawdown on infrastructure adjacent to and crossing Lower Granite Reservoir.
- Potential maintenance of an acceptable level of flood protection for a portion of downtown Lewiston if the levee is raised.

Source: *PSMP DEIS* p. 2-36, pp. 3-30 – 3-51, pp. 4-31 – 4-34.

By choosing this alternative, the Corps, in effect, has determined that, in some configuration, dredging and construction of structures offer the most desirable socioeconomic and other environmental consequences. If the PSMP and the Preferred Alternative are adopted, subsequent environmental review will focus on the specifics of the configuration of these measures, not on whether or not to proceed with dredging and construction.

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III. Comments

The National Environmental Policy Act (NEPA) sets the stage for defining the analytical standards the Corps must meet in developing an environmental impact statement (EIS) for the PSMP. It states that federal agencies "to the fullest extent possible" must provide a detailed EIS (42 U.S.C. 4332). In applying this standard, courts have held that, at a minimum, NEPA imposes on an agency a duty to take a "hard look at environmental consequences" (Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir., 1972)) and a "requirement of a substantial, good faith effort at studying, analyzing, and expressing the environmental issues in the EIS and the decisionmaking process" (Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir., 1972)). A sufficient EIS must provide good faith analysis and sufficient information to allow a firm basis for weighing the risks and benefits of a proposed action (County of Suffolk v. Secretary of the Interior, 562 F.2d 1368 (2nd Cir. 1977), cert. denied, 434 U.S. 1064 (1978)).

The Corps also is obligated to comply with widely accepted professional standards of socioeconomic analysis applicable to this setting. These standards have been described through presidential executive order, follow-up guidance from the Office of Management and Budget, and analytical principles and guidelines developed by the Water Resources Council. Consistent with NEPA, these standards generally require providing the public and decision-makers with all relevant information about the potential socioeconomic effects of each alternative.

The socioeconomic analysis in the PSMP DEIS fails to satisfy these requirements. Its shortcomings fall into these two distinct, but related categories:

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- A. The PSMP DEIS falls far short of its obligations to provide all relevant information and demonstrate a good faith effort at studying and analyzing the socioeconomic consequences of the Preferred Alternative. The socioeconomic elements of the DEIS ignore a large body of socioeconomic information relevant to the EIS, provide no analytical basis whatsoever for the Corps' selection of the Preferred Alternative, and fail to provide the public and decision-makers with coherent and reliable information they can use to assess the socioeconomic consequences of implementing this alternative.
- B. The PSMP DEIS presents an incomplete and biased picture of the socioeconomic effects of the Preferred Alternative, exaggerating its positive effects and diminishing or overlooking its negative effects. Information not included in the DEIS indicates that implementation of the Preferred Alternative likely would result in negative overall socioeconomic outcomes, with the benefits smaller than the costs of producing them.

The following discussion fleshes out each of these shortcomings and describes the actions the Corps must take to rectify them.

A. The PSMP DEIS Does Not Meet Relevant Analytical Standards

Three sets of standards apply to the Corps' socioeconomic analysis in the PSMP DEIS. One includes the generally accepted, professional standards that apply to analyses of this type and govern the assessment of the accuracy, precision, and reliability of the analytical results. The second includes standards specifically applicable to Corps. The third includes the standards embedded in the Environmental Operating Principles expressed at the beginning of the PSMP DEIS.

1. The PSMP DEIS Does Not Meet Generally Accepted, Professional Standards

The Corps can satisfy its obligation to describe fully the socioeconomic effects of the PSMP only if it uses relevant, widely accepted, professional standards of analysis. These standards are expressed through Presidential Executive Order 12866 and related guidance from the Office of Management and Budget (OMB).

Executive Order 12866: Regulatory Review and Planning specifies standards for economic analyses.⁶ Although it uses regulatory actions as its focus, the standards are widely accepted among professional economists to have broader application. These are the core standards expressed in Executive Order 12866:

- Each agency shall assess both the costs and the benefits....
- Each agency shall...impose the least burden on society....

The first statement makes clear the Corps' obligation to assess both the costs and the benefits of each alternative approach for managing sediment in the LSRP. The second statement requires the Corps to select a Preferred Alternative only after measuring the net benefits (or costs) of each alternative and determining that the Preferred Alternative has the greatest net benefit (least net cost), so that its implementation would impose the least burden on society. The PSMP DEIS makes no demonstrable effort to satisfy either of these obligations.

It does not assess the costs and benefits of any alternative. Indeed, it provides no substantive discussion of costs whatsoever. Instead, it offers at most vague promises – “Based on Corps regulations, the Corps would evaluate disposal options to identify the least costly....” (p 2-29) – and contingencies – “Changes to the ways in which barge tows are operated could affect the costs of barge shipping....” (p.4-33). The terms, “cost” and “costs,” appear rarely in the discussion of the socioeconomic effects of the alternatives (Section 4.5), but never in the context of actually measuring anything. That is, the DEIS never links these terms with any dollar amount. Thus, it contains no quantified discussion, let alone analysis, of the Preferred Alternative and fails completely to satisfy widely accepted professional standards of socioeconomic analysis that require thorough assessment of the costs, in monetary terms where possible and in detailed qualitative terms where not.

Similarly, the PSMP DEIS does not assess the socioeconomic benefits of each alternative. The terms, “benefit” and “benefits” collectively appear only a few times in the discussion of the socioeconomic effects of the alternatives, but none is the basis for measuring and comparing the socioeconomic benefits of the different alternatives. Instead, the PSMP DEIS uses the terms only to refer generally to vague assumptions: “Beneficial use of dredged material for fish habitat creation or ecosystem restoration projects would have indirect benefits, including potential recreation benefits” (p. 4-32); “construction activity...would create a temporary local economic benefit (p. 4-33); and “maintaining acceptable levels of flood protection in Lewiston, the result would be positive long-term benefits to the communities protected by the levees” (p. 4-34). The DEIS makes no attempt to quantify the potential socioeconomic benefits of the Preferred Alternative, or of the other alternatives. It mentions benefits only in the abstract and, thus, fails to satisfy widely accepted professional standards of socioeconomic analysis that require thorough assessment of the benefits, in monetary terms where possible and in detailed

⁶ Available at <http://www.archives.gov/federal-register/executive-orders/pdf/12866.pdf>.

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qualitative terms where not.

Lacking any description of the socioeconomic costs and benefits of each alternative, the PSMP DEIS does not even attempt to describe or quantify the net benefits (net costs) of each. With no information about their respective net benefits or costs, the PSMP DEIS offers no evidence that the Preferred Alternative would impose the least socioeconomic burden on society. There is simply far too little information in the DEIS to rank the alternatives given the total lack of any description, and especially a quantified monetary description, of the net benefits (net costs) of each. Thus, the PSMP DEIS fails completely to meet the general standards that must be satisfied if the DEIS is to satisfy the obligations specified by the courts under NEPA. This conclusion becomes even stronger when the socioeconomic sections of the PSMP DEIS are compared to the analytical guidance associated with Executive Order 12866.

Office of Management and Budget (OMB) Circular A-4: Regulatory Analysis, provides operational, analytical guidance for satisfying the standards of Executive Order 12866.⁷ Here is a short description of some of the core elements of this guidance, and how the Corps complied with each in the PSMP DEIS :

- “A good...analysis is designed to inform the public and other parts of the Government (as well as the agency conducting the analysis) of the effects of alternative actions ... Benefit-cost analysis is a primary tool used for...analysis.” (p. 2)

The PSMP DEIS, however, contains no socioeconomic benefit-cost analysis, nor any comparison of the alternatives’ net benefits (or net costs).

- “To evaluate properly the benefits and costs of...alternatives, you will need to do the following:
 - “Identify a baseline. Benefits and costs are defined in comparison with a clearly stated alternative. This normally will be a “no action” baseline: what the world will be like if the proposed rule is not adopted.”

The PSMP DEIS, however, does not identify a baseline scenario of the future showing, from a socioeconomic perspective, what the world will be like if the Preferred Alternative is not adopted. It superficially identifies “current operational practices” under the “No Action” alternative as the baseline, but nowhere provides information regarding what specific socioeconomic variables will look like in the future under this alternative. With no quantitative description of the baseline, the PSMP DEIS cannot and does not provide a basis for assessing the socioeconomic effects of the referred Alternatives against those of the other alternatives.

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- “Identify the expected undesirable side-effects and ancillary benefits of the...alternatives. These should be added to the direct benefits and costs as appropriate.” (pp. 2-3)

The PSMP DEIS, however, mentions some side-effects and ancillary benefits, but never in quantitative terms that would allow adding them to the direct benefits and costs. For example, it says that using dredged material to create fish habitat or restore ecosystems “would have indirect benefits, including potential recreation benefits.” (p. 4-32), but it provides no detailed description of these benefits and their socioeconomic significance, nor does it offer qualitative or quantitative information for assessing how these side-effects and ancillary benefits would vary across the alternatives.

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- “When your analysis is complete, you should present a summary of the benefit and cost estimates for each alternative, including the qualitative and non-monetized factors ..., so that readers can evaluate them.” (p. 3)

⁷ Available at www.whitehouse.gov/omb/circulars_a004_a-4.

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The PSMP DEIS, however, does not provide a summary of the socioeconomic factors, qualitative or quantitative, that would allow readers to evaluate the alternatives against one another.

- “A good analysis is transparent. It should be possible for a qualified third party reading the report to see clearly how you arrived at your estimates and conclusions. For transparency’s sake, you should state in your report what assumptions were used, such as the time horizon for the analysis and the discount rates applied to future benefits and costs. It is usually necessary to provide a sensitivity analysis to reveal whether, and to what extent, the results of the analysis are sensitive to plausible changes in the main assumptions and numeric inputs.” (p. 3)

The socioeconomic sections of the PSMP DEIS, however, contain no statement of assumptions or sensitivity analysis – none – making it impossible to see how the Corps arrived at its estimates and conclusions.

- “You should show that a government intervention is likely to do more good than harm.” (p. 4)

The PSMP DEIS, however, does not show that the Preferred Alternative is likely to do more socioeconomic good than harm. Instead, it provides only general statements asserting that the Preferred Alternative would yield benefits for some groups. For example, it states, “Modifying flows to flush sediments (drawdown)...would have a long-term beneficial effect on navigation, by improving the navigation channel.” (p. 4-33) It provides no yardstick – indeed, no quantitative information at all – for gauging the socioeconomic importance of these benefits, however. Nor does it provide any information about the magnitude of the simultaneous socioeconomic cost that a drawdown would impose on taxpayers, competitors of the barge companies, or others.

- “You should be alert for situations in which...alternatives result in significant changes in treatment or outcomes for different groups. Effects on the distribution of income that are transmitted through changes in market prices can be important, albeit sometimes difficult to assess. Your analysis should also present information on the streams of benefits and costs over time in order to provide a basis for assessing intertemporal distributional consequences, particularly where intergenerational effects are concerned.” (p. 14)

The PSMP DEIS, however, provides only general statements about the distribution of socioeconomic effects on current groups. For example, it observes that the Preferred Alternative’s long-term beneficial effect on navigation “could adversely affect the capacity of the rail or highway system.” (p.4-33) It makes no effort to detail these effects or assess their magnitude, however. Moreover, the socioeconomic elements of the PSMP DEIS contain no information whatsoever for assessing the intertemporal distributional consequences, i.e., the effects on future generations, of implementing the Preferred Alternative and for comparing them to those of the other alternatives.

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2. The PSMP DEIS Does Not Meet Agency-Specific Standards

The agency-specific standards include a requirement that, before proceeding with the Preferred Alternative, the Corps must demonstrate, with reasonable certainty, that its benefits to the national economy will outweigh its costs. Evaluation of the national economic benefits and costs are to be addressed in the so-called National Economic Development (NED) account, with monetary measurement of benefits (increases in the economic value of goods and services) and costs (decreases in economic value). This requirement, described in the *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (Principles and Guidelines)*,⁸ is generally equivalent to the one stated above in Executive Order

⁸ U.S. Water Resources Council. 1983. *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies*. Specifically, the *Principles and Guidelines* state:

“The Federal objective of water and related land resources planning is to contribute to national economic development consistent with protecting the Nation’s environment, pursuant to national environmental statutes, applicable executive orders, and other Federal planning requirements.

12866: the Corps must demonstrate that the Preferred Alternative is the one that will impose the least economic burden on society.

The PSMP DEIS acknowledges the relevance of the *Principles and Guidelines* to the document when it observes that reductions in the generation of hydropower “are a National Economic Development cost.” (p. 4-34) The PSMP DEIS does not, however, quantify this cost or any other cost. Nor does it present an evaluation of each alternative’s national economic benefits and costs, and net benefits (net costs). Thus, it ignores the agency’s own standards of analysis.⁹

These standards require a full accounting of costs and benefits that would accrue to other projects or to third parties. This obligation is recognized clearly in the Corps’ manual. “Many economic activities provide incidental benefits to people for whom they were not intended. Other activities indiscriminately impose incidental costs on others. These effects are called externalities. ...**Negative externalities** make someone worse off without that person being compensated for the negative effect. ...The NED principle requires that externalities be accounted for in order to assure efficient allocation of resources.”¹⁰ The socioeconomic elements of the PSMP DEIS make no mention of externalities, however. Yet several are immediately obvious, such as the impacts of dredging and other activities on the population and value of salmon, and the effects of the Preferred Alternative on the emission of airborne and waterborne pollutants harmful to human health, fish, and wildlife.

The Corps also had an obligation to distinguish between each alternative’s benefits and costs, i.e., changes in economic value of goods and services, and its impacts on jobs, incomes, and other indicators of the level and distribution of economic activity. The *Principles and Guidelines* explains benefits and costs in the context of national economic development. Accordingly, the PSMP might generate benefits or costs by increasing or decreasing the economic value of the

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“...Contributions to national economic development (NED) are increases in the net value of the national output of goods and services, expressed in monetary units. Contributions to NED are the direct net benefits that accrue in the planning area and the rest of the nation. Contributions to NED include increases in the net value of those goods and services that are marketed, and also of those that may not be marketed.” (p. 1)

“[I]n addition to a plan which reasonably maximizes contributions to NED, other plans may be formulated which reduce net NED benefits in order to further address other Federal, State, local, and international concerns not fully addressed by the NED plan. These additional plans should be formulated in order to allow the decisionmaker the opportunity to judge whether these beneficial effects outweigh the corresponding NED losses.” (p. 7)

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⁹ Although the Corps acknowledged, but did not apply, the 1983 *Principles and Guidelines*, the Council on Environmental Quality recently released a new set of *Principles and Requirements for Federal Investments in Water Resources* and draft *Interagency Guidelines* that supersede the *Principles and Guidelines*. See <http://www.whitehouse.gov/administration/eop/ceq/initiatives/PandG>. The *Principles and Requirements* is consistent with many of the factors discussed below. For example, it emphasizes that “Federal investments in water resources as a whole should strive to maximize public benefits, with appropriate consideration of costs. Public benefits encompass environmental, economic, and social goals, include monetary and non-monetary effects and allow for the consideration of both quantified and unquantified measures.” *Principles and Requirements* (p. 4). The Corps should closely examine and apply the *Principles and Requirements* as it completes an accurate and balanced analysis of the costs and benefits of each course of action in any final EIS.

¹⁰ U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources. 1991. *National Economic Development Procedures Manual: Overview Manual for Conducting National Economic Development Analysis*. IWR Report 91-R-11. October. pp. 21- 23 (bold emphasis in original).

national output of goods and services resulting from the PSMP; the value of output resulting from external economies caused by the PSMP; and the value associated with the use of otherwise unemployed or under-employed labor resources. (*Principles and Guidelines*, p. 8) The *Principles and Guidelines* describes a separate framework for measuring changes in economic activity, which it calls the regional economic development (RED) account. “The RED account registers changes in the distribution of regional economic activity that result from each alternative plan. Two measures of the effects of the plan on regional economies are used in the account: Regional income and regional employment.” (p. 11) The PSMP can affect economic activity through expenditures that alter the pattern of income and employment, or when its impacts on the supply of goods and services, such as recreational opportunities, affects the location decisions and spending patterns of households and businesses.

The distinction between changes in value and changes in economic activity is important, because the former represents increases or decreases in the overall wellbeing of the nation’s economy resulting from the PSMP and the latter indicates the distribution of wellbeing among different groups. The distinction is particularly important in this setting insofar as substantial information, discussed below, indicates that, although the DEIS asserts that implementation of the Preferred Alternative would increase economic activity, jobs, and incomes associated with dredging and the barge industry, it can do so only by reducing national economic wellbeing. The local increases, therefore, would occur only through the transfer of economic resources from the rest of the nation to the recipient businesses and workers, and the benefits to the recipients likely would not exceed the overall national costs.

The PSMP DEIS provides no information about these issues. It fails to distinguish between economic values and activity and provides, at best, no accounting of either, or, at worst, an incomplete and misleading accounting of both. For example, it states, “construction activity associated with the relocation or reconfiguration would create a temporary local economic benefit.” (p. 4-33) The phrase, “temporary local economic benefit,” presumably refers to an increase in income and jobs in the area. These effects are changes in economic activity, not changes in the value of goods and services available to the national economy. That is, some businesses and workers in the local economy would experience an increase in economic activity, jobs, and income because of the construction, but others – in the local economy or beyond it – would experience a reduction insofar as they would pay the taxes that would provide the funding for the construction. Hence, the benefit to some would be a cost to others. By describing the former but not the latter, the DEIS presents a biased picture of the overall economic consequences. This is an important omission, as the discussion below shows that the overall effect likely would be negative, i.e., the value of the goods and services resulting from the construction likely would be less than the value of the goods and services these taxpayers would forgo as their payment of taxes to finance the construction reduces their net earnings and disposable incomes.

The PSMP DEIS also fails to meet its obligation to give a full accounting of the Preferred Alternative’s economic risks and uncertainties. This accounting should be broad, rather than narrow, in accordance with the guidance expressed by the agency’s own manual: “It is the analyst’s job to identify, clarify, and quantify areas of risk and uncertainty *wherever possible*, especially for those pieces of information which have a substantial influence on either the choice

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of an alternative and/or its size and cost.”¹¹ The PSMP DEIS does not identify, clarify, or quantify areas of risk and uncertainty. It especially does not quantify how risks and uncertainties under the Preferred Alternative compare with those under the other alternatives.

3. The PSMP DEIS Does Not Apply the Agency’s Environmental Operating Principles

The PSMP DEIS presents a set of “Environmental Operating Principles applicable to all its decision-making and programs.” It further states that, “The principles are consistent with the National Environmental Policy Act.” These are four of the principles:

- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.
- Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.
- Seeks ways and means to assess and mitigate cumulative impacts to the environment; bring systems approaches to the full life cycle of our processes and work.
- Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work.

Even a cursory review of the PSMP DEIS reveals, however, that it falls far short of the aspirations expressed in these statements, failing to clarify the extent and effect of taxpayer subsidies to barging under the Preferred Alternative. This failure arises, from an economic and social perspective, insofar as the document fails to provide a full accounting of all the costs and all the benefits of each alternative, including the Corps’ Preferred Alternative. As a consequence, there is no way of knowing, from the PSMP DEIS, if the Preferred Alternative represents economic and environmental solutions that support and reinforce one another. The ambiguity is especially acute because the PSMP DEIS does not provide information about the costs embedded in the Preferred Alternative. These costs are important because, to the extent that taxpayers rather than barge operators bear these costs, they represent subsidies to the barge system. As such, they distort the overall transportation system by reducing barge shipping prices below the actual costs, inducing shipments of freight by barge and barge-related investments that otherwise would not occur. The subsidies also can lead to distortions outside the barge sector, for example by drawing customers away from using rail and encouraging rail operators to reduce service or close facilities. Information presented below – but not included in the PSMP DEIS – indicates that the costs of maintaining the navigation channel exceed the benefits, and that the Preferred Alternative therefore is not consistent with the Environmental Operating Principles because it is not an economically sustainable solution to the problems the Corps is addressing.

Moreover, by being totally devoid of any accounting of socioeconomic effects, the PSMP DEIS does not demonstrate that the Corps accepts responsibility and accountability for all the consequences of the Preferred Alternative’s impacts on human welfare, as required by the Environmental Operating Principles. The PSMP DEIS provides such an incomplete description of the Preferred Alternative’s costs that it does not come close to complying with the

¹¹ U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources. 1992. Guidelines for Risk and Uncertainty Analysis in Water Resources Planning, Volume I: Principles. IWR Report 92-R-1. March, p. 17 (italics emphasis added).

Environmental Operating Principles' commitment to assess and mitigate the Preferred Alternative's cumulative impacts. By disregarding the full costs of the Preferred Alternative, the PSMP DEIS dismantles, rather than builds, the integrated knowledge base called for in the statement of Environmental Operating Principles.

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4. Summary of Shortcomings Regarding Analytical Standards

The PSMP DEIS falls woefully short of all the standards applicable to the analysis of the socioeconomic consequences of the PSMP. It exemplifies not the promised application of Environmental Operating Principles but the behaviors these principles seek to prevent. It does not adhere to, or even demonstrate an awareness of, applicable standards of economic analysis that the Corps must satisfy if it is to provide a good faith analysis and sufficient information to allow a firm basis for weighing the risks and benefits of the Preferred Alternative. Instead of taking a "hard look" at the socioeconomic consequences of the Preferred Alternative, the PSMP DEIS offers no more than casual observations. Instead of providing details and figures to the fullest extent possible, it offers a few, vague generalities.

Specific shortcomings include, but are not limited to:

- No explanation of significant socioeconomic issues to be addressed in managing sediment.
- No description of the process for evaluating the alternatives with respect to these issues and for incorporating their socioeconomic consequences into the selection of the Preferred Alternative.
- No description of a baseline scenario that reveals the Corps' detailed expectations of what specific, important socioeconomic variables will look like in the future without the proposed action.
- No description of how the world will look different under each alternative, relative to these socioeconomic variables.
- No description of relevant extant data and past research regarding these variables.
- No description of, or justification for, socioeconomic assumptions embedded in the design of the analysis, the analytical findings, or the comparative assessment of the alternatives based on the findings.
- No quantitative information regarding the costs and benefits of each alternative.
- No description, especially a quantitative description, of the net benefits (net costs) of each alternative.
- No comparison, especially a quantitative comparison, of the alternatives' costs, benefits and net benefits (net costs).
- No description and comparison, especially in quantitative terms, of the alternatives' impacts on jobs, income, and other indicators of economic activity.
- No assessment, quantitative or qualitative, of uncertainties and risks associated with each alternative.
- No description of the distribution of costs, benefits, jobs, income, uncertainties, and risks among different groups, including future generations.
- No summary, especially a quantitative summary substantiated by data and analysis, of the similarities and differences among the alternatives in their socioeconomic consequences.

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5. Necessary Actions To Correct the Shortcomings

To correct these shortcomings, the Corps should, at a minimum, complete these steps:

1. Review and incorporate into the DEIS past research on socioeconomic issues associated with sediment management in the lower Snake River.¹² These issues include, but are not necessarily limited to:
 - The direct costs and benefits of alternative approaches for managing sediment.
 - The external costs and benefits of these alternative approaches.
 - The net benefit (net cost) of the different approaches.
 - Trends in variables affecting costs, benefits, uncertainties, risks, and the distribution of regional economic activity. These variables include, but are not necessarily limited to: construction costs, freight shipments, market structure for freight transport, availability of appropriated funds to support federal components of the navigation system, and fish and wildlife values (market and non-market values).
 - The short- and long-term effects of the different approaches on markets, including the competitiveness of different transportation modes for freight shipments.
 - Uncertainties and risks associated with each approach.
2. Augment the review of relevant past research with an appropriately designed scoping process to identify important issues and variables for assessing the socioeconomic effects of the different alternatives examined in the PSMP DEIS. These variables should include, but are not necessarily limited to:
 - Significant direct costs and benefits.
 - Significant external costs and benefits.
 - Net benefit (net cost).
 - Jobs, income, and other indicators of economic activity.
 - Significant uncertainties and risks.
 - Significant trends in construction costs, dredging costs, freight shipments, fish populations, fish values, and other relevant socioeconomic variables.
 - The short- and long-term effects of the different approaches on markets and economic activity, including the competitiveness of different modes for freight shipments.
3. Prepare a baseline scenario that describes in detail what the relevant socioeconomic variables will look like in the future absent federal action. As part of this step, describe key assumptions.
4. Describe fully the costs, benefits, and net benefits (costs) of each alternative from the national economic development perspective, accounting for those that can reasonably be expressed in monetary terms, as well as those that cannot. As part of this step, describe key assumptions.
5. Describe fully the impact of each alternative on the distribution of regional economic activity, focusing on employment and income. Account fully for income transfers to the region resulting from implementation outlays, subsidies to navigation and other modes,

¹² Some of this relevant research is specific to this geographic area, but research with a broader scope or from other areas may also be relevant.

transfers of economic resources into or out of the region, indirect effects, and induced effects. Describe in detail the allocation of economic activity associated with different transportation modes. As part of this step, describe key assumptions.

6. Describe fully the uncertainties and risks associated with each alternative. As part of this step, describe key assumptions.
7. Provide a summary comparison of the alternatives that includes: (a) costs, benefits, net benefits (net costs); (b) the distribution of costs and benefits among different groups; (c) the distribution of regional economic activity among different groups; and (d) uncertainty and risk.
8. Prepare an analysis of the Preferred Alternative consistent with directions provided by the *Principles and Guidelines* for the National Economic Development and Regional Economic Development accounts. This effort should parallel, if not build on, the NED, RED, and related analyses the Bureau of Reclamation and Washington Department of Ecology recently completed in conjunction with the development of a programmatic environmental impact statement for the Integrated Water Resource Management Plan for the Yakima River Basin.¹³
8. Clearly explain criteria used to evaluate the socioeconomic differences among the different alternatives and the process used to apply the criteria and select the Preferred Alternative.

B. The PSMP DEIS Presents an Incomplete and Biased Picture of the Preferred Alternative's Socioeconomic Effects

The preceding sections describe in general terms the failure of the PSMP DEIS to satisfy the Corps' obligation to provide a description of the socioeconomic effects of the PSMP "to the fullest extent possible." This section identifies specific information that the PSMP DEIS ignored. It also explains the bias resulting from this omission, with the PSMP DEIS favoring dredging over alternative methods for managing sediment and the navigation industry over other transportation alternatives. This section also demonstrates that a more thorough and accurate analysis than what is in the DEIS likely would show that the costs of the PSMP outweigh its benefits.

1. The PSMP DEIS Presents an Incomplete Picture of the Preferred Alternative

The PSMP DEIS not only fails to take a "hard look" at all the available, relevant information regarding all aspects of the PSMP's socioeconomic effects, it closes its eyes to this information. In particular, it fails to utilize extensive, readily available information regarding the economic benefits and costs of the Preferred Alternative, and its impacts on the distribution of economic activity between the barge industry and its competitors in the rail and trucking industries. This failure occurs despite the Corp's having available to it not just a large amount of relevant information but also a detailed prescription, grounded in the *Principles and Guidelines*, for how to utilize this information to assess the socioeconomic effects.

¹³ See <http://www.usbr.gov/pn/programs/yrbwep/reports/fouraccounts.pdf>; and <http://www.usbr.gov/pn/programs/yrbwep/reports/DPEIS/DPEIS.pdf>.

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socioeconomics

a. The PSMP DEIS Presents an Incomplete and Biased Description of the Preferred Alternative’s Benefits and Costs

The socioeconomic sections of the PSMP DEIS should compare the benefits of each alternative against its costs to determine the net benefit (net cost) and demonstrate that, unless other factors outweigh the objective of maximizing net national economic benefit, the Preferred Alternative selected by the Corps has the greatest net benefit (lowest net cost). They do neither. This omission has important consequences, insofar as even a brief review of the available information suggests that the Preferred Alternative’s costs outweigh its benefits. As a result, the DEIS presents information and selects a Preferred Alternative biased in favor of dredging and other activities that require taxpayer support and subsidies to the barge industry.

The *Principles and Guidelines* explains that, “The basic economic benefit of a navigation project is the reduction in the value of resources required to transport commodities.” (p. 49) The benefit can materialize through reduction in the cost of transporting goods that would (a) use the waterway with or without the PSMP; (b) use another, more costly mode without the PSMP; or (c) experience an origin-destination shift with the PSMP. The PSMP DEIS, however, does not substantiate that the Preferred Alternative would yield any of these reductions in the cost of transporting goods. Instead, it makes only general statements, such as these, that suggest the benefits, if any, of the Preferred Alternative would be limited:

“Modifying flows to flush sediments (drawdown) would require substantial changes in reservoir operations that would temporarily preclude most barge navigation in the reservoirs where and while drawdown was occurring. This would be a temporary adverse impact on commercial and recreational navigation. Normal operating water levels would be restored following the implementation of the drawdown or flushing measure, which would allow navigation to resume. Some shipments would likely shift to other modes (rail, truck), which could adversely affect the capacity of the rail or highway system. However, these measures would have a long-term beneficial effect on navigation, by improving the navigation channel. Changes to the ways in which barge tows are operated could affect the costs of barge shipping, as well as recreational vessels operating in the vicinity of the tows.” (p. 4-33)

This language reveals that the Corps apparently does not know with certainty if the Preferred Alternative would yield any economic benefits whatsoever. Instead, although it makes the general statement that improving the navigation channel, through dredging and other activities included in the Preferred Alternative, would have a beneficial effect on navigation, the most it says about the economic consequences of these actions is that they “could affect” the costs of shipping goods via the waterway. Or not. It is impossible to tell from the information presented in the DEIS. Some of these actions would have a “temporary adverse impact on commercial and recreational navigation” by precluding most barge traffic in some reservoirs. Although this disruption likely would cause some cargo that otherwise would be shipped by barge to be shipped, instead, by rail or truck, the PSMP DEIS does not say that this shift would have any effect on shipping costs. Instead, it says that the shift “could adversely affect” – the Corps apparently does not know for sure – “the capacity of the rail or highway system.” The DEIS makes no attempt to quantify these potential costs and benefits, or the uncertainty attached to its general projections.

The *Principles and Guidelines* also explains that the assessment of the costs of a planned program, such as the Preferred Alternative, should examine “the opportunity costs of resources used in implementing the plan. These adverse effects include: Implementation outlays, associated costs,

and other direct costs.” (p. 8) The socioeconomic sections of the PSMP DEIS, however, provide no information about the Preferred Alternative’s implementation outlays, associated costs, or other direct costs.

This lack of information in the DEIS does not stem from a dearth of relevant data and studies. The Corps itself has generated extensive information about the benefits and costs of maintaining the navigation channel and supporting barge traffic. In particular, the Corps’ records about its past operations should enable it to provide a reasonably accurate description of the dredging costs under the Preferred Alternative, as well as the costs of maintaining and operating the locks at the four dams on the lower Snake River. For example, the PSMP DEIS shows that, between 1982 and 2006, the Corps dredged about 4 million cubic yards of material above Lower Granite Dam, or more than 150,000 cubic yards per year, on average.¹⁴ This volume translates into an annualized dredging cost of at least \$2 million, in the dollars of 2005-06.¹⁵ This level of costs, exclusive of inflation, should carry forward, even increase, insofar as the PSMP DEIS anticipates that wildfires and other events likely will increase sediment delivery to the Lower Granite pool. Increases seem likely, as evidenced by the Corps’ decision, three months after publishing the DEIS, in which it stated an immediate need to dredge 421,675 cubic yards above Lower Granite Dam, to seek a permit to now dredge 491,043 cubic yards. The costs would be even higher, measured in real terms, if the nominal costs of dredging rise faster than general inflation.

8732 Socioeconomics; transportation

These dredging costs, alone, likely will exceed the economic benefits, if any, of the Preferred Alternative. Economic benefits would materialize to the extent that the Preferred Alternative would reduce the transportation costs of shipping grain. In the costs and benefit of dredging, one must measure the true reduction in costs to the national economy, not the reduction in barge rates that reflect a subsidy from taxpayers. Extensive research provides insights into the true benefits (or costs) of maintaining the navigation channel in the LSRP. Some of this has focused on the competition to barge traffic from rail and trucks in this region and how the competition affects the potential benefits and costs of actions that would maintain or, alternatively, cease barge traffic along the Lower Snake River. A study completed in 2003, for example, found that, if the navigation system on the lower Snake River were closed, grain shippers would, on average, incur additional costs of about \$1–2 million per million tons of grain. In recent years, the Port of Lewiston has shipped about 500,000 tons of grain per year.¹⁶ These numbers, combined, indicate that, if the tonnage remains at this level, grain shippers would incur additional costs of \$0.5–1.0 million per year, if they were unable to ship by barge. The avoidance of these costs represents the Preferred Alternative’s primary economic benefit. This benefit, \$0.5–1.0 million per year, however, falls short of the annualized cost of dredging of at least \$2 million.

¹⁴ PSMP DEIS pp. 1-10 and 1-11.

¹⁵ The Corps reported dredging costs of \$12.75 per cubic yard. Barker, E. 2005. “Dredging to begin next week,” *Lewiston Morning Tribune*. 12 December. Retrieved 13 March 2013 from http://lmtribune.com/northwest/article_0b952047-4a7e-5808-b30f-f1fd39e15296.html.

¹⁶ Port of Lewiston. 2013. “Shipping Reports.” Retrieved 11 February 2013 from http://www.portoflewiston.com/wordpress/?page_id=69.

The dredging costs likely also will outweigh the overall benefits for all commodities shipped through the Lower Granite locks. In 2009, about 1.2 million tons of freight passed through these locks (DEIS, Table 3-13). If the savings per ton to shippers for other commodities are similar to those for grain, the total annual benefits of maintaining the navigation channel would total about \$1.2–2.4 million for the same amount of freight barged in 2009, with the midpoint of this range, \$1.6 million, falling well below the estimated annualized dredging cost. Information presented below indicates that the gap between the dredging costs and the benefits to shippers probably will be even greater, because the amount shipped by barge likely will fall and dredging costs likely will rise.

8733 Socioeconomics; transportation

Market data support the conclusion that maintaining the navigation channel through the Lower Granite Pool is especially inefficient. Table 3-13 of the PSMP DEIS shows that tonnage through the Lower Granite locks fell from 2.3 million tons in 1994 to 1.2 million tons in 2009. Most of this decline occurred prior to the onset of the Great Recession and reflects structural trends. The overall decline during this period, 47 percent, was considerably greater than the declines at the dams down river: Little Goose (30 percent), Lower Monumental (31 percent) and Ice Harbor (33 percent). The DEIS presents no information to substantiate an expectation that the downward trend will not continue. If tonnage continues to decline in the future, potential benefits from maintaining the navigation channel, all else equal, will decline as well.

Further reductions in shipments through the Lower Granite locks seem likely. Many shippers have good substitutes for barge transportation, and, at the margin, the incremental costs of shifting to rail or truck transport are small, or even negative. Rail and truck transport already is competitive with barge transport for many grain producers. The 2003 study found that more than one-third of the grain produced in the counties tributary to Lower Granite pool is transported to market by rail or truck.¹⁷

Competition to the barge industry along the Lower Snake River from rail has increased in recent years, drawing freight away from barges. A major shift occurred in 2002, with the completion of a unit-train/shuttle loading facility at Ritzville. An assessment of the facility's impact concluded, "The facility at Ritzville immediately began to compete for grain volume that previously was shipped...to the river."¹⁸ The authors observed further that, although truck-barge and rail shipping rates for grain north of Ritzville were comparable prior to the facility's completion, truck-barge rates subsequently grew almost 10 cents higher. The percentage of grain shipped from this area via truck-barge fell from 94 percent in 2001 to 65 percent in 2005, as the amount shipped by rail via Ritzville rose from about 3 percent to 30 percent. In their market analysis for further investments in the rail system, the authors offered this explanation for why grain producers and others are investing in rail-system upgrades:

"The principal and critical constraint on the barge system is a need for continued dredging at the entrances to some terminals and in some parts of the navigation channel. The U.S. Army Corps of

¹⁷ BST Associates. 2003. p. 42.

¹⁸ Casavant, K. and E. Jessup. 2006. Palouse River and Coulee City Railroad: CW Line Market Assessment. Washington State Department of Transportation Office of Freight Strategy and Policy. March. Retrieved 12 March 2013 from http://www.wsdot.wa.gov/NR/rdonlyres/9847F8D2-33B4-4B34-83D8-B34F0ACC70DC/0/PCCMarketAnalysis_Revised_March3.pdf.

Engineers has a plan to provide the required dredging, costing about \$2.1 to \$4.9 million per year over a 70+ year period, and this plan was partially implemented this winter, due to a compromise between the Army Corps of Engineers and the Tribes/environmental interests. Without dredging, the barges had, in some cases, been loaded light (as much as 35% light), decreasing efficiency and increasing per unit costs to shippers. Shippers and ports had stepped in and contracted for private dredging until this compromise was reached. The future status of this effort remains uncertain.

“...The uncertainty surrounding both the halt in annual dredging and the renewed possibility (though extremely low) of breaching of some dams has a direct effect on the CW line. First, the competitive position of the short line railroad is greatly enhanced if either of these actions continues. Secondly, in the extreme case, the need for service from the line is greatly increased since loss of dredging or implementation of a river draw down will both necessitate hauling grains and products to the Tri-City area, if barge is to be accessed and efficiently used in the future. If barge is no longer competitive, then rail movement the full distance to the port becomes necessary....” (pp. 31-32)

Additional expansion of competition from rail is underway. The development of the McCoy shuttle train loader facility near Oakesdale, expected to be operational for the 2013 harvest, will give producers a strong competitive option to trucking grain for shipment by barge. In all likelihood, the facility will result in diverting to rail grain that otherwise would be shipped by barge. The DEIS does not discuss – or even mention – the uncertainty this new development creates for the ability of the Preferred Alternative to generate navigation-related economic benefits.

The potential economic benefits of the McCoy facility and related investments in the rail system are substantial, as the surrounding region produces almost one-third of Washington’s exported wheat. The loading facility offers transportation savings and other benefits even without improvements to the rail line serving it. With the improvements, the benefits would increase, as illustrated by a benefit-cost analysis that found the project would yield these benefits, discounted at 3 percent per year over a 20-year period:^{19, 20}

- Net transportation savings of \$72.3 million
- Net road damage savings of \$13.8 million
- Net safety savings of \$7.5 million
- Net reduction in CO2 emissions of \$519 thousand
- Total net benefits of \$67.4 million”

The Port of Whitman County, which supports facilities for both rail and water transportation, has offered this summary assessment of the economic benefits of diverting grain from barge to rail:²¹

“The greatest benefits from the project are the net transportation savings from reduced trucking of grain. With the construction of the [McCoy] Shuttle Loader Facility, the projected number of truck trips to the rail loading facility increases as a result of additional bushels being hauled to the shuttle

¹⁹ Port of Whitman County. 2012. *P&L Shortline Railroad Bridge Replacement and Shuttle Loader: TIGER Discretionary Grant*. Retrieved 12 March 2013 from <http://www.portwhitman.com/Narrative%20Final.pdf>.

²⁰ Washington State Department of Transportation, S. Peterson, and J. Tee. 2012. *Benefit-Cost Analysis Summary*. Retrieved 11 February 2013 from <http://www.portwhitman.com/Benefit-Cost%20Analysis.pdf>.

²¹ Port of Whitman. 2012. *P&L Shortline Railroad Bridge Replacement and Shuttle Loader: TIGER Discretionary Grant*. Retrieved 12 March 2013 from <http://www.portwhitman.com/Narrative%20Final.pdf>.

loading facility from farm storage and other commercial grain storage and handling facilities, rather than being hauled to the river for barge transport. This reduces the truck-to-barge mileage. A projected 6,500,000 bushels of wheat will be loaded and shipped directly from storage facilities along the P&L shortline to the private sector loading facility. Another 9,868,000 bushels will be trucked to the loading facility from an average distance of 50 miles round trip. Without the project, all 16,368,000 bushels will be trucked an average of 150 miles round trip to the port at Central Ferry. This project reduces annual truck miles by 2,295,199 and saves 217,431 gallons of fuel, resulting in a net CO2 reduction of 1,259 Mtons.” (p. 17)

Barge terminals down river also compete with those in the Lower Granite pool. In addition, an increasing portion of grain is being transported in larger trucks and, if this trend continues, it likely would make truck transport even more competitive.²²

A shift away from barge transport originating in Lewiston also would have associated benefits for some parts of the road system. The 2003 study observes:

“The road systems in Idaho, Montana, and North Dakota should also benefit, as the long- distance truck moves to Lewiston are eliminated in favor of rail transport to export elevators. The wear and damage to roadways caused by loaded trucks will be substantially reduced for these states. In contrast, the highway maintenance costs in Washington would increase slightly.” (p. 69)

“Idaho accounts for 49.2% of the grain flowing into the Lower Granite Pool, with most of the grain originating in the area around Lewiston and Southwest Idaho. Washington accounts for 27.0%, with most of the grain originating in Whitman County. The remaining grain originates in Montana (14.2%), North Dakota (6.9%), Oregon (2.5%) and Utah (0.3%).” (p. 44)

The PSMP DEIS presents none of this information indicating that the economic benefits from maintaining the navigation channel through the Lower Granite Pool are uncertain and, if they exist currently, are likely to decline in future years. It also presents no information about how past maintenance of the navigation channel has had adverse, indirect impacts on the rail system. Expenditure of taxpayers’ dollars to maintain the channel means that barge operators do not bear the full, direct cost of shipping freight by barge. In other words, barge shipments are subsidized. Some of the subsidy materializes as the channel is dredged, others occur as the Corps maintains the locks and incurs other costs, such as responding to the impacts of its activities on fish. Additional subsidy materializes outside the LSRP, for example, as tribal members, recreationists, local communities, and others are harmed without compensation by the adverse impacts of activities related to the navigation channel and barge traffic on fish and wildlife.

Subsidies to the navigation system have enabled the barge lines to transport grain and other products at prices that do not cover the system’s full costs. For many years, some shippers realized economic benefits from these lower prices, both as they shipped products by barge and as competition between barge and rail induced railroads to keep their prices lower than would exist absent the navigation subsidies. Over the past couple of decades, however, the hidden costs and unsustainability of these subsidized prices have become apparent as railroads, struggling to compete with the subsidized prices of barge shipments, cut investments in and maintenance of rail lines. In some cases, the lines were abandoned or sold to the state, which has had to make substantial investments to keep them running. The DEIS fails to account for any of these costs.

²² BST Associates. 2003. p. 11.

8734 Socioeconomics;
transportation

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socioeconomic

In sum, this discussion reveals that information available to the Corps but not included in the DEIS suggests strongly that the socioeconomic benefits of the Preferred Alternative fall far short of the costs. By not expressing, studying, and analyzing this information, the DEIS fails to “take a hard look” at a critically important aspect of the PSMP’s economic consequences. The Corps must re-work the DEIS and fully examine the net benefits (net costs) of each alternative if it is to satisfy its obligation to provide good faith analysis and sufficient information to allow a firm basis for weighing the risks and benefits of the agency’s Preferred Alternative.

b. The PSMP DEIS Presents an Incomplete and Biased Description of the Preferred Alternative’s Impacts on Regional Economic Activity

The PSMP DEIS summarizes the Preferred Alternative’s impacts on economic activity with this observation: “Maintaining the navigation channel would maintain the flow of commodities thereby maintaining existing related conditions in employment and income in related economic sectors.” (p. 4-33) It provides no other information, or analysis, of the impacts.

This treatment of the Preferred Alternative’s impacts on the regional distribution of economic activity violates a fundamental standard of impact analysis. This standard recognizes that impact analysis requires defining two scenarios, one with and the other without the Preferred Alternative, and describing the differences between them to represent the alternative’s impact. The *Principles and Guidelines* states, for example:

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“**Section III — Summary of the Planning Process ... 1.3.6 Evaluation of Effects ... (b) Assessment.** Assessment is the process of measuring or estimating the effects of an alternative plan. Assessment determines the difference between without-plan and with-plan conditions for each of the categories of effects.” (pp. 1-2)

8737 socioeconomic

Because of the failure to conduct a with-vs.-without analysis, it is impossible to know, from the information provided in the PSMP DEIS, how the Preferred Alternative would affect economic activity. Specifically, it is impossible to know if income and jobs would go up or down, or which workers in which industries would be affected.

The DEIS fails to show how maintaining the navigation channel, through implementation of the Preferred Alternative, would “maintain the flow of commodities” by barge. The tonnage barged on the Lower Snake River has been declining over many years and the DEIS does not demonstrate how the Preferred Alternative would arrest this decline. Moreover, it does not discuss, let alone analyze, the potential effects on the flow of commodities by barge of the recent and planned investments in the rail system that likely will draw even more freight away from the barge system in the future.

The DEIS also fails to substantiate its assertion that by maintaining the navigation channel, the Preferred Alternative would maintain existing conditions in employment and income in economic sectors related to navigation and the barge industry. If maintaining the navigation channel is unable to maintain the current flow of commodities by barge, in the face of long-established downward trends and increasing competition from rail, jobs and incomes associated with the barge industry likely will decline.

Conversely, if subsidies to the barge industry are sufficiently large to enable it to maintain the flow of commodities, then the jobs and incomes associated with it will come at the expense of jobs and incomes associated with the barge industry’s competitors. The discussion above

demonstrates that, if barge transport of cargo through the Port of Lewiston were not available, the cargo would be shipped via rail or truck or through a barge terminal down river. If successful in maintaining the flow of commodities by barge, implementation of the Preferred Alternative would preclude workers associated with transport by rail or truck or through down river barge terminals from being employed and earning income. The PSMP DEIS provides no information about the Preferred Alternative’s potential impacts on these jobs and incomes. Indeed, it provides no quantitative information about any jobs or incomes. Nor does it account for changes underway in the competition for freight that indicate existing conditions in employment and income in sectors related to navigation and the barge industry likely will change, perhaps dramatically, regardless of the Corps’ approach for managing sediment in the LSRP. Hence, it is impossible to determine, from the PSMP DEIS what the impact the Preferred Alternative would have on the regional distribution of economic activity. The document simply does not address the issue.

2. The PSMP DEIS Presents a Biased Picture of the Preferred Alternative

The incomplete socioeconomic picture in the PSMP DEIS is a biased picture. The bias emerges as, out of the void created by the absence of socioeconomic data or analysis, the PSMP DEIS avoids communicating the negative socioeconomic effects that would accompany implementation of the Preferred Alternative. The information presented above indicates that these negative effects likely would offset much, if not all, of the positive effects, with costs exceeding benefits and jobs and income in the barge industry coming at the expense of jobs and income in the rail and truck industries. The incomplete picture thus allows the PSMP DEIS to portray the Preferred Alternative as more desirable than taking no action, or pursuing other alternatives that would avoid some or all of these costs, when, from a socioeconomic perspective, the reverse likely is true.

C. Summary

The socioeconomic elements of the PSMP DEIS fail completely to satisfy the full suite of applicable analytical standards: those required by NEPA, the widely accepted professional standards applicable to this setting, and agency-specific standards. This failure does not stem from a lack of relevant data and other information. There is a wealth of data, much of it generated by the Corps, itself, and studies of the economics of navigation are numerous. Instead, the failure stems from an analytical black hole. The document contains no analysis. As a result, the PSMP DEIS provides no socioeconomic basis for the selection of the Preferred Alternative, nor does it come close providing the public with the information it needs to judge the reasonableness of that decision from a socioeconomic perspective.

The Corps’ selection of the Preferred Alternative, which would re-start suspended dredging activities and initiate the construction of structures to enable continued barge traffic in the Lower Snake River ignores substantial information indicating that this approach to sediment management likely would generate socioeconomic costs that exceed the benefits. Information included in the PSMP DEIS supports the conclusion that the dredging costs, alone, likely would exceed the transportation-cost savings, if any, that would result from future shipments of grain from the Lower Granite Pool. For example, if the tonnage shipped into and out of the Lower Granite Pool remains at current levels, maintenance of the navigation channel would generate shipping-cost savings for grain producers of \$0.5–1.0 million per year. This benefit, however, falls short of the annualized cost of dredging, at least \$2 million. The dredging costs also likely

will outweigh the transportation-cost savings, if any, for all freight shipped through the Lower Granit locks. Accounting for the additional costs of maintenance of the locks and construction of structures likely would show the overall costs are even greater than the potential transportation-cost savings, if any.

Information excluded from the PSMP DEIS supports the conclusion that the Preferred Alternative's net costs would be even larger, insofar as the tonnage shipped by barge likely will decrease, as will the benefits of maintaining the navigation channel. A new rail-loading facility at Ritzville began siphoning grain shipments away from the barge system as soon as it was completed in 2002, so that the percentage of the grain produced in the surrounding area and shipped by barge fell from 94 percent in 2001 to 65 percent in 2005. Similar investments to be completed soon at McCoy likely will have similar effects, further reducing barge shipments.

To rectify its failure to produce an unbiased DEIS that takes a "hard look" at the socioeconomic consequences of managing sediment in the LSRP, the Corps must start over. It must define a baseline scenario that describes what the world would look like without federal action, describe in detail how each alternative would make the world different, and determine the benefits and costs attributable to each alternative, as well the changes in economic activity and changes in uncertainty and risk. With this detailed, comparative information in hand, it then must explain which of the alternatives, from a socioeconomics perspective, is the Preferred Alternative.

From: [Steve Mashuda](#)
To: [PSMP](#)
Subject: Comments on PSMP Draft EIS
Date: Tuesday, March 26, 2013 1:54:05 PM
Attachments: [Final PSMP DEIS comments.pdf](#)

Ms. Shelin:

Please find attached comments on the U.S. Army Corps of Engineers' December 2012 Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement submitted by American Rivers, Citizens for Progress, Earthjustice, Friends of the Clearwater, Borg Hendrickson, Linwood Laughy, Idaho Rivers United, Institute for Fisheries Resources, Pacific Coast Federation of Fishermen's Associations, Save Our Wild Salmon, Sierra Club, and Wild Steelhead Coalition.

We ask that you please confirm receipt of this e-mail. A paper copy of these comments will be sent today by U.S. Mail.

Thank you for your assistance.

Steve Mashuda

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From: [Eric Anderson](#)
To: [PSMP](#)
Subject: Snake River Dredging
Date: Saturday, March 23, 2013 9:57:33 PM

0069_AndersonE

8435 General project support

The emotionally driven arguments against dredging the Snake get confused by many with the separate issue of dam removal. These are really two separate issues. This really has little to do with fishery impact.

Dredging is often done to improve fisheries as well as allowing greater navigation of our waterways. Without the dams, navigation would end at the Gorge.

And trying to make an economic rationale needs to consider the whole picture. The Snake was last dredged eight years ago for a total cost of \$5 million. This opened hundreds of miles of river to navigation. How many miles of railroad or highway would you get for that cost? How much do you think it would cost to remove a major dam? To me dredging the river is a bargain.

Barging is undeniably the least cost and most environmentally friendly means of moving large volumes of commodity goods. Barging's efficiency also results in the lowest carbon footprint of the major means of cargo transportation. Per the American Waterways Council, barging produces 16.41 tons of CO2 per million ton miles of cargo compared to 21.35 for rail and 171.83(!) for trucking. It also removes significant congestion from the already overcrowded rails and roadways. It seems to me that rather than try to vilify river barging we should embrace it as a beneficial alternative.

And don't forget the reason we have the lowest energy costs in the nation.

I am all for doing what we can, within reason, to improve our waterways. I consider myself a water guy. I just get kind of tired of extreme and political all or nothing solutions to solvable problems.

Eric Anderson
3309 Kootenai St.
Boise, ID 83705

8436
Socioeconomics;
transportation

From: [Christina Baldwin](#)
To: [PSMP](#)
Subject: Lower Snake River Programmatic Sediment Management Plan
Date: Saturday, March 23, 2013 8:16:23 AM

0070_Baldwin

I do not support this draft plan.

8449 NEPA; range of alternatives

It fails to assess alternatives to dredging.
It fails to consider alternatives to barge transportation.
It fails to assess impacts from climate changes.
It fails to provide cos/benefits analysis of dredging.

8437 Climate change

8438 Costs and funding

If adopted this plan will have a huge negative impact on the Lower Snake River. Therefore, I sincerely request that the plan be amended to address the address the issues raised above. I look forward to your response.

Tina Baldwin

0071_Carter

From: [Anne Carter](#)
To: [PSMP](#)
Subject: Sediment removal from Lower Snake River
Date: Tuesday, March 26, 2013 2:21:58 PM

8440 Aquatic resources; threatened and endangered species (aquatic)

8439 Costs and funding

Gentlemen:

We urge the Corps to conduct an independent cost-benefit analysis to determine the benefits of this proposal. The benefits may not outweigh the costs and you need to know that fact.

Dredging may threaten Endangered Species Act listed stops of salmon and steelhead which are year-round inhabitants of these waters.

As a result of ongoing climate change the increased sediment load caused by large first fires will increase flood risk to the cities of Lewiston and Clarkston and require a continuous cycle of dredging at a cost that we feel would outweigh benefits. The Corps should conduct an independent analysis of cost-benefit and act in accordance with such facts.

Sincerely,
Anne and Terry Carter
2901 Baker Blvd.
Eugene, Oregon

8441 Hydrology and sediment; watershed sediment production

From: [Paul H. Dixon](#)
To: [PSMP](#)
Subject: Comments about PSMP for lower Snake River system
Date: Tuesday, March 26, 2013 5:12:03 PM

0072_ClearwaterPaper

Attn: Sandy Shelin

We know that a properly functioning river deposits sediments, and this sedimentation needs solutions. We appreciate the comprehensive examination undertaken by the U.S. Army Corps of Engineers to examine depositional areas and formulate long term solutions so that navigation from our valley to the Pacific Ocean and beyond can continue effectively and efficiently.

8442 General project support

As a large Shipper on the Snake/Columbia River System, we support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia/Snake River System is critical to transportation movement in north central Idaho and eastern south east Washington. The Ports of Clarkston and Lewiston are experiencing shallow draft conditions that are affecting freight moving operations. We believe that it is imperative that the U.S. Army Corps of Engineers (USACE) maintain the Congressionally authorized 14-ft. navigation channel.

Thank you and please feel free to contact me if any questions or follow-up required.

Sincerely,

Paul H. Dixon, Jr.

Export & Rail Pricing Manager

Clearwater Paper Corporation

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From: [Gary James](#)
To: [PSMP](#)
Cc: [Audie Huber](#); [Aaron Jackson](#)
Subject: FW: Comments on the Programmatic Sediment Management Plan
Date: Tuesday, March 26, 2013 4:45:03 PM
Attachments: [image001.png](#)

0073_CTUIR_DNR

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources (DNR) has some specific concerns regarding the Lower Snake River Programmatic Sediment Management Plan Draft EIS (DEIS). The CTUIR DNR mission is to protect the first foods of the tribes, including lamprey. The DEIS concludes that “Although habitat within the LSRP may potentially be suitable for lamprey spawning and rearing, there is no evidence that Pacific lamprey have used or currently use the mainstem Snake River for spawning or rearing (USACE 2005; USACE 2010a).” The DEIS indicates that some efforts were made to identify the presence of lamprey ammocoetes, however the CTUIR recommends that further attempts be made to ensure that lamprey are not in the dredged spoils or in the areas where the dredged spoils are deposited.

As part of CTUIR’s lamprey restoration efforts in the Umatilla River we have monitored juvenile outmigrants and estimate that up to 275,000 are moving into the Columbia River annually. We have found that not all lamprey that migrate downstream into the Columbia River are physically ready to continue migration to the ocean. These juvenile lamprey called ammocoetes comprise about 25% of outmigrants. Since lamprey rear for 4-7 years before they migrate to the ocean, these ammocoetes will spend another 1-3 years rearing in sediments on the bottom of the Columbia River -- the exact habitat that that this dredging operation would impact. It is likely that sediment build-ups off the mouths of rivers such as the Clearwater or Snake (targeted dredging areas) would have concentrations of rearing lamprey which have drifted downstream out of tributaries to complete their freshwater juvenile rearing phase before they continue their downstream migration as macrophthalmia. The USFWS has recently conducted surveys of Columbia River sediment and are confirming the presence of juvenile lamprey. The fact that no lamprey were found in your referenced sampling sites, may be a factor of very little adult lamprey escapement into the Snake River. The tribes are translocating adults annually into Snake River tributaries and number of outmigrants should increase in the future. There currently is not enough known to say that some dredging strategies or locations would or would not be more damaging to lamprey but the DEIS should include measures taken to identify suitable lamprey habitat and develop sampling methods and practices to avoid impacts to lamprey populations. Such sampling and examination of dredge spoils/deposition areas to better understand the potential juvenile lamprey impacts is appropriate.

Please contact Gary James, CTUIR DNR Fisheries Program Manager

8443 Aquatic resources; fish

The opinions expressed by the author are his or her own and are not necessarily those of the Confederated Tribes of the Umatilla Indian Reservation. The information, contents and attachments in this email are Confidential and Private.

From: elliseagle@q.com
To: [PSMP](#)
Subject: dredging the snake
Date: Wednesday, March 20, 2013 6:03:34 PM

0074_Ellis

this seems very costly and ineffecient

Robert Ellis

8444 Dredging



From: [Sierra Club](#) on behalf of [Steven Ellis](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Monday, March 25, 2013 4:12:01 PM

0075_Ellis

Mar 25, 2013

Army Corps of Engineers

Dear of Engineers,

8445 Socioeconomics;
rail

8446 Costs and funding

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

I am especially concerned about the affects on the Endangered Species Act-listed stocks of salmon and steelhead.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Steven Ellis
3643 E Sweet Pea Ct
Boise, ID 83716-6939
(208) 908-7134

8447 Aquatic resources; threatened and endangered species (aquatic)

From: [Shelin, Sandy L NWW](#)
To: [Grass, Charlene G \(Contractor\) NWW](#)
Subject: FW: EPA Comments on the Lower Snake River Programmatic Sediment Management Plan DEIS (UNCLASSIFIED)
Date: Tuesday, March 26, 2013 4:58:06 PM
Attachments: [05-055-COE DEIS Lower Snake PSMP.pdf](#)

Classification: UNCLASSIFIED
Caveats: NONE

Another letter for you to log in.

-----Original Message-----

From: Turner, Richard C NWW
Sent: Tuesday, March 26, 2013 4:36 PM
To: Shelin, Sandy L NWW
Subject: FW: EPA Comments on the Lower Snake River Programmatic Sediment Management Plan DEIS

-----Original Message-----

From: Reichgott, Christine [<mailto:Reichgott.Christine@epa.gov>]
Sent: Tuesday, March 26, 2013 4:33 PM
To: Turner, Richard C NWW
Cc: McWhorter, Lynne; Brandt, Kit; Barton, Justine; Anderson-Carnahan, Linda; Rader, Cliff
Subject: EPA Comments on the Lower Snake River Programmatic Sediment Management Plan DEIS

Hello Richard,

Our comments on the DEIS are attached. We look forward to working with you to resolve concerns and advance efforts on regional sediment management.

Teena Reichgott

Manager, Environmental Review and Sediment Management Unit

Office of Ecosystems, Tribal, and Public Affairs

EPA Region 10 ETPA-088

1200 Sixth Avenue, Suite 900

Seattle, WA 98101-3140

206-553-1601

Classification: UNCLASSIFIED
Caveats: NONE



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

0076_EPA Region 10

OFFICE OF
ECOSYSTEMS,
TRIBAL AND PUBLIC
AFFAIRS

March 26, 2013

Richard Turner
Project Manager
US Army Corps of Engineers
Walla Walla District
201 North Third Avenue
Walla Walla, WA 99362

Re: The Environmental Protection Agency's comments on the Lower Snake River Programmatic Sediment Management Plan Draft EIS. EPA Project Number 05-055-COE.

Dear Mr. Turner:

The EPA has reviewed the Corps of Engineers' DEIS for the **Lower Snake River PSMP** encompassing the states of Idaho, Oregon, and Washington. Our comments are provided in accordance with our responsibilities and authorities under Section 309 of the Clean Air Act and the National Environmental Policy Act. After conducting our review, the EPA has rated the DEIS EO-2 (Environmental Objection-Insufficient Information). An explanation of this rating is enclosed.

The purpose of the DEIS is to evaluate a long-term sediment management strategy for the Lower Snake River by employing a comprehensive watershed approach. The project area covers more than 32,000 square miles and includes the Snake River from the confluence with the Columbia River to the upstream limits of the Lower Granite Reservoir. The DEIS evaluates a no action alternative (continued monitoring) and two action alternatives- Alternative 5 (dredging based management) and Alternative 7 (full system and sediment management measures). The action alternatives also include a specific proposal to dredge in 2013/2014. The DEIS identifies Alternative 7 as the Corps' preferred alternative.

The EPA supports the approach to conduct a watershed scale analysis of sediment sources. We commend the Corps for collaborating with the various agencies and research entities to characterize sediment in the Lower Snake River basin. The studies presented in the DEIS and appendices are of a high quality and are the result of a considerable effort.

8742 Management
Measures

However, we believe that the DEIS does not carry forward management measures that advance this work or long-term sediment reduction. We believe that significant uncertainties in the interpretations of sediment sources in the DEIS result in understatements of the potential effectiveness of upland management activities. We also have concerns about the applicability of including a project specific action in a programmatic evaluation, compliance with Clean Water Act Section 404, and a lack of sediment data necessary to support in-water disposal.

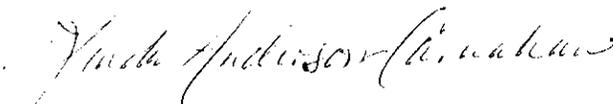
The EPA believes that there is potential for significant environmental degradation to the Snake River habitat from the preferred alternative that could be addressed by project modification such as

strategically prioritizing actions based on a more regional sediment management approach. For example, if sediment control measures are given a chance to work, permanent in-stream structures may not be needed and significant disturbance to the river and potential impacts to listed salmonids would be avoided. We recommend that the preferred alternative include a measure for the Corps to establish a technical working group among agencies that have responsibilities for sediment management and water quality in the Lower Snake River. Such a group would provide a forum to coordinate monitoring programs, develop a process to share results, and collaborate to implement activities that would facilitate sediment reduction in the basin. This would also support the Corps' goal to reduce sediment in the navigation channel.

The EPA strongly believes that sediment should be managed as a resource in the river system, working with natural transport processes wherever possible, ultimately moving toward environmentally protective and ecologically sustainable sediment management in the Snake River watershed. Many of our attached detailed comments on the DEIS support the regional sediment management approach and reiterate our previous recommendations for watershed based management

We appreciate the Corps' consideration of our comments and look forward to working with you to resolve our concerns about the programmatic sediment management plan. In the interim, we are available to discuss these comments and any questions that you may have. Please contact Lynne McWhorter of my staff at 206-553-0205 or via email at mcwhorter.lynne@epa.gov for further discussion. Thank you for the opportunity to provide comments on the PDEIS.

Sincerely,



Linda Anderson-Carnahan, Acting Director
Office of Ecosystems, Tribal and Public Affairs

Enclosures:

Attachment A- Analysis of Mass Balance

Attachment B- Analysis of Sediment Source from Forest Lands Attachment C-

Attachment C- Analysis of Sediment Source from Agriculture Lands

EPA Rating Criteria

EPA Detailed Comments on the Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement

The following are EPA’s comments and recommendations on the DEIS. For ease of discussion, we have addressed the two components of the DEIS separately, the Programmatic Evaluation and the Project Specific Dredging Proposal.

PROGRAMMATIC EVALUATION

Summary:

The comments below describe the major issues that form the basis of our objection to the preferred alternative in the programmatic EIS. These include the lack of long-term planning, elimination of measures that support long-term sediment reduction, lack of specificity for adaptive management, potential environmental degradation from selecting specific management measures, and uncertainties about the characterization of sediment sources used as a basis for the measures that are carried forward.

Sediment Management:

8745 Alternatives

Recommended Approach to Sediment Management

The EPA has supported the Corps’ efforts to consider activities that address elevated sediment loads in addition to the Corps’ conventional dredging approach to sediment management. The Corps’ Engineer Research and Development Center included the following technical note on regional sediment management¹, “Regional sediment management integrates Corps planning, engineering and operations activities within coastal, estuarine, and riverine systems, and broadens the problem-solving perspective from a local, project-specific scale, to an extended scale defined by natural sediment processes. The larger spatial and longer temporal perspectives of regional sediment management require the integration of a broad range of disciplines along with collaborative partnerships among agencies, levels of government, and other stakeholders.”² We believe this message is consistent with regional sediment management principles adopted by our two agencies at the national level and should be a focus for this DEIS programmatic assessment. However, the preferred alternative does not seem to prioritize collaboration and sediment reduction, but rather focuses on channel and structural measures that may be impediments to supporting more natural river processes. Both of our agencies are engaged in regional watershed management elsewhere; programs such as the Great Lakes Basin Program³ could serve as models.

8746 General
DEIS

Insufficient Inclusion of Long-Term Sediment Reduction Measures:

The DEIS does not identify the temporal scale that is covered by the programmatic evaluation or alternatives. From previous Corps presentations, we understood that the analysis would include a long-term (20+ year) planning horizon. An environmentally sustainable⁴ and “systems based approach” to

¹ A “system based approach” to sediment management is stressed in the principles of Regional Sediment Management, as noted on page 3 of Appendix A.

² USACE. June 2003. Authorities and Policies Supporting Implementation of Regional Sediment Management. ERDC/RSM-TN-8. <http://www.wes.army.mil/rsm/pubs/pdfs/rsm-tn-8.pdf>

³ Great Lakes Basin Program for Soil Erosion and Sediment Control. Task force members of this group include the Corps, EPA and NRCS, State agencies, and regional interests. <http://www.glc.org/basin/>

⁴ Environmental sustainability, proactive consideration of environmental consequences, continued viability of natural systems, and use of systems approaches are included in the Corps’s “Environmental Operating Principles,” (Introduction DEIS).

addressing sediment management in a long-term plan should include explorations of further reductions of sediment inputs over the identified planning horizon. The chronic sediment sources corroborated by the studies associated with this PSMP/DEIS should be addressed over a long-term basis and at a broad spatial scale. These sediment reduction measures do not appear to have been adequately considered due to the Corps' focus on specific sediment accumulation in the Lower Snake River Project.⁵ This focus limited implementation to timeframes of 5 years or less,⁶ and included only those measures effective over the narrower spatial scale and in the short timeframes for their "menu of potential measures."⁷ While mechanical measures such as dredging may be needed periodically throughout the lifetime of the dams of the LSRP, inclusion of long-term goals and long-term measures such as reduction of sediment inputs from land management practices may well reduce the frequency needed for dredging and other mechanical measures that alter the natural systems.⁸ These types of source reduction measures must be considered over the long-term and over the broad spatial scale, not within the constraints of reducing specific sediment accumulation within the LSRP in 5 years or less (the spatial and temporal constraints defined by dredging,⁹ the Corps's traditional sediment management measure).

8747 Purpose and
Need



Ecosystem Restoration

The DEIS discusses the development of the PSMP as part of the Corps' civil works planning authority. We understand one of the Corps' civil works' primary missions¹⁰ is ecosystem restoration. This is defined by the Corps as focusing activities to restore significant ecosystem function, structure, and dynamic processes that has been degraded. According to information available from the Corps, the definition of ecosystem restoration includes river restoration as a key topic. The Corps states that, "River restoration includes the removal or remediation of the man-made habitat stressors in rivers that have altered their hydrology, connectivity, water quality, substrate, and other attributes, and have negatively affected their historic ecological integrity resulting in the reduction or elimination of the native species occupying them. River restoration can also include the re-establishment of the associated riparian corridors and flood plains. It can involve the restoration of either an entire river or a smaller section or reach to historic or recent historic conditions, or enhancement of a section of habitat to improve suitability for a particular native species."

⁵ "The purpose of the proposed action is to adopt and implement a PSMP, which includes actions . . . for managing sediment that interferes with the authorized purposes of the LSRP." (DEIS, page 1-2)

⁶ All action triggers in the PSMP are in timeframes of 5 years or less (App A, pages 21-24), except for flow conveyance actions that may include a longer timeframe, but in which case the Corps anticipates the potential for one or more cycles of interim actions (App A, page 29).

⁷ The PSMP confines the plan to providing "a menu of potential measures that may be applicable for sediment accumulation issues." (App. A, page 1) Appendix A, Table 3-1 provides the list of applicable management measures that are to be evaluated on a project specific basis using criteria that include whether the measures "correct the problem within the desired timeframe to prevent interference with authorized purposes of the LSRP" and whether the measure is "consistent in scale with the identified problem." (App A, page 30)

⁸ Because the previous EIS focused solely on managing sediment in the channel (e.g., dredging) and was challenged, the Corps determined it would be more effective to evaluate sediment management within the lower Snake River on a watershed scale, and evaluate the potential for reducing sediment input, rather than focusing only on the reservoirs themselves. Although the Corps does not have the authority to manage land outside of the reservoir project boundaries, the Corps can identify and evaluate management strategies that could be implemented on non-Corps property." (70 FR 190, October 3, 2005, p. 57569) Scoping presentation materials acknowledged the possibility to "Reduce dredging requirements through source reduction, where possible." (Lower Snake River PSMP/EIS Powerpoint Presentation for Grande Ronde Scoping Meeting, November 16, 2006, Slide 4)

⁹ "The Corps has dredged problem sediment areas approximately every 3 to 5 years (App A, p. 10)

¹⁰ USACE, March 2013. Ecosystem Restoration Gateway- Civil Works Primary Mission.

<http://cw-environment.usace.army.mil/restoration.cfm>

8748 Management measures

We agree that emphasizing restoration is important and are pleased that the Corps includes this focus for civil works planning. However, the DEIS does not seem to carry this mission forward in the proposed management measures/action alternatives. Raising levees or installing structures (e.g., dike fields) to alter the river's conveyance of sediment does not seem consistent with a naturally functioning river system. Furthermore, there is no prioritization of the measures. We are concerned that if the Corps selects the preferred alternative as presented in the DEIS, it would allow a project to move forward to construct in-river structures without first considering more restorative practices such as proactively managing the sources of sediment.

Recommendations:

8749 General DEIS

- We recommend that the final EIS include a guiding principle for regional sediment management and demonstrate how this approach would be carried forward.
- We recommend that the final EIS include an approach toward increasing long-term sediment reduction measures consistent with the goal of watershed based management.
- We recommend that the final EIS include a discussion of how the management measures are consistent with restoring ecosystem processes and promoting long-term sustainability.

Adaptive Management:

The DEIS relies on adaptive management; however, the monitoring to inform adaptive management is based only on the Corps' monitoring. Furthermore, the DEIS does not provide details of an adaptive management plan. Appendix A provides a thorough discussion of how a general monitoring program would be implemented. Although this section captures key steps, there are neither specific measures, nor an explanation of a decision framework for how measures would be implemented. An adaptive management plan should be formalized identifying uncertainties (e.g., over 20 percent of the source of sediment is unknown) and providing clear direction to modify decisions as additional monitoring data are obtained.

8750 PSMP

8751 PSMP

Appendix A states that the PSMP guides only those actions taken by the Corps within the project boundaries of the LSRP and does not apply to actions taken by other organizations or agencies. For this reason the monitoring focuses on the effectiveness of Corps management activities, disregarding the potentially very important sediment information from upland sources. We note that NEPA allows for consideration of actions outside of the lead agency's authority. Effective, long-term, watershed-based sediment management requires coordinated effort among appropriate agencies. The Corps has a process to convene the Lower Snake Management Group. This would likely be a useful format to use to establish a process for an ongoing technical working group to promote data sharing and other activities, which in turn, would inform adaptive management.

8752 Dredged materials disposal

The DEIS acknowledges that dredging will likely be necessary in the future; although on a less frequent basis than past dredging when combined with other management measures. The adaptive management plan does not identify how placement and beneficial use of future dredged material would be determined. There may be a number of opportunities for upland and/or in-water placement where material could be beneficially used for restoration or habitat creation. Gathering such information from stakeholders through an ongoing technical working group would provide a structure for the Corps to consider a suite of options for sediment placement based on changing conditions rather than limiting the options to those immediately available for a particular dredging project.

Recommendations:

- We recommend that an adaptive management plan be formalized and that land management activities by other agencies should be included and linked back to Corps decisions.
- We recommend that the plan include details of how measures (sediment management, system management, reduction measures) would be prioritized.
- We recommend that the adaptive management plan include a method to determine beneficial placement of dredged material in the long-term.

Alternatives:

The DEIS evaluated two action alternatives. Four other alternatives were discussed and eliminated from further analysis. All the alternatives consider various sediment management measures. Measures include additional monitoring, dredging, structural sediment measures, system management measures (levees and managing pool depth), increased upland sediment management, and current levels of upland sediment reduction. The description of alternatives in the DEIS and justification as to why alternatives and measures were eliminated is somewhat confusing. We have developed Table 1 (below) for discussion purposes and to illustrate the full suite of alternatives/potential measures. We believe these measures warrant further consideration.

Table 1 All Alternatives and Measures Discussed in the DEIS

Alternative	Emphasize Additional Monitoring	Increased Sediment Reduction Measures	Continue Current Upland Reduction Measures	System Management Measures	Structural Management Measures	Dredging Based Sediment Management
Alternative 1	X					
Alternative 2		X				
Alternative 3			X	X		
Alternative 4			X		X	
Alternative 5 With Project Specific			X			X
Alternative 6			X	X	X	

Alternative 7 With Project Specific and Agency Preferred			X	X	X	X
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8753 Management measures

Alternatives/Measures that DEIS identifies would not meet the Purpose and Need

The EPA's Table 1 is based on the alternatives discussion in Chapter 2 of the DEIS. The DEIS states that alternatives and measures were eliminated based on the fact that they, by themselves, would not be effective at reducing sediment accumulation. While we would agree that some measures may not be effective independently, the eliminated measures (and potentially additional ones) could be part of a system-wide approach to reduce sediment accumulation.

8754 PSMP

The DEIS does not include a decision framework of how management measures would be prioritized. It would appear that without a means to prioritize implementation, structural measures included in the preferred alternative could move forward as proposed projects. The structural management measures would alter the river's natural conveyance and could adversely impact salmonids by increasing habitat for predator species. The effectiveness of these measures seems speculative; impacts may outweigh the benefits. We encourage the Corps to discuss a decision framework for implementing measures that include impacts to salmonids as part of the decision matrix.

8756 Management measures

The following are other specific issues that we believe should be considered:

8755 Hydrology and sediment; watershed sediment production

- Emphasize continued monitoring. Although the description of action alternatives includes bulleted statements to conduct monitoring, only the No Action emphasizes the task to continue monitoring in order to better characterize sources in the watershed.
- Include measure that emphasizes collaboration with land managers. The DEIS states that wildfire severity is expected to increase resulting in additional sediment load. This point underscores the importance of deliberately engaging in watershed management to address long term sediment reduction.
- Increased upland management was eliminated because it would not reduce sediment accumulation as a stand-alone action. We believe that increased restoration of uplands may provide benefit and could be combined with less frequent dredging while avoiding the proposal to construct in-water man-made structures.
- Include a measure to create a collaborative forum of land managers to promote strategic restoration opportunities. While limited agency resources may impact the ability to increase upland management, using current resources to more deliberately direct and help prioritize/inform efforts could be an effective measure to include in the preferred alternative.
- Alternative 7 assumes all measures are available to implement (except those under Alternative 1 and 2). It appears that this would allow the Corps to move forward with structural measures without first prioritizing monitoring, additional source characterization, or collaboration of

8757 Management measures

8758 Management measures

8759 PSMP

8760 Alternatives

management activities. Because of this lack of prioritization, Alternative 7 could result in unnecessary degradation of river's natural flow above the Lower Granite Dam.

- Most of the alternatives were eliminated from further evaluation because they did not meet the purpose and need; however Alternative 7 includes these measures. It is unclear if the intent is to implement all of the measures under Alternative 7 since they would not be effective on their own or implement each independently or implement them in combination with only one or two other measures. This seems unlikely and therefore we are unsure how Alternative 7 would be effective. Please clarify in the final EIS.
- More discussion is needed on current management activities. The action alternatives include a measure to continue current upland management with a bulleted list of the relevant agencies. The Corps's upland management is identified; however, there is no discussion about these current management activities or those of other agencies. Therefore, it is not clear how this measure (current activities) would meet the purpose and need. Also, it is not clear how this measure would meet the purpose and need, while the alternative that increases upland management would not.
- We believe that structural management measures should be a last resort. These measures will require maintenance in perpetuity, have in-river effects in perpetuity, and do not seem to be consistent with Corps' sustainable practices as outlined in the PSMP as "Environmental Operating Principles."
- We recommend including a table in the EIS similar to EPA's Table 1 to clarify measures carried forward in the action alternatives.

8761 Management measures

8762 Management measures

8763 General DEIS

8764 General DEIS

Recommendations:

- We recommend that the final EIS include additional information on the decision framework for prioritizing measures and further consider the impacts to ESA listed species.
- -We recommend that the preferred alternative include a measure that emphasizes monitoring to continue source characterization and resolve unknowns.
- We recommend that the preferred alternative be modified to include a commitment to collaborate with relevant stakeholders. We recommend including more detail on how continued collaboration would occur and who would be involved in developing an agreement for continued coordination of sediment management on a watershed scale. This will aid in the understanding of how decisions will be made for implementing actions/sediment measures and how efforts will be combined and prioritized in the watershed.
- We recommend that EPA's specific comments in the bulleted list above be addressed in the final EIS.

Uncertainties with Sediment Characterization

The comments below discuss our concerns about the unknown sources identified in the mass balance of sediment, the exclusion of bedload in the assessment, and the dismissal of anthropogenic activities' effects on sediment loading from forest and agriculture lands. We believe that additional monitoring and characterization are critical to address these uncertainties. Our expanded analysis is included in attachments A, B and C, which further discuss these uncertainties and our concerns about the interpretation of studies that narrowed the range of management measures carried forward.

Mass Balance and Unknown Sources

The sediment mass balance presented in the DEIS (Appendix F) shows that the largest source of both the suspended sediment load and suspended sand load reaching the Lower Granite Reservoir originates

8765 Management measures

from the Salmon River system, indicating that the Salmon River basin may be a good candidate for watershed sediment management¹¹. It is important to note that large amounts of sediment loading originates from the other 'tributary' sources within the project area, and therefore these areas are also potential candidates for watershed sediment management. Since sediment reaching the confluence of the Snake and Clearwater Rivers are influenced by upstream processes, we believe the preferred alternative in the DEIS should include a watershed sediment management and monitoring component.

The mass balance presented in the DEIS does not identify the source(s) of between 21% and 33% of the sediment load that reaches the Lower Granite Reservoir.¹² This 'unknown' sediment load adds a level of uncertainty to the watershed analysis presented in the DEIS. Accordingly, based on the uncertainty associated with the 'unknown' component of the mass balance it would be prudent to continue monitoring watershed sediment processes in order to determine the source of this 'unknown' sediment, with a goal of developing watershed sediment management of the 'unknown' sediment source(s) along with the 'known' sediment sources.

8766 Hydrology and sediment; watershed sediment production

Bedload Sediment

8767 Hydrology and sediment; watershed sediment production

The DEIS does not include bedload as a source of sediment accumulation in the Lower Granite Reservoir. It is possible that a portion of the 'unknown' component of the mass balance could be the re-suspension of bedload. Bedload sediment is a large component of the sediment regime traveling through the Snake and Clearwater Rivers (2 to 10% of the total sediment budget) and it is possible that bedload is re-suspended into the water column at higher flow conditions. If this occurs, then bedload produced by watershed processes (e.g., 'mass-failures') could have a much more immediate effect on sediment conditions at the confluence of the Snake and Clearwater Rivers. That is, transport rates for suspended sediment in a river are much shorter than the transportation rate associated with riverine bedload sediment. We believe that the EIS should consider bedload as a potential source of sediment accumulation at the confluence of the Snake and Clearwater Rivers.

Sediment from Forest Lands:

The DEIS states that several very large forest fire events have occurred in the project area during the past decade and that the forest fire regime may increase in frequency, severity, and intensity in the near future as a result of changing climate patterns. One potential outcome from these fires is increased sediment loading to the river system. Specifically, it was reported in Appendix D that fires will increase the number of sediment 'mass-wasting' events, which have been shown to be significant sources of sediment production. It can be anticipated that sediment loading from fire initiated 'mass-wasting' will eventually reach the confluence of the Clearwater and Snake Rivers as it slowly travels downstream (i.e., decades) as both bedload and suspended load. We would note that the implementation time frame used in the DEIS, currently restricted to 5 years or less,¹³ seems short to effectively evaluate and address the impacts of current and expected future fire induced mass-wasting sediment loading events.

In addition, the DEIS implies that sediment loading from fires has no anthropogenic component because fire is a natural process and therefore, there was no need for additional monitoring or management of

¹¹ A detailed discussion on the mass balance is presented in Attachment A of this letter.

¹² In other words, the sediment budget presented in Appendix F accounted for only 66% of sediment load in certain situations (i.e., 100% - 33% = 66%), with the remaining sediment load being from an 'unknown' origin (i.e., 33%).

¹³ All action triggers in the PSMP are in timeframes of 5 years or less (App A, pages 21-24), except for flow conveyance actions that may include a longer timeframe, but in which case the Corps anticipates the potential for one or more cycles of interim actions (App A, page 29).

8768 Hydrology and sediment;
watershed sediment production

these sediment loads. We believe the DEIS does not adequately consider the contribution of anthropogenic activities and conditions (e.g., roads and culverts) to the creation of ‘mass-wasting’ events. Mass wasting events resulting from fires may be influenced by past and present forest land management actions.¹⁴ For example, areas where road density is high or where culverts are undersized or in disrepair would be more vulnerable to the likelihood of mass wasting after a fire.

Road failures have been shown to be a very important sediment source. For example, Elliot et al. (1994) reported that a road culvert failure produced high quantities of sediment that reached a stream (i.e., 3,200% over natural loading levels). Similarly, it was reported in Appendix C of the DEIS that during the 1995/1996 storm event, 35% of the total estimated landslide volume in the Clearwater National Forest was from roads, while 25% of the total estimated volume delivered to streams was from roads. Neither of these examples was reported to be associated with fire events.

It is important to point out that the frequency of road “mass failure” events, not associated with wildfire effects, have been successfully addressed by the USFS over the past decade through road management programs. These activities have been shown to improve water quality through reduced sediment yields. Although the USFS is working on issues with roads, it is likely that additional actions will be needed to mitigate potential future anthropogenic mass wasting events, as the predicted fire regime produces hotter, larger, and more frequent fires. For example, some of these anthropogenic activities (e.g., roads) may not currently result in mass-wasting events, but they may in the future with the new fire regime. Based on the uncertainty associated with the potential increase of mass wasting from road failures, we believe it would be prudent to continue monitoring watershed sediment processes. We also believe that there could be opportunities for the Corps to partner with the Forest Service on reducing sediment loading into rivers from forest roads in the Clearwater and Snake River basins.

Sediment from Agriculture Lands: 8769 Hydrology and sediment; watershed sediment production

We agree with the discussion in the DEIS that agriculture practices have improved dramatically over the past several decades resulting in much lower surface erosion (i.e., sheet and rill) from agricultural lands. However, potential sediment loading from ephemeral gullies on agriculture lands were not addressed during the watershed analysis for agricultural lands (Appendix E in the DEIS)¹⁵. Extrapolating ephemeral gully production observed within the Pottlatch basin (i.e., 26.2 ephemeral gullies per square mile of agriculture land) to all of the agricultural areas within the project watershed area (i.e., 284 mi²), results in an estimated 81,276 ephemeral gullies produced per year. Although this is a very rough estimate, this value does indicate that many ephemeral gullies can be produced within the project watershed area. It is possible that a small fraction of these gullies will produce sediment that is routed through the system, which may, in turn, influence the sediment budget at the confluence of the Snake and Clearwater Rivers.

As previously mentioned in this letter, there was a large ‘unknown’ component in the mass balance for both suspended sediment and suspended sand loads. It is possible that sediment resulting from ephemeral gully formation on agriculture lands could drain into small tributaries that enter directly into the mainstem Snake and Clearwater Rivers. These small tributaries were not monitored during the development of the mass balance model.

¹⁴ A detailed discussion on forestry issues are presented in Attachment B of this letter.

¹⁵ A detailed discussion on agriculture issues are presented in Attachment C of this letter.

8770 Hydrology and sediment;
watershed sediment production

Sediment from Grazing Activities

The issue of sediment production resulting from grazing activities was not addressed in the DEIS. Grazing activities have been shown to dramatically increase sediment loading into a stream through direct riparian disturbance (e.g., grazing and/or trampling), as well as indirect effects resulting from changes in hydrology (e.g., increased peak flow, total flow, etc) which can lead to increased sediment production within the stream from eroding banks. Hydrologic changes from grazing activities can be a consequence of lower vegetation cover densities and changes in vegetation types. For example, two of the largest sediment debris flow events in the Boise River Basin were a result of over-grazing activities during the 1970's¹⁶. Because a fairly large portion of the Snake and Clearwater River basins include grazing activities, it is problematic that the potential effect of grazing activities on sediment production were not addressed in the DEIS.

Recommendations:

- We believe that it is necessary to continue monitoring watershed sediment processes because of the uncertainties with the characterization of sediment in the DEIS. The final EIS should emphasize this activity.
- We believe that the analysis should further consider the ability of land management activities to contribute to the overall sediment reduction. This may appropriately promote more long-term solutions given the expected increase in wild fire and the subsequently expected increase in sediment delivery.
- We believe that the analysis should include the potential sources of sediment from grazing activities.

8771 NEPA; programmatic
approach

PROJECT SPECIFIC DREDGING

Summary:

The programmatic EIS includes a project specific proposed action to dredge in 2013/2014 to address the immediate need to maintain the federal navigation channel and adjacent berths. This inclusion seems inconsistent with a programmatic approach. Based on CEQ¹⁷ guidance, a programmatic EIS can be used for broad federal actions. The NEPA Book¹⁸ refers to programmatic analyses as a “strategic environment assessment” and distinguishes between programmatic EISs and project specific EISs. It states that agencies focus on different factors when preparing each. Programmatic EISs do not typically evaluate defined facilities or specific sites. The DEIS states specifically that the PSMP “does not prescribe project-specific solutions¹⁹” Therefore, we are unclear how the project specific proposal informs the decision considered in this PSMP.

8772 Dredged material disposal

That said, we have reviewed the project specific proposal and have some initial comments and recommendations. Additional detailed comments will be forthcoming in our review of the public notice.

The DEIS does not fully analyze the effects of in-water disposal or appear compliant with the 404(b)(1) Guidelines. The EPA often supports in-water disposal of dredged material; however, the EIS should more rigorously document that in-water disposal for the immediate maintenance action complies with

¹⁶ USFS Charlie Luce, Research Hydrologist. 2013. Personal Communication.

¹⁷ CEQ. 2003. Modernizing NEPA Implementation. <http://ceq.hss.doe.gov/ntl/report/chapter3.pdf>

¹⁸ Bass, Ronald E. 2001. The NEPA Book: A step-by-step guide on how to comply with the National Environmental Policy Act. Pgs 63-65. Salano Press Books.

¹⁹ DEIS, Appendix A, Section 1.1.

8773 General DEIS

the Guidelines. Based on the available information, we do not believe the proposed action has been clearly demonstrated to be the least environmentally damaging practicable alternative.

Recommendations:

- We recommend that the final EIS address the alternatives analysis for future disposal of dredged material, both in-water and in appropriate and available upland areas.
- We recommend that a full suite of disposal alternatives that could support beneficial use (e.g., uplands, in-water, and combination thereof, at individual or multiple sites) be evaluated for practicability.
- We recommend that the final EIS clearly demonstrate the need to create shallow water habitat for juvenile salmonids at the Knoxway Canyon site, should in-water disposal be the only practicable alternative.
- We recommend that the final EIS clearly demonstrate selection of the Least Environmentally Damaging Practicable Alternative.

Uncertainties with Sediment Quality:

8774 Water quality, and sediment quality; sediment quality

Along with our responsibility under CWA Section 404, we also review and comment on the suitability of sediment for in-water disposal/placement. The DEIS does not provide sufficient information to determine the suitability of immediate need dredged material prism for in-water placement. The EPA is a participant in the interagency Dredged Material Management Program. The purpose of the DMMP is to coordinate multi-agency (Corps of Engineers, Washington State Departments of Ecology and Natural Resources, and the EPA) review of sediment testing and management of dredged material to ensure protection of the aquatic environment. It is our understanding that Walla Walla District is enlisting the assistance of the Seattle District to have sediment characterization information compiled and presented in a format consistent with the DMMP. The DMMP is one process available to assist in the interagency review of information and although using this specific process is not required, the same level of information gathered for this process should be provided to agencies to assess the quality of sediment. Sampling, testing, interpretation and submittals should be consistent with the interagency manual *Sediment Evaluation Framework for the Pacific Northwest*.

We reviewed the DEIS and appendices for information provided to date that might support sediment quality statements throughout the DEIS and supporting documents. From our review we have identified a lack of information (i.e. an adequate final sediment characterization report) to determine the suitability of sediment for in-water disposal/placement. The following comments discuss our main issues with the DEIS and appendices regarding sediment quality.

Sediment Sampling for Suitability Determination

Two sediment sampling efforts have occurred in the project area recently, both supporting 2013 proposed dredging. The Port of Clarkson conducted sampling on approximately 2500 cy of material at their crane dock berth. They followed the DMMP process, which resulted in a suitability determination that found all of the Port of Clarkson's crane dock material suitable for unconfined, open-water disposal (February 22, 2013 signed by the EPA, Ecology, WDNR and Seattle District Corps). These testing results should be included in the final EIS, appendices and references.

The second effort was Walla Walla District's sampling in August 2011 in support of the EIS which is now being used to support proposed 2013-2014 "immediate need" dredging. Unfortunately the sampling and analysis plan was not coordinated prior to sampling. Subsequent to the sampling the EPA was told

8775 Water quality, and sediment quality; sediment quality

that Walla Walla District intended to work with Seattle District and the DMMP agencies to review and interpret the data, with the intention of getting a signed suitability determination for the immediate need dredging. In early October 2012 a draft data report (dated September 2012) was circulated to the DMMP agencies by Seattle District on behalf of Walla Walla District. The report did not include basic information that would allow a reasonable review. For example there was not an adequate description of the fieldwork and compositing scheme, grain size data, number of samples related to proposed dredging volume, basic tables comparing the data to applicable limits, detection limits, supporting information explaining how the Corps determined to sample grain size for a certain portion of samples and do chemical analyses for others. Interagency initial comments/requests for clarification were submitted by the Seattle District to Walla Walla District in mid-October 2012, with the understanding that, per the DMMP process, a more complete reviewable draft data report would be resubmitted for consideration. This was also the Seattle District's understanding.

We have had informal discussions with the Seattle and Walla Walla Districts and have been anticipating a revised draft sediment report. In its absence, the DEIS lacks supporting documentation related to the suitability of the material for the proposed placement project. Conclusions about the suitability of material for in-water placement/beneficial use are not supported by the draft September 2012 report provided in Appendix I. In order to conduct our review, we require a sediment characterization report clearly documenting the Corps' fieldwork and reasoning in August 2011 with an analysis that includes comparisons of all data to appropriate, agreed to screening values. This is necessary before the Corps can finalize environmental documentation for this project, and before agencies can provide informed comments about the project. Based on current information it is unclear whether the level of documentation (e.g. locations, number and types of samples and detection limits) is adequate to characterize this project without further testing. We have included specific comments in the table following our general comments below. Many of these comments highlight the lack of information to determine sediment quality. Furthermore, the EIS, appendices and Biological Assessment inaccurately conclude that all proposed dredged material has been found suitable for unconfined, open-water disposal and for use in the proposed fish habitat.

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Water Quality Monitoring Report and Sediment Quality

The DEIS does not include the most recent water quality results from the 2006 Water Quality Monitoring Report, which provides real-time results applicable to active dredging activities as well as placement and regrading activities at the previous placement site, adjacent to the current proposed placement site. For example, section 4.6.2.1 of the EIS states that the "turbidity levels would be expected to meet state water quality standards 300 feet downstream from dredging and placement actions..." . The Corps' 2006 water quality monitoring report²⁰ states that during the 851 hours of dredging in the reach near Port of Clarkston, the project was in compliance only 64% of the time with an average turbidity of 5.84 NTU over background (at a deep station 300+ feet downstream). Due to the "monitoring zone" construct, this station was likely more than 300 feet downstream, with the deep station 600 feet or more downstream in compliance 85% of the time. The report states that the dredge operations were consistently halted during this project phase to allow turbidity levels to decrease to within specified limits.

In addition, the water quality monitoring report states that, "During the final phase of the dredging operation (March 3, 2006), the main dredge *Vulcan* was relocated to the disposal area, specifically to

²⁰ USACE. 2006. Water Quality Final Report, FY 06 Lower Snake River Dredging Project, Manson Construction Company

reshape the disposed material. This activity was closely monitored for elevated turbidity, and both compliance stations did signal alarms for a long series of elevated turbidity, ceasing operation in excess of 10 hours. The threshold for this operation was raised to 75 NTU, which was implemented on March 3, 2006.” While it may be decided that the short-term turbidity effects are reasonable and unavoidable in order to accomplish the final shaping/dressing of the benches, these effects should be anticipated and actual results should be clearly summarized and discussed in the water quality sections of the EIS and all appendices, including the Biological Assessment and 404(b)(1) analysis.

The conclusion of this 2006 report states that, “Turbidity was the only parameter influenced by the dredging program.” Other measured parameters were pH, DO, specific conductivity temperature and ammonia. “The frequency of turbidity concentrations that approached the criteria established...was directly related to the material being dredged rather than the dredging methodology or rate.” While we can agree that dredging gravel will not produce the turbidity that dredging finer grained material will, certainly adjusting the rate of dredging and potentially other BMPs such as dewatering rate, etc. will influence the levels of turbidity measured downstream during dredging.

Appendices

-Appendix I: Sediment Evaluation Report (September 2012).

The DMMP reviewed this report and awaits an updated report that addresses DMMP comments (comments provided October 2012 attached). Because we do not have a complete report, we are unable to confirm statements about the sediment’s suitability for habitat bench placement.

-Appendix K: Biological Assessment

The BA should be aligned with the other project documents to ensure that acres, volumes, etc. are consistent throughout all project documents. Our comments in the table below related to the project description, lack of or new sediment characterization information and interpretation, and need to provide linkage to past water quality monitoring, apply to the BA as well.

Recommendations:

- We recommend that the EIS include adequate detail to determine whether or not the sediment is acceptable for in-water disposal. Without review of this information, the EPA does not support this action.
- We recommend that EPA’s specific comments in Table 2 be addressed in the final EIS.

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Table 2 EPA Specific Comments Related to Sediment Quality

Document	Section	Page	Comment
DEIS	1.3.2	1-7	Sediment Management Guidance. A statement should be included about additional assessment, beyond the SEF, of dredged material in terms of specific beneficial use requirements, and whether any given material is appropriate for the use proposed.
DEIS	3.6	3-53	This discussion should be updated with data from the 2011 sampling, along with the Port of Clarkston’s 2012 data. A statement such as in paragraph 3 that for 2000 and 2003 “all detected concentrations of contaminants were below screening levels”, also requires a statement about the list of chemicals of concern (e.g. SEF chemicals) that were tested for, and that all detection limits were below the applicable SLs – otherwise

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			<p>this is an inadequate summary of testing results. The 2011 sampling report referenced in Appendix I is incomplete. The DMMP agencies provided initial comments in October and are awaiting an updated report. Without it, any comments about appropriateness of the current dredged material prism for in-water placement are not supported. The analysis should discuss the standards were used for comparison of results. Have regional sediment evaluation programs evaluated the results? If so, where are these evaluations? And if not, please explain.</p>
DEIS	4.1	4-1	<p>Plankton and Benthic Community discussions. All alternatives about effects on plankton and benthic community should mention the quality of the dredged material. Potential chemical contaminants -- and the fact that testing and a suitability determination documents whether sufficient information exists to support these analyses and whether these resources are protected -- are not mentioned anywhere in these alternatives evaluations. Sufficient evaluation of material, as could be documented in a suitability determination, is central to no and minor short-term effects calls in the document.</p>
			<p>15516 water quality and sediment quality; sediment quality</p>
DEIS		3-54	<p>This entire paragraph is not supported by any report and should be removed pending receipt of a final characterization report. The EPA disagrees with the statement that, "Based on the results from the study, the sediment at the Port of Clarkston, Port of Lewiston and the navigation channel in the confluence area meet the chemical and physical criteria for open and unconfined in-water placement." The existing data are not packaged in such a way (e.g. a complete report) that this can be determined for the most recent (2011) dataset that best represents the proposed dredging prism (with the exception of the Port of Clarkston crane dock).</p>
			<p>15517 water quality and sediment quality; sediment quality</p>
DEIS	4.6.2.1	4-36	<p>Statements that information in Appendix I and the 2011 sediment sampling results indicate that materials from the proposed dredging meet criteria for open-water disposal are premature given the lack of a complete sediment characterization report.</p>
			<p>15518 water quality and sediment quality; sediment quality</p>
DEIS	4.6.2.2	4-36 – 4-37	<p>Immediate Action. As discussed previously, there is no sediment report is available to support statements about suitability of material for placement. Again, the DEIS should reference water quality monitoring results for each phase of the proposed actions.</p>
			<p>15519 water quality and sediment quality; sediment quality</p>
DEIS	4.6.3.1	4-37- 4-38	<p>Similar as comments on Section 3.6 and 4.1 above. How was it determined that the "agitation" measures would have the same effects and duration as dredging...since the water column is being used to convey the full volume of sediments it would seem to potentially have far greater turbidity impacts, and be quite different from dredging. Please provide a better</p>
			<p>15520 water quality and sediment quality; sediment quality</p>

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			explanation of what exactly is anticipated with “agitation” and therefore what the water quality effects would be relative to dredging.
	4.6.3.1	4-38	Please include the turbidity values during the referenced 1992 test drawdown of Lower Granite Reservoir.
Appendix H	General		What is the ownership of the dredging areas (and hence the dredged material) and the Knoxway Canyon placement site? If there are state-owned aquatic lands, managed by WDNR, it should be clearly stated.
Appendix H			Inconsistencies in dredging and acres of impact. Update all documents with current likely maximum dredging volumes and acres of impact. These numbers vary in the appendices and BA...ie. 50 and 72+ acres of dredged surface area, 422K cy and 500K cy of dredging, different acres of good vs. fair habitat at the habitat site, etc.
Appendix H		4, Figure 2	Include this aerial; however, the title should indicate that this shows the Federal project at the confluence, not the actual shoaling.
Appendix H		6	This page, including grain size information, must be updated and reference the final approved sediment characterization report from Walla Walla District (when available), along with the Port of Clarkston’s most recent crane dock sediment data report. Does Port of Lewiston have adequate sediment characterization of their berth like Port of Clarkston crane dock – does the Corps data cover this area? Does the Port of Clarkston’s upstream berth area have adequate sediment characterization – does the Corps data cover this area? Consistent grain size statements are needed throughout the documents.
Appendix H		10	Please explain how the contractor will “overspill excess water from the barge” 2 feet below the river surface.
Appendix H	4.1.1	11	Joso disposal site. While Joso is not a preferred disposal site, it could hold some dredged material at some point, or might be a worthwhile restoration site. The Joso discussion needs a few more details including an estimate on the volume and footprint of dredging that would be required to have access to the disposal site, and why an 80 acre retention pond would have to be constructed? If cranes are offloading sandy dredged material, it doesn’t seem like there would be much required dewatering? How much capacity is at the Joso site?
Appendix H	4.1.2	12	Port of Wilma. Similar to Joso, this option may not hold all the material, but could be an upland option for some of the dredged material if needed.
Appendix H	4.2	12	States that if funding or other issues meant the habitat option could not be pursued, open-water disposal might be pursued...identifying a site that “would not impact the navigation channel or other project purposes or have an

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			unacceptable impact on environmental resources”...? If this option were pursued this section would require much more detail including a clear description of how a site would be selected, a description of depths considered shallow, mid-depth and deep, and a description of how this site would be monitored in the short and long-term. In addition, explain how habitat is created at depth for species that prey on salmonids.
Appendix H	4.3	13	Resource agencies like the Services will have to ensure that the in-river disposal being proposed continues to have their “qualified support” in terms of benefits to salmonids. Page 14 again mentions habitat will be created “subject to availability of funds”. Is it possible dredging will occur, but the habitat option will not be pursued because of funding?
Appendix H		14	Please provide more details on the construction methods and stability of the existing Knoxway bench. How was the material placed and reworked in 2005/2006? Was sand placed on top similar to the 10 foot surface layer that is proposed for the ribbon option this year?
Appendix H		15, Figure 8	What is the date of this survey (2006 or 2011?). From the figure there appear to already be benches/deltas at the mouths of the gullies flowing into this reach...will any good existing habitat be affected by the ribbon proposal? Also, please ensure the acres/depths are consistent with other locations in the document, including the BA. The new proposed placement footprint should be superimposed on a figure with bathymetry like Figure 8 in addition to that provided in Figure 9.
Appendix H		17, Figure 10	Please include labels that show depths of the margins and acres for each area, not just the shallow water area.
Appendix H		19	All dredging will be mechanical e.g. clamshell. It should be made clear that the initial placement of Ice Harbor and then other materials would be by bottom dump barge. It is then stated that the final material lifts will be removed from the barge and placed via hydraulic or mechanical methods, once bottom dump barges can no longer access the shallow area. How was the other bench constructed? How would hydraulic pump out really be used to do the final placement and reshaping of the surface of the bench to meet depth and slope requirements? Slurry would cause turbidity effects downstream – potentially more than happened in 2005-2006. How will the 10 ft depth of sand be confirmed? Has the dredging prism been characterized well enough to define the grain sizes and ensure sequential placement? Reference the final sediment characterization report when it is available. Where will the sand for the top of the bench be dredged, and how much volume is needed for the final 10 foot lift of sand?
Appendix		20	How often is “periodically” when defining frequency of

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H			hydrographic surveys post-placement? How has the 2005-2006 bench performed/changed in terms of stability in the years post-placement? Was the top of the bench dressed with sand, and has the sand remained?
Appendix J	3.1.2	4	Add the Gottfried et al 2011 reference to the references section.
Appendix J		5	What does “proposed templates” refer to in the juvenile lamprey discussion...dredging and disposal areas?
Appendix J	3.2.1	6	Water Quality Monitoring. Only in the BA (Appendix K) is there brief discussion of the past water quality monitoring results conducted during dredging and placement in 2005-2006 (see BA p. 87 section 6.4.2 and especially BA p. 90 Table 17). This is significant because the actual 2006 Water Quality Monitoring report indicates numerous exceedances of the Washington state turbidity standards during both dredging and placement activities in 2005/2006. In the BA and other project documents discussion is lacking on how water quality monitoring results affected dredging or placement activities real time, and whether any discussion of the environmental significance of the findings occurred at that time. Discuss what placement activity was occurring (e.g. bottom dumping, reworking the surface, mechanical or hydraulic placement) when placement site exceedances occurred. The 2006 Water Quality Monitoring Report must be discussed in the EIS in the Environmental Effects of Alternatives section, and should help inform agency review and creation of a water quality monitoring plan for the current proposal. Particularly the Washington State Department of Ecology (Ecology) should be provided past results along with the current proposed water quality monitoring plan.
Appendix J		7, Figure 1	Ecology may again determine that (per WAC 173-201A-200 Freshwater) the turbidity point of compliance is 300 feet downstream of the activity causing the turbidity exceedance. Given the fixed array system, and use of a monitoring zone of 1000 ft x 600 feet around the active dredging site (Figure 1), it looks like active dredging could occur anywhere from 300 feet to 1300 feet away from the fixed array during monitoring. The placement site monitoring includes a monitoring zone 1000 feet x 400 feet – Figure 2. Given this monitoring network was also used in 2006, it may be anticipated that turbidity exceedances will occur and that they will be farther than 300 feet from the monitored activity. There is no discussion of what happened in 2006, or is proposed to happen now, when an exceedance is detected...are those details expected to be imposed in the state water quality certification? Please present what happened in 2005/2006, including examples of changes in the activity or BMPs that were initiated or could be initiated

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			to resolve anticipated turbidity exceedances.
Appendix J		8, Figure 1 and 9 Figure 2	Please add distances to these figures. E.g. Figure 1 sides of monitoring zone are 1000 feet and 600 feet, and compliance stations are 300 feet from the downstream edge of the zone, etc.
Appendix J	3.3	9	It is good to see that hydrographic surveys are anticipated during the 2-3 years post-placement. In Section 3.3.1, to assess “long-term” stability it would seem a 10 year survey would also be needed – which would complement the results/timing anticipated for Biological monitoring in Section 3.3.2. Also, would the grain size/substrate of the bench surface be tested?
Appendix J	3.3.2	10	Why has the sampling timing been modified...is it based on the previous monitoring?
Appendix J	4.2.1	13	Turbidity standards and compliance boundaries should be confirmed with Ecology. How would notification of Ecology occur should there be exceedances? Given the need to define a “protocol yet to be determined for turbidity” (section 4.2.2), how were exceedances actually handled in 2005/2006? Indicate how often dredging or placement was stopped due to continued exceedances? What were effective BMPs for handling the turbidity last time around?
Appendix J	4.2.2	13	If the Washington dissolved oxygen (DO) standard is 8 mg/L, why is 5 mg/L mentioned as the action level in the second paragraph
Appendix J	4.2.4	14	It appears that the temperature section was cut off. How often is temperature verified?
Appendix J	4.3	14	Both changes in elevations and/or grain size/substrate might indicate movement of material. It is not clear how the sediment sampling records are going to help evaluate the composition of the dredged material disposed at any given bench placement location? Settling differences in the water column, as well as in situ variation, for example may make the comparison moot. In addition, the surface will be dressed with at least 10 feet of sand. The berm idea would be worth evaluating however.
Appendix K		24	This section should mention the top dressing of 10 feet of sand, etc. The dredging plan mentions that hydraulic placement could be an option for this activity. Include better figure along with Figure 9 here – one that shows bathymetry.
Appendix K		27	Either in this section or elsewhere in the BA, there should be a clear discussion of turbidity exceedances that occurred during the 2006 dredging/placement project, including how many, where, during what activities, and for how long?
Appendix K		28	Again, how were exceedances addressed? Figure 11 should have distances marked. Where is a figure showing monitoring array at the placement site?

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Appendix K		29	Why does it only mention one post-placement monitoring event for stability, when more are mentioned in other documents?
Appendix K	3.8	31, First Bullet	How will the Corps “encourage” other Federal agencies to reduce sedimentation? What activities will occur? We recommend a more concrete plan for coordination and sharing of information here.
Appendix K	3.8.2	32	It is incorrect to say that no contaminants in excess of regulatory thresholds have been found...we are awaiting the sediment characterization report. There are upland disposal options identified, if needed. Although they may be expensive, they also could be available.
Appendix K		76	Background/Baseline Turbidity section. Provide a reference for the background turbidity information and where/when it was obtained. It is useful to know that the average background turbidity level during the 2005/2006 dredging was less than 5 NTUs. Provide a citation to the report. Washington does not have a 25 NTU background action limit.
Appendix K		76-77	Chemical Contaminants section. No report has been accepted or reviewed that adequately supports the statements contained here. This section should be rewritten once a final report is produced, and should also include the Port of Clarkston crane dock information. A referenced report should be included in the final EIS.
Appendix K		80	This section needs to be rewritten once a final sediment characterization report is available.
Appendix K		90, Table 17	Include the dates 2005/2006 and dredging/disposal in the table caption. This table is important and needs to be able to stand alone, while the pertinent text should include a better narrative description of the results. Do these represent the best BMPs we can do? Were BMPs implemented? What activities seemed to contribute the most to the exceedances? Where is the high 15 NTU value mentioned in the text on page 89? Without a better tie in to the 2006 water quality monitoring report, it is unclear what the stationing of 300, 400 and 900 mean in terms of distance from the ongoing activity. The disposal site numbers lack the “average turbidity over” row which is provided for the dredging locations?
Appendix K	6.4.4	91	Chemical Contamination. No reference is available at this point to support or refute the contention here that... “Only a very small number of samples contained contaminants higher than Washington and Idaho regulatory criteria.” What criteria? Ultimately, when the report is available, this section should be updated.
Appendix K	6.5.1.1	92-93	Spawning and juvenile rearing areas. Water Quality. Table 17 and the earlier narrative do not make it clear that standards were only exceeded by a small amount for short periods. See

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			<p>comment. Also, Table 17 does not include a value of 15 NTU. Good to see some narrative that describes the types of activities that were causing the turbidity (scow bottom dumping) and those levels dropped between scow dumping events. Can this kind of detail be provided for areas that exceeded during dredging? Again, a sediment characterization report must confirm the contention that low levels of contaminants were found in a small number of samples.</p>
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**U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

Attachment A – Mass Balance Comments

Proportional total suspended sediment loads and suspended sand loads measured during water years 2009 through 2011 were presented in Appendix F of DEIS. The majority of the sediment load observed at the confluence of the Snake and Clearwater rivers originates from the Salmon River system (i.e., 53.5% and 65.2%, respectively) (**Figures 1 and 2**). Accordingly, future watershed sediment management activities intended to reduce sediment loading at the confluence of the Snake and Clearwater Rivers should include efforts in the Salmon River system. However, it is important to point out that the relative contributions of the other sources add up to a significant proportion of the total load (i.e., 15% for suspended sediment and 10% for suspended sand). Accordingly, future watershed sediment management activities should also address these areas.

Of particular note in **Figures 1 and 2** are the ‘unknown’ sources of suspended sediment and sand within these river systems. For example, 26% and 32% of the suspended sediment load is from an ‘unknown’ origin in the Clearwater and Snake River basins, respectively (**Table 1**). Similarly, 21% and 26% of the suspended sand load is from an ‘unknown’ origin in the Clearwater and Snake River Basins, respectively (**Table 2**). These results indicate that there may be other sources of sediment not accounted for by this monitoring effort. There are two potential reasons for the observed high amount of ‘excess’ sediment during the monitoring efforts.

First, it is possible that sediment loading from small tributaries, along with land areas and stream banks surrounding the mainstem Snake and Clearwater Rivers, were the source of this ‘excess’ sediment. These areas were not monitored and therefore could be the source of this ‘excess’ sediment.

Second, it could be possible that the ‘unknown’ sediment source is a resuspension of the bedload sediment located along the mainstem stream channels in both the Snake and Clearwater rivers. Bedload transport of sediment can be a large portion of the sediment budget. For example, sediment bedload has been generally reported between 5 to 15 percent of the total sediment load (Parkinson, et al., 2003). Similarly, a USGS study observed that bedload in the Snake and Clearwater Rivers was between 2 and 10 percent of the suspended sediment load and averaged 5 percent (Jones and Seitz, 1980). It is important to note that bedload transport of sediment is traveling along the bottom of the stream channel, and this sediment source would need to be re-suspended into the water column in order for it to become part of the ‘suspended’ component of the sediment budget. It might be possible for this to happen at high flow rates in these rivers. If this does occur, then the bedload would have a much larger influence on the sediment budget than was previously considered (i.e., bedload plus re-suspended bedload).

The travel rate of bedload sediment in a river system is much slower than suspended sediment. Accordingly, the time lag between the upland disturbance activity and the arrival of this bedload sediment at some distant downstream location can be very long, making it very difficult to establish an association between upstream land-use and sediment conditions in the downstream river segment. It was reported in Appendix F of the DEIS that the forest fire regime within this project area is expected to increase in frequency, severity, and intensity. These fires can result in a very large production of

bedload sediment through the production of ‘mass-failure’ events. This produced sediment load will take a long time to reach the confluence of the Snake and Clearwater Rivers, but some of this sediment load will eventually reach this confluence. If bedload is a greater factor of the sediment budget than previously anticipated, then the impact of this current situation on future conditions will be much greater than anticipated. Similarly, bedload from other non-fire related sources (i.e., mass wasting sources of bedload resulting from failing roads or clearcut harvest) can have a greater impact on the sediment condition at this confluence than previously anticipated.

Finally, this ‘unknown’ category adds a level of uncertainty with the watershed analysis. Accordingly, it would be prudent to continue to monitor and investigate potential sediment sources within the basin in order to address current and potential future sediment sources that will cause problems at the confluence of the Snake and Clearwater Rivers.

References Cited

Jones M., and H. Seitz. 1980. Sediment Transport in the Snake and Clearwater Rivers in the vicinity of Lewiston, Idaho. USGS Open File Report 80-690.

Parkinson, S, Anderson, K., Conner, J. and Milligan, J. (2003). Sediment Transport, Supply and Stability in the Hells Canyon Reach of the Snake River, Technical Report Appendix E.1-1, Hells Canyon Complex, FERC No. 1971, Idaho Power Company, Boise, ID.

Figure 1. Relative suspended sediment loads of the Lower Granite sediment yield watershed [i.e., Figure 151 in Appendix F]

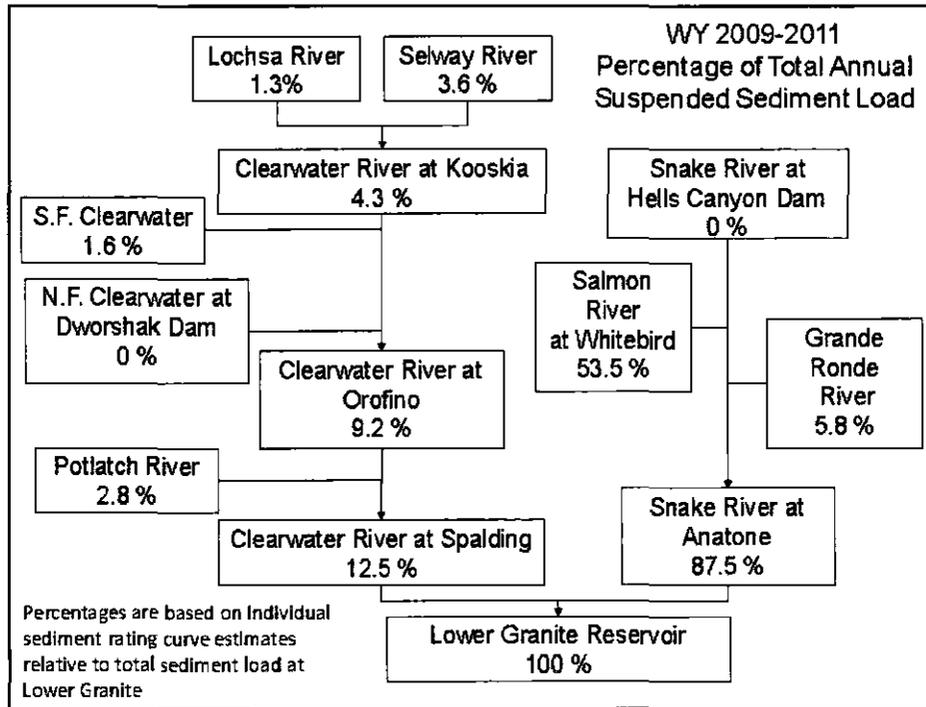


Figure 2. Relative suspended sand loads of the Lower Granite sediment yield watershed [i.e., Figure 152 in Appendix F]

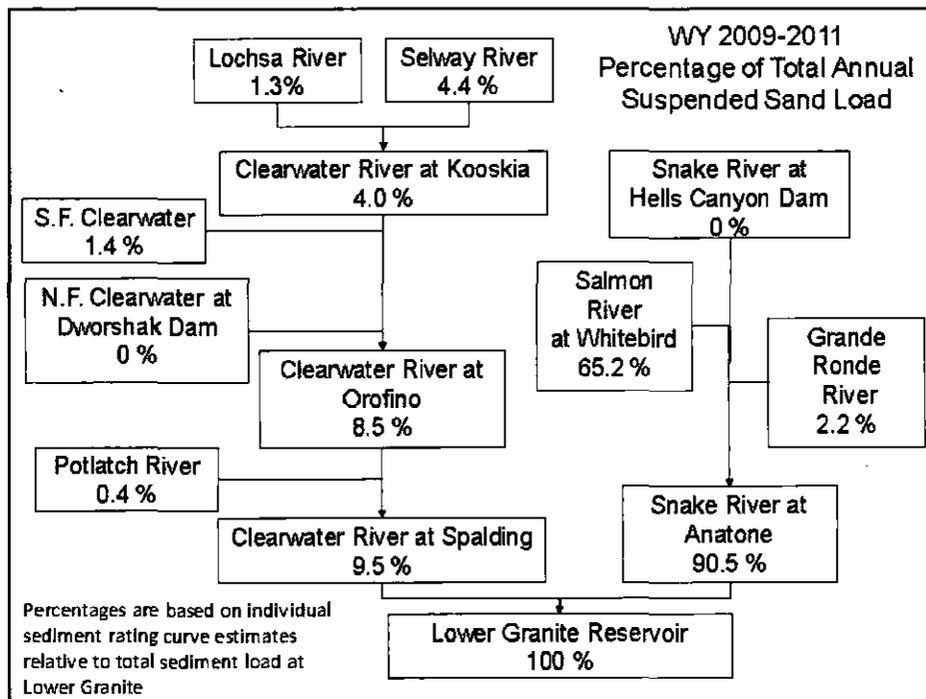


Table 1. Estimation of the percent unknown sources for suspended sediment loads of the Lower Granite sediment yield watershed.

Clearwater Basin Monitoring Location	Relative Amount	'Tributary' Sum	Mainstem Difference ²
Lochsa River	1.3%		
Selway River	3.6%	4.9%	
Clearwater River at Kooskia	4.3%		-0.6%
South Fork Clearwater River	1.6%		
North Fork Clearwater River at Dworshak Dam	0.0%	1.6%	
Clearwater River at Orofino	9.2%		3.3%
Potlatch River	2.8%	2.8%	
Clearwater River at Spalding	12.5%		0.5%
Sum Of Observed Difference in the Clearwater River			3.2%
Percent Unknown Source in the Clearwater River³			26%
Snake Basin Monitoring Location	Relative Amount	'Tributary' Sum	Mainstem Difference
Snake River at Hells Canyon Dam	0.0%		
Salmon River at Whitebird	53.5%		
Grand Ronde River	5.8%	59.3%	
Snake River at Anatone	87.5%		28.2%
Sum Of Observed Difference in the Snake River			28.2%
Percent Unknown Source in the Snake River			32%

¹ Values obtained from Figure 1.

² Calculated as the difference between measured 'Relative Amount' in the 'Tributaries' plus upstream mainstem and the observed 'Relative Amount' downstream (for example 4.3% + 1.6% + 0.0% = 5.9%, and 9.2% - 5.9% = 3.3%)

³ Calculated as the 'Sum Of Observed Difference' divided by the downstream 'Relative Amount' (for example, 3.2%/12.5% = 26%)

Table 2. Estimation of the percent unknown sources for suspended sand loads of the Lower Granite sediment yield watershed.

Clearwater Basin Monitoring Location	Relative Amount	'Tributary' Sum	Mainstem Difference
Lochsa River	1.3%		
Selway River	4.4%	5.7%	
Clearwater River at Kooskia	4.0%		-1.7%
South Fork Clearwater River	1.4%		
North Fork Clearwater River at Dworshak Dam	0.0%	1.4%	
Clearwater River at Orofino	8.5%		3.1%
Potlatch River	0.4%	0.4%	
Clearwater River at Spalding	9.5%		0.6%
Sum Of Observed Difference in the Clearwater River			2.0%
Percent Unknown Source in the Clearwater River			21%
Snake Basin Monitoring Location	Relative Amount	'Tributary' Sum	Mainstem Difference
Snake River at Hells Canyon Dam	0.0%		
Salmon River at Whitebird	65.2%		
Grand Ronde River	2.2%	67.4%	
Snake River at Anatone	90.5%		23.1%
Sum Of Observed Difference in the Snake River			23.1%
Percent Unknown Source in the Snake River			26%

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Attachment B – Forest Lands Comments

Future Increases in Sediment Loading Inferred as a ‘Natural’ Event

The draft EIS proposes that sediment loading from forest lands into streams within the Lower Granite Reservoir watershed will increase in the future as a result of increased frequency and intensity of forest fires in the basin. The changing forest fire regime is proposed to be a consequence of predicted future climate change, which is likely a result of human-caused increases of carbon dioxide concentrations in the atmosphere. In addition, the DEIS also notes that the fire suppression strategy implemented over the past century has resulted in forest stands that are susceptible to wildfire.

It is important to point out that one of the drivers listed above is a result of past management activities (fire suppression) and the other driver is an indirect consequence of current and past human-caused atmospheric carbon emissions,¹ both of which are a consequence of anthropogenic activities. However, it was implied in the DEIS that sediment loading from fires has no anthropogenic component because fire is a natural process and therefore there was no need for additional monitoring or management of these sediment loads. The expected sediment loading increase may be an expression of ‘natural’ processes, but the ultimate drivers are largely anthropogenic in origin and therefore the sediment produced by these fire events cannot be considered as not including anthropogenic influences.

Effects of Forest road ‘failure’ may be under-represented in the predicted future fire regimes

One of the take home messages presented throughout the DEIS is that controlling watershed sources of sediment will not affect the sediment condition at the confluence of the Snake and Clearwater Rivers. The most likely statement in the document which provides some support for this inferred conclusion in the DEIS was provided on page 25 in Appendix D, as presented below –

“Thus, the time-averaged effect of wildfire on sediment yields is still generally expected to be greater than the short-term effect of roads, suggesting that road restoration would provide a relatively minor reduction in sediment loads. In addition, short-term sediment yields from basins with forest roads were not substantially larger than basins without roads, further illustrating the small effect of forest roads on basin-averaged sediment yields”.

The information contained in the above listed sentences is correct; however, it is incorrect to conclude that roads are not a potentially important source of sediment load. That is, it was reported in Appendix C that problems with forest roads can also cause very large ‘mass-wasting’ events, independent of the fire regime. For example, it was reported on page 10 of Appendix C that during the 1995/1996 storm event, 35% of the total estimated landslide volume in the Clearwater National Forest was from roads with 25% of the total estimated volume delivered to streams was from roads.² The amount of sediment

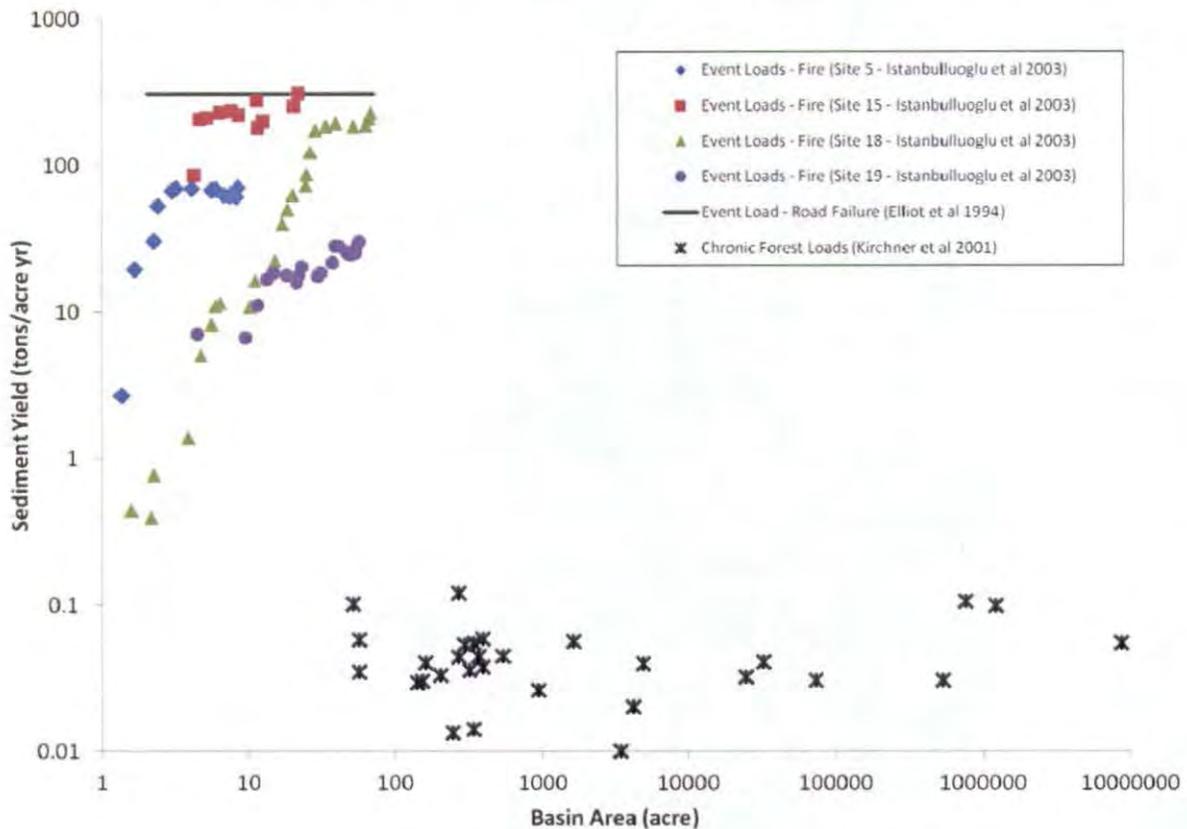
¹ See - <http://www.epa.gov/climatechange/endorsement/index.html>

² It was reported that sediment erosion following wildfires is dependent on the weather during the years following the wildfire, with potentially very high erosion resulting from gully and/or hillside “mass-failures” at high precipitation rates (Page 9 in Appendix C). It was also reported that sediment loading from fire-induced events tends to be at a very small spatial scale, but these very infrequent events can produce very large amounts of sediment (typically over 2 orders of magnitude larger than the long-term yields for “chronic” events), followed by long periods of relative quiescence (Figure 1) (Page 25 in Appendix D).

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resulting from such road ‘failures’ can be as high or higher than ‘mass-wasting’ events associated with a fire alone (**Figure 1**). For example, 307 tons $\text{ac}^{-1} \text{yr}^{-1}$ sediment yield was produced from a road ‘failure’ (presented as thick dark line in **Figure 1**) and sediment yield resulting from a fire was reported as 70, 310, 225, and 30 tons $\text{ac}^{-1} \text{yr}^{-1}$ (presented in **Figure 1** as colored objects). This is an expected result because both of these ‘mass-wasting’ events produce similar sediment loading mechanisms (i.e., the hillslope has a landslide), and the only major difference is the initial cause of the event.

Figure 1. Reported “Event” and “Chronic” Sediment Loading Studies



Forest roads, or any other land management activity (e.g., forest harvest), may not by themselves lead to a large sediment loading event, but they could become problematic if these conditions are associated with other disturbance events (e.g., fire). For example, on closer examination of the sites associated with the fire induced ‘event’ sediment loads illustrated in **Figure 1** (i.e., the Istanbuluoglu et al. 2003 study), it is hard to determine if fire is the only cause of the channel scour events associated with these four sites because there are several roads located in close proximity to observed channel scour associated with these sites (**Figures 2 through 4**).³

³ The authors of this study indicated that an additional 25000m² contributing area was added to the contributing area for one site due to the road drainage from the surrounding hillslope. It is possible that this added contributing area increased flow to the stream, which may have affected the initiation and size of the sediment production event. This site (#15) had the largest reported sediment yield in this study (**Figure 1**).

Figure 2. Trapper Creek sampling locations #18 and #15 (Istanbulluoglu et al. 2003)
[The red dot is the approximate downstream location, and yellow line is the contributing area]

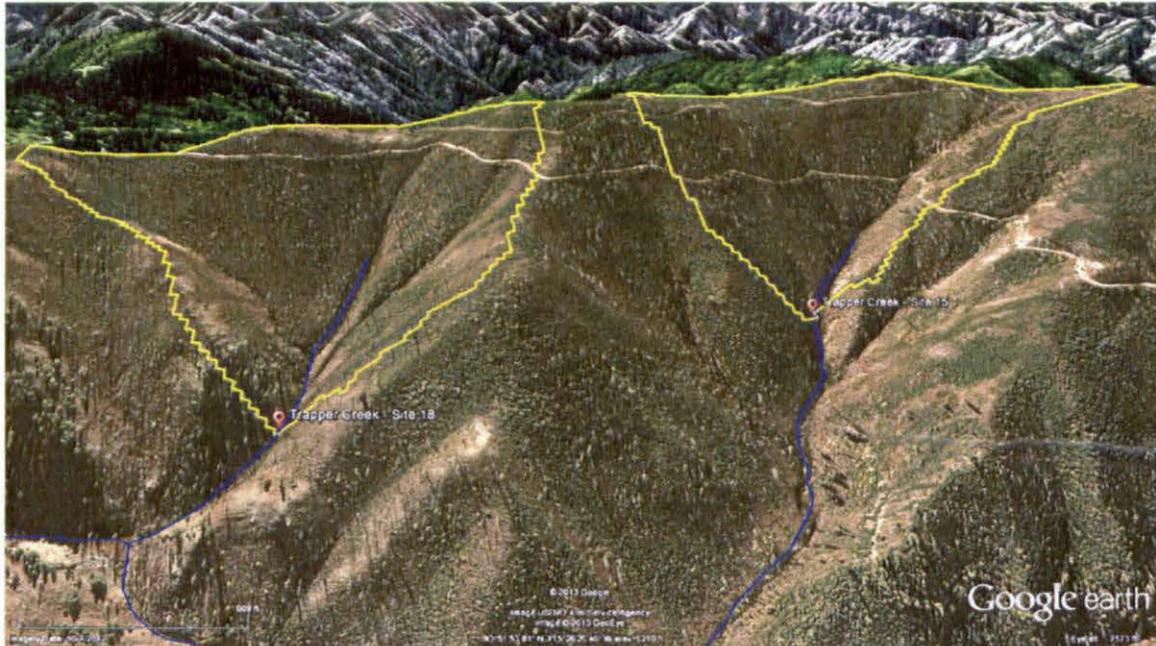


Figure 3. Trapper Creek sampling location #5 (Istanbulluoglu et al. 2003)
[The red dot is the approximate downstream location, and yellow line is the contributing area]



Figure 4. Trapper Creek sampling location #19 (Istanbulluoglu et al. 2003)
[The red dot is the approximate downstream location, and yellow line is the contributing area]



Accordingly, it is problematic to separate out any individual factor as a cause of the ‘mass-wasting’ event. Often a ‘mass-wasting’ event occurs as a result of multiple factors. For example, a ‘mass-wasting’ might not occur following a fire if there are no ‘problematic’ roads within the burn zone. It was reported in Appendix C that following a wildfire forest managers frequently evaluate the potential for soil erosion, and risk reduction actions include mulching burned hillsides and storm-proofing of roads.

By comparison, ‘mass-wasting’ events associated with roads have been shown to occur without the direct influence of fire effects (Elliot et al. 1994). These road ‘mass failure’ events (not associated with wildfire effects) have been successfully addressed by the USFS over the past decade through road management programs, and these activities have been shown to improve water quality through reduced sediment yields.⁴ However, additional steps need to be developed in order to mitigate potential future anthropogenically influenced ‘mass-wasting’ events as the predicted fire regime will produce hotter, larger, and more frequent fires. For example, some of these anthropogenic activities (e.g., roads) may not currently result in ‘mass-wasting’ events, but they may in the future with the new fire regime. As mentioned previously, the DEIS incorrectly treats fire-induced sediment loading as having no anthropogenic component, with limited management implications.

The DEIS correctly indicated that chronic loading of sediment from surfaces of forest roads is much lower than loading levels associated with ‘mass-wasting’ events (See black “X” marks in **Figure 1**). Accordingly, it would not be inconsistent to find that it would be difficult to observe statistically

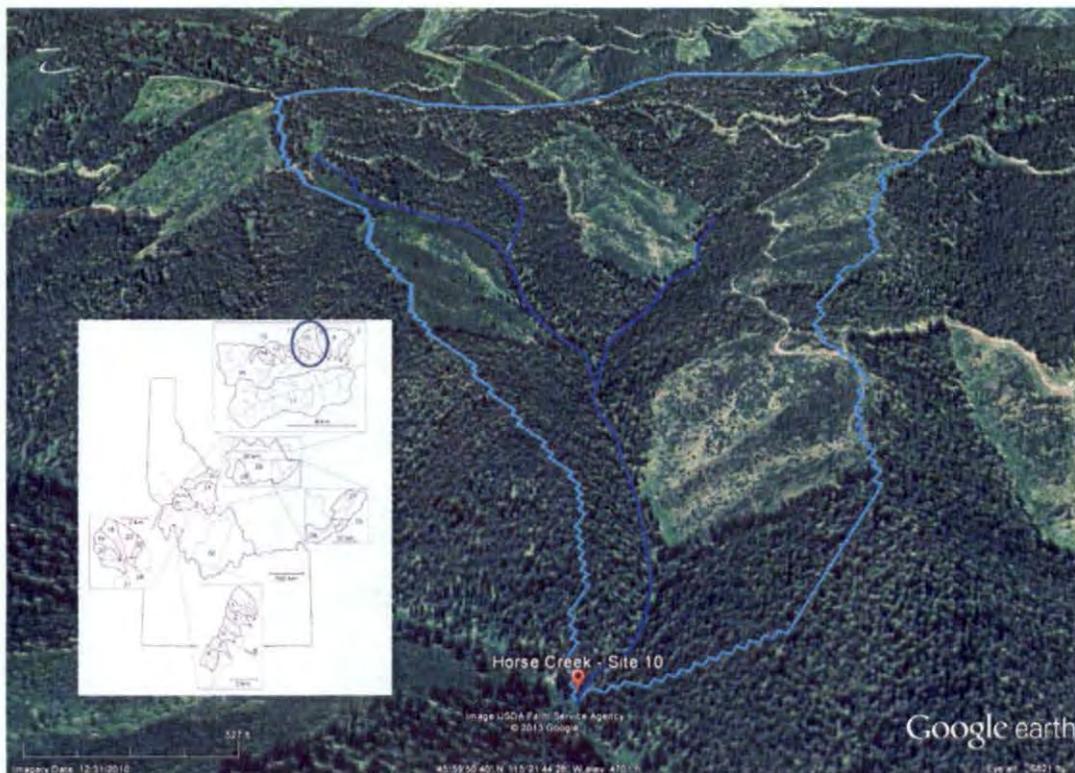
⁴<http://water.epa.gov/polwaste/nps/success319/> Click on “Idaho” and select “Tepee”, “Steamboat” and “Yellowdog” examples.

significant differences in sediment loading when comparing forested watersheds with roads and forested watersheds without roads when there were no reported ‘mass-wasting’ events within the basins. (The authors of Appendix D indicated that both types of watersheds were associated with the Kirchner et al. (2001) sites reported in **Figure 1** in this attachment.)

Presented below is an image of one of these watersheds which might be considered as “roaded” within the Kirchner et al. 2001 study (**Figure 5**).⁵ Three things can be seen in this image. First, the distance between forest roads and the sampling location is relatively far and, in addition, the roads are not located near the stream channel (indicated by the blue lines), which can reduce the potential sediment loading to a stream. There may be other watershed land management characteristics which would have produced completely different results (e.g., roads located near the stream channel, and the roads are located on steep slopes, and the roads are in some sort of disrepair). Accordingly, there may situations when sediment loading from chronic sources (e.g., roads or clearcut harvest) will be measurable in the water column and stream bed material. Second, there are other potential sediment sources within the basin (e.g., forest harvest) which makes it difficult to separate out the effects of any of the potential sediment sources. Finally, although it is very hard to determine from the photo, it does not appear that there are any ‘mass-wasting’ events associated with either the roads or harvest activities within this basin.

Figure 5. Horse Creek sampling location #10 (Kirchner et al. 2001)

[The red dot is the approximate downstream sampling location, and teal line is the contributing area]



⁵ Visual inspection of the other “roaded” watersheds associated in this study indicates that this site is representative of the other sites.

Reference Cited

Elliot, W., T Koler, J. Cloyd, and M. Philbin. 1994. Impacts of Landslides on an ecosystem. Written for Presentation at the 1994 ASAE International Winter Meeting.

Istanbulluoglu E., D. Tarboton, R. Pack, and C. Luce. 2003. A sediment transport model for incision of gullies on steep topography. *Water Resources Research* 39, 1103.

Krichner J., R. Finkel, C. Riebe, D. Granger, J. Clayton, J. King, and W. Megahan. 2001. Mountain erosion over 10yr., 10k.y., and m.y. time scales. *Geology* 29, 591-594.

Attachment C - Agriculture Lands Comments

Potential under-prediction of Sediment Loads from Agriculture Areas as reported in Appendix E

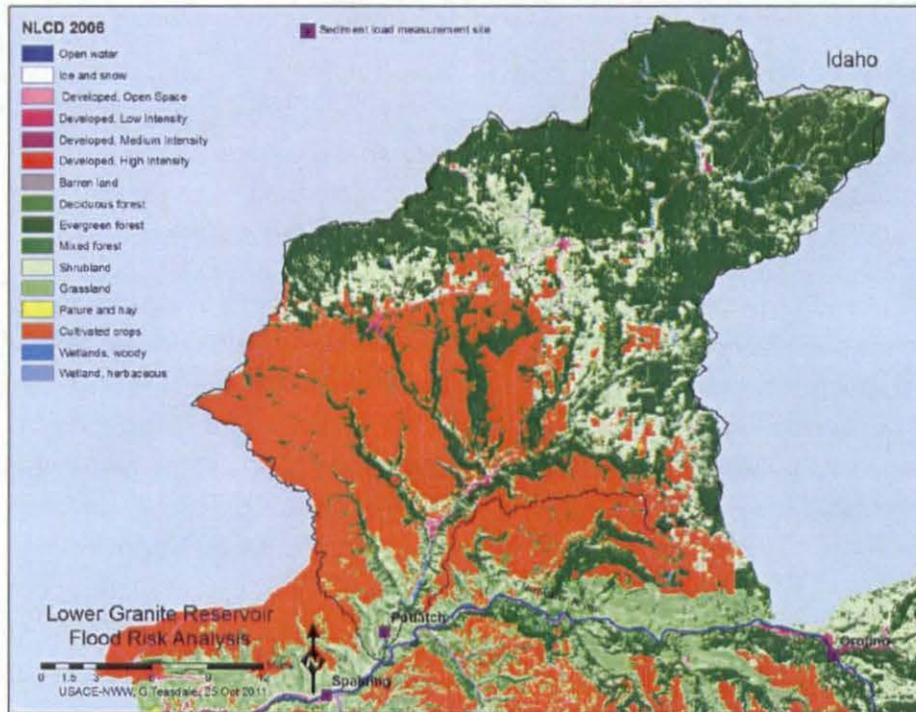
Appendix E presented **modeled** sediment yields from agricultural lands associated with the project area. This analysis was a two step modeling process: 1) sediment erosion on agriculture lands was estimated using the RUSLE2 model, and 2) estimated erosion rates were then modified by Sediment Delivery Ratios (SDR) in order to estimate the amount of sediment that would reach the bottom of the assessment unit (i.e., the stream at the bottom of each watershed assessment unit).

Alternatively, Appendix F presented sediment yields **calculated from field data** for several tributaries located within the project area (**Table 1**). This analysis utilized regression relationships derived from measured field data (see Section 9.16.4 in Appendix F). Of particular note in **Table 1** were the results for the Potlatch River, which had one of the highest sediment yields (i.e., 0.25 tons/ac/yr). Once again, these yields were estimated from measured instream sediment data, and therefore the results presented in this table incorporated all sediment routing/deposition (i.e., SDR) within the stream network. These results also included sediment loading from the different landcover conditions within the basin. Agriculture lands cover 30% of the Potlatch watershed with most of this activity located near the mouth of the basin, and forest landcover is in the upper watershed (**Figure 1**). The proportional sediment yield (tons/ac/yr) from **agricultural areas** in the Potlatch Basin can be estimated from the information presented above.

Table 1. Reported Mass Balance and watershed sediment yield for Lower Granite Reservoir (2009-2011) [i.e., Table 76 in Appendix F]

Total Suspended Sediment Mass Balance Water Years 2009-2011							
Source Watershed	Suspended Sediment tons	Watershed Area mi ²	Sediment Yield ton/mi ² /yr	Sediment Yield ton/ac/yr	Percent of Spalding	Percent of Anatone	Percent of Lower Granite
Selway River	359,154	1,916	62.5	0.10	28.4%		3.6%
Lochsa River	132,258	1,178	37.4	0.06	10.5%		1.3%
Lower Middle Fork (computed) ¹	-58,786	313	-62.6	-0.10	-4.7%		-0.6%
S.F. Clearwater above Harpster	152,876	878	58.0	0.09	12.1%		1.5%
Lower S.F. Clearwater (computed) ²	16,862	291	19.3	0.03	1.3%		0.2%
Above Orofino (computed) ³	330,043	931	118.1	0.18	26.1%		3.3%
Potlatch River	285,316	594	160.2	0.25	22.6%		2.8%
Lower Clearwater (computed) ⁴	44,940	738	20.3	0.03	3.6%		0.4%
Total at Spalding	1,262,662	6,839	61.5	0.10	100.0%		12.5%
Salmon River at Whitebird	5,406,912	13,424	134.3	0.21		61.1%	53.5%
Grande Ronde River at mouth	589,980	4,101	48.0	0.07		6.7%	5.8%
Lower Snake River (computed) ⁵	2,851,571	2,108	451.0	0.70		32.2%	28.2%
Total at Anatone	8,848,463	19,633	150.2	0.23		100.0%	87.5%
Total at Lower Granite	10,111,125	27,137	124.2	0.19			100.0%
¹ Kooskia - (Selway + Lochsa) ² Sities - Harpster ³ Orofino - (Kooskia + Sities) ⁴ Spalding - (Orofino + Potlatch) ⁵ Anatone - (Whitebird + Grande Ronde) ⁶ Anatone + Spalding							

Figure 1. 2006 NLCD grid for the Potlatch River Basin
 [Figure 159 in Appendix F]



The reported sediment yield for the Potlatch Basin (i.e., 0.25 tons/ac/yr) is a function of loads from both agricultural lands and forested lands within the Potlatch watershed. Sediment yield for non-agriculture areas were assumed to equal the average **measured** condition reported for 30 forested Idaho basins (i.e., 0.05 ton/ac/yr)(Krichner et al., 2001). Accordingly, the proportional “sediment yield from agricultural lands” in the Potlatch Basin can be estimated using the following equation:

$$\begin{aligned} \text{Total Sediment Yield} \\ &= (\text{Nonagricultural Land Sediment Yield}) * (\text{Percent Nonagriculture area}) \\ &+ (\text{Agricultural Land Sediment Yield}) * (\text{Percent Agriculture area}) \end{aligned}$$

Or

$$\begin{aligned} 0.25 \text{ tons/ac/yr} \\ &= (0.05 \text{ tons/ac/yr}) * (0.70) + (\text{Agricultural Land Sediment Yield}) * (0.30) \end{aligned}$$

Solving for “Agricultural Land Sediment Yield” results in a sediment yield of **0.72 tons/ac/yr**. It is important to note that this measured loading rate is much higher than the **modeled** sediment yields for agriculture areas that were reported in Appendix E, a weighted average sediment yield of **0.13 tons/ac/yr (Table 2)**.

Table 2. Estimated Weighted Average Sediment Yield from Agriculture Areas reported in Appendix E

Basin	Mean Erosion (tons/ac/yr) ¹	SDR ²	Sediment Yield (tons/ac/yr) ³	Agricultural Area (mi ²) ⁴	Proportion Ag Area of Total Ag Area ⁵	Weighted Average Sediment Yield (tons/ac/yr) ⁶
Palouse	3.3	0.041	0.14	1029.74	0.3323	0.0450
Clearwater	4.1	0.041	0.17	593.66	0.1916	0.0322
Lower Snake-Tucannon	3.4	0.045	0.15	417.85	0.1348	0.0206
Rock	2.5	0.049	0.12	518.61	0.1674	0.0205
South Fork Clearwater	2.8	0.047	0.13	122.10	0.0394	0.0052
Lower Snake	1.9	0.052	0.10	165.15	0.0533	0.0053
Lower Snake-Asotin	1.9	0.052	0.10	82.00	0.0265	0.0026
Lower Salmon	2.2	0.046	0.10	36.96	0.0119	0.0012
Upper Grande Ronde	0.8	0.044	0.04	99.80	0.0322	0.0011
Wallowa	1.3	0.049	0.06	20.57	0.0066	0.0004
Lower Grande Ronde	2.2	0.044	0.10	10.54	0.0034	0.0003
Little Salmon	12.4	0.055	0.68	0.59	0.0002	0.0001
Middle Fork Clearwater	4.7	0.075	0.35	0.61	0.0002	0.0001
Hells Canyon	7.5	0.057	0.43	0.53	0.0002	0.0001
Sum of Weighted Average Sediment Yield from agriculture areas						0.13

¹ Obtained from Table 9 in Appendix E and values were estimated using the RUSLE2 model

² Obtained from Table 10 in Appendix E

³ Calculated as SDR * Average Erosion

⁴ Estimated from Table 9 in Appendix E

⁵ Estimated as the agriculture area divided by the total agricultural area for all of the basins

⁶ Estimated as SDR Modified Erosion * Proportion Ag Area of Total Ag Area

There are several potential reasons for the apparently low sediment yields modeled for agricultural areas, including: 1) issues with sediment erosion calculations using the RUSLE2 model; 2) issues with Sediment Delivery Ratio (SDR) used in the analysis; and/or 3) not accounting for potential sediment sources within agriculture areas. It is very difficult to evaluate the effect these factors, or any other factor, has on modeled sediment yield results presented in Appendix E. However, the brief discussion below presents some analysis on this topic.

RUSLE2 Modeling

Estimated erosion rates using the RUSLE2 model in Appendix E were not significantly different than other RUSLE2 modeling results previously reported for Potlatch sub-basins (Barber and Mahler, 2010) (Table 3). That is, reported mean surface erosion rates in Table 2 and Table 3 are similar. Accordingly, it appears that the RUSLE2 modeling surface erosion results reported in Appendix E are within the range of expected values. Therefore, the low sediment yields reported in Appendix E and listed in Table 2 are not likely a result of the RUSLE2 modeling effort.

Table 3. Estimate of Mean surface erosion in the lower Potlatch basin (Barber and Mahler 2010)

Basin	Mean Surface Erosion calculated using RUSLE2 (tons/ac/yr)
Big Bear	3.57
Cedar	2.33
Little Bear	2.87
Little Potlatch	6.85
Middle Potlatch	5.18
Pine	4.23

Sediment Delivery Ratio (SDR)

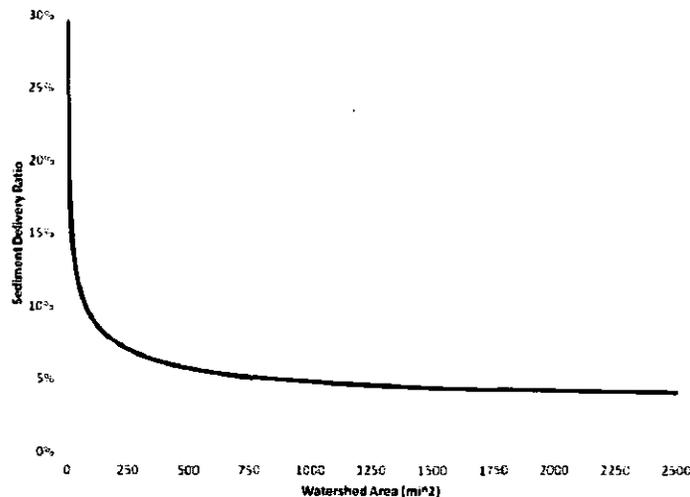
As reported in Appendix E, modeled surface erosion rates on the agricultural lands were routed through the stream network by use of a SDR. The SDR was intended to account for deposition and storage of sediment between the hillslope and watershed outlet. Specifically, the SDR developed by Vanoni (1975) was used in Appendix E:

$$SDR = 0.003567[\ln(A_{ws})]^2 - 0.060465[\ln(A_{ws})] + 0.295745$$

where A_{ws} is the watershed area in square miles. They reported in Appendix E that this relationship was based on watersheds ranging in size from 1 square mile to 300 square miles. The watershed areas associated with the assessment units associated with the DEIS are much larger than this size range (Table 4). Based on the SDR equation listed above, the amount of surface erosion that reaches the bottom of the watershed ranges from 30% for a very small watershed, to around 4% for very large watersheds (Figure 2). It is important to point out that watershed size has the greatest influence on sediment delivery at size ranges less than 300 square mile, with very little change at larger watershed size conditions. Accordingly, SDR ratios for the watershed evaluated in the DEIS mostly ranged from 4 to 5% (Table 2).

Table 4. Watershed Areas reported in Table 9 in Appendix E	
Name	Area (mi ²)
Palouse	2351
Clearwater	2319
Lower Snake-Tucannon	1461
Rock	973
South Fork Clearwater	1174
Lower Snake	734
Lower Snake-Asotin	713
Lower Salmon	1232
Upper Grande Ronde	1636
Wallowa	935
Lower Grande Ronde	1506
Little Salmon	589
Middle Fork Clearwater	204
Hells Canyon	532

Figure 2. Sediment Delivery Ratios for various watershed sizes, based on Vanoni (1975).



SDR values developed in Appendix E were derived for the entire watershed area, while agricultural land use comprises only a fraction of the watershed area. Accordingly, it appears that the calculated SDR used in the original analysis were overestimated. As mentioned previously, SDR values were used to estimate the amount of the RUSLE2 derived sediment that would reach a downstream watershed location. SDR should be calculated by area of agricultural use, and not the entire watershed area. It is important to point out that agricultural areas are often located in lower portions of the watershed, near water sources and tend to be located on flat land areas, while forested areas are generally located in upper watershed areas (see Figure 159 from Appendix F and presented above). Accordingly, including the upslope forest areas during SDR calculations dilutes the potential delivery of sediment from agriculture lands (i.e., doing so assumes that the upslope forested areas have an effect on the agricultural load near the watershed mouth). Using the modified SDR values, estimated sediment yield from agricultural areas increased from 0.13 to 0.18 ton/ac/yr (Table 5).

Table 5. Estimated Weighted Average Sediment Yield from Agriculture Areas using a modified SDR

[Italicized values indicated changes from values presented in Table 2]

Basin	Mean Erosion (tons/ac/yr) ⁷	<i>Modified SDR</i> ⁸	<i>Modified Sediment Yield</i> (tons/ac/yr) ⁹	Agricultural Area (mi ²) ¹⁰	Proportion Ag Area of Total Ag Area ¹¹	<i>Weighted Average Modified Sediment Yield (tons/ac/yr)</i> ¹²
Palouse	3.3	<i>0.048</i>	<i>0.16</i>	1029.74	0.3323	<i>0.0526</i>
Clearwater	4.1	<i>0.055</i>	<i>0.23</i>	593.66	0.1916	<i>0.0433</i>
Lower Snake-Tucannon	3.4	<i>0.061</i>	<i>0.21</i>	417.85	0.1348	<i>0.0279</i>
Rock	2.5	<i>0.057</i>	<i>0.14</i>	518.61	0.1674	<i>0.0239</i>
South Fork Clearwater	2.8	<i>0.088</i>	<i>0.25</i>	122.10	0.0394	<i>0.0097</i>
Lower Snake	1.9	<i>0.080</i>	<i>0.15</i>	165.15	0.0533	<i>0.0081</i>
Lower Snake-Asotin	1.9	<i>0.099</i>	<i>0.19</i>	82.00	0.0265	<i>0.0050</i>
Lower Salmon	2.2	<i>0.124</i>	<i>0.27</i>	36.96	0.0119	<i>0.0033</i>
Upper Grande Ronde	0.8	<i>0.093</i>	<i>0.07</i>	99.80	0.0322	<i>0.0024</i>
Wallowa	1.3	<i>0.146</i>	<i>0.19</i>	20.57	0.0066	<i>0.0013</i>
Lower Grande Ronde	2.2	<i>0.173</i>	<i>0.38</i>	10.54	0.0034	<i>0.0013</i>
Little Salmon	12.4	<i>0.329</i>	<i>4.08</i>	0.59	0.0002	<i>0.0008</i>
Middle Fork Clearwater	4.7	<i>0.326</i>	<i>1.53</i>	0.61	0.0002	<i>0.0003</i>
Hells Canyon	7.5	<i>0.335</i>	<i>2.51</i>	0.53	0.0002	<i>0.0004</i>
Sum of Weighted Average Sediment Yield from agriculture areas						0.18

⁷ Obtained from Table 9 in Appendix E and values were estimated using the RUSLE2 model

⁸ Modified SDR was derived using agricultural area with the Vanoni (1975) equation.

⁹ Calculated as SDR * Average Erosion

¹⁰ Estimated from Table 9 in Appendix E

¹¹ Estimated as the agriculture area divided by the total agricultural area for all of the basins

¹² Estimated as SDR Modified Erosion * Proportion Ag Area of Total Ag Area

8781 Hydrology and sediment; watershed sediment production

Not accounting for potential sediment sources on agriculture areas

RUSLE2 modeling only evaluates the sheet and rill component of sediment erosion, and does not evaluate other potential sources of sediment erosion. One such potential sediment source are ephemeral gullies. The RUSLE2 model does **not** evaluate the impact that ephemeral gullies have on sediment production. Ephemeral gullies have been shown to be an important source of sediment production in agricultural areas within the project area. Ephemeral gullies also provide a temporary route for sediment to reach a waterway:

"[RUSLE2 does not] specifically address ephemeral gullies. Ephemeral gullies are channelized flow areas formed downslope of rills or rill networks in locations controlled primarily by microrelief expressed by tillage and are small enough to be repeatedly obliterated by normal tillage operations. In addition to the volume of soil eroded from the gullies, ephemeral gullies act as delivery channels for surface erosion."

(Barber and Mahler, 2010)

Example Image of regional ephemeral gully erosion (Figure 3 in Appendix E)



Not all ephemeral gullies will provide direct delivery of sediment to the stream network; however it is possible that many gullies will provide extra sediment to the stream network. During large rain events which produce these ephemeral gullies, the stream network length increases as ephemeral streams are created within areas previously without surface flows. Following such a large storm event, which creates both ephemeral streams and ephemeral gullies, the water dries up and only the gullies remain. If these events produce sediment that reach the intermittent and/or perennial stream network, then sediment produced during this event will be routed downstream overtime. The routing of sediment is much more efficient within the flowing stream network. Accordingly, it could be expected that more of the sediment produced during these gully erosion events will reach the downstream location of the watershed if the sediment is routed within the fluvial stream network.

Barber and Mahler (2010) reported observing 1004 ephemeral gullies in agricultural areas in the lower Potlatch basin. It is important to note that they only evaluated 62% of the agricultural areas of the lower Potlatch basin. Assuming that the ephemeral gullies are evenly distributed throughout agricultural areas in the basin, this corresponds to 2235 ephemeral gullies for agriculture lands within the Potlatch Basin. In summary, approximately 85.2 mi² of agricultural land is located within the Potlatch basin, with approximately 2235 ephemeral gullies. This corresponds to 26.2 ephemeral gullies per square mile of agriculture land in the Potlatch watershed.

Extrapolating ephemeral gully production observed within the Potlatch basin (i.e., 26.2 ephemeral gullies per square mile of agriculture land) to all of the agricultural areas within the project watershed area (i.e., 284 mi²) results an estimated 81,276 ephemeral gullies produced per year when there are widespread, large rain events. Obviously, this is a very rough estimate, but this value does indicate that many ephemeral gullies can be produced within the project watershed area. It is possible that a small fraction of these gullies will produce sediment that is routed through the system, which may in turn, influence the sediment budget at the confluence of the Snake and Clearwater Rivers.

In addition, it is possible the sediment sources associated with these ephemeral gullies could be responsible for some of the observed discrepancy in sediment yield reported in Appendix E (Table 2), and Appendix F (Table 1).

References Cited

- Barber M., and R. Mahler. 2010. Ephemeral gully erosion from agricultural region in the Pacific Northwest., USA. *Annals of Warsaw University of Life Sciences, Land Reclamation* No 42 (1), 23-29.
- Krichner J., R. Finkel, C. Riebe, D. Granger, J. Clayton, J. King, and W. Megahan. 2001. Mountain erosion over 10yr., 10k.y., and m.y. time scales. *Geology* 29, 591-594.
- Vanoni, V.A. 1975. *Sedimentation Engineering*, American Society of Civil Engineers. 745p

0077_Fusaro

From: [Zeek](#)
To: [PSMP](#)
Subject: Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement
Date: Monday, March 25, 2013 4:20:23 PM

Dear Army Corps of Engineers,

I am writing as a concerned citizen who loves both the Columbia and Snake rivers. My friends and I are frequent recreational users of these rivers, and we frequently eat fish harvested from this watershed.

9049 Aquatic resources; threatened and endangered species (aquatic)

I am writing to comment on the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

9048 NEPA; Purpose and need

9047 NEPA; No action alternative

I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement. Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives - those are 1) fish and wildlife conservation with respect to wild salmon and 2) recreation. Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect. Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir. If this sediment was detrimental for salmon in the first four reservoirs than why would it be of any benefit for salmon in a different reservoir.

9050 Dredged materials disposal

Another factor not being considered within alternatives 5 or 7 is recreation. By dredging the contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and sent downstream would be considerable. I live in Portland Oregon, near the Columbia River, and I don't want this contaminated sediment in my river where my kids and I play. Dredging the sediment in these reservoirs would directly impact the recreational potential of both the Snake and Columbia rivers anywhere downstream.

9051 Water Quality and Sediment Quality: Sediment Quality

Due to these stated factors, I am in favor of alternative 1 which is no action. Until you come up with an environmental impact assessment that clearly considers all the authorized purposes stated in your document, I believe nothing should be done.

Thank you for your consideration as we all work towards a healthier, cleaner river system.

Sincerely,

Anthony Fusaro

3006 se hawthorne blvd.

Portland, OR. 97214

0078_Hawley

From: [Steven Hawley](#)
To: [PSMP](#)
Subject: comments on Snake River PSMP DEIS
Date: Tuesday, March 26, 2013 5:05:18 PM

9052 Policies and operation

The following comprises my comments on the Corps' Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS).

1. The authors of the DEIS make several assumptions throughout the document that deserve further scrutiny.

Constant reference is made to the "authorized purposes" of the Lower Snake River Project. The Corps assumes, and states thus in the DEIS, the agency is mandated to maintain a 14 ft. by 250 ft. navigation channel through the confluence of the Snake and Clearwater Rivers to the Port of Lewiston. This navigation channel depth and width appears only in the Flood Control Act of 1962. But Flood control is NOT one of the authorized purposes of the Lower Snake River Project. The Corps further erroneously asserts that Congressional authorization to maintain this navigation channel at 14 x 250 is the same as a requirement from which it cannot vary no matter the circumstances.

The Corps further assumes that "authorization" applies to actions such as fish barging. In fact, to my knowledge, no such authorization has been granted. Justification for resuming or expanding dredging actions must fall within the purposes for which lower Snake River dams were authorized.

9053 NEPA; range of alternatives

2. The 2002 legal settlement that addressed dredging on the lower Snake River required that the Army Corps consider a number of alternatives to dredging. NEPA also requires the agency to consider such alternatives. Instead, the Army Corps identified ONLY dredging as the acceptable alternative. A wider range of options, including breaching, should be included as part of the Corps' analysis.

9054 Aquatic resources; threatened and endangered species (aquatic)

3. Dredging is bad for salmon. Dredging the lower Snake Clearwater Rivers is harmful to salmon and steelhead and the habitats they depend on for survival. This EIS fails to fully consider these impacts and ways to mitigate them. The DEIS states without justification that the dredging alternatives are the most ecologically friendly, but dropping dredging spoils in rivers cannot be justified as a salmon/steelhead habitat improvement measure.

9055 Dredged materials disposal

9056 Costs and funding

4. The DEIS fails to provide an adequate accounting of the costs and benefits of dredging, of maintaining a navigation channel to the Port of Lewiston, or of maintaining and operating the lower Snake River transportation waterway. The Corps further fails to provide any analysis or comparison of the overall costs of dredging and barging with alternative transportation options like trucking and/or rail. There are simply no numbers or data of any kind specifying the total cost (or benefit) of the proposed 50-year project.

9058 Costs and funding

9057 Socioeconomics; transportation

5. The LSRPSMP DEIS includes no assessment of the value and priority of this project compared to other proposed projects, costs, benefits and the likely priority of dredging and freight transport on the lower Snake River given the non-sustainability of the Corps' extensive national system of dams, locks and levees. This issue deserves particular attention given the fact that ton-miles of freight on the lower Snake River amount to only 1/10 of 1% of waterborne commerce in the United States. In an era of severe spending reductions by the federal government, local communities need to understand how this project compares with other regional and national ACOE projects and be able to fully assess the likelihood of funding for dredging from the federal government over time. Note too, that barge traffic on the lower Snake River had declined precipitously. The Corps does not address the likelihood that dredging does not fit well with national infrastructure priorities in an era of limited resources.

9059 Climate change

6. The LSRPSMP DEIS fails to adequately address and incorporate the accumulating impacts from climate change. Climate change is here. It is raising water temperatures, changing the hydrologic cycle, and is widely predicted to significantly and steadily increase sediment loading into the reservoir. These anticipated impacts need to be adequately described and fully analyzed in terms of costs, impacts on

reservoir capacity, flood control, and levee raising.

9060 Hydrology and Sediment:
Flood Risk Management

7. The DEIS fails to adequately assess the risk of flood in Lewiston, Idaho over time and the likely costs associated with levee-raising to address the flood risks created by the dam and levee system. Climate change is already affecting flood control capacity, options, and costs, as well as increasing the need for further action sooner than would be needed outside of a changing climate regime.

Thanks for your consideration.

Sincerely

Steven Hawley
3762 Rocky Ridge Court
Hood River, Oregon 97031

From: [John Heimer](#)
To: [PSMP](#)
Subject: Proposed Snake River Sediment Removal
Date: Monday, March 25, 2013 6:39:48 PM

0079_Heimer

COMMENTS ON THE ARMY CORP PLAN ON SEDIMENT REMOVAL FROM SNAKE RIVER NEAR LEWISTON

I would like to make a few comments regarding your plan to remove sediment from the Snake River near Lewiston, Idaho

8450 Socioeconomics; rail

1) In this era of restricted federal dollars it seems absurd to be doing this. A much simpler and less costly solution would be to ship the material currently being done by the Port of Lewiston downriver by rail car. This was done for many years and the only way the Port can operate is through costly infusion of taxpayer monies to support the shipping. From the standpoint of dollars and cents it doesn't make sense to continue to support this inland port operation. Forget the port, ship by rail and save the taxpayer dollars.

2) This sediment problem will only continue and get worse as time goes by. It is like giving aspirin to a cancer patient and expect them to get better. You need to come up with a viable alternative instead of sediment removal, and where over time are you going to put all of the sediment taken from the river. Think about taking out one dam on the Snake River, in this case Granite, it would solve the sediment problem and help with the salmon steelhead issues.

8451 NEPA: Range of Alternatives

As an interested citizen that cares about taxpayer money and natural resource issues I urge you to think long term about solutions to this issue.

Sincerely

John Heimer

An Interested Citizen

0080_Hendrickson

From: [Borg_Hendrickson](#)
To: [PSMP](#)
Subject: Lower Snake DEIS comments
Date: Tuesday, March 26, 2013 3:47:45 PM

March 26, 2013

TO: U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
ATTN: Sandra Shelin, CENWW-PM-PD-EC
e-mail: psmp@usace.army.mil

FROM: Karen S. "Borg Hendrickson"
P.O. Box 447, Kooskia ID 83539
email: chicory@wildblue.net

COMMENTS:

I attended the January 24, 2013 open house in Lewiston and have reviewed parts of the the Draft Environmental Impact Statement for the Lower Snake River Programmatic Sediment Management Plan. The DEIS is fatally flawed.

1. The combination in the DEIS of authorized purpose (navigation channel 14 feet deep and 250 feet wide) and the screening criteria for alternatives guarantees that only one alternative can meet the criteria. No "hard look" at other alternatives is possible. This flaw by itself violates the intent and requirements of NEPA.

2. In a time of a federal budget crisis the Corps refuses to attach any costs to the many options in the preferred Alternative 7 "toolbox." Without costs you also apparently decided you don't need to address benefits in more than vague language and casual reference. This plan, and even its first pre-ordained action, requires expenditures of millions of dollars. The Corps deserves to draw fire from the public until you provide honest information regarding costs and benefits of true alternatives to constant dredging.

3. Climate change receives short shrift in the DEIS. Despite evidence that the amount of sediment reaching the Snake/Clearwater confluence is increasing in recent years, despite the huge increases in forest land burning each decade and the fact that this is a major source of sediment, despite warnings from Goode in the appendices and all the major research on climate change from around the world — the Corps appears to be predicting future sediment at not much over historical levels. The DEIS contains little contingency planning other than claiming the need for a tool box with lots of options, and in Appendix F suggesting you'll probably need most or all of them.

4. Your "no action" alternative doesn't seem like an alternative at all. No action suggests letting the silt accumulate at the confluence, on the lower Clearwater, in front of the ports of Lewiston and Clarkston. That is NO ACTION. Yes, there would be consequences, and you need to present those consequences and their costs, compared with the costs of other alternatives. The DEIS violates NEPA by not having a no action alternative.

5. The Corps and DEIS are not being honest with area residents when it comes to flood risk and the potential for overtopping the Lewiston levee. Mr. Teasdale admits that the new method of determining flood risk involves a policy interpretation and poses an "important uncertainty" in the DEIS, even suggesting the Corps and Lewiston residents need to discuss this matter and come to a joint decision. I am not aware of any such community discussion about Lewiston's tolerance of flood risk, certainly nothing that was reported in local newspapers. The DEIS needs to include the process used to address this "important uncertainty" —the amount of public involvement in determining local tolerance for flood risk, the review of the policy issue, what conclusion was reached, and the criteria used to reach that conclusion.

8505 Costs and funding

8504 NEPA; range of alternatives

8506 Climate change

8507 NEPA; no action alternative

8508 Hydrology and sediment/
Flood Risk Mgmt

8509 Socioeconomics;
transportation

6. Further, the Corps does not acknowledge that the channel would be dredged to allow heavy barge traffic to the Port of Lewiston, in spite of the fact that all POL barge traffic has declined precipitously during the past decade and that, therefore, the expense of the plan itself and of any future dredging are not warranted. Especially during these times of budget-cutting nationwide, it would make much more economic sense to recommend shuttering the dock facilities at the POL than to add more to the already exorbitant subsidization of barges traveling to the POL.

In general, the plan violates numerous parts of NEPA, lacks tight summaries of plans and issues readable and understandable to the public, and contains contradictory and erroneous figures/statistics in places.

Karen S. "Borg" Hendrickson

From: [Pat Barclay](#)
To: [PSMP](#)
Subject: Comments on the PSMP/EIS
Date: Tuesday, March 26, 2013 12:38:26 PM
Attachments: [PSMP-EIS comments.pdf](#)

0081_ICIE

Attention: Sandy Shelin
U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS

Attached are comments from the Idaho Council on Industry and Environment on the PSMP/EIS proposal.

Thank you for the opportunity to comment.

Pat Barclay

Idaho Council on Industry & Environment

821 W. State Street (PO Box 255)

Boise, Idaho 83702 (83701)

208-336-8508

208-336-8663 (fax)

208-866-1077 (cell)

From the Idaho Council on Industry & the Environment (ICIE), a private, nonprofit organization whose mission is to facilitate the use of sound science and facts in shaping public policy on environmental issues.



Environment

IDAHO COUNCIL ON INDUSTRY AND THE ENVIRONMENT

March 25, 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin
CENW-PM-PD-EC
201 North Third Avenue
Walla Walla, Washington 99362-1876

RE: PSMP/EIS Comments

Dear Ms. Shelin:

8510 Management
measures

Formed in 1989, the Idaho Council on Industry & the Environment (ICIE) is a private, nonprofit organization whose mission is to facilitate the use of sound science and facts in shaping public policy on environmental issues. Our membership includes large and small businesses, trade associations, families and individuals. Our priority issues include water and air quality, energy and transportation issues, mining, E/SA issues including salmon recovery, agriculture, forest health, and access to public lands.

We have the following comments on the draft Programmatic Sediment Management Plan and Environmental Impact Statement:

The Columbia Snake River System (CSRS) is important to the economy of the Northwest because it allows us to be competitive in the global economy by providing an efficient transportation option that also helps us meet our goals for improved air quality and energy efficiency. One four-barge tow moves as many bushels of grain, for example, as 538 trucks or 140 rail cars.

Alternative 7 provides some of the best options for dealing with the sediment in the system and restoring the 14 foot navigation channel as authorized by Congress. We do not, however, support the following:

- The use of drawdowns to flush sediment. That option was tried in 1992 with a drawdown of the Snake River. The results of this experiment had a tremendous impact on both the economy and the environment of that part of the system. The dewatering of the road embankment caused damage to Highway 128 in Whitman County, Washington and Nez Perce County, Idaho. There were negative environmental impacts from an old landfill within the Clarkston, Washington city limits. Thousands of fish were stranded and died. Barge traffic in the area was impeded; access to the Ports of Lewiston and Wilma was obstructed. Businesses along the river were negatively impacted.

- Raising the levies in Lewiston does nothing about the sediment accumulation. It impacts public access to the Snake and Clearwater Rivers.
- The recommendation to relocate facilities is not feasible because of the cost in both private and public dollars. Once again, this does nothing about sediment accumulation. Periodic dredging is more cost effective.

In closing, we urge the Corps to take advantage of the in-depth analysis that has been done with the PSMP and use it as the basis of future dredging projects so that you only need to look at new significant environmental effects rather than starting from scratch.

Sincerely,



Norm Semanko
Chairman of the Environment/Regulatory Affairs Committee
Idaho Council on Industry & Environment

From: [Roger Inghram](#)
To: [PSMP](#)
Subject: Comments on DEIS/LSRPSMP
Date: Saturday, March 23, 2013 12:55:27 PM

0082_Inghram

March 23, 2013

1. S. Army Corps of Engineers, Walla Walla District

PSMP/EIS

ATTN: Sandra Shelen, CENWW-PM-PD-EC

Comments: Roger and Janice Inghram
61 Whitetail Acres Lane
Grangeville, ID 83530
208 983 0616
inghrams@mtida.net <<mailto:inghrams@mtida.net>>

Response to DEIS on LSRPSMP - No alternative is acceptable.

8511 Costs and funding

In our opinion, the ACE has lost credibility because of their entrenched thinking in "authorized purposes" of the Lower Snake River Project and the one solution - dredging.

Without providing a meaningful cost-benefit analysis regarding sediment management and by further ignoring limited budgets, drastically declining barge traffic, rising dam/lock maintenance costs, declining salmon and steelhead runs, etc., the draft EIS is woefully inadequate.

"No Action" is status quo, which calls for action - dredging for standards of 14' X 240', a very costly perpetual taxpayer expense.

Alternatives should be expanded to include full discussions of the effects of climate change and at least, an honest discussion of the worth of maintaining a navigation channel to the Port of Lewiston (which requires most of the costly dredging).

We reject the DEIS for the LSRPSMP.

8513 Climate change

Roger and Janice Inghram

8512 NEPA; no action alternative

From: [Lawrence, Mandy](#)
To: [PSMP](#)
Cc: [Allison O'Brien](#)
Subject: DOI Comments - DEIS for the Proposed Lower Snake River Sediment Management Plan
Date: Tuesday, March 26, 2013 12:21:16 PM
Attachments: [ER12_904_nc.pdf](#)

0083_InteriorEnvPol_Comp

Attached please find the Department of the Interior's comments on the subject DEIS.

Thank you,
Mandy

--

Mandy Lawrence
Regional Environmental Protection Assistant
U.S. Department of the Interior
620 SW Main St., Ste. 201
Portland, OR 97205
503-326-2489

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
620 SW Main Street, Suite 201
Portland, Oregon 97205-3026

9043.1
IN REPLY REFER TO
ER12/904

Electronically Filed

March 26, 2013

U.S. Army Corps of Engineers
Walla Walla District
Attn: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362

Dear Ms. Shelin:

The Department of the Interior has reviewed the Draft Environmental Impact Statement for the Proposed Lower Snake River Sediment Management Plan. The Department does not have any comments to offer.

We appreciate the opportunity to comment.

8514 General project support

Sincerely,



Allison O'Brien
Regional Environmental Officer



March 26, 2013

0084_Kalama

Sandy Shelin
U.S. Army Corp of Engineers
Walla Walla District
201 North Third Avenue
Walla Walla, WA 99362

RE: Draft PSMP and DEIS

Dear Ms. Shelin,

The Port of Kalama wishes to comment on the Corp's Draft Programmatic Sediment Management Plan (PSMP) and corresponding Draft Environmental Impact Statement (DEIS).

The Port of Kalama is situated on the Lower Columbia between river miles 72 and 77. The Port has two grain terminals, a general purpose dock, a chemical plant and a lumber mill that all benefit from barge activities.

The Port of Kalama fully supports the position and comments made by PNWA/IPNG. The Snake River navigation system was authorized, constructed and implemented with a minimum 14' barge navigation channel. It is imperative that areas of shoaling and sedimentation impeding the authorized federal navigation channel be dredged so that both public and private terminals do not experience a delay in getting their cargos. Allowing further delay only adds to the costs and impacts of the dredging and adds risk to tow boat operators reducing their ability to safely navigate on the river system.

The Port supports the Corp's ability to tier off of the NEPA analysis for this project for future maintenance dredging so that the Corps does not have to start from scratch the next time dredging is required.

Dredging is immediately necessary and cannot wait another season. Please understand the many Lower Columbia port's need to receive their barged product in a timely and efficient manner. The Port encourages the Corp to complete the PSMP and DEIS in an expeditious way. The Port of Kalama sincerely appreciates the hard work that the Corp does and will continue to support critical regional efforts.

8516 General project support

Sincerely,

A handwritten signature in cursive script, appearing to read "Mark Wilson".

Mark Wilson
Deputy Director
Port of Kalama

8515
NEPA/Programmatic
Approach

From: [Ed Kerns](#)
To: [PSMP](#)
Subject: Lower Snake River Impact Statement (December 2012)
Date: Monday, March 25, 2013 2:48:10 PM

0085_KernsE

March 24, 2013

US Army Corps of Engineers

Walla Walla District

Refer to: Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement (December 2012)

To whom it may concern,

8518 Aquatic resources; threatened and endangered species (aquatic)

I am writing as a concerned citizen who loves both the Columbia and Snake rivers. My family and I are frequent recreational users of these rivers, and we frequently eat fish harvested from this watershed.

I am writing to comment on the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

8517 NEPA; No action alternative

I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement. Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives - those are 1) fish and wildlife conservation with respect to wild salmon and 2) recreation. Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect. Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir. If this sediment was detrimental for salmon in the first four reservoirs than why would it be of any benefit for salmon in a different reservoir.

8519 Dredged materials disposal

Another factor not being considered within alternatives 5 or 7 is recreation. By dredging the contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and sent downstream would be considerable. I live in Portland Oregon, near the Columbia River, and I don't want this contaminated sediment in my river where my kids and I play. Dredging the sediment in these reservoirs would directly impact the recreational potential of both the Snake and Columbia rivers anywhere downstream.

Due to these stated factors, I am in favor of alternative 1 which is no action. Until you come up with

8520 Water Quality and Sediment Quality/Sediment

an environmental impact assessment that clearly considers all the authorized purposes stated in your document, I believe nothing should be done.

Thank you for your consideration as we all work towards a healthier, cleaner river system.

Sincerely,

Edward Kerns
2335 SE Pine Street
Portland, OR 97214

From: [sarah_kerns](#)
To: [PSMP](#)
Subject: comment letter with correct attachment
Date: Monday, March 25, 2013 8:59:25 AM
Attachments: [Snake River letter - Sarah .doc](#)

0086_KernsS

March 24, 2013

US Army Corps of Engineers

Walla Walla District

Refer to: Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement (December 2012)

Dear Army Corps of Engineers,

I am writing as a concerned citizen who loves both the Columbia and Snake rivers. My family and I are frequent recreational users of these rivers, and we frequently eat fish harvested from this watershed.

8522 Aquatic resources; threatened and endangered species (aquatic)

I am writing to comment on the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

8521 NEPA; no action alternative

I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement. Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives - those are 1) fish and wildlife conservation with respect to wild salmon and 2) recreation. Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect. Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir. If this sediment was detrimental for salmon in the first four reservoirs than why would it be of any benefit for salmon in a different reservoir.

8523 Dredged materials disposal

Another factor not being considered within alternatives 5 or 7 is recreation. By dredging the contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and

8524 Water Quality and Sediment Quality/Sediment Quality

sent downstream would be considerable. I live in Portland Oregon, near the Columbia River, and I don't want this contaminated sediment in my river where my kids and I play. Dredging the sediment in these reservoirs would directly impact the recreational potential of both the Snake and Columbia rivers anywhere downstream.

Due to these stated factors, I am in favor of alternative 1 which is no action. Until you come up with an environmental impact assessment that clearly considers all the authorized purposes stated in your document, I believe nothing should be done.

Thank you for your consideration as we all work towards a healthier, cleaner river system.

Sincerely,

Sarah Kerns

5536 Se Harlow st.

Milwaukie, OR. 97222

March 24, 2013

US Army Corps of Engineers
Walla Walla District

Refer to: Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement (December 2012)

Dear Army Corps of Engineers,

I am writing as a concerned citizen who loves both the Columbia and Snake rivers. My family and I are frequent recreational users of these rivers, and we frequently eat fish harvested from this watershed.

I am writing to comment on the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement. Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives - those are 1) fish and wildlife conservation with respect to wild salmon and 2) recreation. Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect. Also stated in the environmental impact

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Sincerely,

Sarah Kerns
5536 Se Harlow st.
Milwaukie, OR. 97222

From: [sarah kerns](#)
To: [PSMP](#)
Subject: comment letter on psm
Date: Monday, March 25, 2013 8:41:00 AM
Attachments: [dam_reoval.doc](#)

March 24, 2013

US Army Corps of Engineers

Walla Walla District

Refer to: Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement (December 2012)

Dear Army Corps of Engineers,

I am writing as a concerned citizen who loves both the Columbia and Snake rivers. My family and I are frequent recreational users of these rivers, and we frequently eat fish harvested from this watershed.

I am writing to comment on the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

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Thank you for your consideration as we all work towards a healthier, cleaner river system.

Sincerely,

Sarah Kerns

5536 Se Harlow st.

Milwaukie, OR. 97222

and no dams higher than 30 m have been removed. Now, however, at least seven high dams in the Pacific Northwest are being reviewed for possible removal

This article provides a conceptual perspective of the ecological responses to large dam removal, based on our understanding of the structure and function of river ecosystems and on insights gained from small dam removals, where appropriate. We discuss geomorphic responses, hydrologic effects, and several major biological interactions that are affected by

concerning removal of high dams in two river basins in the Pacific Northwest—the Elwha River and the Lower Snake River.

phic and biological consequences for downstream reaches. Removing a dam can release large volumes of sediment to downstream reaches over short periods of time and creates easily eroded floodplains

The timing of sediment release and the downstream extent of sediment deposition are difficult to predict, thus leading to a high degree of uncertainty about ecological effects. In addition, subsequent erosion of sediment deposits behind the dam results in frequent and complex channel change within the reach upstream of the dam.

I really enjoyed the graphic on the historical channel reconstruction of the Willamette River

Even if natural flows are closely simulated in dam operation, the geomorphic effects of trapping sediment behind the dam and loss of connectivity for migrating organisms persist.

If large floods are eliminated by dams, channels can incise and impede interaction with their floodplains. In the Willamette River in Oregon, more than 50% of the channel complexity has been reduced through active channel alteration, bank hardening, and hydrologic alteration through flood control

Dam removal potentially restores hydrologic conditions and permits more dynamic channels.

Removal of dams potentially restores river temperature patterns, flow patterns for migrating fish, and flood dynamics. The potential negative impacts of dam removal on salmonids are associated primarily with the instabilities of sediments and terraces stored behind the dam.

In several ways, dams have become killing fields for native aquatic species. Each dam can be thought of as a density-independent source of mortality, a type of predator that kills through the shear forces caused by the cavitation of turbine electrical generators

In the Columbia basin, each dam is estimated to kill 5% to 20% of all the juvenile salmonids migrating downstream

I thought the gas bubble thing was very interesting

I think that this article is about sediment trapping and how it effects all the other things in the river

Case studies

The Department of the Interior purchased the dams in 2000, and they are scheduled to be removed in 2003 if additional funding can be obtained

The precarious status of salmonids in the Pacific Northwest and the potential gain for spawning habitat of the Elwha's anadromous salmonid stocks provided the impetus for this ambitious project

The short-term effects of dam removal will include the redistribution of large volumes of silt downstream (Stoker and Harbor 1991), but eventually additions of gravels will open up extensive reaches of usable spawning habitat

Ecological responses to dam removal cannot be predicted with a high degree of certainty in complex river ecosystems.

Resource managers and the public must recognize that precise predictions of ecological change after dam removal are not possible. Nevertheless, the conceptual framework provided by our knowledge of stream ecosystems and their interactions within the landscape provide a basis for prudent choices and adaptive management to local responses to dam removal.

This article attempts to assess ecological responses to the removal of dams 30 meters or higher such as the Elwha and Snake river dams. This paper touches on sediment, hydrologic and geomorphic consequences due to dams, but the main focus of the paper is biologic with a large emphasis on salmonid populations and their hypothetical response to ecological changes through dam removal. Dams have altered many river aspects including water temperature, sediment, species diversity, species interactions, geomorphic structure of both the river channel and the bank and hydrologic regimes to name a few. As these aspects are returned to a somewhat normal state by the removal of dams the ecological processes will also return to that pre-dam state encouraging the reestablishment of many vulnerable species. However, there will be a cost to society as well as other species that have flourished in a reservoir style river. The paper uses pre-dam estimates to predict the biologic response to dam removal.

I enjoyed this article for its hypothetical nature as it did recognize the difficulty in predicting ecological response to dam removal. However, I found it a bit naïve as it seemed to assume that a river's response would be that the river would convert back to its pre-dam state. It is my opinion, also hypothetical, that after so many years of being altered by dams the river will never return to its pre-dam state. That as dams are removed the

0087_Laughy

From: linwood.laughy
To: [PSMP](#)
Subject: LSRPSMP DEIS comments
Date: Tuesday, March 26, 2013 1:07:54 PM
Attachments: [PSMPDEIS comments.LL.doc](#)

Attached find comments regarding the draft Environmental Impact Statement for the Lower Snake River Programmatic Sediment Management Plan.

Please advise me immediately should you encounter any difficulty opening this Word document.

Please also include me in any future e-mailings or other notices regarding the LSRPSMP.

Thank you.

Linwood Laughy 5695 Highway 12 Kooskia, Idaho 83539 lin@wildblue.net

March 25, 2013

to: U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
e-mail: psmp@usace.army.mil

from: Linwood Laughy 5695 Highway 12 Kooskia, Idaho 83539
e-mail: lin@wildblue.net

Thank you for the opportunity to comment on the Army Corps of Engineers' Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement.

I do understand it would be much easier for the Corps if you didn't have to go through this public process and could simply proceed with what you plan to do anyway, but then there are those pesky federal laws, and America is still a democracy with citizens empowered to have their say.

I also understand why this sediment project is so important to the Corps. You have a lot riding on this effort to maintain barge transportation on the lower Snake and to keep viable the marine operations at the Port of Lewiston. With freight transport on the river in sharp decline over the past 11 years, many millions of dollars spent recently on river system maintenance and more needed, the unit train loader at Ritzville and soon the McCoy loader near the Washington/Idaho border— well, things aren't looking all that good for the home team. Add in present and future federal budget cuts, system users' claims that if they have to pay more fuel tax or a user fee they will not be competitive, angry taxpayers tired of subsidizing private industry, and the status quo gets even shakier. If you lose river transportation, a major "benefit" you claim for the Lower Snake River Project, the balance might shift to other "authorized purposes" like fish and game conservation. Cracks could start forming in the concrete, and the Corps might even have to consider the advice you received recently at your request from the National Academy of Sciences and consider divesting yourself of this part of your overextended and unsustainable system, especially when the ton-miles of freight barged on the lower Snake are a mere 1/10th of 1% of the freight shipped each year on the Corps' inland waterway system.

These observations make clear why the sediment management plan DEIS avoids any cost-benefit analysis, fails to look closely at the plethora of relevant socioeconomic data available, largely ignores the highly probable impacts of climate change, and fails to address various other significant issues including accuracy and consistency. Here are 8 more directed comments:

1. Once the USACE defined the authorized purpose of the LSRPSMP as maintaining the navigation channel at 14 ft. x 250 ft., the rest was easy for the Corps. What I don't understand is why taxpayers had to spend \$16 million for you to arrive at your preferred alternative of perpetual dredging. I naively thought the purpose of the sediment

8526 NEPA; range of alternatives

management plan was to determine how best to deal with sediment accumulation, which permits a number of alternatives. Real alternatives, I believe, are what NEPA requires. But by defining the problem as having a basement full of sand and the purpose of the plan and related projects that of emptying the basement, the only course of action with any chance of success was to start digging. Some of the information gathered for your \$16 million expenditure might admittedly be useful some day, but the identification of dredging as the only acceptable alternative could probably have been accomplished by three staff members over a cup of coffee. For all I know, maybe it was. But from the standpoint of NEPA, I suspect herein rests a fatal flaw. I doubt if federal law smiles favorably upon establishing the major purpose of a plan that which can be met by only a single alternative, putting up various dummy alternatives that could not possibly pass the Corps' screening criteria, and then either tossing them out or combining them all into your giant "tool box" that would allow you to do whatever you pleased whenever you felt the need to do so.

I'm uncertain whether any additional comments are even necessary, but having spent 30+ hours studying the plan, allow me to indulge myself.

8527 Non-Corps managed facilities

2. While on the topic of alternatives, you apparently forgot to consider a number of actual alternatives that would lead to the kind of citizen and agency discussion required by NEPA. While the DEIS mentions the possibility of closing some waterway facilities, ~~when I asked about this at the open house Q & A of January 24, 2013 a Corps spokesperson said this possibility did not apply to the Port of Lewiston.~~ My review of this matter suggests that about 90% of the dredging at the confluence of the Snake and Clearwater Rivers and up the Clearwater River would be unnecessary if the Port of Lewiston abandoned its marine operations. The Port of Clarkston hasn't shipped any freight on the river for at least 5 years and has deferred to the Port of Lewiston on all container traffic because, according to an economic development report, there isn't enough container transport business to go around. The grain cooperative near the Port of Clarkston dock shipped a relatively small amount of grain last year, less than 10% of the shrinking amount of grain shipped annually from the Port of Lewiston. Thus taxpayers are being asked to provide further subsidy to the Port of Lewiston of about \$1 to \$2 million per year on an annualized basis, to be hidden well within the Corp's maintenance budget. Local port managers and politicians are of course supportive of this federal government largesse, but I suspect many individual taxpayers view this in a different light. I also suspect if either users or local governments were asked/required to pay even half the cost of dredging, the marine operations at the Port of Lewiston would be closed within two years.

What about light loading of barges? Yes, it would cost shippers more money. How much more? Would it be cheaper than perpetual dredging? Would it provide an economic boost to the Port of Wilma? Would it perhaps more equitably spread some of the operational costs where some taxpayers think it belongs—on the users and current beneficiaries of government subsidies?

8528 Management Measures

8529 Management Measures

What about maintaining commercial river navigation fewer than 12 months a year? The system was shut down for repairs for a 13-week period in 2011-2012. Port of Lewiston Director Doeringsfeld told the Lewiston Morning Tribune grain shipments during that period had gone smoothly, even said the Port should probably explore doing more shipping by rail. That's what farmers on the Palouse plan to do. Two farmer cooperatives there are investing \$17 million in the McCoy Loader as they perhaps contemplate the growing risks of an unsustainable river navigation system as well as cheaper freight rates.

8530 Dam Removal

And then we have that 6-letter word — likely 1.5 times worse than a 4-letter word — BREACH. Clearly the Army Corps does not want to include this alternative for resolving sediment issues. Breaching would close more than highly subsidized barge traffic. Without the LSRP in its present form, the USACE Walla Walla District would likely cease to be a district. The bottom line —the LSRPSMP alternatives are woefully inadequate.

8531 NEPA; no action alternative

3. Sorry, but one more comment is needed on the topic of alternatives. NEPA requires a NO ACTION alternative. When the US Forest Service provides an EIS for a timber sale, the “no action” alternative is no sale, i.e. no trees cut in that proposed project. The “no action” alternative is not maintaining a steady flow of sawlogs to local mills. The “no action” alternative in the Corps’ sediment management plan calls for the Corps to take all available steps to keep the navigation channel at 14 x 250. First you plan to raise the MOP (minimum operating pool) to the top of Lower Granite Dam. This action would raise the water temperature in the lower Snake as the surface area exposed to solar energy expands, would make inaccessible some recreational facilities, would add to the flood risks at Lewiston, and would violate agreements relative to salmon recovery. Perhaps this “no action” plan underscores just how important that navigation channel is to the Corps. You then conclude that once the reservoir had been raised by about 5 feet over an unknown period of time, the Corps would need to dredge anyway. So the no action alternative prescribes a series of actions, not the absence of action.

4. Next let's talk about money, taxpayer money. Citizens who attended the January 24, 2013 Q & A in Lewiston clearly had costs and benefits on their minds. Corps spokespersons that evening repeatedly failed to provide any information regarding costs and benefits of what was being offered as a 50-year plan with implementation costs likely exceeding \$50 million just for dredging. The audience was told the DEIS in question, which is also the LSRPSMP, did not require any cost-benefit analysis. I suggest the public will no longer find that response adequate, nor your plan or DEIS adequate without honest information about costs. “We don't know what the costs will be.” is not an acceptable response. And speaking of costs, perhaps you could explain something to area residents. If barge transport is so much cheaper than any other form of freight transport, ignoring of course the enormous subsidies provided to the industry, why has barge transport on the lower Snake declined so steadily over the past 11 years? Yes, we are more than aware of the recession of 2008/09, but the decline in barge transport began 7 years earlier. Shipping reports from the Port of Lewiston chronicle a serious decline in barge transport of paper products, lumber, even wheat. Freight transport on the entire lower Snake is down about 45% over the past 10 years, driving up government-

8532 Costs and funding

subsidized costs per ton-mile to new highs. Are shippers who are moving to rail and truck transport unaware they are being financially fleeced? Just maybe those farmer folks and paper company executives and lumber mill managers know more than port managers and USACE about the costs of freight transport from north central Idaho and the Inland Northwest.

In Appendix F Army Corps staff member Teasdale provides what may be the best estimate of cost for the sediment management plan when he writes “The most effective strategy for managing sediment in Lower Granite Reservoir is likely a combination of alternatives. A reasonable priority would be 1) short term dredging actions, 2) design and construction of spur dikes, 3) experimental drawdowns...to promote transport of sediment, 4) construction of an experimental sediment trap on the Snake River. Raising the height of the lowest segments of the levees is a valid contingency action if other sediment management alternatives are not implemented.”

Translation: managing sediment at the confluence of the Snake and Clearwater Rivers is going to cost one helluva lot of money.

5. Speaking of myths regarding costs of waterborne commerce, a related topic is greenhouse gas emissions.

8533 Air quality; greenhouse gas

The DEIS fails to address the impact of carbon dioxide emissions and other greenhouse gases that would result from maintaining a navigational channel on the lower Snake River. The Ninth Circuit Court of Appeals, in *Center for Biological Diversity v. National Highway Traffic Safety Administration*, unanimously ruled federal agencies must assess carbon dioxide emissions in review documents prepared under NEPA. The DEIS perpetuates the myth that barge transport is more energy efficient than rail and thus provides less air pollution in the form of greenhouse gases. Apparently the Corps failed to consider available research on this issue that specifically addresses grain transport by barge, truck and rail, like Casavant’s and Ball’s 2001 study *Impacts of a Snake River Drawdown on Energy and Emissions, Based on Regional Energy Coefficients*. This study, conducted by the Freight Policy Transportation Institute at Washington State University, concluded that ending commercial navigation on the lower Snake River would result in significant savings in fuel and greenhouse gas pollution. With the addition of unit-train capacity in the area, rail transport has achieved even greater energy efficiencies over the past 12 years. In a 2006 report on a rail operation in eastern Washington, for example, Casavant wrote “The energy efficiency of rail is 30% higher than barge and about 100% better than truck. Emissions production follows proportionately the increased level of energy (fuel) used in transporting the products out of and into the region.” Perhaps such information muddies the waters even more than the turbidity that results from dredging. The Ninth Circuit judges would likely disagree, however.

6. Which leads us to the topic of climate change. The DEIS presents disturbing data about the huge upward trend in the number of acres of forest burned over the past 40 years, and also notes that forest fires are major contributors to sediment due to related

8534 Climate
change

flooding and mass wasting. Did the authors of the main body of the DEIS read Jamie R. Goode’s summary in Appendix D? Ms. Goode states that “Within central Idaho recent climate-driven increases in wildfire burn severity and extent have the potential to produce sediment yields roughly 10-times greater than those observed during the 20th century.” Let’s suppose Ms. Goode is not actually good at prediction. Suppose she is wrong by a factor of 5, i.e. that sediment yields in the pertinent watersheds only double. How often will the Corps then need to dredge the confluence of the Snake and Clearwater Rivers when an average of 4.4 mcy arrive each year? Every 1-2 years? What happens to the Corps’ sediment management plan if Goode’s projection is only 2 times overstated? Then you’ll be looking at over 10 mcy of sediment per year, and you’ll need an even larger toolbox of options. And don’t forget the potential for major changes in weather patterns, including more flooding. The DEIS gives limited attention to climate change, the Corps apparently hoping the future will be much like the past—an agency wish that permeates other aspects of the DEIS as well.

7. An agency has the responsibility to be accurate and consistent in the preparation of a DEIS. Having studied the 12-year decline of freight transport on the lower Snake, I was surprised to read in the DEIS that the typical tons of freight transported on the lower Snake per year was 10 million, an overstatement by almost 4-fold according to other data in the DEIS as well as at the Army Corps’ Statistical Data Center. However, the area of study clearly needing the most accuracy and consistency is that of sediment. If this NEPA requirement is not met with respect to sediment in a sediment management plan, the plan needs serious revision.

In Appendix F, Teasdale states the Corps dredged an estimated 4,811,429 cubic yards of sediment at the confluence from 1974 to 2010. The first dredging occurred in 1982. In the all-important table 3-16 in the main body of the DEIS we learn that between 1974 and 2010 the total volume of sediment that accumulated in the Lower Granite Reservoir was 79.83 mcy. Total dredged volume was 2.76 mcy. No accounting is made of the missing 2.10 mcy of sediment. Table 3.16 also claims that an average of .04 mcy accumulates each year on the Snake River above the confluence with the Clearwater, and .03 mcy accumulates on the Clearwater River above its confluence with the Snake. The sediment that hasn’t been dredged appears in the Snake below Silcott, about 14 miles downstream. Apparently NO sediment accumulates at the actual confluence, the site of most of the required dredging over the past 30 years.

8535 Hydrology
and sediment;
LSR System
and Sediment
Transport

Here’s another problem in the sediment puzzle. Teasdale repeatedly states that to keep the navigation channel 14 x 250 the Corps needs to dredge an average of .7 mcy of sediment per year from the confluence and lower Clearwater. During the past 34 years the Corps has dredged an estimated 4.8 mcy. Teasdale’s figure indicates that over the next 34 years the Corps will need to dredge 25.2 mcy, or approximately 5 times as much sediment as in the past, for the navigation channel alone. If dredging also must deal with the issue of flood risk, much greater volumes of dredging would be needed according to Teasdale. Did Teasdale mean .07 from table 3-16 (the .03 + .04), or is Table 3-16 an inaccurate interpretation of Teasdale’s .7 figure? If the former, then the DEIS argues that sediment volume and accumulation will be no greater over the next 34 years than it was

in the past despite evidence to the contrary in the DEIS and the noted impacts of climate change. If the already inaccurate table 3-16 fails further by not using Teasdale's data, then the entire DEIS is in error by a magnitude of 10. At least then the data would be in agreement with the information provided by Goode as noted above. So much for accuracy and consistency.

8537 Hydrology and
Sediment/Flood Risk Mgmt.

8. In 2002 the Corps told the residents of Lewiston the levee around their city was inadequate to protect them from flood and needed to be raised 3 feet. In the present DEIS this flood risk has all but disappeared, the issue does not need to be revisited for at least 15 years (statement at January 24 Q & A), and most likely Lewiston residents can relax for the next 50. The planned dredging is required only to maintain the navigation channel, though raising the levee remains in Alternative 7's toolbox in case the Corps' sediment predictions prove less accurate than those of Mr. Goode.

However, Teasdale in Appendix F states that dredging of "large volumes" of sediment is a plausible way to deal with flood risk, the amount being much greater than the .7 mcy of sediment that must be removed on average each year to maintain the navigation channel. But if readers can just accept the Corps' new probabilistic analysis of flood risk, including the theory that during a flood the sediment-laden waters would scour out sediment that had already been deposited and would leave no new sediment in its wake, then the flood risk at Lewiston is *likely acceptable*. The risk of overtopping the Lewiston levees for the most likely channel condition in 50 years is *marginally acceptable*. To further reassure us, Teasdale writes "under conservative, but still plausible, assumptions about the hydraulic response of the channel, the flood risk for the future channel condition is *unacceptable*." Whether to use the original flood risk criteria or the new probabilistic method is, according to Appendix F, a matter of policy interpretation. Teasdale refers to this situation as an "important uncertainty," a decision "to be made by jointly considering USACE policy and community tolerance of flood risk."

One of the options the Corps considered while doing the scoping work for this plan and project, as presented in the Congressional Record, was to purchase flood insurance for the property owners in downtown Lewiston. The Corps might want to put that option in the toolbox as well, though I suppose talking again about raising the Lewiston levee could stir up the smoldering opposition to removing Lewistonites one step farther away from their former waterfront.

If you conclude from the above remarks that I consider the DEIS for the Lower Snake River Programmatic Sediment Management Plan inadequate, in fact woefully so, you are correct. I suspect many other citizens and more than a few organizations agree with me. At this point the Corps appears to have two principal alternatives: you could decide to forget about dredging this winter, pay attention to the serious flaws in the DEIS, and prepare a new draft. The other option is to try to bluff your way through, a course of action with its own set of predictable consequences. I look forward to learning what the Corps decides to do.

From: [Mahler, Debi](#)
To: [PSMP](#)
Subject: dredging the Snake!
Date: Tuesday, March 26, 2013 8:49:21 AM

0088_Mahler

Army Corps of Engineers

Walla Walla district

To whom it may concern

As a taxpayer, it doesn't make sense to dredge the Snake River.....

- * In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.
- * The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.
- * Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

Debi Mahler
208-484-0138

8539 Costs and funding

8540 Aquatic resources; threatened and endangered species (aquatic)

8541 Hydrology and sediment; watershed sediment production

0089_Monsees

From: [David Monsees](#)
To: [PSMP](#)
Subject: Dredging the lower Snake River corridor
Date: Tuesday, March 26, 2013 2:26:29 PM

8542 Dam removal

The dams that have been built to permit barge traffic to continue to Lewiston were a mistake. Lewiston has never been a viable port. Commercial interests are benefiting at taxpayer expense. To continue to support those dams at further taxpayer expense is just throwing good money after bad. We all know, furthermore, that dredging will have to continue to make that bad project viable over the future. Those dams should be taken out (a project worthy of taxpayer support) like other Army Corps of Engineer projects across the nation. Back then we did not realize the major impact of dams on the environment of riparian areas. Forest service research indicates that taking out the four dams downstream from Lewiston would permit comeback of salmon in Idaho. Don't violate the Endangered Species Act. Do a fair cost analysis. Do the morally right thing. Don't dredge.

8543 Costs and funding

8544 Dredging

Thank you,

Dr. David M. Monsees, Jr.
1347 W Parkhill Dr.
Boise, ID 83702
202-669-6431

From: [Sierra Club](#) on behalf of [Patricia Nakaoki](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Monday, March 25, 2013 5:42:27 PM

0090_Nakaoki

Mar 25, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

As a civil engineer myself, I believe the Corps has a duty to provide a comprehensive analysis, and not simply recommend dredging because it happens to be your toolkit.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Patricia Nakaoki
412 S 13th St Apt 313
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8545 Costs and funding

8546 Aquatic resources; threatened and endangered species (aquatic)

8547 Hydrology and sediment; watershed sediment production

0091_Nez Perce Tribe

From: [Marlene Trumbo](#)
To: [PSMP](#)
Cc: [Turnipseed, Donna NWW](#)
Subject: Nez Perce Tribe's comments on the Lower Snake River Programmatic Sediment Management Plan and Draft Environmental Impact Statement
Date: Tuesday, March 26, 2013 4:11:13 PM
Attachments: [2013 03 26 NPT ACOE Lower Snake PSMP-EIS.pdf](#)

Ms. Shelin:

Attached are the Nez Perce Tribe's comments on the Lower Snake River Programmatic Sediment Management Plan and Draft Environmental Impact Statement. If you have any problems with opening the document please contact me at the number below. If you have any questions regarding the comments please contact Mike Lopez, Staff Attorney, Nez Perce Tribe Office of Legal Counsel at 208-843-7355 or mikel@nezperce.org.

The Tribe requests that you please confirm receipt of this email and attached comments by responding to this email.

Marlene Trumbo
Office of Legal Counsel
Nez Perce Tribe
P. O. Box 305
Lapwai, ID 83540
(208) 843-7355
(208) 843-7377, fax

P Please consider the environment before printing this email



Nez Perce

TRIBAL EXECUTIVE COMMITTEE
P.O. BOX 305 • LAPWAI, IDAHO 83540 • (208) 843-2253

March 26, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue, Walla Walla WA 99362-1876

By Electronic (psmp@usace.army.mil) Mail

Re: Nez Perce Tribe's comments on the Lower Snake River Programmatic Sediment Management Plan and Draft Environmental Impact Statement

Dear Ms. Shelin:

The Nez Perce Tribe (Tribe) appreciates the opportunity to comment on the Walla Walla District of the U.S. Army Corps of Engineers (Corps) Lower Snake Programmatic Sediment Management Plan and Draft Environmental Impact Statement (PSMP/DEIS).

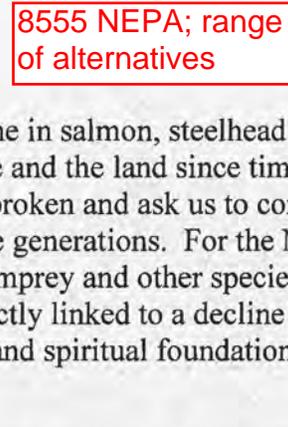
Since time immemorial the Tribe has used and occupied the lands and waters of north-central Idaho, southeastern Washington, northeastern Oregon and areas of Montana for subsistence, ceremonial, commercial, and religious purposes. In 1855 the United States negotiated a treaty with the Tribe. Treaty of June 9, 1855, with the Nez Percés, 12 Stat. 957 (1859). In Article 3 of this treaty, the Tribe explicitly reserved to itself certain rights, including “the exclusive right to take fish in streams running through or bordering the Reservation,” “the right to take fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed lands.” These reserved rights include the right to fish within the project area identified in the PSMP/DEIS and the right to take fish passing through the Lower Snake River.

Salmon, steelhead, sturgeon and lamprey are integral to the spiritual, physical and economic health of the Tribe. The Tribe reveres the fishery and the waters that support the life and sustenance these resources have given, and continue to provide Tribal members. The Snake River corridor is an important migratory route for threatened spring, summer, and fall Chinook salmon and steelhead, as well lamprey and sturgeon. Any activities that potentially threaten these important resources are of great concern to the Tribe.

The Tribe cannot overstate how significant a burden the United States has imposed on the Nez Perce people through the construction and operation of the Lower Snake River and Columbia

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8555 NEPA; range
of alternatives



River Dams. These structures have contributed to a massive decline in salmon, steelhead and lamprey that have returned to our waters and nourished our people and the land since time immemorial. Nez Perce elders believe the circle of life has been broken and ask us to consider what the consequences of breaking that circle may mean for future generations. For the Nez Perce people, the loss of the sacred Chinook salmon, steelhead, lamprey and other species has meant a loss of our most important food source, and has been directly linked to a decline in the health and welfare of tribal members. The impact to our cultural and spiritual foundation, language, beliefs and way of life is incalculable.

After reviewing the documents, the Tribe does not support the Corps' preferred Alternative 7 because it is a product of an unreasonably narrow purpose and need that relies on dredging while eliminating from consideration viable options such as increased implementation of sediment reduction measures, maintenance of the Lower Snake River navigation channel at the less than 14 feet depth as has been occurring using light-loading of barges, and partial breaching of the Lower Snake Dams. As a result of the narrow purpose and need, the Corps failed to fully evaluate a reasonable range of alternatives. To safeguard and advance the Corps' treaty and trust responsibilities to the Tribe, the Tribe requests that the Corps fully analyze and adopt a new alternative that prioritizes the additional measures above as well as components of Alternatives 2, 3 and 4.

The Corps also needs to perform significant additional analysis of the project's impacts. The PSMP/DEIS fails to analyze the project's impacts on Tribal treaty rights, tribal cultural resources, and socioeconomics. The PSMP/DEIS inadequately analyzes the project's effects on ESA-listed species and lamprey. The economic analysis regarding the costs and benefits of the proposal is inaccurate and incomplete. Additional analysis is also necessary to address the impacts of climate change, as well as impacts from future changes in flood storage contemplated in the Columbia River Treaty.

PROJECT DESCRIPTION

The Corps is proposing to adopt and implement a Programmatic Sediment Management Plan for managing sediment within the Lower Snake River system to meet the authorized project purposes that are affected by sediment deposition. According to the PSMP/DEIS, the purpose of the proposed action is to establish a programmatic framework to evaluate and implement potential sediment management measures to address problem sediment accumulation that interferes with authorized purposes of the Ice Harbor, Lower Monumental, Little Goose, and Lower Granite Dams and their associated locks and reservoirs located on the Lower Snake River (collectively the Lower Snake River Projects or LSRP). According to the Corps, the "authorized purposes" are the following: (1) commercial navigation by reducing the depth of the Federal navigation channel to less than the authorized depth of 14 feet when operating at minimum operation pool; (2) recreation by limiting water depth at boat basins to less than original design dimensions; and (3) fish and wildlife conservation by sediment accumulation interfering with irrigation water intakes, juvenile ESA-listed fish barge access to loading facilities, and fish barge passage through the reservoirs and locks within the LSRP.

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In addition to developing a Programmatic Sediment Management Plan for long-term sediment management within the LSRP, the Corps is also proposing and evaluating in the DEIS an “immediate need action” to reestablish, through dredging of approximately 421, 675 cubic yards during the first available in-water work period (December 15-March 1) following the Record of Decision for the PSMP/DEIS, the navigation channel and port berthing areas at the following four locations: Ice Harbor Navigation Lock downstream approach; Federal navigation channel at confluence of Snake and Clearwater Rivers; Port of Clarkston berthing area; and Port of Lewiston berthing area. The dredged materials will be placed in the Lower Granite reservoir, Snake River Mile 116 just upstream of Knoxway Canyon, for in-water disposal to create additional shallow water habitat for juvenile salmonids.

8549 Dredging

On March 11, 2013 the Corps issued a 30-day public notice proposing to perform maintenance dredging totaling 491,043 cubic yards at the above four locations. The dredging quantity exceeds the amount identified in the PSMP/DEIS by 69,368 cubic yards. The public notice further indicates that the NEPA review required for the proposed maintenance dredging is addressed in the PSMP/DEIS.

The Corps identified seven potential alternatives for the project: (1) No Action (required for evaluation under NEPA); (2) Increased implementation of sediment reduction measures; (3) system management; (4) non-dredging sediment management measures; (5) dredging-based sediment management; (6) system management and non-dredging sediment management; and (7) comprehensive (full system and sediment management measures). Following application of several screening criteria, the Corps decided to further evaluate Alternatives 1 (required under NEPA), 5 and 7. The other four alternatives were eliminated from further evaluation (2, 3, 4, and 6) based on the Corps’ assertion that they do not meet the project’s purpose and need.

Alternative 5 represents a continuation of the Corps’ historical practices of using dredging as the primary tool for managing sediment that interferes with authorized uses of the LSRP. Sediment management would consist of dredging and dredged material management. Alternative 7 provides all available dredging, system and structural measures for the Corps to manage sediments that interfere with authorized project purposes. The alternative includes dredging and dredged material management along with other sediment and system management measures.

Over the long-term, the Corps would monitor sediment in the LSRP. When conditions meet criteria for action, the Corps would initiate review of site-specific conditions, screening of alternative measures, and determine which measure or measures to implement to address sediment accumulation.

GENERAL COMMENTS

A. Treaty and Trust Responsibilities

President Obama's November 5, 2009 Memorandum to the heads of all Federal agencies reaffirming Executive Order 13175 requires all Federal agencies to formulate "an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory

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policies that have tribal implications." This document affirms the Corps' legal responsibility to engage in pre-decisional consultation with federally recognized Tribes, an important component of that process. The Corps' adopted *Tribal Policy Principles* further embrace President Obama's directive by committing to "involv[ing] Tribes collaboratively, before and throughout decision making, to ensure the timely exchange of information, the consideration of disparate viewpoints, and the utilization of fair and impartial dispute resolution processes."

Another key commitment of the *Tribal Policy Principles* is that the Corps "will work to meet trust obligations, protect trust resources, and obtain tribal views of trust and treaty rights. Embedded in the *Principles* and available on the Corps' website is a "Trust Responsibility and Consultation Matrix" prepared by the OSD Office of General Council. The document identifies a trust responsibility to "protect 'to the highest degree of fiduciary standards trust lands and water and land habitats that support meaningful exercise of off-reservation hunting, fishing, and gathering rights.'" The document states: "[w]here the trust responsibility applies, Indian interests cannot be subordinated to the interests of DOD absent overriding legal authority to do so." The document further states that the duty applies when, among other circumstances, "[a] proposed action may affect off-reservation treaty rights [which are] those use and occupancy rights reserved for Indians in a treaty, statute, judicial decision, or E.O. establishing a reservation."

As the Corps is well aware, the Tribe has a longstanding history with this project. The Tribe submitted numerous and detailed comments on the previous iterations of the Corps' sediment management plan describing the historic and contemporary importance of salmon and other aquatic resources to the Tribe and how the dramatic decline in those resources in the wake of the construction and operation of the Lower Snake River and Columbia River Dams have dramatically affected the Tribe in numerous ways. The Tribe also repeatedly reminded the Corps of its responsibilities to protect and advance treaty rights. The Tribe recommended alternatives to dredging such as increased upstream sediment reduction measures, drawdown, light barge loading, operating the navigation channel at less than 14 feet, and partial breaching of the Lower Snake River Dams.

As the Corps is also aware, the Tribe participated in the litigation that resulted in the court enjoining the Corps' plans to dredge in 2002 and 2004. The Tribe also participated in the settlement discussions that culminated in an agreement permitting the Corps to perform a limited, one-time maintenance dredge but with the condition that the agency complete a NEPA analysis on the long-term management of sediment in the Lower Snake River.

On December 21, 2012 the Corps released the PSMP/EIS with a 45-day comment period. By letter to the Corps dated January 9, 2013 the Tribe requested that the Corps extend the comment period a minimum of 45 days to account for the intervening holidays and to facilitate pre-decisional consultation. At the Tribe's request, Corps staff met with Tribal staff in Lapwai to discuss the PSMP/DEIS on February 15, 2013.

Despite the Tribe's extensive previous involvement in the Corps' Lower Snake River sediment management initiatives, including the numerous comments, meetings, and litigation, the PSMP/EIS fails to acknowledge the Tribe's historic ties to the project area and ignores the

8550 Cultural
Resources

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cultural, religious, economic and nutritional importance the Tribe attaches to the resources that reside in the project area. The Corps does not describe the 1855 Treaty in any meaningful way, including failing to list it among the statutory authorities it is required to consider in its analysis. The Corps provides no identification of treaty and trust resources that may be affected by the project, and performs no evaluation at all of the project's impacts on treaty rights. The PSMP/EIS also fails to evaluate the Tribe as an affected population for environmental justice purposes, and performs no analysis of the project's socioeconomic impacts to the Tribe. The Corps also provides an inadequate analysis of the impacts to Tribal cultural resources.

There is accordingly no meaningful effort in the PSMP/DEIS to recognize and evaluate the impacts to the myriad Nez Perce Tribal interests in connection with the project. The Tribe expects to see a substantial improvement in this evaluation in the FEIS.

B. Range of Alternatives

1. The purpose and need are impermissibly narrow

8552
Socioeconomics/Environmental Justice

NEPA's implementing regulations require that a statement of purpose and need "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 40 C.F.R. § 1502.13. Because the purpose and need determine the range of reasonable alternatives, an agency cannot define the purpose and need of a project in unreasonably narrow terms. See *Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1070 (9th Cir.2010). "[A]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality." *Friends of Southeast*, 153 F.3d at 1066 (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C.Cir.1991)).

The DEIS identifies the purpose of the proposed action is to adopt a PSMP that includes actions for long-term, immediate need, and emergencies for managing sediment that interferes with the authorized purposes of the LSRP. DEIS at 1-2. The stated need for the PSMP is to reduce and prevent if possible sediment accumulation in areas of the Lower Snake River reservoirs that interfere with the following federally authorized purposes: (1) commercial navigation by reducing the depth of the Federal navigation channel to less than the authorized 14 feet when operating at minimum operating pool; (2) recreation by limiting water depth at boat basins to less than original design dimensions; and (3) fish and wildlife conservation by sediment accumulation interfering with irrigation water intakes at HMUs, juvenile ESA-listed fish barge access to loading facilities, and fish barge passage access through the LSRP. DEIS at 1-2,1-3.

In assessing the reasonableness of a purpose and need specified in an EIS, courts consider the statutory context of the federal action. *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 866 (9th Cir.2004) ("Where an action is taken pursuant to a specific statute, the statutory objectives of the project serve as a guide by which to determine the reasonableness of objectives outlined in an EIS.").

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8554 NEPA;
purpose and needs

The DEIS provides statutory context concerning authorized purpose 1 – maintaining the federal navigation channel at 14 feet when operating at MOP - in the Corps Authorities, Directives, and Obligations section. The DEIS states: “[t]he Flood Control Act of 1962 (PL 87-874) mandated the establishment of the navigation channel within the LSRP at 14 feet deep by 250 feet wide at the minimum operating pool level, and provides the Corps with the authority to maintain the channel at those dimensions.” DEIS at 1-5. The DEIS further provides: “[b]ased on those authorizing documents and subsequent related Congressional documents, the Corps interprets that Congress intended for the Corps to maintain the channel to provide year-round navigation.” *Id.* The DEIS goes on to state that “[i]n 1991, Congress reiterated its intent to provide for navigation in the Columbia and Snake River system (102 Senate Report 80).

The Corps’ interpretation of what Congress intended for commercial navigation on the Snake River system is flawed. First, although the FCA requires the federal navigation channel to be established at 14 feet deep by 250 feet wide, the Flood Control Act does not *mandate* the Corps to *maintain* the federal navigation channel at 14 feet when operating at Minimum Operating Pool (MOP). Second, neither the Flood Control Act nor any subsequent Congressional documents support an interpretation that Congress intended for the Corps to maintain the channel at no less than 14 feet at MOP year-round. To the contrary, Congress, in authorizing the Snake River Dams, considered and recognized that navigation may not be available year-round. House Doc. 704, 75th Cong., 3rd Sess. At 9, 39. In addition, the Corps has previously acknowledged time periods when full navigation on the Snake River will not be available. The Corps has also recognized that seasonal light loading has occurred and is occurring on the Snake River. There is therefore no principled statutory interpretation on which the Corps can support a need to *maintain* the federal navigation channel at no less than 14 feet deep at MOP year-round.

2. The PSMP/DEIS does not fully evaluate a reasonable range of alternatives.

The draft PSMP/EIS does not provide a reasonable range of alternatives. NEPA requires agencies to “[s]tudy, develop, and describe appropriate alternatives to recommended courses of action, 42 U.S.C. § 4332(e), and to “rigorously explore and objectively evaluate all reasonable alternatives” to a proposed plan of action that has significant environmental effects. 40 C.F.R. § 1502.14(a) (2000). This is “the heart” of an EIS. *City of Carmel-by-the-Sea v. United States Dep’t of Transp.*, 123 F.3d 1142, 1155 (9th Cir.1997). “The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.” *Citizens for a Better Henderson v. Hodel*, 768 F.2d 1051, 1057 (9th Cir.1985).

The Corps developed a range of management measures that could address identified sediment accumulation problems. The measures fall within four general categories: dredging and dredged material management; structural management, system operations management, and upland sediment reduction. DEIS at 2-3. The Corps then developed twelve criteria to “screen” measures and determine which measures meet the purpose and need and are technically feasible to include in the PSMP alternatives. DEIS at 2-7. Significantly, “maintain[ing] navigation channel at less than 14 feet” was eliminated at this stage because “[it] does not meet purpose and need. The Congressionally-authorized channel depth is 14 feet.” DEIS at 2-8.

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8555 NEPA; range
of alternatives

From these four general categories six alternatives were developed as well as a No Action alternative which is required for evaluation under NEPA. Alternative 2 provides for increased implementation of upstream sediment reduction measures such as streambank erosion control and forest and agricultural practices. Alternative 3 provides for navigation objective reservoir operation, increasing flow velocities to flush sediments, and modifying, relocating, or reconfiguring facilities affected by sediment accumulation. Alternative 4 provides for structural sediment management measures such as weirs, dikes and continued upland sediment reduction measures by the Corps. Alternative 5 involves dredging-based sediment management. Alternative 6 includes system management and non-dredging sediment management (such as continued upland sediment reduction measures). Alternative 7 includes all measures included in Alternative 5 and 6.

The Corps then developed a second level of screening criteria to evaluate these 7 alternatives. These criteria are: (1) alternatives must provide sufficient measures to remedy sediment deposition that interferes with authorized purposes of the LSRP, for both future and immediate needs; (2) alternatives must provide for reestablishing the navigation channel from current conditions to authorized dimensions (14 feet deep by 250 feet wide at MOP throughout the designated navigation channel).; and (3) alternatives must provide the ability to address flood risk at Lewiston and Clarkston. DEIS at 2-32. Applying these additional criteria, alternatives 2, 3, 4, and 6 were eliminated from further consideration because these alternatives did not reestablish the navigation channel to authorized dimensions (14 feet deep) at MOP. DEIS at 2-33. The Corps' preferred alternative, Alternative 7, adopts a "toolbox" approach by including measures included in Alternatives 5 and 6.

By narrowly defining the purpose and need to require maintenance of the navigation channel at *no less than 14 feet by 250 feet year-round*, and then applying two levels of screening criteria for the alternatives development that eliminate alternatives which, according to the Corps, interfere with authorized purposes (again maintaining the navigation channel at no less than 14 feet year-round), the Corps has impermissibly limited the range of alternatives it believes it must analyze to just *two* alternatives which both include dredging. These two dredging-based alternatives belie the Corps' assertion that it is stressing a "system based approach" to solve sediment-related problems. Such an excessively narrow range of alternatives for a programmatic document is unreasonable and does not satisfy NEPA.

3. The no action alternative is invalid.

NEPA requires agencies to include a no action alternative in its range of alternatives to be evaluated. 40 C.F.R. § 1502.14(d). Where "no action" involves federal decisions on proposals for projects...the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward." CEQ Forty Questions.

According to the PSMP/DEIS, the No Action Alternative represents "a continuation of the Corps' current operational practices of managing the LSRP through navigation objective

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reservoir operations in the lower Snake River, and sediment reduction measures implemented in the Snake River watershed by other agencies and land managers.” DEIS at 2-22, 23.

Yet the No Action Alternative as described is not a true no action alternative for several reasons. First, the No Action Alternative is predicated upon the Corps’ assertion that the Snake River must be maintained at no less than 14 feet for navigation. As described above, this assertion is based on the Corps’ flawed interpretation of the Flood Control Act. The Corps is not *mandated* to maintain the navigation channel at a minimum 14-foot depth for navigation. The No Action alternative is therefore not a valid alternative because it fails to describe a scenario where the Corps does nothing to maintain the 14-foot navigation channel, including no navigation objective reservoir operations.

8556 NEPA; no action alternative

Second, the No Action Alternative is not a valid alternative because the No Action Alternative includes actions that are explicitly included in the preferred alternative (Alternative 7). According to the preferred alternative, navigation objective reservoir operation and continued upland sediment measures are included in the available “toolbox” of measures. DEIS at 2-31. As a result the No Action Alternative just mirrors measures that are already in the preferred alternative.

In summary, the Corps needs to develop a true No Action Alternative that contemplates the agency not managing the lower Snake River to maintain a 14-foot navigation channel for navigation. The agency also needs to fully evaluate the environmental effects of this No Action Alternative compared with the effects of permitting the proposed activity.

4. The Tribe opposes the preferred alternative and requests the development and full evaluation of a new alternative that protects treaty rights.

8557
Alternatives

The Tribe opposes this preferred alternative for several reasons. First, the Corps states that the purpose of programmatic management is to provide consistency in and a “roadmap” for future project-specific decision-making. The Corps’ preferred Alternative 7 does not provide such a “roadmap.” Rather, Alternative 7 provides a listing of potential measures that may possibly be implemented, singly or in combination, with little edification on what actually will happen. Rather than a roadmap, Alternative 7 offers confusion and uncertainty regarding the future of sediment management and transportation channel maintenance in the lower Snake River. For example, drawdown is a measure that would, although temporarily, create more natural riverine flow conditions that would aid the downstream migration of salmonids and provide normative conditions for downstream lamprey migration. That is, it would allow the Lower Snake to act more like a river. Absent adequate forethought, planning and preparation for implementation of this type of alternative, the only road map that is apparent is the continuation of channel maintenance dredging.

Second, the preferred alternative does not provide an order or preference in which a measure or measures will be implemented when sediment “interferes with authorized purposes.” The PSMP/DEIS only establishes “immediate” and “future” needs as conditions that trigger action and which are virtually indistinguishable. DEIS at 2-22. The immediate need authorizes action

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when the federal navigation channel “is less than authorized dimensions at MOP.” This is another way of stating the channel must be maintained at 14 feet deep and 250 feet wide. The future needs authorize action when sediment accumulation interferes with an authorized purpose: (1) at the same location more frequently than every 5 years; (2) is anticipated at a location or locations in less than five years; or (3) unanticipated sediment accumulation occurs.

The PSMP/DEIS is supposed to be a programmatic document. Yet it does not identify what measure or measures in the “toolbox” will be implemented to address any of the conditions. Nor do the documents identify any order or preference for how the measure or measures will be implemented. Without a hierarchy or preference guiding how the Corps will select one measure or measures over another to address a “condition,” alternative 7 lends itself to reliance on one tool – dredging – that the Corps has historically demonstrated to strongly prefer as a management tool over other, non-dredging options. Accordingly, the Tribe requests that the Corps identify programmatic selection criteria for each measure as well as a hierarchy or order that will establish a fair and transparent decisionmaking framework for determining when, how, and in what order a measure or measures will be implemented.

Third, the preferred alternative does not include operating the Lower Snake River at less than the “authorized” 14 foot deep navigation channel. As stated above, the Tribe maintains that the Corps’ has erroneously eliminated this viable measure from consideration based on a flawed interpretation of the Corps’ authorizing legislation. The Corps is not *required* to operate the navigation channel at 14 feet deep by 250 feet wide year-round, but is only authorized to do so. The Corps may and has operated the navigation channel at less than 14 feet through a menu of options such as restricting commercial traffic during higher flows or implementing a light-load barging requirement. The Corps needs to include and analyze in detail this viable option either as a stand-alone alternative *and* as a measure in the preferred alternative.

8560
Alternatives

Fourth, the preferred alternative eliminates *increased* upland sediment reduction measures consistent with Alternative 2. The preferred alternative limits upstream sediment reduction measures to *existing* levels. The PSMP/DEIS fails to provide any explanation why the preferred alternative cannot incorporate *increased* upland sediment reduction measures rather than just implementing existing measures. The Corps eliminated Alternative 2 from consideration because “sediment reduction from upland sourced would not, by itself, be effective at reducing sediment accumulation that interferes with authorized purposes of the LSRP, either for future or immediate needs.” DEIS at 2-34. Yet the preferred alternative incorporates other measures, including dredging, to address what the Corps characterizes as an immediate need to maintain the navigation channel at 14 feet year round. Therefore, the Corps’ reason for eliminating Alternative 2 as a stand-alone alternative does not apply to the preferred alternative.

Fifth, the preferred alternative does not incorporate partial dam breaching of the four Lower Snake River dams. As you know, the Tribe has long advocated for partial dam breaching is by far the most consistent with the United States’ obligation to protect treaty rights and support Tribal self-determination. Dam breaching:

8561 Management
measures

8562 Dam
Removal

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- Best increases survival of anadromous fish migrating through the area of the four lower Snake River dams;
- Increases the area of spawning and rearing for Snake River fall Chinook;
- Is the only alternative that addresses restoration or natural or near natural riverine conditions that would produce myriad positive influences on natural processes and fish and wildlife;
- Is the only alternative that enhances migrating conditions for lamprey and white sturgeon;
- Improves water quality; and
- Is the only alternative that would improve fish migration rates and rates of juvenile anadromous fish through the existing reservoir pool areas.

The Tribe requests that the Corps include dam breaching as a viable measure in the preferred alternative and as a stand-alone alternative for detailed environmental analysis.

C. The Corps Has Not Performed the Requisite Hard Look on the Project's Impacts to the Environment

Through the NEPA process, a federal agency must “take a ‘hard look’ at the potential environmental consequences of the proposed action.” Oregon Natural Res. Council v. Bureau of Land Management, 470 F.3d 818, 820 (9th Cir. 2006) (internal quotations omitted). NEPA’s regulations require that an EIS include a discussion of direct, indirect, and cumulative environmental impacts of the proposed action. Direct impacts are “caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Indirect impacts are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” Id. at § 1508.8(b). Cumulative impacts result when the “incremental impact of the action [is] added to other past, present, and reasonably foreseeable future actions” undertaken by any person or agency. Id. at § 1508.7.

8564 General DEIS

The overall organization of the Environmental Effects of Alternatives section needs improvement. The section refers interchangeably to “direct effects” and “effects” but does not clearly distinguish direct from indirect impacts. The Tribe recommends that the section be reorganized to include, by alternative, a Direct Impact and Indirect Impact Sections so that the reader clearly understands how the Corps is characterizing those impacts.

1. The PSMP/DEIS fails to adequately analyze the direct impacts of each measure in the preferred alternative.

Section 4 describes the environmental effects of Alternative 5 and the preferred alternative 7. This section needs significant improvement. Currently the document does not adequately evaluate the direct, indirect and cumulative impacts of each of the 15 measures identified in Alternative 7. The Tribe recommends that the Corps take each of the 15 measures and evaluate their direct, indirect, and cumulative impacts individually each of the affected environment components. First, the PSMP/DEIS provides little or no evaluation of the impacts of several measures on the affected environment. For example, impacts of raising the levees to manage

8565 General DEIS

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flood risk is not evaluated for aquatic or terrestrial species. Agitation to suspend sediments is not evaluated.

Second, the PSMP/DEIS lumps together installation and maintenance of bendway weirs and dikes, dike fields and in-reservoir trapping systems based on broad assumptions about their impacts and analyzes them collectively, rather than individually. See DEIS at 4-12 (“Because actions associated with structural sediment management measures and some system management measures involve many of the same impacts such as in-water work, use construction equipment, and localized substrate disturbance and increased turbidity, they will be discussed together...”) (emphasis added). Each measure is different and therefore needs to be fully evaluated individually.

Third, in the instances where the Corps does evaluate impacts from a measure or measures, the analysis is inadequate. The Corps, for example, states that “the process for adding in-stream structures (bendway weirs, dike fields, or in reservoir sediment trapping systems) would alter flow patterns, sediment, and adversely affect water quality by increasing stream turbidity.” DEIS at 4-12. These vague statements do not provide the reader with any meaningful sense of the degree to which these measures will affect the environment. How much will water quality be affected? What are the impacts to the environment of altering flow patterns? The result of this piecemeal and cursory evaluation is an inadequate examination of the preferred alternative’s 15 measures and accordingly does not comply with NEPA. NEPA requires the Corps to provide in the PSMP/DEIS a comprehensive and accurate evaluation of the impacts of the project on the environment. This evaluation cannot be deferred to a later date or included in some theoretical site-specific proposal that may or may not occur during the life of the PSMP.

2. Creation of In-Water Habitat for Fish

The PSMP/DEIS states that “[a]n important element of fish use of the Lower Snake Reservoirs is the availability and use of shallow water habitat. DEIS at 3-5. The document also states: “Because shallow water habitat is considered the most productive habitat in aquatic ecosystems in terms of supporting the largest populations and most diverse array of species, the aquatic productivity of the reservoirs could potentially be enhanced by increasing the amount of shallow water habitat.” *Id.* Based on research the Corps has performed within the Lower Snake River, the Corps determined that shallow-water disposal of dredged material has positively created resting and rearing habitat in the Lower Snake River reservoirs for juvenile salmonids, primarily juvenile fall Chinook.

The research the Corps references in support of its conclusion that creating shallow-water habitat benefits natural subyearling fall Chinook does not state whether Clearwater juveniles would benefit. This is an important consideration because the portion of fall Chinook spawning in the Clearwater consistently makes up about 1/3rd of the naturally spawning population of NOAA’s Snake River Fall Chinook Evolutionarily Significant Unit (ESU). The off-spring from naturally spawning fish in the Clearwater emerge from the gravel at a later date than those spawned and incubated in the Snake River (or those released from a hatchery) because the water temperature

8566 Aquatic
resources/T&E
species

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8568 Aquatic resources; threatened and endangered species (aquatic)

is cooler than that in the Snake. Consequently, this emergence timing is an important biological characteristic for a large portion of the ESU.

When the juveniles from the Clearwater begin their outmigration in late June and July, they encounter a thermal block in the Snake River and tend to congregate just upstream of the confluence in the vicinity of the Port of Lewiston. Consequently, any analysis of benefits of the project on fall Chinook juveniles, including the purported benefits of creating shallow water habitat using dredge spoils, must take into consideration the specifics of the outmigration timing and behavior of those fish reared in the Clearwater River. Because of the contribution of the Clearwater River population to the ESU as a whole, this information is important. The Tribe is concerned that juveniles reared in the Clearwater River which emerge at a later date due to the cooler water, enter the warmer Snake River and seek deeper water for rearing and not necessarily the shallow water habitat. Given this difference in behavior it remains unclear whether Clearwater juveniles will derive any significant benefit from the creation of shallow-water habitat from dredge spoils. The Corps should provide additional information or if necessary perform additional studies addressing this important question.

The Corps also needs to provide additional information concerning another impact on juvenile fall Chinook. There is inadequate analysis concerning the impacts of predation on juvenile fall Chinook salmon that may use this new shallow habitat. There is also a lack of information regarding the impacts to sturgeon due to the decrease in mid-depth habitat for sturgeon. The Corps also needs to perform a better analysis of the thermal impacts, including climate change, on aquatic resources caused by the creation of shallow water impacts.

3. Climate Change

The PSMP/DEIS needs to actually analyze the impacts of climate change. The CEQ's draft guidance suggests an environmental impacts statement include an analysis of (1) cumulative emissions over the life of the project; (2) measures to reduce GHG emissions, including consideration of reasonable alternatives; and (3) a discussion of the link between such GHG emissions and climate change.

8570 Air quality; greenhouse gas

Section 3.9 of the PSMP/DEIS provides some discussion of regional climate conditions in the context of air quality. The section states that "[t]he study area is generally rural with relatively few major sources of air pollution emissions." DEIS at 3-88. The document goes on to identify the major GHG gasses in the region and the sources of GHG emissions in the study area. DEIS 3-89 to 91. However, there is no analysis concerning the cumulative emissions over the life of the project, measures to reduce GHG emissions, or a discussion of the link between such GHG emissions and climate change.

Warming of the global climate is unequivocal. Evidence includes increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global mean sea level. ISAB 2007. Eleven of the last twelve years (1995 -2006) rank among the 12 warmest years in the instrumental record of global surface temperature (since 1850). *Id.* The linear warming trend over the last 50 years (0.13 +/- 0.03°C per decade) is nearly twice that for the last 100

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years. *Id.* The total global average temperature increase from 1850 – 1899 to 2001 – 2005 is 0.76 +/- 0.19°C. *Id.*

Climate records show that the Pacific Northwest has warmed about 1.0 °C since 1900, or about 50% more than the global average warming over the same period. *Id.* The warming rate for the Pacific Northwest over the next century is projected to be in the range of 0.1-0.6° C/decade. *Id.* Climate change will result in the following:

- Warmer temperatures will result in more precipitation falling as rain rather than snow
- Snow pack will diminish, and stream flow timing will be altered
- Peak river flows will likely increase
- Water temperatures will continue to rise

8571 Climate change

Id. These changes will have a variety of impacts on aquatic and terrestrial habitats in the Columbia Basin. The Corps needs to identify and evaluate how the projected climate change may affect the project area over the life of the project. Although the Corps did reference climate change in the context of contributing sources of sediment from wildlife, there is no analysis of climate change impacts to Snake River water temperatures. Regional climate models show increasing temperatures in lower and transitional elevation areas such as the proposed project area, and thermal models should be employed to ascertain the cumulative effects of creating a number of shallow water deposition areas. Climate change impacts should also be fully evaluated regarding water quantity and quality, sediment production and deposition, and impacts to ESA-listed species or other aquatic life.

D. Indirect Impacts

Agencies conducting NEPA review must consider the indirect effects of the proposed project. Indirect effects are those effects “caused by the [agency] action [that] are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). Such effects “include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” *Id.*

8572 General DEIS

As a general matter, as mentioned above, there is no Indirect Impacts section in the PSMP/DEIS to refer to. In fact, the Tribe identifies very few instances where indirect impacts are even explicitly identified in the document. Failure to identify and fully evaluate indirect impacts in the EIS violates NEPA. The Corps needs to develop a new section, clearly labeled Indirect Impacts, for each alternative.

1. The Corps needs to analyze the indirect impacts of increased barge traffic facilitated attendant to the project.

Table 4.2 labeled “Reasonably Foreseeable Future Actions” identifies an impact to urban land uses that will “maintain and potentially minimally expand existing urban areas.” DEIS at 4-63. Under the Socioeconomics Section, the document states that “...the Pacific Northwest wheat

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forecast for 2011 is strong and world demand is growing, which is likely to result in substantial cargo volume growth.” DEIS at 3-47. Similarly, under Section 4.5, the document concludes that “[s]ediment and system management measures... would generally have a long-term indirect positive effect on regional economies by providing for continued commercial navigation and movement of commodities, providing options for commodity shippers, and maintaining acceptable levels of flood protection in Lewiston, the result would be positive long-term benefits to the communities protected by the levees.”

8573 General DEIS

Given these pronouncements points to economic growth in the region the project will facilitate, such as “substantial cargo volume growth” and “potentially minimally expand existing urban areas” there is no accompanying identification of the indirect impacts of increased barge or other boat traffic to and from the area. The Corps needs to identify and evaluate this information as an indirect (and possibly cumulative effect) in the document.

One of the likely indirect effects caused increased barge traffic on the Snake River System is the impact to Tribal treaty fish and fishing. Increased barge and other boat traffic can result in increased fish mortality caused by entrainment, wake stranding, and other causes. Regarding treaty fishing, increased barge and boat traffic to and from the Snake River System can interfere with Tribal treaty fishing on the Columbia River. Nez Perce fishers engage in gill-netting on the Columbia mainstem. More boat traffic to and from the Snake River can interfere with the nets or prevent treaty fishers from placing their nets safely on the river.

The Corps also needs to evaluate the socioeconomic impacts of the project on transportation industries that do not rely on the LSRP to move their goods to and from market. Section 3.5.4 acknowledges that “[t]he study area rail system is integrated with and competes with the barge transportation system... particularly with respect to shipments of grain.” Section 3.5.5 states that “...roads and highways have become the primary mode of transport in the region,” noting also that “trucks carry a significant volume of grain to the region.” DEIS at 3-51. Based on this acknowledged relationship, facilitating barge shipments may negatively affect shipments by rail and truck but this impact has not been identified or evaluated at all.

8574 Socioeconomics;
transportation

E. Cumulative Impacts

Cumulative impacts are “the impact[s] on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency... or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.27(b)(7).

As stated above, the Corps needs to identify and fully evaluate the impact of increased barge traffic and commodity shipments on growth-inducing patterns, fish, Tribal treaty fishing and socioeconomics.

The Corps also needs to evaluate the cumulative effects of implementing multiple measures from the “toolbox” over time. Currently the PSMP/DEIS evaluates the measures’ impacts

8575 Cumulative impacts

individually. However, the document acknowledges that a measure *or measures* may be implemented from the toolbox to address an immediate or future need. No analysis has been performed to determine what the incremental effects would be of applying more than one measure simultaneously or close in time.

1. Columbia River Treaty

The Columbia River Treaty is a 1964 agreement between Canada and the United States on the development and operation of dams in the upper Columbia River basin for power and flood control benefits in both countries.

As the Corps is aware, the United States and Canada are reviewing the treaty before the 2014 opportunity for notice for earliest termination. One of the key topics under negotiation concerns the called upon storage operations. Under the current treaty, the U.S. may call upon up to approximately nine million acre feet of flood storage in Canada. Changes to the 2024 treaty, however, may condition calling upon Canadian flood storage space only after effective use of U.S. flood storage capacity. This condition may likely require maintaining storage capacity at Dworshak Dam over other uses such as fish and cultural resources. In an average flow year, for example, Dworshak reservoir volumes would need to be dropped to accommodate for flood control. This drop in volume will likely translate into lower than average flows in the Snake River in April, May and into the summer. As a result, Snake River fall Chinook may have less water available for rearing and outmigration. Less water in the Snake River system, in conjunction with possible continued operation of the reservoir pools at MOP +1 or +2, may negatively affect Snake River juvenile salmon. This and other scenarios relating to changes in the Columbia River Treaty during the life of the project are not identified or evaluated in the PSMP/DEIS and should be fully analyzed.

8576 NEPA; Columbia River Treaty

F. Environmental Justice

A Presidential memorandum accompanying Executive Order 12898 cites the NEPA process as an opportunity for agencies to address the environmental injustice of disproportionate impacts. The CEQ also published guidance for environmental justice analyses to determine any disproportionately high and adverse human health or environmental effects to low-income, minority, and tribal populations. One of these principles is to “recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed action.”

Currently, the Nez Perce Tribe harvests less than one percent of traditional salmon harvest levels. Traditional roots and berries are becoming increasingly rare. The decimation of salmon runs and disappearance of other traditional foods have seriously affected the Tribal economy. Today, Tribal members face a poverty rate of almost 30% and winter unemployment rates of 62%. The draft PSMP/DEIS find that there are not disproportionate impacts of the project on the Tribe or its members. Any impacts on salmon, steelhead, lamprey or other trust resources, will have a disproportionate impact on the Tribe due to their reliance on fish and the importance of fish to

8577 Socioeconomics; environmental justice communities

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Tribal culture, spirituality and economy. Tribal members consume a substantially higher rate of fish than the non-Tribal communities.

G. Socioeconomics

8578 Socioeconomics; environmental justice communities

PSMP/DEIS excludes economic analysis of the impact of the project on the Nez Perce Tribal economy and the health and welfare of its people. The socioeconomic analysis is flawed because it is limited to counties that encompass the project area and does not consider social and economic factors unique to the Tribe and its treaty rights and resources, which extend outside of the county areas analyzed.

8579 Costs and funding

Federal agencies are also required to develop methods to ensure that unquantified and environmental amenities and values will be taken into account in decision-making. 42 U.S.C. § 4332(2) (B). The PSMP/DEIS does not provide a complete or accurate accounting of the costs and benefits of dredging with respect to maintaining the navigation channel at 14 feet by 250, as well as access to port berthing areas. The Corps also does not evaluate the costs of dredging and barging with other transportation such as trucking and rail.

The PSMP DEIS also does not contain any analysis evaluating whether the preferred alternative even makes economic sense at a local or regional scale. The Corps possesses substantial information assessing the economics of river navigation, yet none of this information is provided or evaluated in the context of the project. The preferred alternative may result in greater socioeconomic costs than benefits. The reader does not know the answer to this question because the Corps has failed to address it as a socioeconomic consideration. The available information in the PSMP DEIS suggests that the costs of dredging alone may greatly outweigh any perceived benefits captured through facilitating barge, rather than rail or truck, traffic.

H. Cultural Resources

8581 Cultural resources

The Tribe is deeply concerned about the project's effects on Nez Perce cultural properties. The PSMP/DEIS acknowledges the existence of numerous known archaeological sites within the project area. The Tribe has determined that the Corps' survey work to date does not adequately cover the project area and therefore the agency's conclusions about the nature and extent of possible impacts is based on incomplete information. The Tribe is also concerned that the Corps is speculating about impacts on tribal historic properties without consulting in advance with the Tribe.

SPECIFIC COMMENTS

- Increased predation to Snake River fall Chinook

Draft EIS states that shallow water deposition will provide beneficial habitat for juvenile fall Chinook (Draft EIS at 4-8 and Appendix H at 13) while concurrently referencing increased fish species diversity and abundance at shallow water habitats, including high quantities of smallmouth bass (Draft EIS at 3-2, 3-5, 3-21 and 3-22).

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The 2001 USACE Dredged Material Management Plan for Lower Snake River Reservoirs (<http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA412805>) noted that experimental in-water disposal of dredged material created shallow water habitat in Lower Granite Reservoir that was utilized by subyearling Chinook and *several introduced fishes, considered game fishes* (page K-ES-2). This document states that subyearling fall Chinook survival may be compromised when using shoreline habitat as these areas are shared with a number of predators (page K-6).

A 2010 USFWS Washington state study partially funded by USACE (http://www.fws.gov/wafwo/fisheries/Publications/Pred_tracking_LWSC_final_report_Sept2010.pdf) found that smallmouth bass primarily used 2-4 m deep water but also positively selected 0-2 m depths (page 20) and commonly used open areas with silt and sand/silt substrate (page 27).

8582 Aquatic resources; general aquatic resources

The Draft EIS does not provide analysis of avian predation or increases in piscivorous predation resulting from creating shallow water adjacent immediately upstream of Knoxway Bay, a large backwater which would appear to provide the highest quality largemouth bass and crappie habitat in the reservoir as well as the highest quantity of perching structure for double-crested cormorants

- The use of dredge material to create shallow water habitats may increase the amount of available habitat for juvenile fall Chinook. However, it will decrease the amount of mid-depth habitat used by sturgeon. Further assessment of the availability of mid-depth habitat and sturgeon is necessary.

8583 Aquatic resources; fish

The DEIS at 3-21 notes that white sturgeon densities surveyed near proposed deposition zone were significantly higher than those of other mid and lower reservoir survey locations while acknowledging that shallow water deposition would potentially reduce the amount of mid-water bench habitat used by white sturgeon (page 4-15).

- There are potential concerns regarding elevated summer water temperatures:

The DEIS at 4-35 states that summer water temperatures may increase at shallow water deposition sites but are not anticipated to be significant. The DEIS does not analyze thermal impacts, however, instead providing irrational and flawed justification for anticipated lack of impact (page 4-35).

Conversely, the 2001 USACE Dredged Material Management Plan for Lower Snake River Reservoirs states that creation of shallow water habitat could increase the availability of warmer near-shore waters, potentially resulting in enhanced growth and higher survival for resident game fish and, possibly, subyearling Chinook (page K-17).

More detailed discussion about elevated summer water temperatures is provided in Attachment A.

8584 Water quality, and sediment quality; water quality

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8586 Aquatic resources;
threatened and endangered
species (aquatic)

8585 Dredged
material disposal

- While above listed impacts may be found to be relatively insignificant for the proposed shallow water deposition of a 26 acre area, information (and lack of same) provided for Preferred Alternative options may suggest that dredging be identified for regular implementation. Given that the Corps' 2001 Dredged Material Management Plan proposes six additional LGR disposal sites totaling 1,022 acres, future impacts on salmonid predation, sturgeon habitat and temperature could be highly significant.

- Figure 3-1 describing typical migration timing of anadromous salmonids needs to be revised to cover the complete migration period. Juvenile spring/summer Chinook migration period needs to be extended. Juvenile fall Chinook are migrating/present all year. Coho adult migration can likely be initiated in September not August. Steelhead adults are present all year.

8587 Aquatic resources; threatened and endangered species (aquatic)

- Description of fall Chinook redd distribution on page 3-10 should be revised to acknowledge that 30% of the redds occur in the Clearwater River.

- Coho salmon description on page 3-13 states the 1995 reintroduction was done "in cooperation with USFWS and IDFG". This should be deleted as the effort was a NPT program with actual objection by IDFG.

8588 Aquatic resources; threatened and endangered species (aquatic)

- Juvenile lamprey may be present in dredging areas. Monitoring of dredged materials for juvenile lamprey should be required.

8589 Aquatic
resources; fish

- Regarding other issues related to lamprey:

Regarding sampling for presence/absence of larval Pacific lamprey in the LSRP, the following is stated (Section 3.0, Affected Environment 3.1, Aquatic Resources):

"In response to concerns regarding potential impacts to juvenile Pacific lamprey as part of potential sediment management actions, a minimally obtrusive electroshocking sled with an optical camera was developed in 2011 to survey for presence or absence of juvenile Pacific lamprey. Arntzen et al. (2012) conducted surveys at 24 sample sites within the lower Snake River to determine presence of juvenile Pacific lamprey including locations where sediment accumulation is interfering with commercial navigation (Clarkston Upper and Lower, RM 138), past dredge disposal sites, and reference sites. No lamprey were observed at any of the 24 sample sites during either of the two sample periods in late July and September 2011. It is plausible that juvenile lamprey were present but not observed with this electroshocking sled as it was recently developed for this specific objective and had a limited testing period prior to deployment."

The Tribe's comment is that:

Rather than apply the experimental, untried electro-fishing/optical camera approach, using the method and statistical treatment employed by Jolley et al. (2012), including the

8590 Aquatic
resources; T&E
Species

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Generalized Random Tessellation Stratified (GRTS) sampling approach, would have made more sense. Jolley et al. (2012) was able to confirm that larval Pacific lampreys occupy Bonneville Reservoir, a larger body of water than Lower Granite pool. Therefore, it is an understatement to say that, "It is plausible that juvenile lamprey were present but not observed with this electro-shocking sled as it was recently developed for this specific objective and had a limited testing period prior to deployment." Actually, the results of the survey are meaningless and would errantly be used, even by suggestion, as evidence that larval Pacific lamprey are absent in the LSRP.

The narrative also states:

"However, while juvenile lamprey are often found in silt/sand substrate (Arntzen et al 2012), it is unlikely that juveniles are present in moderate or high numbers within the reservoirs of the lower Snake River due to a paucity of available rearing habitat and relatively low expected abundance of juveniles. Juvenile lamprey typically have a patchy distribution related to other environmental variables such as water depth and velocity, light level, organic content, chlorophyll concentration, proximity to spawning area and riparian canopy (Moser et al. 2007).

The Tribe's comments are:

Jolley et al. (2012) offered that the reservoirs created by many dams on the Columbia River may create habitats (e.g., relatively slower velocity, increased sediment deposition) that did not exist prior to dam construction or were likely less abundant. Larval lamprey may use these areas at a disproportionately higher rate than they did prior to dam construction. A plausible hypothesis was posed that detection rates of larval lamprey would increase in the mainstem Columbia River below rivers known to produce larvae, as the mainstem accumulates larvae from the tributaries. Further, the Clearwater River is a known producer of Pacific lamprey larvae and macrophthemia. Annual releases of adult Pacific lamprey have occurred since 2007 in several major Clearwater tributaries as part of the Nez Perce Tribe translocation initiative (Ward et al. 2012). Ward et al. (2012) concludes that results suggest that translocation of adult Pacific lamprey have resulted in increased spawning in recipient subbasins, as evidenced by increases in number and distribution of ammocoetes from preprogram conditions. Maintenance dredging areas are in close proximity to the mouth of the Clearwater River, and consistent with the Jolley et al. (2012) hypothesis, the likelihood of larvae presence and detection rates (using suitable methods) in this area should be relatively high.

The Tribe's suggestion is that, based on the above comments, the narrative and assessment of potential impacts to Pacific lamprey need to be redrafted accordingly.

- "Over the long-term, the Corps would monitor sediment in the LSRP. When conditions meet criteria for action, the Corps would initiate review of site-specific conditions....." pg ES-11. In the staff-to-staff meeting, Corps staff informed us their own internal triggers had been met

8591 Dredging

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that dredging alone was not the answer to the sediment issues, yet the EIS only looks at dredging.

8592 Hydrology and sediment; watershed sediment production

- Sediment input is suggested to be at the highest since 1970. ACOE staff suggests long bankfull events route more sediment than short peak flood events. ACOE ran model simulations of 50 years and suggest the bed level would vary from 1 ft to over 15 ft. Yet in staff to staff when asked if the cross-section data showed the river had reached equilibrium they felt it had reached this point. So is the section at equilibrium or will it continue to fill in?

- Cumulative Effects (pg. 4-66). The Corps will continue to dredge but never address where future dredging spoils will be placed and potential impacts.

8593 Dredged material disposal

- The Tribe's ultimate goal is to have the lower Snake dams breached. As such, deposition of dredged materials should be done in manner that will preclude their downstream transport under natural river conditions (either remove from river or placed in stream well outside of historical river channel).

8594 Dam removal

- 1) Section 3.4.1 – “Archaeological resources, historic buildings and structures, and traditional cultural properties that have been evaluated on the basis of specific criteria and *found eligible for the National Register of Historic Places are referred to as historic properties.*”

Is this list comprehensive? The term “historic properties” does not apply only to evaluated resources.

8495 Cultural resources

- 2) 3.4.1.1 – are the lists of archaeological resources meant to be definitive? In the discussion of historic resources, ACEWW must acknowledge that Tribal resources may also be historic (i.e., post-contact).

8596 Cultural resources

- 3) 3.4.1.2 – The section heading and subsequent repeated phrase “historic property of religious and cultural significance” is incorrect. The language in NHPA is “historic property of cultural and religious significance TO INDIAN TRIBES.” The document appears to combine HPCRSIT and traditional cultural properties (TCP), which are defined in National Register Bulletin 38. These are related but separate classifications, and the document uses the definition of TCP to discuss HPCRSITs. ACEWW needs to add a section for TCPs.

Remove the word “aboveground” from the definition for historic buildings and structures.

This section implies that historic themes define which resources are valid. Whose themes? Is there a list? Is the list static? Themes are important, but not all NR eligible resources may fit into existing themes.

8597 Cultural resources

- 4) 3.4.2 – p 3-36, paragraph 2 – “The Confederated Tribes of the Yakama Reservation, Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Colville

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8598
Cultural
resources

Nation, the Nez Perce Tribe, and the Wanapum Band have interests in *traditional resources* in this area.”

Define this term, as I’m not sure what it means. Are these treaty resources, TCPs, HPCRSITs, etc.?

8599
Cultural
resources

p 3-36, paragraph 5 – “The Lower Snake area contains the type sites for phases identified as a foundation of the cultural chronology: Windust Cave, the Tucannon site, and the Harder site. The earliest dates in the region come from *Marmes Rock shelter and the Granite Point (10,000-9,000 years ago), Windust Cave (before 5,000 years ago), and Ash and Burr Caves (8,000 years ago).*”

These are not the oldest sites in the region. Hatwai and Lower Salmon River sites are older, and well known.

8600
Cultural
resources

p 3-37, paragraph 1 – “In 1948 the Columbia Basin Project of the River Basin Surveys conducted an intensive reconnaissance of Ice Harbor, Lower Monumental, and Lower Granite Reservoirs as well as the Hells Canyon Dam area.”

This survey took 2 weeks for over 100 miles of river shoreline. This was not an “intensive survey” by contemporary standards, and the results of the survey should not be regarded as authoritative or conclusive.

8601
Cultural
resources

p 3-37, paragraph 2 – “Salvage excavations were undertaken at a number of places along the Snake River and on major tributaries, including the Palouse River and Alpowa Creek. *Most of the data was never formally reported and many of the assemblages were not analyzed.*”

This is true, so it is difficult to use the excavation results as baseline data, or draw many conclusions about the archaeological record or Columbia Plateau cultures and/or cultural change from the excavation data.

8602
Cultural
resources

p 3-37, paragraph 7 – “Most areas with high potential for cultural resources in the lower Snake River portion of the study area were inundated by reservoirs associated with the four dam projects on the Lower Snake. Cultural resource sites in these areas may contain both prehistoric and historic period components. The areas with high potential for cultural resources include mesa tops and overhangs, talus slopes, confluences, tributary streams, springs, terraces, alluvial fans, flood channels, and channel bars.”

This is an accurate statement, but it is unclear what its relevance is to the PSMP or discussion of its effects on cultural resources.

p 3-39, paragraphs 3 and 4 – “Ninety-three archaeological sites have been identified within the *Little Goose study area. Two sites have been recommended potentially eligible for the NRHP and reevaluation of other sites is being initiated.*”

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AA total of 159 archaeological sites have been identified within the **Lower Granite study area**. Seventy-six of these are inundated. **Three sites have been determined eligible for NRHP listing and two have been recommended potentially eligible.**”

8604
Cultural
resources

- 5) 4.4.1 – “Historic buildings, including the dams, would not be affected by maintaining pool levels at the navigation objective.”

Maintaining pool levels might not cause *further impacts*, but will not undo the existing impacts of the project.

- 6) 4.4.2.1
p 4-27, paragraph 3 - “Dredging and the disposal of dredged material also have the potential to disturb values associated with historic properties of religious and cultural significance to Indian tribes. The **Corps recognizes a number of these types of sites, many of which were inundated when the reservoirs associated with the LSRP were filled.**”

8605
Cultural
resources

What site type does the Corps recognize? Are there site types that the Corps does not recognize?

8606
Cultural
resources

p 4-27, paragraph 4 - “One other aspect of dredging that has the potential to affect historic properties is the disturbance of secondary deposits of archaeological material that may occur within sediments identified for dredging; including, potentially, human remains. Although the secondary deposition of the archaeological material likely means it retains no archaeological value, it may have traditional religious and cultural significance, especially in the case of human remains. **For this reason, in-water disposal of dredged material is preferred as it ensures that the material remains in the river, in a secondary depositional environment.** However, in shallow areas where dredged material may be placed for beneficial use, material placement and contouring and anchor lines also have the potential to disturb or bury inundated sites.”

The Corps cannot say this without consultation with the Tribe. At this time, this is the opinion of the contractor and maybe the Corps.

8607
Cultural
resources

p 4-28, paragraph 1 – “Placement of fill has the potential to bury archaeological sites. This may entail some beneficial protection; however, the chemical effect of burying sites is not well understood. **Reuse of fill in conjunction with habitat enhancement may have beneficial effects for historic properties of religious and cultural significance to Indian Tribes.**”

The Corps should not say this without consultation with all the Tribes with interest in the Lower Snake River. At this time, this is the OPINION of the contractor and maybe the Corps.

- 7) 4.4.2.2 – p. 4-28, paragraph 5 – **“some dredging would be done in close proximity to archaeological sites, but should not directly impact any of them.”**

8608
Cultural
resources

How can the Corps guarantee this?

p 4-28, paragraph 6 – **“In Idaho, two locations would be dredged. Each location has a portion of an archaeological site included within the study area but, again, it is not anticipated that dredging activity would impact cultural properties because both locations have been previously dredged several times to the same depths proposed for the near-term maintenance dredging actions.”**

Is the Corps asserting that existing impacts result in no effect to historic properties?

- 8) 4.11.2.1 – p 58, paragraph 1 – **“Dam building on the Snake River system has resulted today in 17 dams on the mainstem of the Snake River and more than 20 dams on tributaries, though most are outside the cumulative effects area (USACE 2005).”**

8609
Cumulative
Effects

What is the area of cumulative effects? How did the Corps determine this area? Was it done in consultation with the Tribes? FCRPS does NOT have an agency approved APE for either direct or indirect effects.

Thank you again for the opportunity to provide comments on the PSMP/DEIS. The Tribe looks forward to government-to-government consultation with the Corps on this matter prior to a final decision so that the Tribe’s issues and concerns can be fully explored between our governments. If you have any questions, please contact Michael Lopez, Staff Attorney, Nez Perce Tribe Office of Legal Counsel at (208) 843-7355.

Sincerely,



Silas C. Whitman
Chairman

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Attachment A

Concerns regarding elevated summer water temperatures

Draft EIS claims that dredging activities are not likely to impact water temperature but, in lieu of analysis, provides flawed and obfuscating justification.

Draft EIS Appendix G at 5, *“The following is a summary of the participants’ identified issues and comments...There are concerns about the possible relationship between dredged sediment deposition in the Lower Snake River and habitat/fisheries impacts in the shallow water areas, including water temperature increases.”*

Draft EIS at 4-5, *“Dredging and dredged material placement would not cause effects on water temperature or dissolved oxygen because activity would typically take place in cold weather during the in-water work window.”*

Draft EIS at 4-35, *“Dredging is not anticipated to affect water temperatures. However, water temperatures at in-river placement sites may slightly increase from current conditions in the summer. Water overlying the shallow habitat would likely exceed 68°F (20°C) during summer days, but may also cool off more at night relative to the open-water. Predicting the thermal effects of these opposing actions in the long term is hampered by uncertainty related to issues of vegetation that could become established nearby and create shading, global warming, and runoff volume. However, considering the small incremental change in volume of shallow water, greater cooling of shallow water at night, effects of wind and wave action on mixing near shore, and advection of water through these areas, the overall changes to the thermal budget of the reservoir are not anticipated to be significant.”*

...Water overlying the shallow habitat would likely exceed 68°F (20°C) during summer days, but may also cool off more at night relative to the open-water. Predicting the thermal effects of these opposing actions in the long term ...

A number of thermal models are available to predict diurnal effects on water temperature. In general, daytime water temperatures are influenced by absorption of both long and short wave radiation throughout the upper water column and substrate (when water is shallow and clear enough) while nighttime effects are primarily influenced by long wave radiative transfer at the air-water interface. As seasonal shifts in solar insolation produce greater heating effects in summer than winter, decreased depths in streams and rivers generally result in higher summer water temperature and lower over-wintering temperatures; diurnal effects do not typically ‘equalize’ or ‘cancel out’ thermal impacts within summer or winter.

...is hampered by uncertainty related to issues of vegetation that could become established nearby and create shading... Riparian shading of the deposition zone is a non-factor due to, among other things, 10 to 20’ basalt escarpments which comprise the majority of bank adjacent the proposed deposition zone. Draft EIS at 3-23, *“The study area passes through steppe and shrub-steppe plant communities (Franklin and Dyrness 1973; Daubenmire and Daubenmire 1984).”* and *“A number of factors contribute to the lack of extensive riparian areas along the*

lower Snake River (Corps 1992, 2002a). The steep shorelines associated with project reservoirs are primarily responsible for limiting development of riparian communities in the study area. Furthermore, extensive grazing (Lewke and Buss 1977), the expansion of railroads, arid climate, and the inundation of the low-lying flood plain by dams have limited riparian vegetation to narrow vegetation corridors and backwater areas.”

Overview of proposed deposition zone



Shoreline along proposed deposition zone



U.S. Army Corps of Engineers, Walla Walla District
March 26, 2013
Page 26

...global warming... Draft EIS at 3.9 states *“The study area for the discussion related to climate change and GHG is considered to be the entire planet as climate change issues are global in nature...”* Large-scale models for the Pacific Northwest predict that global warming will increase summer air temperatures and exacerbate thermal issues extant within Lower Granite Reservoir.

...and runoff volume. Does USACE suggest that, contrary to climate change modeling, summer runoff volume may increase and minimize thermal impacts? Flow augmentation is addressed within EPA’s Temperature Simulation of the Snake River Above Lower Granite Dam Using Transect Measurements and the CE-QUAL-W2 Model, *“During flow augmentation, measurements and simulations indicate that a stable surface layer sets up beginning at approximately River Mile 125 to 135 and extends to [sic] downstream to the dam at River Mile 107. Flow augmentation appears to have little effect on temperatures within this surface layer; in fact, augmentation may cause temperature increases at the surface.”*

...effects of wind and wave action on mixing near shore... Data provided through EPA’s Temperature Simulation of the Snake River Above Lower Granite Dam Using Transect Measurements and the CE-QUAL-W2 Model, along with simulations developed through a thermal model developed by the USACE, reported that summer water temperatures four miles above the action area (RM 120) remained relatively consistent to a depth of at least 30 feet. As such, wind on wave mixing actions may increase summer water temperatures through increased exposure to hot wind/air, but cooler hypolimnion (deep-water) layers will not be accessed.

...and advection of water through these areas... Advection (and, through diffusion, convection) will serve to distribute waters warmed in shallow habitat throughout the lower reservoir, but it will not prevent water temperatures from increasing within the deposition zone.

Draft EIS at 4-17, *“However, depending on the timing of the drawdown, it is possible that flow reductions during refill following drawdown could result in slightly decreased juvenile Snake River fall Chinook survival due to water temperature increases. Recent research has shown that the proclivity of juvenile Snake River fall Chinook to continue migrating as subyearlings diminishes during July (Cook et al. 2007). Through the summer an increasing fraction of Snake River fall Chinook entering Lower Granite Reservoir remain in the reservoir and migrate during the following year as yearlings. Thus, higher water temperatures in summer (which negatively affects the survival of both migrating and resident salmonids) become increasingly important...”*

From: [Kristin Meira](#)
To: [PSMP](#)
Subject: PNWA comment on PSMP
Date: Tuesday, March 26, 2013 11:24:39 AM
Attachments: [20130325_PNWA_comment_on_PSMP.pdf](#)

0092_PNWA

Attached please find PNWA's comment letter for the PSMP.

Thank you,

Kristin Meira
Executive Director
Pacific Northwest Waterways Association (PNWA)
503-234-8556 direct // 503-757-8716 mobile
www.pnwa.net



March 25, 2013

VIA ELECTRONIC AND FIRST CLASS MAIL

U.S. Army Corps of Engineers
Walla Wall District, PSMP/EIS
Attention: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Ave.
Walla Walla, Washington 99362-1876

Re: Draft PSMP and DEIS

Dear Ms. Shelin:

I. INTRODUCTION

The Pacific Northwest Waterways Association (“PNWA”) appreciates the opportunity to submit comments on the Corps’ Draft Programmatic Sediment Management Plan and corresponding Draft Environmental Impact Statement (“DEIS”). PNWA appreciates the hard work and expenditure of limited resources that obviously went into preparing these documents and commends the Corps for producing a long-term sediment management plan that will benefit the region for years to come.

A. PNWA

PNWA is regional trade association comprised of approximately 130 members, including public and private ports, forest products, transportation, navigation, trade, tourism, agricultural and energy related businesses, including but not limited to tug and barge companies, steamship and grain elevator operators, public agencies, and individuals who share a common interest in promoting trade and economic development through support of navigational interests in the Pacific Northwest. For over 75 years, PNWA has been a leader in establishing policy, in maintaining navigational access, and in promoting advocacy for the Northwest navigation community. PNWA has actively engaged in issues central to transportation, trade, tourism, energy and environmental policy in efforts to enhance economic and environmental sustainability in the Pacific Northwest. Since its founding in 1934, PNWA led the way for development of economic infrastructure for navigation, electric power and irrigated agriculture on the Columbia and Snake River System.

PNWA has taken an active interest in the development of the PSMP and corresponding DEIS. PNWA was a party to the litigation that led to a 2005 Agreement by the Corps to prepare a long term sediment management plan and an accompanying environmental analysis under the National Environmental Policy Act (“NEPA”). PNWA participated in the negotiation of that Agreement (attached hereto as Ex. 1 to these comments), and has been extensively involved in ensuring safe access to the Federal navigational channel in the Lower Snake River project area located at the Confluence of the Snake and Clearwater Rivers in southeastern Washington and north central Idaho.

B. The Columbia Snake River System

The Columbia Snake River System is a 470 mile vital transportation link for the states of Idaho, Montana, Oregon and Washington, each of which relies heavily on the trade and commerce that flows on this system. The Columbia/Snake River System benefits the region,

local communities and the nation-at-large. It is the most important U.S. export gateway for wheat and barley, the lead West Coast exporter of wood products and mineral bulks, and third largest grain export gateway in the world. Barging on the inland Columbia Snake River System moves 10 million tons of cargo valued at \$3 billion annually.

The river system also provides the safest, least polluting, and most economical mode of transportation. Barging carries more cargo and utilizes less energy than trucking and rail combined. A typical 4-barge tow carries as much as 538 trucks. Each year, barging keeps 700,000 trucks off the highways that traverse the Columbia River Gorge. The lower Snake River area supports multiple ports. These ports move commerce in and out of the Pacific Northwest and play a vital role in their local communities through job creation, revenue generation, and property taxes. Most of the region's ports have the capacity to expand and are actively cultivating new business.

The federal government has made a significant investment in the future of the Columbia Snake River System. The U.S. Army Corps of Engineers completed a 15-week extended lock maintenance closure during the winter of 2010/2011. Locks at The Dalles, John Day and Lower Monumental received new downstream gates, signifying a major commitment by Congress and the Administration in the future of the entire river system, including the Lower Snake.

C. Maintenance Dredging on the Columbia Snake River System

8610 General
project support

The Corps operates and maintains the navigation system on the lower Snake River, from Lewiston, Idaho to the Pacific Ocean. The four dams constructed by the Corps on this navigation system that are located on the Snake River are referred to as the Corps' Lower Snake River Projects. The four Snake River hydropower projects (Little Goose, Ice Harbor, Lower Granite, and Lower Monumental Dams) and the navigation channel on which they are located, are severely affected by sediment accumulation that impedes navigation and access to critical port berthing areas. PNWA strongly supports the Corps' decision to commence maintenance dredging at the earliest possible opportunity to re-establish the navigational channel at authorized dimensions, which will ensure that navigation continues in an unimpeded and safe manner.

Maintenance dredging has not occurred on the Lower Snake River since 2006. Since that time, shoaling has become a serious problem at the Lower Snake River projects and at the local ports that operate in that area. Shoaling has caused the Corps to operate the Lower Granite Project 1 to 2 feet above Minimum Operating Pool since 2010 and has reduced the depth of the navigation channel to 7 feet in some areas, creating access problems at public ports and safety issues in the channel at the Ice Harbor navigation lock.

Sediment buildup has negatively impacted PNWA members who rely on a 14 foot navigation channel to efficiently and economically barge goods from the Inland Empire to the Pacific Ocean and then to the Far East. In addition, accumulated sediment has also caused the Corps to compromise its Endangered Species Act obligations to maintain the channel at MOP by balancing those obligations against its requirement to ensure unimpeded and safe navigation on the channel. For these reasons, PNWA is encouraged that the Corps has fulfilled its Settlement Agreement commitments by producing a long term programmatic sediment management plan that includes a decision to perform badly needed maintenance dredging during the first available fish window in the winter of 2013-2014.

II. PNWA SUPPORTS THE DRAFT PSMP

We strongly support the Corps' reading of the authorizing statutes including the Flood Control Act of 1962 and the Water Resources Development Act to authorize the Corps to maintain

8612 Management measures

the channel to its Congressionally authorized dimensions at a depth of 14 feet to support year-round navigation. However, while supporting the broad-based suite of options the Corps has chosen to avail itself of to address accumulating sediment, PNWA has deep reservations about several of the options the Corps is considering.

8611 Non-Corps managed facilities

Specifically, PNWA is concerned that facility reconfiguration and relocation is opaquely described and could lead to prohibitively expensive and impracticable solutions that could greatly burden local communities. PNWA urges the Corps to provide more detail on when and how it would ever consider resorting to this option in lieu of more readily available and pragmatic options such as maintenance dredging during the approved in-water work window.

Similarly, PNWA is equally concerned about the prospect of drawdown as an option to deal with sediment accumulation. As the 1992 drawdown of the Lower Granite pool demonstrated, a great deal of environmental harm resulted from that drawdown, including the killing of thousands of stranded fish. In addition to the environmental devastation caused by the drawdown, severe economic damage also resulted. The 1992 test drawdown rendered the Clarkston Grain terminal useless, impeded barge traffic, obstructed access at the Ports of Lewiston and Wilma, eliminated access at the Port of Clarkston's tour boat dock, and ruined the Red Wolf Marina, which later went bankrupt as a result. The Corps should resort to options this severe as a last resort, only if dredging and sediment management options are entirely unavailable.

Finally, PNWA is encouraged that the Corps decided not to include Snake River dam removal among the list of alternatives it selected for consideration in the long term sediment management plan. The impact of this last-resort option to the region's economy and livelihood would be drastic and would dwarf any purported benefits to fish. The Corps was right not to consider dam removal as an alternative because of its drastic economic effects on the Pacific Northwest and because it would not facilitate the twin purposes and need of the proposed project – *i.e.*, to reestablish the navigation channel to its Congressionally authorized dimensions while providing a long term plan to manage and prevent the accumulation of sediment that interferes with authorized project purposes.

III. THE DEIS**A. The Corps should clarify how it plans to treat future maintenance dredging**

Dredging is carried out in federal navigation channels around the country virtually every day of the year. In fact, there are very few navigation channels that do not require periodic dredging – it is part of the routine maintenance for this particular kind of federal transportation infrastructure.

8613 PSMP

Periodic dredging to maintain the deep-draft and inland Columbia Snake River System navigation channels is now and will continue to be absolutely necessary. To date, the threat of litigation has prevented dredging from occurring on the Lower Snake since it was last performed in the winter of 2005-2006, despite the increasing accumulation of sediment. This constant litigation threat has led the Corps to go to great lengths to issue a robust, thorough and well substantiated Draft Environmental Impact Statement that has taken many years to produce. Navigation should not be held hostage to the constant threat of cyclical litigation over the Corps' NEPA and Endangered Species Act ("ESA") obligations.

The DEIS is vague on what level of analysis, if any, might be required for future maintenance dredging. We understand that the Corps views the PSMP EIS as programmatic in nature, but we believe it is important for the Corps to clarify exactly what future NEPA analysis, if any, would be required for future maintenance dredging. It would seem appropriate for the Corps to be able to tier-off the EIS developed for the PSMP to address any new significant

environmental effects that might result from future dredging operations *without* reinventing the costly, in-depth analysis supporting the 2013-14 short term maintenance dredging proposal.

8614 General project support

The Final EIS should make clear that the Corps intends to use this EIS as the basis for future maintenance dredging and will *not reinvent* the wheel for future maintenance dredging proposals. Instead, NEPA requires the Corps to address any new and significant impacts resulting from any future dredging, disposal, and/or beneficial re-use proposals or other new developments resulting in significant impacts that were not previously analyzed in this EIS. The Corps should make this understanding explicit in the Final EIS.

B. PNWA Endorses the Corps' Selection of Alternative 7

PNWA endorses the Corps' selection of Alternative 7 with the caveats described above. This option provides the Corps with the broadest suite of tools to address sediment accumulation, in addition to dredging. PNWA also supports the screening out of non-dredging and other alternatives that were determined not to accomplish the project's purpose and need, including options to maintain the navigation channel at less than its authorized dimensions.

C. The No Action Alternative Is Not A Feasible Long-Term Alternative

Given the immediate need to dredge, selection of the "No Action" alternative is not viable either in the short or long-term. The Corps cannot continue to compromise its ESA obligations to support fish migration by operating at minimum operating pool (MOP) by having to raise the operating pools in the federal projects because of on-going shoaling in these areas. Dredging is immediately necessary in the proposed locations for the reasons stated in the DEIS and PSMP.

8615 NEPA; no action alternative

IV. CONCLUSION

Dredging is immediately necessary and simply cannot wait another season. PNWA encourages the Corps to expeditiously complete the PSMP and to issue the Final EIS and supporting Record of Decision, together with all other necessary environmental analyses to ensure that dredging occurs in the next fish window. The Corps has gone to great lengths to substantiate the need and to plan for the upcoming maintenance dredging as evidenced by the many hundreds of pages of environmental, economic, and legal analyses contained in these documents. The Corps should be commended for its hard work and PNWA looks forward to continuing to support these critical regional efforts.

Sincerely,



Kristin Meira, PNWA Executive Director

cc: Inland Ports & Navigation Group
PNWA Board of Directors



PNWA Membership Roster

AECOM
Advanced American Construction
Allan Rumbaugh
Alaska Assoc. of Port Managers & Harbormasters
Ball Janik LLP
Bell Buoy Crab Co.
Benton County PUD #1
BergerABAM Engineers, Inc.
Bergerson Construction
Bernert Barge Lines
BST Associates
Business Oregon-Infrastructure Finance Authority
Central Oregon Basalt Products, Inc.
Central Washington Grain Growers
Clark Public Utilities
Clearwater Paper
Columbia Basin Development League
Columbia Grain
Columbia River Bar Pilots
Columbia River Pilots
Columbia River Steamship Operators Association
Cooperative Agricultural Producers
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Franklin PUD
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Manson Construction
Marine Industrial Construction
Maul Foster & Alongi, Inc.
McGregor Company
McMillan
Millennium Bulk Terminals
Moffatt & Nichol
Morrow Pacific
Normandeau and Associates
Northwest Grain Growers, Inc.
Northwest Public Power Association
Oregon Int'l Port of Coos Bay
OR Public Ports Association
OR Wheat Growers League
Pacific Northwest Farmers Cooperative
Parametrix
Parsons Brinckerhoff
PBS Engineering & Environmental
PND Engineers, Inc.
PNGC Power
Pomeroy Grain Growers
Port of Anacortes
Port of Astoria
Port of Bandon
Port of Benton
Port of Camas-Washougal
Port of Cascade Locks
Port of Chelan County
Port of Chinook
Port of Clarkston
Port of Columbia County
Port of Garibaldi
Port of Grays Harbor
Port of Hood River
Port of Humboldt Bay
Port of Ilwaco
Port of Kalama
Port of Klickitat
Port of Lewiston
Port of Longview
Port of Mattawa
Port of Morrow
Port of Newport
Port of Pasco
Port of Port Angeles
Port of Portland
Port of Ridgefield
Port of Royal Slope
Port of Seattle
Port of Siuslaw
Port of Skagit
Port of St. Helens
Port of Sunnyside
Port of Tacoma
Port of Toledo
Port of Umatilla
Port of Umpqua
Port of Vancouver
Port of Walla Walla
Port of Whitman County
Port of Woodland
Puget Sound Pilots
Schnitzer Steel
Schwabe, Williamson & Wyatt
SDS Tug & Barge
Seattle Public Utilities
Shaver Transportation Company
Stoel Rives LLP
Strategies 360
Tangent Services, Inc.
Teevin Brothers
TEMCO, LLC
Tidewater Barge Lines
Ukiah Engineering, Inc.
United Grain
USA Dry Pea & Lentil Council
WA Association of Wheat Growers
WA Council on International Trade
WA Public Ports Association
WA State Potato Commission
WA Grain Commission
Westwood Shipping
Weyerhaeuser Company
Whole Brain Creative, Inc.
Wildlands, Inc.

From: [Bob Cox](#)
To: [PSMP](#)
Date: Monday, March 25, 2013 12:14:06 PM
Attachments: [Scanned-image-27.pdf](#)

0093_PomeroyGrainGrowers

Dear Army Corp of Engineers,

I would like to submit the attached letter commenting on the immediate need navigation dredging.
Thank you.

Robert D. Cox

General Manager

Pomeroy Grain Growers

March 20th, 2013

US Army Corps of Engineers

Walla Walla District, PSMP/EIS

Attention: Sandy Shelin, CENWW-PM-PD-EC

201 North Third Avenue

Walla Walla, WA 99362 1876

Dear US Army Corp of Engineers,

8616 General
project support

My name is Bob Cox, General Manager of the Pomeroy Grain Growers (PGG). I am writing in favor of the Snake River channel maintenance. PGG is a grain cooperative and we have over 700 members, who are farmers who truck their grain to us, mostly soft white wheat, and we in turn barge 95% of the grain we handle to Portland, Vancouver, Kalama, and Longview.

Our cooperative was formed in 1930, but it was 1970 when the pool of Little Goose Dam provided us with an opportunity to build a grain river terminal at Central Ferry. We ship 80 barges a year from our Central Ferry facility, which is 350,000 tons of wheat. The river is our only option of transportation of our grain. There is no rail service to Garfield County, and there are no rail loading/unloading facilities south of the Snake River where we are located. Without channel maintenance, our growers would be out of business because the river provides us the opportunity to compete in a very tight international market.

8617 Non-Corps managed facilities

PGG supports the comments made by PNWA. We load Magnum barges provided by the Shaver Transportation Company. We load 4200 tons per barge, and the loaded barges have a 14 foot draft. The channel maintenance is extremely important to us with these high capacity barges. We know sediment does build at different points on the Snake River and whether it is Lewiston or around one of the Snake River dam locks, it is extremely important to PGG to keep our federal channels in good condition.

I was at a PSMP meeting in Lewiston earlier this year and I heard many comments about relocating facilities to different areas where the dredging wasn't necessary. Being involved with the river system and higher construction costs; I know this is not a viable option. I have been working with the Port of Whitman County at Central Ferry, and I know the permitting of construction on or by the Snake River can take 5 years to complete. New construction expense for grain facilities is \$8 to \$10 a bushel now. No grain business can absorb the cost or the wait of relocating their business.

Finally, I really don't understand why we need to go through this process each time we dredge. Channel maintenance is an ongoing process and always will be. The Environmental Impact Statement (EIS) should be the final document that we use now and for future dredging. We are all stewards of the land, air, water, and animals that have been provided for us to use, whether it is for business or recreation. None of us want to exploit any of the natural resources that we are trusted with. We can use these gifts to our benefit and preserve them for our grandchildren too.

8618 NEPA/Programmatic
Approach

Sincerely,



Robert D. Cox

Pomeroy Grain Growers

General Manager

From: [Wanda Keefer](#)
To: [PSMP](#)
Subject: Port of Clarkston's Comments on PSMP/DEIS
Date: Monday, March 25, 2013 11:20:29 AM
Attachments: [Port comments on PSMP and DEIS.pdf](#)
[20130325 PNWA comment on PSMP.pdf](#)

0094_PortOfClarkston

The Port of Clarkston formally offers the attached comments on the PSMP/DEIS. Thank you for giving us the opportunity to comment.

Wanda Keefer
Manager, Port of Clarkston
509-758-5272



849 Port Way
Clarkston WA 99403
Phone: (509) 758-5272
Fax: (509) 758-1746
Email: Portofclk@clarkston.com
Web: www.portofclarkston.com

March 25, 2013

VIA ELECTRONIC (psmp@usace.army.mil) AND FIRST CLASS MAIL

U.S. Army Corps of Engineers
Walla Wall District, PSMP/EIS
Attention: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Ave.
Walla Walla, Washington 99362-1876

Re: Draft PSMP and DEIS

Dear Ms. Shelin,

The Port of Clarkston appreciates the opportunity to submit comments on the U.S. Army Corps of Engineers (USACE) Draft Programmatic Sediment Management Plan (PSMP) and corresponding Draft Environmental Impact Statement (“DEIS”). We are aware that the Pacific Northwest Waterways Association (“PNWA”), likewise, has filed comments, and we append our comments thereto, by including a copy of PNWA’s response with these comments.

We support navigation to the inland seaports on the Snake/Columbia River system. We know that a properly functioning river deposits sediment during the spring run-off and/or summer storm cells within the watersheds (natural events). Having the ability to remove the build-up of sediment in areas that could, in the future, affect infrastructure or human life is warranted.

8619 General project support

Maintenance dredging of the navigation channel has not occurred since 2006. The Port of Clarkston is experiencing shallow draft, negatively impacting freight moving operations. In recent years, USACE has kept the depths above minimum operating pool (MOP). On December 4, 2012, when the water level was three feet higher than MOP—to adjust for a no-dredge environment and natural sedimentation build-up—a loaded barge got stuck in the navigation channel parallel to our shoreline.

The Port strongly supports USACE’s decision to commence maintenance dredging at the earliest possible opportunity to re-establish the navigational channel at authorized dimensions. Freight movement can then continue unimpeded and safely.

We appreciate the comprehensive examination undertaken by USACE to examine depositional areas under the PSMP and formulate long term solutions so that navigation from our valley to the Pacific Ocean and beyond can continue effectively and efficiently.

The outcomes of the PSMP/EIS have significant impacts to the environment and economy of Lewis-Clark Valley, of which Asotin County is a part. (The Port of Clarkston’s jurisdiction is all of Asotin County.) We do not have rail, so the options for our farmers are river transportation or trucking to move their products to market (which can be anywhere in the world). Asotin County primarily produces grain crops (such as wheat and barley). The Lewis-Clark Terminal, located on land owned

8620
Socioeconomics;
transportation

8621 Alternatives

8622 Management measures

by the Port, ships to the marketplace most of the grain produced in Asotin County via barging. Farmers have relied on this affordable, efficient method of transportation since the 1970s. To perform regular channel maintenance of the river system is similar to chip-sealing a highway. It is important to make regular, strategic investments to keep the system in working condition.

We believe that USACE has properly identified a range of alternatives and assigned the right priority to navigation solutions that allow for continued barging, as well as providing for safety (flood control) for the Clarkston/Lewiston valley. We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft PSMP/EIS. The Columbia/Snake River System is critical to transportation movement in north central Idaho and south east Washington. We believe that it is imperative that USACE maintain the Congressionally authorized 14-ft. navigation channel.

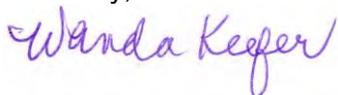
While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to the implementation of the following measures:

- **Modify flows to flush sediments (drawdown):** USACE conducted an operational/structural drawdown of the Snake River in 1992. This experimental drawdown was a disaster to our local economy and environment. Further, drawdown in our valley resulted in undesirable environmental releases from the old landfill on the north side of the river within the Clarkston city limits. Downriver Road on the north side of the Snake River (partially in Whitman County, WA and partially in Nez Perce County, ID) suffered damage as a result of the water being no longer there to support the roadway. The implications of this potential solution are more significant than is immediately evident on the surface.
- **Reconfiguring/relocate affected facilities:** It simply is not feasible to relocate the local marinas, or the Ports of Clarkston, Lewiston and Wilma. Millions of private and public dollars have been invested in marine facilities. Sediment control through periodic dredging is clearly more cost effective than relocating established ports and marinas.
- **Raise Lewiston levees to manage flood risk:** Raising the levee system in Lewiston would simply prohibit public access to the Snake and Clearwater Rivers by erecting barriers without addressing sediment accumulation.

Lastly, we very much concur with PNWA's comments regarding tiering off the EIS developed for the PSMP to address only new significant environmental changes for subsequent dredging, so that the costly in-depth analysis that has not changed is not reinvented every time.

Thank you for giving us the opportunity to comment on this issue.

Sincerely,



Wanda Keefer
Port Manager

From: [Burnette, Eric](#)
To: [PSMP](#)
Subject: Monitoring Shallow Water Habitat Created with Dredged Material in the Lower Snake River
Date: Tuesday, March 26, 2013 4:30:42 PM
Attachments: [2013.03.26 Snake R PSMP EIS Extended Comments.pdf](#)

0095_PortOfPortland

Ms. Shelin,

Attached please find an extension of the comments we sent to you on 06 FEB 2013. A confirming hard copy will be sent by surface mail.

Best regards.

Eric Burnette

Eric Burnette
Sr. Waterways Planner
Port of Portland
503 . 415 . 6791 w
541 . 400 . 0727 m



Mission: To enhance the region's economy and quality of life by providing efficient cargo and air passenger access to national and global markets.

March 26, 2013

Sandy Shelin
U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
CENWW-PM-PD-EC
201 North 3rd Avenue
Walla Walla, WA 99362-1876
psmp@usace.army.mil

8623 Dredged materials disposal

Re: **Monitoring Shallow Water Habitat Created with Dredged Material in the Lower Snake River**

Ms. Shelin:

Further to our February 6, 2013, comment letter on the EIS for the Lower Snake River PSMP:

We continue to fully support the alternative you propose, however we would like to offer an extension of our original thoughts: If the path you take does ultimately involve the use of dredged material to create Shallow Water Habitat (SWH), we would ask that you fully monitor and report the details of the successes (or failures) of the project.

Our request stems from the fact that many Lower Columbia River Navigation Channel stakeholders are looking at the beneficial use of dredged material to create SWH as a practice that could both significantly reduce the year-to-year need for dredging and potentially benefit many Columbia River fish species.

If fully studied, the project you are proposing presents a unique opportunity to significantly expand the regional knowledge base on best practices for the creation of SWH along the entire Columbia – Snake River system. We would urge the Walla Walla District of the Army Corps to incorporate thorough, long-term study and reporting on this action into its project plans.

Sincerely,

A handwritten signature in black ink that reads "Eric Burnette".

Eric Burnette
Sr. Waterways Planner

- c: Mr. Steve Parker, Yakama Tribes
Col. John W. Eisenhauer, Portland District, US Army Corps of Engineers
Ms. Sheryl Carrubba, Portland District, US Army Corps of Engineers
Ms. Kristin Meira, Pacific NW Waterways Association
Mr. Joe Krieter, Environ Corp.
Ms. Marla Harrison, Port of Portland

0096_Save Our Wild Salmon

From: [Joseph Bogaard](#)
To: [PSMP](#)
Subject: Public Comments from Save Our wild Salmon re: Dec 2012 LSRPSMP DEIS
Date: Tuesday, March 26, 2013 3:19:30 PM
Attachments: [SOS.Dredging.DEIS.comments.final.pdf](#)

Good afternoon Ms. Shelin,

Please find the attached comments from the Save Our Wild Salmon Coalition re: the U.S. Army Corps of Engineers' December 2012 Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement.

SOS has also submitted a larger set of comments in concert with a number of other organizations and people. We submit these attached comments to emphasize a number of issues of particular importance to our membership.

Please confirm receipt of our comments by email at your convenience.

Thank you very much for your assistance.

Sincerely,

JB

--

Joseph Bogaard
Save Our Wild Salmon Coalition
206-286-4455, x103
206-300-1003 (cell)
www.wildsalmon.org

March 26, 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, Washington 99362-1876



Dear Ms. Shelin,

Thank you for the opportunity to submit our official comments on the Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement. *Save Our wild Salmon* (SOS) is a nationwide coalition of conservation organizations, commercial and sport fishing associations, businesses, river groups, and taxpayer advocates – joined in a commitment to protect and restore Pacific Northwest wild salmon and the communities that rely on them. SOS is also submitting official comments in concert with a number of other organizations, and are delivering these supplemental comments below to emphasize several points of particular importance to our membership.

8624 Socioeconomics;
transportation

1. Economic indicators today in and out of the DEIS demonstrate that the Lower Snake River waterway is not fiscally sustainable. The growing costs to maintain and operate this system exceed its shrinking benefits. Increasing expense and declining usage is worsening a cost/benefit ratio already underwater. This costly leg of the Inland Northwest's transportation infrastructure must be replaced for local users with an affordable, fiscally-sound transportation system focused on rail, road, and continued use of the lower Columbia waterway.

8625 Costs and funding

Taxpayers, businesses and users of the Lower Snake corridor, along with the rest of our region, deserve accurate information concerning the costs and benefits of this waterway today. The DEIS fails to include a simple cost-benefit analysis on lower Snake waterway dredging – raising serious questions about the project's economic and fiscal viability. With the health of our communities at stake, we need the best available information to make smart decisions for the future. By failing to provide critical information in its DEIS, the Corps does our region a tremendous disservice. Given that infrastructure demands currently exceed our nation's funding capacity, the Corps would certainly benefit from this information as well.

The 2012 National Academy of Sciences (NAS) Report to the Corps, *Water Resources Infrastructure: Deterioration, Investment, or Divestment?* documents rising costs, project backlogs, and federal funding deficits, and illustrate the need for clear budget priorities. The Lower Snake waterway and other Columbia Basin Corps projects deserve a full assessment

given these limited federal resources. The DEIS makes no reference to these constraints or tradeoffs whereby investment in the Lower Snake may reduce available funding for important projects elsewhere in the system. The FEIS should examine these tradeoffs: if and how the funds needed to sustain the Snake River waterway – with its cost/benefit ratio today far below 1 - could threaten or divert significant funds needed to sustain other more valuable parts of the Columbia Basin’s economic infrastructure.

8626 Costs and funding

In addition, pursuant to the NAS Report’s recommendations, the Corps should thoroughly explore alternative funding mechanisms: increased user fees, local tax increases, and local or state revenue-sharing. Northwest taxpayers and businesses need this information.

In the FEIS, we ask the Corps to provide these critical data to help our region develop a common understanding of the current circumstances and to provide a foundation to begin work together on feasible, affordable solutions.

8627 Climate change

2. The FEIS must thoroughly assess climate impacts on the Lower Snake waterway. The FEIS should also include a thorough, accurate examination of the anticipated effects of climate change on this project and its costs - and thus the Lower Snake waterway - over at least the next 20 years. Once again, Northwest people and leaders need this information to make informed decisions affecting our economy and communities.

8628 Hydrology and sediment; watershed sediment production

For example, the FEIS must provide:

- A full analysis, based on the best science, regarding the extent to which wildfires in upstream watersheds are increasing, and thus increasing sediment deliveries to the Lower Granite reservoir. The FEIS must correct the DEIS's contradictory statements that (a) fires in the upstream watershed are mobilizing more sediment, while also asserting that (b) future sediment deliveries will be less than current levels.
- A full analysis with up-to-date information that compares carbon-production in the lower Snake corridor: waterway traffic versus rail/road alternatives. (See *Impacts of a Snake River Drawdown on Energy and Emissions, based on regional energy coefficients*. Ball and Casavant, August 2001.)

8629 Air quality; greenhouse gas

3. SOS is committed to working with stakeholders to develop a sustainable, affordable transportation network in the Lower Snake corridor that meets local community needs. The Lower Snake waterway today is the source of a number of linked problems - for salmon, fishing communities, local communities, and American taxpayers. Effective solutions to these problems must include a reliable, affordable, fiscally sustainable transportation system for local businesses.

We see this as a critical component of a larger regional package that also contains measures to restore endangered salmon and steelhead for use by people and ecosystems. We will support and help try to deliver additional assistance to build out that new system. We support regional grain growers' own efforts in recent years to invest in rail and improve transportation options.

We believe it short-sighted for the federal government to spend millions of taxpayer dollars

8630 Socioeconomics; transportation

in coming years on infrastructure that can no longer be sustained. It would be far wiser to invest those dollars now in rail and roads that are less environmentally harmful, more affordable and economically viable, and better meet the changing needs of the economy.

In conclusion, SOS would like to emphasize our conviction that the connected problems our region faces in the Columbia-Snake Basin – including salmon recovery, energy, transportation, agriculture, climate impacts, and economic prosperity – can only be successfully addressed through the active involvement of stakeholders working in partnership with the region’s sovereigns in a collaborative process aimed at finding durable solutions.

This will require the availability of accurate scientific, economic, and legal information. It is in our region’s best interests that the Corps produce an FEIS that delivers this information and thus provide Northwest people with the tools necessary to make informed decisions and meet the needs of our communities and economy in the years ahead.

Thank you for the opportunity to submit our public comment for the record, and for your consideration.

Sincerely,

Pat Ford executive director
Save Our wild Salmon
Boise, ID

0097_State of Idaho

From: [Bonnie Butler](#)
To: [PSMP](#)
Cc: [Jim Unsworth](#); [Gynii A. Gilliam](#); [Pat Seymour](#); [John.Cardwell@deg.idaho.gov](#)
Subject: State of Idaho Comments
Date: Monday, March 25, 2013 9:49:22 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[Final State Comments PSMP 26March13.pdf](#)

Hard copy to follow.

Bonnie Butler

Senior Special Assistant for Agriculture

and Natural Resources

Office of the Governor

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Description: facebook <<http://www.facebook.com/pages/Governor-C-L-Butch-Otter/292986829831>>

Description: twitter-2 <<https://twitter.com/#!/ButchOtter>> Description: youtube

<<http://www.youtube.com/user/GovernorOtter>> Description: email

<http://gov.idaho.gov/mediacenter/update_form.html> Description: Idaho

<<http://gov.idaho.gov/>>



C. L. "BUTCH" OTTER
GOVERNOR

March 26, 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Ave.
Walla Walla, WA 99362-1876

RE: Draft Programmatic Sediment Management Plan and Draft Environmental Impact Statement

Dear Ms. Shelin,

The State of Idaho (State) has reviewed and analyzed the draft Programmatic Sediment Management Plan (PSMP) and the corresponding Army Corps of Engineers Draft Environmental Impact Statement (DEIS). The State of Idaho by and through the Office of the Governor in cooperation with the Idaho Department of Fish and Game, the Idaho Department of Environmental Quality, the Idaho Department of Lands, and the Idaho Department of Commerce is pleased to offer the attached comments on the PSMP and the DEIS.

The Columbia-Snake River System forms the dominant water system in the Pacific Northwest, and through the Port of Lewiston, the river system provides a vital transportation link for Idaho. Stable water levels enable cargo ships to navigate and provide low-cost shipping which has a significant impact on the region. The economy of Idaho, along with the economies of Washington, Oregon and Montana, rely on the trade and commerce that flow along the river system.

The State supports Alternative 7, which includes dredging and dredged material management. With that being said, the comments included in this document offer additional technical advice from our State's experts in order to augment the PSMP and to assist the Army Corps of Engineers (Corps) in ensuring that dredging occurs within the next fish window.

In closing, the State of Idaho commends the Corps' efforts in maintaining the congressionally authorized 14-ft. navigational channel and supports the Corps' efforts in preserving the relatively inexpensive shipping corridor while providing for fish habitat and species' concerns. The State of Idaho appreciates the opportunity to comment on this important project.

8788 General
project support

As Always – Idaho, "Esto Perpetua"

A handwritten signature in black ink, appearing to read "C. L. Butch Otter".

C. L. "Butch" Otter
Governor of Idaho



IDAHO DEPARTMENT OF FISH AND GAME

600 S Walnut / P.O. Box 25
Boise, Idaho 83707

C.L. "Butch" Otter / Governor
Virgil Moore / Director

Comments of Idaho Department of Fish and Game, Re: Lower Snake River Draft Sediment Management Plan Programmatic Environmental Impact Statement

March 15, 2013

Idaho Department of Fish and Game (IDFG) appreciates the opportunity to review the Lower Snake River Draft Sediment Management Plan Draft Environmental Impact Statement (DEIS). Our comments focus on the potential effects various aspects of the activities proposed in the DEIS have on wildlife, fish, and habitat, not to support or oppose various aspects of the proposal. Our review of this document is centered on actions and effects to the Snake and Clearwater rivers' confluence and Lower Granite Reservoir.

Sediment management in the lower Snake River is an important project with respect to the navigation industry and local economies. However, when and where various sediment management actions and structures may be employed can also have negative impacts on natural resources, including fishery resources, some of which are listed for protection under the federal Endangered Species Act.

Impoundment of the Snake River, forming Lower Granite Reservoir, has had numerous negative impacts on anadromous salmon and steelhead, as well as Pacific lamprey and other aquatic species. Included among those adverse impacts are reduced substrate and riparian cover for resting and predator avoidance during out-migration, reduced water velocity in the impounded area, increased numbers of predators and exposure to predation, and elevated water temperatures. There are numerous mitigative actions and operations in effect to offset many of these effects.

IDFG has reviewed and commented on several previous U.S. Army Corps of Engineers (Corps) sediment management proposals, including a previous draft EIS for a Dredged Material Management Plan and a Lower Snake River Navigation Maintenance Draft Environmental Impact Statement. In our comments on previous proposals, IDFG expressed concerns that those documents failed to adequately describe and assess the potential environmental effects of repeated, long-term dredging (*e.g.*, Groen, Idaho Department of Fish and Game, letter of April 24, 2005). This DEIS resolves many of our past concerns, but not all.

A primary concern IDFG expressed in prior correspondence was the need to address long-term operational impacts and continuing sediment accumulation in the reservoir. We recommended that the Corps develop long-term reservoir management strategies to address sediment and flow conveyance, and aquatic resource issues in Lower Granite Reservoir. This DEIS differs from the previous proposals in that respect. This DEIS takes a programmatic approach to addressing sediment deposition problems, identifying a suite of potential sediment management options rather than evaluating a single project. The Corps describes the DEIS both as a programmatic approach to management and as a Plan.

The DEIS adequately explains the purpose and use of the programmatic approach. It focuses the scope of alternatives and provides a broad-scale analysis of various sediment management options and explains how the Corps intends to tier project-level NEPA from this programmatic assessment.

8789
PSMP

Although we find the programmatic approach useful, we do not think the DEIS meets the definition of an actual plan for sediment management in the Lower Snake. Several key elements of a plan are missing. The DEIS does not present a complete progression of actions needed to achieve the objective of managing sediment in the Lower Snake River, nor does the DEIS describe how future sediment management actions will be prioritized. No schedule is presented for assessing and implementing the specific sediment management actions identified in the DEIS.

The title of the DEIS identifies it as a Plan. The Corps also describes the DEIS (inside-cover page) as “a roadmap for,” “a plan for managing sediment within the Lower Snake river system” . . . “and prevent if possible, the accumulation of sediment . . .” Further, on page 2-22 the DEIS states “Each alternative represents a plan that the Corps would implement over time . . . and thus contains . . . a framework for decision-making on future actions.” In our opinion, the DEIS fails to provide a complete “roadmap” and does not “define broad programs” to manage sediment.

The DEIS does a good job of identifying a suite of 23 sediment management measures that could be employed alone or in any combination to manage sediment in the Lower Snake River (primarily concentrated in the Clearwater/Snake River confluence through Lower Granite Reservoir). The management measures include five Dredging and Dredging Materials Management options; seven Structural Sediment Management options, like dikes and weirs; six System Management Measures, like modifying flows or surface elevation; and five Upland Sediment Reduction measures, like riparian improvements and erosion controls. Typical examples of each management measure are described in detail in the DEIS, and each receives a broad brush environmental effects review that is consistent with the programmatic approach. The DEIS also describes a process for screening those sediment management measures for suitability and describes some of the conditions that may trigger the Corps to consider using suitable management options (Appendix A of the DEIS).

However, the DEIS does not take the essential next steps needed to make the DEIS a plan: prioritizing management measures and scheduling actions. The DEIS contains few indications or projections of which structures or sediment management options, or which combinations of those many options, might be utilized under what conditions. Although the DEIS contains suitability screening criteria for management options, the DEIS gives little or no indication of protocols for selecting and prioritizing which of the various sediment management measures would be effective, and where. Thus, as it stands, the DEIS is a list of sediment management tools and a very broad assessment of the scope impacts expected from those individual tools but does not rise to a structural plan

8790 PSMP

The subheadings below refer to sections of the DEIS that we are providing specific comments on.

Long-term view and Cumulative Impacts Assessment:

One of the most important aspects of a programmatic EIS, in our view, is the cumulative impacts analysis. The cumulative effects analysis in this DEIS is too cursory to inform project-specific decisions.

The Corps has proposed a suite of 23 sediment management tools, most of which may be utilized within the confluence of Snake and Clearwater rivers and Lower Granite Reservoir, either alone or in a range of combinations. The Corps approach is to defer the cumulative effects analysis to the project level: “The Corps anticipates that the cumulative effects analyses of actions pursuant to this EIS will conduct cumulative effects analysis at a project-specific level through a tiered NEPA process.” (Page 4-62).

8791 Cumulative effects

We are concerned by the lack of even a cursory assessment of the cumulative impacts of the 23 sediment management measures presented. We are particularly concerned that by deferring the cumulative effects analysis to the project level, both short- and long-term cumulative effects of various potential combinations of the measures will not be fully vetted.

Cumulative effects are defined as those impacts which result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. By their inclusion in the DEIS, it is reasonable to assume that the 23 sediment management measures presented by the Corps are “reasonably foreseeable future actions.” This assumption is supported by the clear expectation that sediment will continue to aggrade at more than 3 million cubic yards annually in upper Lower Granite Reservoir, and that aggradation will trigger taking sediment management measures outlined in the DEIS (Appendix A). Therefore, it is reasonable to expect some of those management measures would be implemented in the foreseeable future. The impacts for each of the management measures and various combinations of those measures should be assessed in the cumulative impacts analyses because of the high likelihood of implementing some of the measures.

Some specific concerns that deserve attention in the cumulative impact analysis include (also see Miscellaneous Comments below):

8792 Cumulative effects

- One of the most obvious shortcomings of the DEIS is its failure to address this most basic question: How will implementation of any one, or any combination of, the non-dredge options presented in Alternative 7 reduce or eliminate the need for repeated dredging and disposal of spoils, and to what extent?
- Based on this DEIS and past assessments, sediment aggradation represents approximately a 1 percent reduction in total Lower Granite Reservoir capacity every two to three years. Over the next 100 to 150 years, the reservoir capacity can be expected to decrease by approximately 50 percent. What effect will this have on the reservoir environment, and

8793 Hydrology and sediment; watershed sediment production

8794 Cumulative effects

how will foreseeable Corps sediment management activities – particularly in-water discharge of dredge spoils – contribute to those changes in the environment?

- We believe that the cumulative effect of continued, long-term impacts to water temperature from deposition of dredge spoils in the reservoir deserves far more attention than received in the DEIS. The DEIS concludes that the creation of shallow water habitats will have negligible effects on temperature. Although this may be the case in the near term, created shallow water habitats – in combination with the accumulation of 3.2 million cubic yards of sediment annually in the upper reservoir – will likely, in the long term, exacerbate water temperature problems already created by the impoundments. This is especially true if, as inferred throughout the DEIS and from past practice, that the Corps intends to continue to dispose of sediment spoils only in Lower Granite Reservoir. Among other things, increased temperatures can negatively affect adult anadromous fish migrations and juvenile survival (See also Miscellaneous comments below.)
- Among the structural sediment management options is a proposal to create and maintain “traps” for sediment. These are basins excavated in the river channel into which sediments would settle out and those sediments would be repeatedly removed by dredging to maintain effectiveness. Similarly, the DEIS indicates that sediment will collect below bendway weirs; no indication is given of whether or how often sediment will have to be removed from below/between weirs for those sites to maintain effectiveness. Repeated impacts to the environment for maintenance as well as changes to the hydrology, sediment transport, and biota, from these permanent structures are elements of the project that should have been assessed in a rigorous cumulative impacts analysis.

8795 Cumulative effects

Mitigation

8796 Dredged materials disposal

Dredging and dredge spoil disposal to maintain the river and reservoir system for navigation have and will continue to have additive and cumulative impacts on anadromous fish, resident fish and other natural resources. Mitigation for these impacts is warranted.

Currently, the only mitigation identified in the DEIS is creation of “fish habitat” with dredge spoils in Lower Granite (“beneficial use” of dredge spoils). IDFG has stated in past comments that dredge spoil habitat is marginally valuable habitat for salmonids, at best. As noted below, new evidence in the DEIS does not change our assessment. We believe that a broader range of mitigation actions for impacts to fish and other biota should be included and more fully explored because the relocation of silt in the reservoir through dredging and disposal should not be considered as mitigation for dredging.

Sediment Reduction Alternative:

Our comments about previous Corps proposals for the Lower Snake emphasized a need to evaluate the potential of sediment source reduction. Analyses of sediment source and budget in the DEIS resolved many of our concerns about reducing sediments at their source. It appears that of the sediment accumulating in the confluence from manageable sources upstream, there is

8797 Hydrology and sediment;
watershed sediment production

too small a fraction to make a significant impact on operations in Lower Granite, at least on a short-term basis. We encourage the Corps to maintain a commitment to reducing sediments at their source, providing technical assistance, and funding where appropriate to reduce sediment input. However, the Corps has demonstrated that those controls will have limited value for resolving navigational problems in Lower Granite Reservoir.

Sediment Disposal/Beneficial Use

8798 Dredged materials
disposal

We remain supportive of utilizing dredge material to create favorable habitats in the reservoir where possible and commend the Corps for its commitment to a demanding monitoring program to assess both the impact of projects and the effectiveness of created habitats. However, until more extensive monitoring can demonstrate otherwise, we maintain our previous assessment that the benefits to fish that would be derived from the created habitats described in the DEIS are likely to be minimal and that claims of “beneficial use” of dredge spoils are overstated. New data from Tiffan and Connor (2012) and others cited in the DEIS did little to address our previous doubts and, in some respects, reinforced them. For instance, little, if any, rearing of spring and summer Chinook occurs in the Lower Snake Reservoirs (Chapman et.al. 1995) and use of shallow water habitat by salmonids is seasonally restricted (Tiffan and Connor, 2012).

Much work remains to identify and implement ways to increase the survival of anadromous fish moving through the Lower Snake reservoir system across a spectrum of conditions. As we have previously suggested, dredge spoil disposal sites created as part of this project and past projects should be viewed as experimental, and should not influence the commitment and ability of the Corps to implement other potential long-term changes in management of the Lower Snake River reservoir system to benefit anadromous fish. We appreciate the Corps’ commitment to continue to collect data and adapt management strategies to reflect new information. A good example is the intent to dispose of soils in narrow bands rather than on a broad flat, based on new data from the Knoxville site (Tiffan and Connor, 2012).

Impacts of Dredge Operations

8799 Aquatic
resources; fish

Adhering to the winter work window (December 15 to March 1) during dredging operations will reduce but not eliminate potential impacts to a variety of aquatic resources. As in the analyses of previous dredging proposals, this DEIS understates the potential impacts of winter dredging operations, particularly effects on steelhead. For instance, it is inappropriate for the Corps to deduce that low angling pressure equates to “few, if any” steelhead at the confluence during winter months. During some winters, at least 40 percent of Clearwater B run steelhead remain in the Lower Granite pool during the winter work window. A steadily increasing number of juvenile fall Chinook also over-winter in the confluence and Lower Granite pool. Most, if not all, fish species present in Lower Granite are present near the confluence during the work window, though in lower densities.

Drawdown/Sediment Flushing and Dredging

The DEIS describes “Dredging to Improve Flow Conveyance” as a much larger dredging operation than a navigation channel maintenance dredging operation and will have greater

8800 Management measures

“temporal and spatial effects on water quality. . .” We assume that project-specific NEPA will provide a far more detailed effects analysis of the dredging to improve flow conveyance option, but this programmatic EIS should provide at least enough detailed, scientifically supported information from which to tier decisions about when, how and where to use this management option (as well as others). Instead, based on the information provided in the DEIS we can only guess that the effects of dredging to improve flow conveyance would last a good deal more than “a few hours” and effect much more than “only a small portion” of the river (as effects are described for maintenance dredging).

8801 Dredged materials disposal

Similarly, the DEIS indicates water temperature ~~may slightly increase~~ at or in the vicinity of dredge spoil shallows (and “may also cool off more at night,” though why that is important is not explained). Monitoring similar to what we have suggested in previous comments, along with our stated concerns about potential increases in water temperature in Lower Granite Reservoir, would have informed this portion of the analysis. Monitoring of the Centennial Island site and past deposition area upstream of Knoxway would have provided temperature data that could be used to infer what to expect from new spoils deposition in the immediate future. These data, if they existed, could be used to predict temperature changes in Lower Granite as projected maintenance dredging operations increase shallow surface area in the future.

Lewiston Levee

8802 Management measures

The functions and purposes of dikes and dike fields described on page 2-15 include redirecting river flows and constricting the channel to increase velocity as sediment control measures. However, these functions do not apply to a proposal to raise Lewiston levees, because no new dikes are proposed to constrict or redirect flows.

Instead, the DEIS includes, as a sediment management option, a proposal to raise the Lewiston levee because accumulating sediment may increase the risk of flooding in Lewiston (Page 2-18). However, this concern is contradicted in the DEIS, which states that “*model simulation indicates that after 50 years of simulated sediment accumulation . . . the existing levee system is adequate to provide protection from overtopping in a severe flood event.*” (Page 3-77) Because raising the dikes in Lewiston would have no effect on sediment transport, and accumulation of sediment is very unlikely in the foreseeable future to cause flooding concerns (especially with other sediment management tools being effectively employed), we suggest this option should be eliminated as a “sediment management tool” and not be included as an option in this DEIS.

Miscellaneous Comments:

- Understanding both the procedural and technical aspects of the DEIS requires frequent references to the Appendices. The appendices often contain more detailed information and interpretation than is presented in the body of the DEIS, or in some cases additional data and interpretation. Also in other cases, the Appendix has the only detailed description of part of the proposal. For instance, the reviewer had to refer to Appendix A to find the only detailed explanation of the purpose for the programmatic approach, how the document would be used, the intent to tier project-level decisions off of the DEIS, criteria for screening various “tools,” etc. Information in the DEIS and Appendices,

8803
PSMP

combined, are a comprehensive package, but the reader is required to draw information from the Appendices to fully understand the DEIS. Unfortunately, the DEIS contains few specific references to the appropriate Appendices, so the reader has to search for those connections. The DEIS would be greatly improved if it contained references to those sections or pages of the Appendices where separate or more detailed analysis is provided on specific topics.

8804 Aquatic resources;
fish

- Page 3-19. Bull trout sometimes *hybridize* with brook trout; “inbreeding” is not the correct term.

8805 Aquatic resources;
fish

- Page 4-3. It is inaccurate to say “many species are present during the in-water work window. Most species, if not all, are present during the work window; however, they are likely to be present in lower densities than at other times of year.

- Page 4-5 includes a statement that coho salmon, spring and summer Chinook salmon and sockeye salmon are not likely to be present during the winter work window for dredging. This is probably true. However, this section fails to indicate that fall Chinook and steelhead are likely to be present, and that bull trout may be present, or to consider effects on those species.

8806 Aquatic resources;
fish

- Similarly, page 4-6 says the work window would ~~avoid the presence of many salmon species in the area.~~ For the sake of accuracy, it should say using the work window “may avoid” or “is likely to avoid” coho salmon, sockeye salmon and spring or summer Chinook.

8807 Aquatic resources; threatened and endangered species
(aquatic)

- Page 4-9. IDFG has trapped juvenile bull trout in the lower Clearwater River and Snake River traps; therefore, juvenile as well as adult bull trout may be present during project activities. The DEIS should consider this information in the effects analysis.

8808
Aquatic
resources;
fish

- Page 4-15. The DEIS should clearly acknowledge that the disturbance and displacement of fish is an adverse effect. For instance, it is not appropriate to say that “sturgeon would not be affected . . . because they could actively avoid the temporary disturbance.” If individuals of any species are present, they are present because they preferred that habitat for cover, food or other reasons. Disturbance displaces those fish into less desirable habitat and can affect the health and viability of those fish. Similarly, authors infer that displacement of sturgeon and “disruption” to benthic macroinvertebrate food sources for sturgeon is acceptable because sturgeon relocate to undisturbed areas where the benthic macros are undisturbed. This assumes that unoccupied and suitable habitat with an adequate prey base is available. No evidence is presented to support this conclusion.

8809
Aquatic
resources;
fish

- On page 4-16 it is stated that future spawning habitat may be “displaced” by sedimentation. Spawning habitat is not displaced by sediment; it is destroyed or, at best, made temporarily unsuitable.

8810
Aquatic
resources;
general
aquatic
resources

- No evidence is presented to support statements in the DEIS that sediment or turbidity from construction of structures like weirs or sediment traps would be the same as for

8811 Water quality, and
sediment quality; water
quality

dredging projects in volume, duration of disturbance, composition and size of material, etc. Sediment transport, composition, etc. would vary depending on location of sites. In fact, the DEIS clearly indicates the duration of the disturbances would vary greatly from dredging activities. We understand that far more detailed information would be developed and considered at the project level, but such broad, unsupported or contradictory statements should be avoided in this assessment.

8812 Dredging

- Page 4-23. Regarding sediment management measures in boat basins and marinas: Habitat within the boat basins and marinas is distinctly different than the riverine/reservoir habitats described in the DEIS. These habitats and their biotic and abiotic components need to be described in greater detail, then analyzed and assessed both separately and in combination with other actions in the cumulative effects analysis. Questions that need to be addressed include: how much sediment will be dredged and is it the same as the riverine sediment in composition and chemistry (we suspect more fine sediment and, perhaps, contaminants will be present). Also, the assessment should consider if the Corps assumes in-water disposal of boat-basin materials has the same beneficial effects as they have for other dredge spoils (fine sediment would not be “beneficial”) and how often does the Corps predict dredging of boat basins and marinas will need to be repeated based on current sediment models? We understand that a separate NEPA effects analysis would be conducted for boat basin and marina dredging proposals, but they need to be analyzed both as individual projects and in context with other options for sediment management.

8813 Dredged materials disposal

- The DEIS assumes that sediments from Lower Granite Reservoir projects, including the 2012/2013 dredging proposal, will be disposed in-water, for so-called “beneficial use.” Other options for disposal are mentioned but do not appear to have been given any meaningful consideration and are not explored or analyzed in the DEIS.

8814
Aquatic resources;
general aquatic resources

- Table 3-7. Typical Migration Timing does not correspond to all of the narrative descriptions of migration timing. For example, sockeye salmon may be present through November, according to the text on page 3-8; but Table 3-7 shows migrations from April through August. “Typical” does not have meaning without definition, and peak migration might be more appropriate based on the timing indicated.

8815
Aquatic resources;
fish

- On page 3-22 it is stated that “*Due to their abundance, the most prevalent predator on juvenile salmonids is likely smallmouth bass (USACE 1999b).*” This statement is followed by a substantial amount of information that contradicts that statement, and no information to support it. The DEIS should either provide more information to resolve this discrepancy, or that statement should be removed.

- Pages 3-75 and 3-76 include some discussion regarding sediment scouring and transport in the Snake/Clearwater confluence as it affects fine sediment deposition near Silcott Island, where most of the sediment currently drops out. Several of the management options are designed to increase scour and transport of larger sediment (medium to coarse sand) from the confluence into the lower reservoir. Changes in scour, composition and deposition of sediments are likely to have significant impacts on the reservoir. The DEIS

8816 Hydrology and sediment; Lower Snake River System and sediment transport

8817 Aquatic resources; fish

does not address how changes in reservoir morphology from sediments that are transported further into the reservoir and deposited in new locales will affect the hydrology and biology of the affected portions of the reservoir.

- On page 4-3 the DEIS states that work windows will protect fish because “many of the fish species are not present”. These statements should be revised for accuracy to say “when many fish species are present at lower densities.” Many, if not all, fish species may be present during the work windows. Similar statements about the work window avoiding the presence of many salmonid species should be modified to accurately reflect the potential for the project to occur while named fish are present. There is no time of year during which some species of fish will not be present and affected by the proposed actions.

8818 Dredging

- On page 4-5 the DEIS cites a USACE document (2002b) saying, “*Most research . . . has shown that disturbance to habitat is a natural process and can be beneficial,*” The inference is that dredging may benefit benthic organisms. Natural disturbances can be beneficial; but, unless evidence can be presented to show otherwise, we would suggest that dredging neither represents a natural event, nor has it been shown to be overly beneficial to aquatic biota.

8819 Aquatic resources; general aquatic resources

- This is perhaps redundant, but in past comments, IDFG raised questions and asked for some predictions of the thermal effects of creating shallow water reefs in Lower Granite Reservoir, including in consideration with the continued “natural” shallowing of the reservoir. We are concerned about the potential of increasing temperatures on already-stressed fishery resources. This DEIS does not attempt to resolve our questions or concerns. Discussion in the DEIS about the potential changes in temperature are limited to qualitative speculation (P 4-35), where quantitative modeling and analysis should be have been used to try to project an effect. At the very least, the cumulative effects analysis should include an assessment of the potential increases in temperature resulting from periodic deposition of dredge spoils in Lower Granite Reservoir, which will result in ever-increasing areas of shallow water in the reservoir without additional manipulation.

8820 Hydrology and sediment; Lower Snake River System and Sediment Transport

- Page 4-40. The DEIS states that in-water structures such as weirs and dike fields would reduce sediment accumulation in areas where sediment would interfere with (navigation), and reduce the volume of dredging required. Sediment load and flow modeling could provide more specific projections about rates of deposition and the frequency of needing to dredge if such structures were to be constructed. This information is necessary for weighing the merits of various options and developing plans for their use. A programmatic EIS should include this kind of analysis, especially in the cumulative effects analysis.

- Page 4-40. Similar to the previous comment, the DEIS effects analysis states that structures like weirs and dikes will help transport sediments from the confluence area (“*out of problem areas*”) to settle out in “*nonproblem*” areas. Similar statements are made regarding seasonal drawdown and modifying flows to transport sediment. The

8821 Hydrology and sediment; watershed sediment production

focus in the DEIS is solely on effects on shipping and navigation, not on the affected environment. Moving sediments from navigational “*problem areas*” to navigational “*nonproblem areas*”, may avoid navigation issues, but could create new “*problem areas*” for fish and other biota; *e.g.*, deposition of sediments on suitable fish habitat downstream. The environmental effects analysis should focus on and evaluate the impacts to habitat and biota that result from transport and deposition of sediments away from “*problem areas*” into other parts of the reservoir. Projecting changes in sediment transport and deposition are important at both the programmatic level, especially for assessing cumulative effects, and the project level. The analysis of effects is incomplete if it does not include some predictions of changes in sediment transport/deposition resulting from the various options.

8822 PSMP

- On page 1-4 the statement is made that future actions “*may require*” project-specific environmental reviews. We believe that should be amended to say “*will require*,” since there are no substantive effects analyses for any of management options except for the “*immediate action*” (2012/2013 Dredging, Appendix H). On P 2-1 the Corps commits to additional project- and site-specific reviews that are tiered off this document.
- Appendix K, section 4.4.3.4.1. Historical Pressures on the Species infers that Snake River sockeye salmon in Redfish Lake were subject to eradication programs as a means to replace them with a rainbow trout fishery. This is simply not a factual statement for Redfish Lake sockeye.
- Appendix K, sections 4.4.1.4.3 (Spring/Summer Chinook salmon), 4.4.3.4.3 (Sockeye salmon) and 4.4.4.4.3 (Steelhead) all contain misleading and incorrect information. For each species the main factor limiting recovery is identified as limited availability of high quality or suitable habitat, which we inferred to reference tributary habitat. Throughout the Snake River basin, there has been some habitat degradation that has impacted each of the species. However, much of the tributary habitat available to and used by wild salmon and steelhead in Idaho is characterized as pristine or high quality habitat. It is neither the amount nor quality of this habitat that is limiting the recovery of Snake River salmon and steelhead.

8823 Aquatic resources; fish

8824 Aquatic resources; threatened and endangered species (aquatic)



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1118 F Street • Lewiston, Idaho 83501 • (208) 799-4370

C.L. "Butch" Otter, Governor
Curt Fransen, Director

March 25, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue, Walla Walla WA 99362-1876

Subject: Lower Snake River Programmatic Sediment Management Plan, Draft Environmental Impact Statement

Dear Ms. Shelin:

8825 General project support

The Idaho Department of Environmental Quality (DEQ) offers the following comments on the *Draft Lower Snake River Programmatic Sediment Management Plan, Draft Environmental Impact Statement*.

DEQ agrees with the ACOE's decision to select alternative #7 as the preferred alternative. Alternative #7 is the most comprehensive and flexible strategy presented and includes all options for sediment maintenance.

Lower Granite Dam Reservoir is included in a segment of the Clearwater River (water body ID17060306CL001_07) and a segment of the Snake River (water body ID17060103SL001_08).

Clearwater River water body ID17060306CL001_07 is listed as impaired in the Idaho 2010 Integrated Report for not supporting its cold water aquatic life beneficial use due to dissolved gas supersaturation. Snake River water body ID17060103SL001_08 is listed as impaired for not supporting its cold water aquatic life beneficial use due to temperature. No increase in load, for the pollutant of concern, may occur to these waters as a result of the project. Both water bodies are listed as unassessed for their domestic water supply and primary contact recreation beneficial uses.

Approved best management practices that may apply to your project include "Stream Channel Alteration Rules" IDAPA 37.03.07. Specialized best management practices may be required to address water quality objectives not addressed by the above listed approved best management practices.

Please note, Section 3.6.1, page 3-52, 1st paragraph. Special Resource Water is no longer a beneficial use designation in Idaho's water quality standards.

Thank you for the opportunity to comment. Please contact us with any questions or clarifications.

Sincerely,


John Cardwell
Regional Water Quality Program

8827 Environmental laws and regulations

ec: Clayton Steele, Regional Administrator

8826 Water quality, and sediment quality; water quality

Idaho Department of Lands (IDL) comments on the Draft Lower Snake River Programmatic
Sediment Management Plan/Environmental Impact Statement (PSMP/EIS)

The way the sediment production is currently presented leads one to believe forest roads are producing sediment at the same scale as forest fire areas.

The Watershed Sediment Production section (3.7.2) on page 3-63 states: *“For example, USFS studies report that estimated levels of sediment yield from forested roads and from forest fire damaged areas can range from 285 tons/mi² up to more than 5,000 tons/mi² (Elliot et al. 2010).* Elliot is a literature review and it is not directly clear which study this value is from, and while Elliot (which is included as Appendix C in the PSMP) separated forest road sediment from that of fire damage, and showed fire damage areas producing far more sediment, the PSMP lumps road sediment into the fire area sediment values that Elliot stated.

IDL’s own analysis indicates that approximately 18% of the watershed area within the Idaho PSMP area burned between 1999 and 2008. This supports Goode’s (Appendix D, page 20) statement that *“In the last decade, over 20% of the basin experienced stand replacing fires, many of which have led to post-fire debris flows.”* Goode goes to great length to demonstrate the magnitude of fire area produced sediment as compared to forest road produced sediment, summarizing *“...a comparison of sediment inputs from roads contrasted to both the short- and long- term regional sediment yields expected from fire suggest that road decommissioning would do little to decrease the total supply.”* He concludes that *“Within central Idaho, recent climate-driven increases in wildfire burn severity and extent have the potential to produce sediment yields roughly 10-times greater than those observed during the 20th century”*.

As an anecdotal note, one of IDL’s Fire Managers was at Slate Creek in late summer 2010 and saw the Salmon River clear one day and chocolate the next. When asking locals what was going on it was due to thunder storm activity the previous night that impacted areas burned during the 2006 and 2007 fire seasons.

The PSMP should utilize the Goode document and further segregate the sediment produced from forest roads from the vast amount of sediment produced from uncontrolled wildfire primarily on federally managed land.

8828 Hydrology and sediment;
watershed sediment production



C.L. "Butch" Otter, Governor
Jeffery Sayer, Director

March 11, 2013

U.S. Army Corps of Engineers
Walla Walla District
PSMP/EIS
Attention: Sandy Shelin
CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

The Idaho Department of Commerce requests your consideration of the following comments in conjunction with the Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement. The data quoted below is excerpted from a Tri-Port Economic Impact Study by the University of Idaho, dated June 2, 1997. Some data was updated to 2012 dollars based on the Consumer Price Index of the U.S. Department of Labor's Bureau of Labor Statistics, as noted.

The 1997 Study noted that "Lewiston is the transportation hub for bulk commodities by virtue of its water transportation facilities." That continues to be the case in 2013. The Port of Lewiston – Idaho's only seaport – plays a pivotal role as a regional hub for the exportation, importation, and transportation of commodities, raw materials, and finished products. To that end, the State of Idaho has invested \$500,000 toward the extension of the dock at the Port of Lewiston to expedite commerce.

The Tri-Port Economic Impact Study indicates that the "total direct employment associated with water transportation at the three ports in the Lewiston, Idaho and Clarkston, WA area in 1997 was 529 jobs – 255 from the Port of Lewiston, 215 from the Port of Whitman County, and 59 from the Port of Clarkston. Another 250 jobs were associated with water activities arising from the dams that were not directly connected with the ports," for a total of 779 jobs. Based on an analysis of indirect, or multiplier, effects from direct port employment, direct and indirect employment increased to 553 jobs at the Port of Lewiston, 137 jobs at the Port of Clarkston, 422 jobs at the Port of Whitman County, and 469 associated with non port-related activities at the dams.

According to the study, "Total earnings associated with water transportation were \$13.2 million for the Port of Lewiston, \$3.1 million for the Port of Clarkston, \$8.7 million for the Port of Whitman County, and \$10.6 million for non-port related earnings. Total earnings for all water related activities were \$35.6 million." Adjusting for inflation, reported earnings at the Port of Lewiston would be \$18.8 million in 2012, and the total for all ports would be \$50.9 million. (Source: Bureau of Labor Statistics, CPI Inflation Calculator)

The study continues, "(a)nother important function of the tri-ports is their role in providing industrial parks and promoting economic development. The Port of Lewiston's industrial park

and economic development functions support 640 direct jobs, the Port of Clarkston 215 jobs, and the Port of Whitman County 529 jobs.” The total direct jobs related to those functions total 1,384. For example, in 2012, Pullman, WA-based Schweitzer Engineering Laboratories expanded at Lewiston at a business park owned by the Port of Lewiston. The presence of the Port of Lewiston and the involvement of the City of Lewiston and its Urban Renewal Agency were critical to the acquisition and the development of the land which SEL selected for its expansion.

The Study continues, “Total employment for industrial parks and economic development for industrial parks and economic development is 3,249 direct and indirect jobs” in 1997 for all three parks. Total direct and indirect earnings for the Port of Lewiston’s industrial park and economic development function are \$31.6 million [or \$45.2 million in 2012, adjusting for inflation]. Lewiston has three industrial parks. Total earnings from [a total of nine] industrial parks and economic development is \$81.3 million” in 1997, or the equivalent of \$116.3 million in 2012, adjusted for inflation and assuming no other changes.”

“Total employment for all port functions (direct and indirect) is 4,830 jobs (1,888 from the Port of Lewiston).” In 1997, “total earnings for all activities of the tri-ports is \$116.9 million dollars -- \$44.8 million from the Port of Lewiston.” or the equivalent of \$167.2 million dollars and \$64.9 million dollars, respectively, in 2012, adjusting for inflation and assuming no other changes.

In conclusion, the Port of Lewiston plays a vital role developing and managing property that has been successfully used to help existing Idaho businesses expand and to attract new businesses to Idaho. The Port of Lewiston is a valued partner with the State of Idaho, the City of Lewiston, Nez Perce County, and local and regional economic development organizations in economic development and international and domestic commerce.

We value the essential role of the U.S. Army Corps of Engineers maintaining navigable waterways, among the agency’s many important responsibilities in the national interest. Thank you for providing an opportunity to submit these comments.

Sincerely,



Jeffery Sayer
Director

8829 General
project support

From: [Sierra Club](#) on behalf of [Ruth Stemper](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Monday, March 25, 2013 9:41:07 PM

0098_Stemper

Mar 25, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

Please do think twice or maybe three or four times before you do this. We really need to keep our streams clean and pure for the salmon and steelhead.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Ruth Stemper
2561 S Sumac Ln
Boise, ID 83706-4978
(208) 344-0354

8631 Costs and funding

8632 Aquatic resources; threatened and endangered species (aquatic)

8633 Hydrology and sediment; watershed and sediment production

From: [tom stuart](#)
To: [PSMP](#)
Cc: [Kevin Lewis](#)
Subject: Attn:Sandra Shelen, CEN WW-PM-PD-EC
Date: Monday, March 25, 2013 10:37:55 AM
Attachments: [Corps dredging DEIS Lower Snake.docx](#)

0099_Stuart

Attached find comments on the DEIS, Lower Snake Dredging/sediment management proposal. thanks,

tom stuart
boise

Tom Stuart

749 High Point Ln, Boise Idaho 83712

March 25, 2013

To: US Army Corps of Engineers, Walla Walla District

Re: USACE DEIS, Lower Snake River Programmatic Sediment Management Plan (LSRPSMP)

Dear Sir or Madam,

Please include my comments in the official record regarding the proposed action and DEIS.

Deficiencies in the DEIS are numerous; most relate to inaccuracies of relevant information, incomplete analyses, incorrect assumptions, and institutional biases. These deficiencies will be identified fully by others whose submissions I endorse – including the Save Our Wild Salmon Coalition.

With federal agencies currently engaged in unsuccessful, insufficient, and illegal efforts to comply with the federal Endangered Species Act for listed salmon and steelhead species, it is incomprehensible that the Corps would consider the dredging actions as proposed. Federal agencies do not yet have a legal Biological Opinion for the FCRPS – a related issue that, from a policy standpoint, precludes the dredging actions contemplated by the Corps in FCRPS reservoirs of the Lower Snake River.

8634 Costs and funding

Further, with the USACE currently constrained by reduced federal budgets and the recent sequester, it is wholly unreasonable and inappropriate for the Corps to consider or undertake a project that is so wasteful and unproductive.

I'm sure you are aware of the recent analysis showing that the cost of this dredging proposal amounts to a subsidy of almost \$19,000 for each and every barge leaving Lewiston.

8635 Aquatic resources; threatened and endangered species (aquatic)

This is waste the Corps must not allow. Undoubtedly, there are more pressing demands for the Corps in the NW or other areas of the US where the demands of public safety are more imminent and timely.

In summary, dredging sediment as proposed would harm ESA-listed salmon and steelhead, and is a wasteful alternative that doesn't solve long term problems. The DEIS must examine other alternatives, like: 1) inform shippers that a 14 foot channel depth cannot be guaranteed or maintained with cost-effective methods now available; second, examine the long-term costs and benefits of deauthorizing and removing one or more dams on the lower Snake River, with due consideration to affected stakeholders (electrical power generated by those projects is no longer a major issue, while shipping from the POL has declined 75% in the last decade); and 3) conduct a thorough and honest cost analysis of transportation alternatives, other than barging, with full consideration given to current subsidies.

Thank you for the opportunity to submit these comments, and for your consideration.

Sincerely,

Tom Stuart, 749 High Point Ln, Boise ID 83712

8637
Socioeconomics;
transportation

8636 Dam removal

From: [Sierra Club](#) on behalf of [James Szatkowski](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Tuesday, March 26, 2013 6:15:42 AM

0100_Szatkowski

Mar 26, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8638 Costs and funding

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

8639 Aquatic resources; threatened and endangered species (aquatic)

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8640 Hydrology and sediment; watershed sediment production

Just because you can dredge, doesn't mean you should dredge.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Mr. James Szatkowski
9501 W Knottingham Dr
Boise, ID 83704-2236
(208) 866-2181

0101_Tidewater

From: [Carol Bua](#)
To: [PSMP](#)
Subject: Comments on the Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS)
Date: Tuesday, March 26, 2013 4:31:28 PM
Attachments: [Tidewater - PSMP EIS comment letter.pdf](#)

Attached please find a comment letter from Tidewater regarding the Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS).

Thank you.

Carol Bua
Communications &
Public Affairs Manager
Tidewater
(360) 759-0310

T I D E W A T E R

March 26, 2013

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

Sent via mail & email

Re: Draft Environmental Impact Statement (EIS) for the Lower Snake River Programmatic Sediment Management Plan (PSMP)

Dear Ms. Shelin:

8641 Dredging

Tidewater appreciates the opportunity to submit comments on the Corps' Draft Environmental Impact Statement (EIS) for the Lower Snake River Programmatic Sediment Management Plan (PSMP).

Tidewater is the largest barge operator on the Columbia-Snake River System and handles approximately 85% of the waterborne cargo transiting through the locks and dams. We operate daily over the entire length of the Columbia-Snake River System from Astoria, Oregon at the mouth of the Columbia River, to Lewiston, Idaho, the terminus of the federally authorized commercial navigation channel.

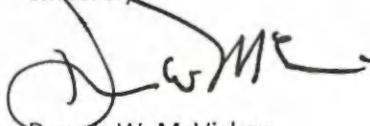
Tidewater strongly supports the Corps' decision to commence maintenance dredging at the earliest possible opportunity in order to restore the Lower Snake River navigational channel to its federally-authorized dimensions, which will ensure that navigation continues in an unimpeded and safe manner.

Maintenance dredging has not occurred on the Lower Snake River since 2006, and shoaling has become a serious problem in this area. Shoaling has caused the Corps to operate the Lower Granite Project 1 to 2 feet above Minimum Operating Pool since 2010, which has reduced the depth of the navigation channel to 7 feet in some areas, creating safety issues for barge navigation and access problems at port berthing areas and navigation locks.

Barge operators rely on a 14-foot navigation channel in order to safely and economically barge goods from this area to export facilities down river. The lack of channel depth can also negatively impact our customers if barges have to be light-loaded or the lower navigation depth causes delays in getting products to market.

Tidewater encourages the Corps to approve the PSMP, issue the final EIS and ensure that dredging occurs during the next fish window. We appreciate the Corps' hard work in producing a long-term sediment management plan that will benefit the region for years to come.

Sincerely,



Dennis W. McVicker
President & CEO



Bruce Reed
Vice President & COO

0102_Upper Snake River Tribes Foundation

March 26, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Avenue, Walla Walla WA 99362-1876

Dear Ms. Shelin:

I am pleased to offer comments on behalf of the USRT member tribes for the United States Army Corps of Engineers (USACE) draft environmental impact statement for sediment management of the four Lower Snake River Hydroprojects. The Upper Snake River Tribes (USRT) is comprised of four federally recognized Tribes of the Upper Snake River region in Idaho, Nevada, and Oregon: The Burns Paiute Tribe, Fort McDermitt Paiute-Shoshone Tribe, Shoshone-Bannock Tribes of the Fort Hall Reservation, and Shoshone-Paiute Tribes of the Duck Valley Reservation. In 2007 they came together by resolution to form the Compact of the Upper Snake River Tribes (USRT) and established a 501(c) (3) non-profit corporation, USRT Foundation, Inc. USRT works to ensure the protection, enhancement, and restoration of the tribes' rights, resources, and activities that are reserved by Treaties and Executive Orders, protected by federal laws and agreements, or are the subject of aboriginal claims asserted by the tribes. These include but are not limited to hunting, fishing, gathering, and subsistence uses.

General Comments

The Purpose and Need for the USACE Proposed Action section of the draft environmental impact statement (DEIS) establishes a need for immediate and specific actions such as dredging sediments to reestablish and maintain the navigation channel. However, the Purpose and Need Statement also describes a very broad Programmatic Sediment Management Plan (PSMP) that addresses sedimentation as it affects many other Congressionally - authorized project purposes, moving far beyond solely its navigation purpose. These include flood risk management; recreation; existing levee modifications around the Cities of Lewiston, Clarkston, and other areas; many uncertain off site structural and non-structural sediment management actions; and potential structural changes (e.g., lock access and berthing area reconfigurations) to their existing four Lower Snake River Dams. The USACE DEIS acknowledges that prior to implementation, many of these future actions included within Preferred Alternative 7 will require additional project specific environmental review. The Upper Snake River Tribes (USRT) are concerned

8838 NEPA: Range
of Alternatives

that the USACE may prematurely seek authorizations on these great number of future additional actions without taking sufficient time to complete an up-front and thorough public review of these potential actions. USRT strongly suggests that the USACE reconsider their choice of Preferred Alternative 7 because of its significant environmental, cultural resources, and aquatic life impacts.

Water Quality

8839 Water quality, and sediment quality; water quality

8840 Water Quality and Sediment Quality sediment quality

USRT has serious concerns regarding the quantity and quality of the 491,043 cubic yards of sediment under Alternative 7. USRT questions the assertion made in the DEIS, given the scope and scale of the project, that the mobilization of sediments from dredging and in-water placement would only occur “a short distance downstream (pg. 4-35),” for only “up to a few hours (pg. 4-35),” and that just “a small portion of the river would be affected (pg. 4-35).” The DEIS quantifies expected turbidity for dredging at the Ports of Clarkston and Lewiston, but nowhere else in the project area. USRT requests that the USACE provide in the DEIS turbidity projections for the entire project area, not just for the two selected urban areas. In addition to issues of turbidity, USRT is skeptical of the analysis completed by USACE, and presented in the DEIS, in regard to the toxicity of sediments to be dredged and relocated to Lower Granite reservoir. The area in and around the project area has experienced many decades of intensive farming, which has contributed heavy loads of toxic chemicals into the Lower Snake River Basin. Mobilization of toxic sediments may have significant consequences both in and downstream of the project area.

While the DEIS acknowledges the potential of toxic materials entering the river from dredging machinery, it does not adequately discuss the long-term contribution of toxic materials to the river from continued shipping activities. Although there is a decline in shipping activity

emanating from the Ports of Clarkston and Lewiston, the dredging project may encourage more shipping in the future. An increase in shipping will raise the potential for a spill or release of hazardous materials such as oil, grease, fuels, or hydraulic fluids into the river system. Increased shipping may also cause detrimental erosional effects within and downstream of the project area.

Due to the potential of adverse effects to water quality during and after the dredging project, USRT requests that the USACE selects an alternative much less comprehensive than that of Alternative 7. Preferably, USACE would select Alternative 1 and focus their efforts on removal of the four Lower Snake River dams rather than pour money into a project with little benefit to the public and widespread negative impacts to the ecosystem.

Aquatic Resources

16121 Water Quality and sediment quality; sediment quality

Long-term adverse effects to aquatic resources, in particular to the several species of Endangered Species Act (ESA) listed salmon, are cited for implementation of Preferred Alternative 7 measures. USRT finds these threats to these critically important species, as well as to ESA unlisted fish, unacceptable. Although USRT believes that long-term beneficial effects through the use of dredged material to create shallow water habitat for fish may have some merit, those benefits are highly uncertain if these materials contain significant levels of toxic or other hazardous chemicals or contaminants.

8842 Aquatic resources; threatened and endangered species (aquatic)

Cultural Resources

8843 Cultural resources

USRT members have historically suffered many impacts to cultural areas, cultural traditions, landscapes and archeologically important sites within the high and low shoreline areas of the Lower Snake River and in the areas surrounding the four Lower Snake Dams. Preferred Alternative 7, if implemented, would have profound and unacceptable impacts to USRT member tribe's cultural resources. We believe the No Action Alternative at this time would do the least harm to cultural resources.

Terrestrial Resources

8844 Terrestrial resources; wildlife

There appears to be an enormous level of uncertainty about the level of adverse impacts to terrestrial habitat and wildlife utilizing these newly created habitat features resulting from reconfigured facilities and any upland disposal of sediments removed from the navigation channel. Any long-term benefits for wildlife are uncertain without a thorough analysis and understanding of habitat limiting factors for specific wildlife species. USRT member tribes recommend the USACE strongly consider the merits of Alternative 1 as their preferred alternative.

Please feel free to contact me (208-608-4131) or Bob Austin (503-880-8164), Fish and Wildlife Program Director, if you have any questions concerning these comments on the DEIS for sediment management of the four Lower Snake River Dams. I can be reached at 503-880-8164.

Sincerely,



Heather Ray
Executive Director

0103_WA DFW

From: [Schirm, Thomas B \(DFW\)](#)
To: [PSMP](#)
Subject: Programmatic Sediment Management Plan comments from Washington Dept of Fish and Wildlife
Date: Monday, March 25, 2013 4:46:34 PM
Attachments: [USACE PSMP comments 2013 MW Comments.docx](#)

Please see attached

Mailing Address: P.O. Box 142
Dayton, WA 99328

March 25, 2013

US Army Corps of Engineers
Walla Walla District
ATTN: Ms. Sandra Shelin
201 N. Third Ave
Walla Walla, WA 99362

Dear Ms. Shelin;

SUBJECT: EIS/PSMP Comments from Washington Department of Fish and Wildlife (WDFW)

8642 Alternatives

The Washington Department of Fish and Wildlife (WDFW) appreciates the opportunity to comment on the draft Environmental Impact Statement (EIS) for the Lower Snake River Programmatic Sediment Management Plan. WDFW agrees that Alternative 7, Comprehensive (Full System and Sediment management Measures) is the preferred alternative of the draft EIS/PSMP. Within that alternative, however, there are specific areas for which we have questions or believe that this document could be strengthened. Please consider the following comments when finalizing the EIS and the PSMP.

Measure Implementation Specifics Missing: The EIS provides few details of how Alternative 7 measures as outlined in 2.2.5.7 pg 2-31 would be implemented other than the dredging. The lack of specific implementation information makes evaluation of the measures within the Alternative difficult. Interested parties should have enough detail to determine how and when one measure may be implemented compared to another. For example, it is unclear whether any of the alternatives, other than dredging, will actually be implemented, and if so, on what scale or under what criteria. In particular this information is needed as some measures may require additional evaluations or NEPA review as actions themselves. WDFW has the following questions about how Preferred Alternative 7 would be implemented:

1. How and when would other measures in the alternative besides dredging get implemented?
2. What is the public process for this, and how would the proposals be vetted?

8643 Management measures

8644 Management measures

3. Would implementation of other measures require further NEPA process, or; how do outside agencies and entities stay engaged in proposed future measures and activities?

The Purpose and Need statement on page 1-2, section 1.1.2 states the need for the PSMP is to manage, reduce, and prevent if possible, sediment accumulation in areas of the lower Snake River Reservoirs that interfere with federally authorized purposes. The ability and intent to utilize all three of these general methods is what made this our preferred alternative. WDFW believes this means that the full array of measures in Alternative 7 will be considered. Missing within this document is how and under what criteria measures would be selected and implemented that would complement traditional dredging.

Non-Feasible Measures: Many of measures included in Alternative 7 were addressed earlier in the document as not technically feasible, ie. Agitation of sediments, bubble curtains, etc. Is this because the measures were evaluated individually, but in the preferred alternative they potentially would be used in conjunction with other measures, and therefore could be feasible?

Flow Modification and Authorized Use: Page 2-9. Section 2.2.4, Table 2-4 System management. The table states that modifying flows to flush sediment (drawdown) does not apply to the authorized use of Navigation. This may be true during the drawdown itself, but is a component of sediment removal from the navigation channel that would benefit navigation upon refilling the reservoir(s). Sect 2.2.4.3 says this measure should scour sediments from the confluence of the Snake River and Clearwater, but most sediment scour would occur in the navigation channel. It further states that sediments could deposit in areas that interfere with authorized purposes so further studies would be needed.

8645 Management Measures

Potential Impacts to Winter Resident Fish not Fully Presented: Throughout the EIS, the studies cited emphasize a data gap regarding winter abundance, distribution and habitat use studies for salmonids and sturgeon, as well as other resident species. There are virtually no winter studies cited and little sampling has been done during the winter work window period.

Yet references are made that few salmonids or other fish species are present during December through March. The references cited refer to habitat use or densities of fish populations, but are generally from other seasons of the year when fish are more active because of warmer water temperatures. Adult steelhead are known to migrate and hold in Snake River during this time period. Adult steelhead also overwinter near the confluence with the Clearwater River, and in the upper reservoir, and this upper reservoir and confluence area may be a preferred wintering area (Stabler 1981). Figure 3-1 does not extend through the work window period (December through March). It should show adult steelhead and sturgeon presence, in

relatively high abundance, extending through December and into April. In addition, sturgeon

were not given much consideration in the EIS. The relative abundance and habitat use of sturgeon during winter and the potential effects of the dredging and in-water disposal should

8647 Aquatic resources; fish

8648 Aquatic resources; fish

8646 Aquatic resources; fish

8649 Aquatic resources; general aquatic resources

be reflected in the text and Figure 3-1. Lower Granite Reservoir is recognized as a sturgeon nursery area with fast growth rates. At least one study indicates that the highest densities of sturgeon occur in upstream portions of Lower Granite reservoir where dredging is proposed, and also in the in-water disposal site (Bennet et al. 1993). That study also shows a correlation between sturgeon and crayfish distribution and abundance in Lower Granite reservoir, but this EIS does not examine the likely impacts to the abundance and distribution of primary foods of sturgeon (ie. crayfish, freshwater mussels, larval fish, etc.). Freshwater mussels are mostly ignored in the EIS, but they are an important component of the ecosystem.

Juvenile Fall Chinook Impacts: Page 3-8, the EIS states that fall Chinook juveniles may spend several weeks to several months in the Snake River reservoirs, and in other places in the document it states they may remain for up to a year and emigrate as yearlings. This appears to be a significant adaptation by fall Chinook to a successful rearing strategy that increases adult returns, and its importance is underemphasized when discussing potential dredging or disposal impacts.

8650 Aquatic resources; threatened and endangered species (aquatic)

8651 Aq Res; t&e species

Pages 4-6 to 4-10 discuss Effects on fish. There is inconsistent and/or contradictory information given on sub yearling Chinook salmon. Throughout the EIS and in this section, it repeatedly states that Chinook prefer shallow water habitat. Then a study is referenced that states Chinook prefer deep water habitats in fall and winter, and shallow water habitats in spring and summer. Yet later a statement is made that few fall Chinook juveniles would be present in dredging or disposal areas because they prefer shallow water habitats. Dredging and disposal activities would take place in the winter work window, which is when Chinook should be using deeper water habitats that may include both areas, particularly disposal sites. This potential impact on juvenile Chinook needs to be clearly stated and understood.

Effects on Plankton and Benthic Community: Page 4-3. First paragraph, last line, states, "Recovery of benthic invertebrates which form the majority of the food consumed by bottom feeding fish would occur within a few months." What research is this based on? Please cite references. This would seem reasonable for many benthic invertebrate species, but what about those that are not mobile, or do not have free ranging larval stages? Is this true of the preferred prey species of fall Chinook and sturgeon for example?

White Sturgeon Impacts: Page 4-10, the first paragraph talks about potential impacts of dredging to spawning areas for white sturgeon, which is not generally an issue because sturgeon typically do not spawn in the reservoir, but do spawn in some of the tailraces. However, there is no mention of impacts of dredging on sturgeon rearing habitat or food production areas. It is stated that sturgeon can move to avoid impacts, but no mention is made about if critical or important habitat is dredged or is used as a disposal site, and the impacts of those actions to the sturgeon's major food sources like crayfish and larval fish.

8652 Aquatic resources; general aquatic resources

8653 Aquatic resources; general aquatic resources

8655 Aquatic Resources;
general

8654 Aquatic Resources;
general

Dredging Equipment Potential Impacts: Page 4-12, 3rd paragraph; Structural Sediment management Measures. This paragraph talks about the potential for accidental releases into the water of fuel, lubricants, hydraulic fluids, and other contaminants from equipment used to construct these structures. Yet this same equipment would be used for dredging activities and no mention is made of this potential contaminant release in the discussion of dredging until a brief mention near the end of the document. It is mentioned more than once in relation to the structure options, and is listed as an adverse effect of fish. A consistent application of this potential impact should occur.

BOD Impacts from Dredging: Page 4-13. Paragraph 4, last sentence mentions if sediment management structures are constructed, and the sediment mobilized in construction contains organic materials in an anaerobic state, re-suspension of these sediments will increase the Biological Oxygen Demand and depress dissolved oxygen. Again this would be true of dredging activities as well, but is not mentioned in the dredging discussion sections. Again, a consistent application of this potential impact should occur.

Turbidity Impacts from Drawdown Minimal: Page 4-16, 3rd paragraph. This paragraph states that a drawdown/flushing operation is likely to adversely affect salmonids due to increased turbidity. With the river drawn down and functioning more like a natural river in winter months, this seems to be a minimal concern. Most sediment should settle out above the dam, and periods of high sediment flow and turbidity already occur during these times.

8656 Aquatic resources; general aquatic resources

On this same page, a description is given of adverse effects of drawdown/flushing operations on spawning, yet the EIS states that there are no salmon or steelhead redds and no sturgeon spawning in the Lower Granite reservoir. It seems likely that the coarse suspended sediments would be predominately settled out and the remaining turbidity greatly dissipated by the time this water and sediment pulse reached the tailraces where limited numbers of redds have been found. The discussion in this section should focus on any potential effects on winter rearing for anadromous and resident fish, aquatic invertebrates, habitat conditions and productivity of those habitats throughout the year.

Levee Augmentation: If levee heights potentially need to be raised for public safety, that is understood. However, WDFW would be concerned if this measure is used in place of other sediment management practices, especially because raising levees does not address sediment deposition or management. Implementation of this measure may require the base of the levees to be broadened into the aquatic environment, which may have detrimental impacts on aquatic species.

8657 Management measures

Extent of Shallow Water Habitat Creation: The dredged materials are proposed to be deposited to create shallow water habitat at river mile 116 near Knoxway Canyon, which is shown to be beneficial to salmonids. The EIS should include a description of the USACE's

8658 Dredged materials
disposal

expectation for how much, and where, the creation of shallow water habitats would occur during the first 10 years and in subsequent 10 year increments. What is expected to be the maximum extent of the in-water disposal for creation of shallow water habitats? Also, there is no information regarding the expected frequency of deposition of dredge materials and the expected duration between disposal events so the newly created shallow water habitats can become fully functional and productive for aquatic invertebrates preferred by juvenile salmonids, sturgeon, and other resident fish species. How will it be determined when the optimum amount of habitat has been created? If this PSMP is proposed to be in effect indefinitely, it would seem that the volume of dredged materials to be disposed of may exceed the optimum habitat requirements over time and may eventually become an adverse effect instead of benefit.

Collaborative Sediment Management: WDFW would encourage the USACE to prioritize collaboration and strengthen sediment management actions with other Snake River watershed stakeholders. The preferred alternative focuses on channel and structural measures, but does not list working collaboratively with other entities to limit sediment input into the river systems, which would seem to be a critical long term sediment management action.

Thank you for the opportunity to comment on the draft Environmental Impact Statement (EIS) for the Lower Snake River Programmatic Sediment Management Plan.
If you have any questions, please contact me at 509-382-1266.

Sincerely,



WDFW Habitat Program

8659 Management
measures

cc: Mark Wachtel
Mark Grandstaff

0104_WA DNR

From: [WAGNER, ANDREA \(DNR\)](#)
To: [PSMP](#)
Cc: [Elis, Elizabeth](#); [BARTON, CELIA \(DNR\)](#)
Subject: DNR Comments on Draft Lower Snake River Programmatic Sediment Management Plan (PSMP/EIS)
Date: Tuesday, March 26, 2013 2:15:01 PM
Attachments: [032613_USACE Lower Snake PSMP.pdf](#)

Attached are the Washington State Department of Natural Resources' (DNR) comments on the Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS). If there is a problem with the file, please do not hesitate to contact me and I will get another copy to you.

The original was mailed to you this afternoon also. We appreciate the opportunity to comment.



Caring for
your natural resources
... now and forever

March 26, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS
Attention: Sandy Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, Washington 99362-1876

Subject: Draft Lower Snake River Programmatic Sediment Management Plan/Environmental Impact Statement (PSMP/EIS)

Dear Ms. Shelin:

The Washington Department of Natural Resources (DNR), Aquatic Resources Division, thanks the United States Corps for the opportunity to comment on the draft Lower Snake River Programmatic Sediment Management Plan (PSMP). DNR manages the riverine bedlands of the Snake River in Washington.

DNR is the steward of Washington's aquatic lands and their resources. Aquatic lands are managed for current and future citizens of the state to sustain long-term ecosystem and economic viability; and to ensure access to the aquatic lands and the benefits derived from them.

Washington DNR's management authority derives from the State's Constitution (Articles XV, XVII, XXVII), Revised Code (RCW 79.02 and 79.105) and Administrative Code (WAC 332-30). As proprietary manager of state-owned aquatic lands, Washington State Department of Natural Resources has been directed to manage the lands "...for the benefit of the public." in a manner that provides "...a balance of public benefits¹ for all citizens of the state..." that includes:

- "(1) Encouraging direct public use and access;
- (2) Fostering water-dependant uses²;
- (3) Ensuring environmental protection; and
- (4) Utilizing renewable resources."

¹ WAC 332-30-106 defines public benefit as "...that all of the citizens of the state may derive a direct benefit from departmental actions..."

² Water dependent uses are those uses that "...cannot logically exist in any location but on the water." Examples include water-borne commerce; terminals; watercraft construction, repair or maintenance; moorage; aquaculture; and log booming. (RCW 79.105.060)



Lower Snake River Programmatic Sediment Mgmt Plan
March 26, 2013
Page 2 of 4

In addition, generating revenue in a manner consistent with subsections (1) through (4) of this section is a public benefit. (RCW 79.105.030)

DNR Aquatics has reviewed the Environmental Impact Statement (EIS). At this time, DNR Aquatics reserves the right to comment at a future time any pending water quality certification (Section 404). DNR would like to submit the following comments:

Readability

8886 General DEIS

It is difficult to have both long range plan and immediate action plan woven into the same document. Most comments apply to multiple sections and documents associated with this plan, please apply comments generally as appropriate.

8887 Management measures

Executive Summary (ES)- p3 –

ES-p.3: DNR Aquatics does not see a clear mechanism suggested in plan “to continually evaluate potential sediment reduction measures within the watershed and sediment management measures within the LSRP through an adaptive management process.” The U.S. Corps, Walla Walla District, should take an active lead role in ensuring this occurs regularly. The Preferred Alternative 7 relies on “continued upland sediment reduction measures by the Corps, and other land managers/owners”(at current levels of implementation). To rely on current management effort is unlikely to result in improvement without strong leadership from the U.S. Corps.

ES-p.6: The “expansion or increase of practices beyond current levels of implementation is assumed. Sediment reduction measures would be implemented on public and private lands in contributing drainage areas through programs and actions by agencies other than the Corps”. We cannot assume more funding will be available. It will take strong collaboration and leadership for efforts to lead to a measurable improvement. For example, some efforts will by nature be episodic, such as erosion control after a forest fire. Plans must already be in place so they can be implemented as part of the rehabilitation that normally occurs after a fire.

ES-p.9: For all dredging activity identified in both the Preferred Alternative and the Immediate Needs actions - a Suitability Determination must be completed prior to dredging, that looks at the dredge prism as well as the exposed surface after dredging which must meet the Anti-Degradation Standard (in Washington State). This is especially important for material intended as placement for beneficial use, especially an in-water use for fish habitat. Additionally, in Washington State, upland beneficial use placement should have approval from the local Department of Health.

ES-p.10 – Alternative 7: Will sediment from the immediate need dredge at Port of Lewiston (ID), intended for placement at the Knoxway Canyon site (WA), be tested and held to the Washington State Sediment Standards? A Suitability Determination for the dredge prism must be completed and the material must be approved, prior to dredging and placement at the beneficial use site in Washington.

8890 Water quality, and sediment quality; sediment quality

8889 Water quality, and sediment quality: sediment quality

US Corps of Engineers
Lower Snake River Programmatic Sediment Mgmt Plan
March 26, 2013
Page 3 of 4

8892 Water quality,
and sediment
quality; water
quality

8891 Dredged materials
disposal

ES-p.10 – Alternative 7: Placement of any structures (including weirs), or placement of beneficial use material, need permission from the underlying land owner. For both Alternative 7 and 5, check with Washington DNR Aquatic Resources for ownership of state-owned aquatic lands (SOAL) early in the planning effort. Management of Washington state-owned sediments, dredged from state-owned portions of the river, also must follow RCW 79.140.110.

ES-p.13 – Table ES-2: Both Alternative 5 and Alternative 7 do not address water quality issues from in-water placement of dredged material at Knoxway Canyon.

Document – Section Three – Affected Environment

EIS-3.6.2 p. 3-54. Regarding the immediate need proposed dredging, will a Suitability Determination of the dredge prism be compared to Washington State Sediment Standards prior to placement at the Knoxway Canyon site in Washington State?

8893 Aquatic Resources:
threatened and endangered
species

Document - Section Four – Environmental Effects of Alternatives

EIS - 4.1.3 p. 4-13. Without characterization of the dredge material there is a potential risk to endangered species from chemical contamination.

8894 Water quality, and sediment quality; water
quality

EIS p. 4-38. Please provide the documentation that the agitation method had the same effect on water quality as dredging.

8895 Dredged
materials disposal

Appendix H – Summary of Proposed 2013/2014 Dredging

Appendix H p.1- Material dredged from a Washington state-owned portion of the river must be managed according to RCW 79.140.110. Contact Washington DNR for state ownership determinations and management of those dredged sediments.

Appendix H 4.1.1 p.11- Any structures placed on Washington state-owned lands will require authorization from the State of Washington DNR.

8897 Dredged materials disposal

Appendix H 4.2 p.12 We will need more detail on alternate in-water disposal options and effect on habitat for white sturgeon and salmonid prey species. We suggest including in analysis of “least costly” option. What is the monitoring plan for these disposal sites?

8898 Dredging

Appendix H 4.3 p. 19. A relatively complicated dredging and placement of substrate types will require a well defined dredge prism characterization, and a manageable dredge unit.

Appendix H 4.4 p. 20. Consider placement of dredged material at multiple sites. All 422,000 cy do not need to go to the same location.

8899 Dredged materials
disposal

0104a_WA DNR

8901 Dredged materials disposal

US Corps of Engineers
Lower Snake River Programmatic Sediment Mgmt Plan
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8900 Sediment quality

Appendix I – Lower Snake and Clearwater Rivers Sediment Evaluation Report for Proposed 2013/2014 Channel Maintenance

Appendix I- p.ii – Last sentence- the material proposed to be dredged has not yet received a Suitability Determination which would then qualify the statement in this document. The exception is the Port of Clarkston Crane dock which has received a Suitability Determination.

Appendix K – Snake River Channel Maintenance 2013/2014, Lower Snake River, PM-EC-2007-0001, Biological Assessment

Appendix K - 3.6 p.30- the Knoxway site disposal plan will require a complicated placement of specific material. Have the dredge units been characterized well enough, and are they manageable units, so that the correct material can be placed, in sequence, at the habitat site?

Appendix K - 3.8 p.31- We would like to see an active plan for the Corps to “encourage” other agencies to reduce sediment contribution.

8902 Policies and operations

Appendix K - 3.8.1. p.31. Please explain what is meant by “near real-time” for water quality monitoring during dredging and disposal. What is the mitigation plan for water quality exceedences?

8903 Water quality, and sediment quality; water quality

As mentioned above, the DNR reserves the right to comment further on all future amendments and revisions to this project proposal.

Thank you for contacting our program. We appreciate the U.S. Corps’ consideration of our comments as proprietary manager of the state-owned aquatic lands adjacent to the proposed project boundaries. For projects along the Columbia up to the Clark County line, please contact Shane Early at (509) 925-0960. For projects along the Columbia from Clark County to the Pacific County line, please contact Denise Wilhelm at (360) 740-6824. For projects at the mouth of the Columbia (Pacific County), please contact Andrea Hegland at (360) 740-6813.

Sincerely,



Celia Barton, DMMP Manager
Aquatic Resources Division

- c: Megan Duffy, Deputy Supervisor, Aquatics and Geology and Earth Resources
Kristin Swenddal, Aquatic Resources Division Manager
David Palazzi, Planning Program Supervisor, Aquatics Program
Shane Early, Natural Resources Specialist, Rivers District, Aquatics Program
Allen Lebowitz, Natural Resources Specialist, Rivers District, Aquatics Program
SEPA Center

From: kairos42@earthlink.net
To: PSMP
Cc: kairos42@earthlink.net
Subject: Comments to Programmatic Sediment Management Plan and EIS
Date: Monday, March 25, 2013 10:34:48 AM

0105_Waddell

8927 Dam removal

Comments to the proposed Programmatic Sediment Management Plan and Environmental Impact Statement, 25 March 2013

While I could provide many detail comments that would improve the quality of these documents it would be of limited value as the documents contain serious omissions. The omissions render the PSMP and EIS for addressing sediment buildup in the Lower Snake river incomplete and invalid.

The plan must include an alternative that assesses breaching the Lower Granite Dam in some manner. This of course would allow the sediment to drop out far enough downstream to avoid most flooding issues in the Lewiston/Clarkston area. The plan as written seems to imply that because navigation is "authorized", alternatives that curtail it cannot be studied or considered viable alternatives. This is incorrect. Authorization does not provide a mandate to ignore alternatives that could save tax dollars, reduces the flooding threat caused by the Lower Granite Dam and reduces the damaging effects to Salmon and other species.

This alternative, along with the other alternatives, should include an economic analysis of the benefits and costs of dredging. This too cannot be ignored simply because the project is "authorized". For a project to remain operational it must continue to be justifiable economically and environmentally or it is not in the best interest of the Public.

James Waddell, PE
289 Ocean Cove Ln
Port Angeles WA 98363

8929 Costs and funding

8928 NEPA; range of alternatives

0106_Wells

From: [Michael Wells](#)
To: [PSMP](#)
Subject: Comments on Army Corps of Engineers Lower Snake River Sediment Management Plan
Date: Monday, March 25, 2013 9:02:57 PM

Comments for Walla Walla District Army Corps of Engineers

Re: Lower Snake River Sediment Management Plan

As a taxpayer, one who realizes that his federal government will never see the light when it comes to the financial fiasco this country is currently in, I would like to say congratulations to the Walla Walla District Army Corps of Engineers for constructing a plan that will see to it that your bureaucracy will survive in perpetuity and do so by continuing the existence of four worthless dams that ensure the extinction of wild salmon and wild steelhead of the Snake River Basin. And I would be remiss, if I failed to mention that you also have construed a scheme to keep the ever-irrelevant "sea port" at Lewiston open for what will be a century beyond how long that port would have been around had it had to play by the rules of the private marketplace. No, seriously, it takes something special to spend \$16 million on a 1,500-page plan that never once gives an honest economic cost benefit analysis to any of this.

I also, especially liked how you nonchalantly mention that downtown Lewiston will be flooded by the Corps' mismanagement of the Lower Snake River should this \$3.2 million annual sand relocation project get the greenlight. And hey, if it doesn't get the greenlight, where's the flood buyout plan for downtown Lewiston?

One of your predecessors in selling the Dworshak Dam said what you guys always say, something to the effect that if this dam was going to cause harm to fish and wildlife you wouldn't be here promoting it. Look, retired federal judge Redden told you and the other agencies presiding over the demise of my wild Snake River salmon and steelhead to evaluate the possibility of breaching the four lower Snake River dams. You didn't do that in this report that is actually longer than the 19th century classic novel Les Miserables (don't worry, I won't make you read the book, you can go watch the movie musical instead).

8936 Dam removal

Here you were spending \$16 million, which is far too much for any draft plan that says nothing more than we are going to dig up a bunch of sand and deposit it elsewhere and hopefully we won't kill too many salmon and steelhead in the process, and you didn't even address what Redden told you to do in 2011. You released this report at the end of 2012, if memory serves me, and that means you spent \$16 million dollars and weren't agile enough as a bureaucracy to work in Redden's directive in this report and guess what, it is relevant. Obviously, you spent \$16 million, so if you respond to this and tell me that to do any evaluation ordered by Redden would have added to the cost will definitely fall on deaf ears here because you've never been an agency concerned with costs and the cost of this draft plan that is riddled with holes is a shining example of your disregard for taxpayer money.

For 220 barges of wheat and I shouldn't forget the megaloads, you want to spend \$3.2 million annually (a cost I predict with much confidence will be double that in a matter of a few short years) to move sand around and ensure the extinction of wild Snake River salmon and steelhead. Just how scared of Doc Hastings are you?

Needless to say, I expect better of those in my employ, and as your boss, I'm tired of footing the bill when you never give me what I demand in return.

8937 Socioeconomics; rail

To be more succinct in my unfavorable opinion of your over-priced snoozer of a read see below:

I believe it is absurd to subsidize barging when the same cargo can be more efficiently transported on existing railroad. I also believe it absurd that you continue to pour money into the Lower Snake River as a transportation corridor considering the market advantage Puget Sound ports hold over the Port of Portland. Try to keep up with current events, in case you haven't heard wild Snake River salmon and steelhead hanging on by a thread due to your dams and your juvenile smolt barging program ain't

cutting it.

8939 Aquatic resources;
general aquatic resources



Dredging will threaten those endangered salmon and steelhead and other wildlife and fishes.

You'll never catch up to the increased sediment load in the river system from these catastrophic forest fires we keep having within the watershed. In other words, Lewiston will flood, the wild salmon and steelhead will go extinct and you'll still be wasting my money fleeing America.

Sincerely,

Michael Wells
P.O. Box 2608
McCall, Idaho 83638
salmonblog@yahoo.com

8940 Hydrology and sediment;
watershed sediment production



0107_Wolff

Grass, Charlene G (Contractor) NWW

From: sara wolff [sara_wolff@hotmail.com]
Sent: Monday, March 25, 2013 6:54 PM
To: PSMP
Subject: Lower Snake River Draft

March 24, 2013

US Army Corps of Engineers

Walla Walla District

Refer to: Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement (December 2012)

Dear Army Corps of Engineers,

I am writing to voice my concern regarding the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

I am asking for Alternative Number 1 to be implemented which is the action of no action and until you come up with an environmental impact assessment that clearly considers all the authorized purposes stated in your document, I believe nothing should be done.

8951 NEPA; no action alternative

I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement. Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives

1) fish and wildlife conservation with respect to wild salmon

and

2) recreation.

8952 NEPA; purpose and need

8953 Aquatic resources; threatened and endangered species

Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery but instead would most likely have a negative effect. Also stated in the Environmental Impact Assessment is that the Army Corps of Engineers plan to consider the potential benefit of using dredged material to create submerged fish habitat. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir? If this sediment was

8954 Sediment quality

detrimental for salmon in the first four reservoirs than why would it be of any benefit for salmon in a different reservoir.

Another factor not being considered within alternatives 5 and 7 is recreation. After dredging the contaminated sediment from these reservoirs the amount of contaminants that would be dislodged and sent downstream would be considerable. Dredging the sediment in these reservoirs would directly impact the recreational potential of both the Snake and Columbia rivers anywhere downstream.

8955 Recreation

Thank you for your consideration as we all work towards a healthier, cleaner river system.

Sincerely,

Sara Wolff
3236 Ne 58th Ave
Portland, OR
97213

*

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* New Word document

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* New Excel workbook

<<https://skydrive.live.com/newlivedocument.aspx?xt=xlsx&cid=bf37b505f8b6b1cb>>

* New PowerPoint presentation

<<https://skydrive.live.com/newlivedocument.aspx?xt=pptx&cid=bf37b505f8b6b1cb>>

* New OneNote notebook

<<https://skydrive.live.com/newlivedocument.aspx?xt=one&cid=bf37b505f8b6b1cb>>

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* Autos <<http://g.live.com/9uxp9msn/mau-en-us??su=http://shared.live.com/Live.Mail>>

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* Money <<http://g.live.com/9uxp9msn/mmo-en-us??su=http://shared.live.com/Live.Mail>>

* Movies <<http://g.live.com/9uxp9msn/mmv-en-us??su=http://shared.live.com/Live.Mail>>

* Music <<http://g.live.com/9uxp9msn/mmu-en-us??su=http://shared.live.com/Live.Mail>>

* News <<http://g.live.com/9uxp9msn/mnw-en-us??su=http://shared.live.com/Live.Mail>>

* Sports <<http://g.live.com/9uxp9msn/msp-en-us??su=http://shared.live.com/Live.Mail>>

* Weather <<http://g.live.com/9uxp9msn/mwe-en-us??su=http://shared.live.com/Live.Mail>>

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* Contacts <<https://col122.mail.live.com/mail/ContactMainLight.aspx?n=888637259>>

* Profile <<https://profile.live.com/cid-bf37b505f8b6b1cb/>>

* Add friends <<https://profile.live.com/cid-bf37b505f8b6b1cb/connect/>>

<<https://gfx5.hotmail.com/mail/w4/pr04/ltr/plx.gif>>

From: [JOHN WOLVERTON](#)
To: [PSMP](#)
Subject: Public Comment: Sediment Management Plan Draft EIS
Date: Monday, March 25, 2013 10:26:01 AM

0108_Wolverton

Attn:

U.S. Army Corps of Engineers, Walla Walla District

PSMP/EIS, ATTN: Sandra Shelen, CENWW-PM-PD-EC

To Whom it may concern:

It is no longer feasible to continue dredging the lower Snake River channel and Port of Lewiston due to its associated un-mitigable harmful environmental effects, and especially due to the cost to taxpayers.

The Army Corp of Engineers needs to conduct a system-wide evaluation of COE maintained infrastructure and set priorities on which are more important, which have the least environmental impact, and which have a suitable cost/benefit ratio in relation to how they serve the public interest.

8660 Policies and operation

The lower Snake River and Port of Lewiston dredging no-longer ascends to a level of necessary infrastructure maintenance, considering the many other financial and infrastructure challenges that our country now faces. It is no-longer in the best public interest to continue this dredging project.

8661 Costs and Funding

The dredging of the lower Snake River and in the the Port of Lewiston should be terminated and alternatives to river-barge-hauling of inland freight should be more thoroughly analyzed and pursued.

8662 Dredging

Thank you for your time and attention.

John Wolverton
1637 S 8th st W
Missoula, MT 59801

0109_Confederated Tribes and
Bands of the Yakima Nation

From: [Phil Rigdon](#)
To: [PSMP](#)
Cc: [Kristina Proszek](#)
Subject: Lower Snake River Programmatic Sediment Management Plan DEIS
Date: Tuesday, March 26, 2013 4:42:13 PM
Attachments: [YN TO USACE Lower Snake Sediment DEIS Comments March 26 2013.pdf](#)

Ms. Shelin
Attached are Yakama Nation's comments on the Lower Snake River Programmatic Sediment Management Plan DEIS

Philip Rigdon
Yakama Nation DNR



Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

March 26, 2013

Sandra Shelin
U.S. Army Corps of Engineers
Walla Walla District
201 North Third Avenue
Walla Walla, WA. 99362-1876

RE: Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement

Dear Ms. Shelin,

The Yakama Nation appreciates the opportunity to comment on the Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement (DEIS). Much of the proposed project lies within the Yakama Nation Ceded Lands, and these activities have the potential to impact aquatic resources retained by the Yakama people in the Treaty of 1855 with the United States. Pursuant to that treaty, the United States carries a responsibility in trust to “preserve, protect, and enhance” those resources reserved in perpetuity by the Yakama Nation.

In general, the DEIS has done a good job in laying out a clearly stated Purpose and Need and has identified a reasonable range of Alternatives for evaluation. We recognize that sediment transport and deposition will be a continuous problem in maintaining federally authorized uses of the Snake River reservoirs, especially for navigation. Additionally, we appreciate the effort to remove sediment deposits in a manner that minimizes the risk of negative impacts to tribal trust resources and to use these sediment deposits in a manner that might provide benefits to resources, specifically fall-run Chinook salmon.

However, there are two overarching concerns with the current DEIS that should be corrected in the Final version, specifically (1) the lack of sufficient monitoring to assess potential harms or benefits as a result of dredging activities, and (2) more specific information associated with potential effects to Pacific lamprey, a species of considerable cultural importance to the Yakama Nation and potentially very vulnerable to the effects of the proposed action(s).

9061 Policies and operation

Monitoring must be a fundamental component of any proposed action. We note that the term, “monitoring” is used extensively throughout certain parts of the DEIS, but nowhere does the document describe a monitoring plan to examine potential effects to key species. A significant portion of the depositional zone in the river channel will be dredged, and Pacific lamprey are likely

Post Office Box 151, Fort Road, Toppenish, WA 98948 (509) 865-5121

to reside in areas of sediment accumulation. In fact, it is exactly these areas that are likely to be preferred habitats for juvenile rearing. The Yakama Nation insists that meaningful efforts be undertaken to obtain baseline information concerning those areas that are scheduled to be dredged.

Specifically, sufficient sampling must be undertaken to determine the characteristics of the substrates and the presence/absence of lamprey, before and after the proposed activities. This information should be of suitable detail and scope to provide for long term status and trend monitoring and to support potential future mitigation.

9062 Dredged materials disposal

Additionally, one of the foundations of this proposed action is the potential to relocate dredge spoils in a manner that creates shallow water habitat (SWH) that provides benefits to juvenile fall chinook salmon. The Yakama Nation strongly supports the investigation of potential ecological benefits that could be realized by distributing dredged sediments in a pattern that is designed to create specific habitat types. This is an interesting and potentially powerful new concept that could have significant implications for dredging activity throughout the Columbia Basin. However, the ecological benefits, if any, of such constructed habitats are by no means understood. The Corps should provide adequate monitoring to verify that the putative benefits of constructed SWH associated with the proposed project are real and measurable. While an appropriate monitoring program does not need to be extensive, it does need to be complete and sufficiently robust to produce compelling results.

9063 Aquatic resources; fish

We further request that the Corps revisit the narratives in the DEIS specifically concerning Pacific lamprey. As the Corps is aware, these fish are especially important to the Yakama Nation. Given the recent elevation of lamprey awareness regionally and within the Corps itself, and given that actions contained within this DEIS will disturb, if not completely destroy, juvenile Pacific lamprey habitat, considerable attention should be given to the evaluation of the alternatives and the description of the proposed action. For example, in Section 4.1.2.1 lamprey are discussed, almost as an afterthought, and the conclusion that areas to be dredged "are not likely to be heavily populated" is completely unfounded. In fact, the reason that very few are encountered (noted by Arntsen, 2012) is because Corps dams have blocked passage of adult lamprey, essentially extirpating them from the Snake River. It is likely that with ongoing and future recovery efforts, there will actually be Pacific lamprey back in the Snake River and these juveniles will likely be found in areas to be dredged. Also, we believe that the notion that rearing juveniles "are mobile and could actively avoid dredging activities" is misleading, and probably not true. Although we understand and agree that the winter "work window" will reduce risk for migrating adults, some evidence suggests that the later winter months appear to be a time for juvenile movement. We also note that the issue is not so much about dredging impacts to actively migrating fish, but rather to juveniles that inhabit these substrates year after year throughout all seasons.

Finally, the Yakama Nation agrees that Alternative 7 is the preferred Alternative, as it provides the greatest potential use of various "tools" (as identified in Table 4-1). However, what is not clear is the potential to actually use these various tools and the potential benefits that each of these might provide. For example, there is no assessment of how the Corps might "modify flows to flush sediments" nor what may be the potential unintended consequences or the magnitude of potential benefits of such an action. Although on paper this list may look impressive, there is little or no information providing even a basic understanding of whether the use of these tools is realistic or even effective. An expansion of Table 1, including additional narratives that address these interests, would provide clarity to the reader and potentially guide future site-specific actions covered under this Programmatic EIS.

9064 Management measures

Again, the Yakama Nation appreciates the opportunity to provide these comments. We look forward to future conversations to further discuss our interests.

If you have questions, please don't hesitate to contact either myself at (509) 865-5121 x. 4655 or Bob Rose, Hydro Coordinator, Fisheries Resources Management Program at 509-945-0141.

Sincerely,



Philip Rigdon, Deputy Director
Department of Natural Resources

From: [Sierra Club](#) on behalf of [Mark Anderson](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Thursday, March 28, 2013 9:07:27 AM

0110_AndersonM

Mar 28, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8663 Costs and funding

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

8664 Aquatic resources; threatened and endangered species (aquatic)

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

Please stop wasting our tax dollars with this endless cycle of dredging for no real good reason. Save the salmon as the promise was made so many years ago when the dams went in!

8665 Hydrology and sediment; watershed sediment production

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

8666 Dredging

Mr. Mark Anderson
3974 N Oak Park Pl
Boise, ID 83703-3925
(208) 336-8539



United States Department of the Interior
BUREAU OF RECLAMATION

Ephrata Field Office
P.O. Box 815
Ephrata, Washington 98823



IN REPLY REFER TO:

EPH-2212
ENV-6.00

MAR 26 2013

0111_BOR_Ephrata

Ms. Sandy Shelin - Environmental Coordinator
United States Army Corps of Engineers- Walla Walla District
201 North Third Avenue
Walla Walla, WA 99362-1876

Subject: Draft Lower Snake River Programmatic Sediment Management Plan-Environmental Impact Statement (PSMP/EIS)

Dear Ms. Shelin:

8960 General
project support

The Bureau of Reclamation thanks you for the opportunity to review the above referenced draft PSMP/EIS and submits the following comment.

The proposed implementation of the preferred alternative for the PSMP/EIS should not adversely impact Reclamation operations or irrigation diversions within the project areas, such as the pumping facilities in close proximity to the confluence of the Snake and Columbia rivers near Burbank, Washington.

Thank you for the opportunity to review and comment on the proposed draft PSMP/EIS. If you have any questions, please contact Ms. Gina Hoff, Water Quality Specialist, at 509-754-0254.

Sincerely,

Stephanie Utter
Ephrata Field Office Manager

cc: Mr. Dave Solem
South Columbia Basin Irrigation District
P.O. Box 1006
Pasco, WA 99301

Mr. Richard Lemargie, Attorney
Columbia Basin Irrigation Districts
P.O. Box 965
Ephrata, WA 98823

Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS

UNITED STATES

DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

P.O. BOX 815

EPHRATA, WA 98823-0815

OFFICIAL BUSINESS

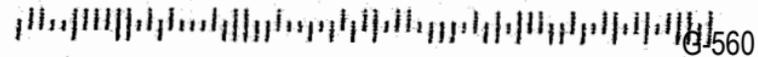
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MAILED FROM ZIP CODE 98823

August 2014

9936281876 C002



0112_CRITFC

From: [Tom Lorz](#)
To: [PSMP](#)
Cc: [Brian McIlraith](#)
Subject: Comments to Draft PSMP Tom Lorz CRITFC
Date: Tuesday, April 02, 2013 5:58:41 PM
Attachments: [Draft EIS Sediment Plan Tlorz.docx](#)

If signed comments are required a formal letter can be sent.

please respond when received.

Tom Lorz
Hydraulic Engineer CRITFC

Memorandum:

To: Ms. Sandy Shelin; Mr. Richard Turner
From: Tom Lorz, *Hydraulic Engineer*, Columbia River Inter-Tribal Fish Commission
Date: March 21, 2013
Re: Army Corps of Engineers' Lower Snake River Programmatic Sediment Management Plan (PSMP) draft Environmental Impact Statement (EIS)

General / Executive Summary Comments:

8964 Management measures

The Draft EIS chosen alternative (Alternative 7) includes a list of measures that could be used near-term and in the future to address sediment management issues. However, since the effort to manage sediment in the Lower Snake has been delayed several years, the only measure in the document currently available to deal with the near-term navigation issues is dredging to reestablish the 14 foot Federal Navigation Channel, as detailed in the PSMP EIS. Staff does not agree with the decision to assume that light loading barging cannot be used to mitigate the effects of sedimentation on the navigation channel during Minimum Operating Pool (MOP) operations until other alternatives can be reviewed and implemented. The document appears to choose meeting the full 14 foot navigation channel versus implementing BiOp operations both of which have Congressional authority.

Thus, while evident, it is not fully acknowledged in the document that the EIS is both a current, specific EIS for dredging the Lower Snake in the near term, and a programmatic EIS for future actions. This is confusing and obscures the current action in the larger programmatic format.

8965 General DEIS

We discuss concerns with the current near-term action, and dredging in general, below.

As to the programmatic EIS, the analysis is unclear as to how alternatives will be selected for use in the future to meet sediment issues. The document describes the process as:
When conditions meet criteria for action, the Corps would initiate review of site-specific conditions, screening of alternative measures (including consideration cost, engineering, and environmental factors), and determine which measure (or measures) to implement to address sediment accumulation.

We are concerned with this working as a practical matter. A number of the alternatives will take extensive time to implement and even more time to take effect. If the Corps waits until a criterion is met before beginning the selection process, then most of the alternatives will be screened out simply by the passage of time. This begs the question; when would these alternatives ever be implemented and why are they included in this document?

A more thoughtful approach might be to identify known trouble spots and to implement some of the alternatives pro-actively and not wait for the triggers to be met. The document discusses future forecasts that will identify locations that may cause recurring impairment of the authorized purposes more than once every five years or that may occur in less than five years. This information already may be available given that the locations identified to

8966 PSMP

be dredged in the near term are also the locations where sediment accumulations have occurred previously and have required dredging. Staff would encourage the Corps to begin a process to identify alternatives that can deal with these reoccurring locations now instead of waiting for a trigger to be met.

Staff's understanding of the NEPA/EIS process is that a preferred alternative or alternatives need to be selected by the end of the process as compared to a no action alternative. Further, the alternatives need to meet a minimum requirement of "reasonably certain to occur". Staff has serious concerns with the likelihood that several of these measures could ever occur, and thus whether Alternative 7, as a whole, will really occur. Several of the measures are extensive projects that will require significant budget commitments, but no funding has been identified to construct these projects. Given the current status of Corps' budget, it is unlikely that funding will be made available for these large projects. While we applaud the Corps' efforts to consider a wide range of alternatives, the document needs to identify which of them can be currently implemented and a better description of the selection process that will be used to select an alternative in the future.

8967 PSMP

8968 Aquatic resources;
T&E species

Near-Term Dredging Specific Comments:

Staff concurs that dredging is the only option that can be implemented in the near-term to reestablish the Federal Navigation Channel back to the authorized dimensions. However, the alternatives analysis does not appear to discuss potential impacts to native species such as lamprey or sturgeon, let alone how the Corps plans to mitigate these species.

Staff would recommend that the Corp conduct further surveys before the dredging takes place to insure that juvenile lamprey are not present at these locations or, if they are present, that they are not typically present when the dredging operation occurs. It is unclear if the surveys were conducted when dredging operations would take place.

The document identifies the Knoxway Canyon at RM 116 in the Lower Granite Pool as the disposal site of the dredge material. Staff would again caution the Corps of using this site or other sites without first conducting surveys and coordinating with the Lamprey Task Group on potential impacts to lamprey in the area and the time periods when lamprey might be present. It is unclear in the document if that has occurred.

The document discusses the potential benefits of using the disposal of material at Knowway Canyon to enhance shallow water habitat for salmonids. We would suggest that the Lamprey Task Group be consulted to determine if there are possible techniques of disposal that could benefit lamprey as well. Also, while staff is encouraged by findings that the creation of shallow water habitat may have some benefits for sub-yearlings, there needs to be monitoring at the proposed disposal site to determine if benefits are actually realized at this location. The site appears to be much larger than those identified in the studies, which included ribbons of less than 6 feet deep shallow water habitat. Monitoring at this larger site will help verify if benefits are also achievable in large shallow benches as proposed in the analysis. Staff is somewhat skeptical of the claim that other species

8970 Dredged
material disposal

8969 Aquatic
resources; T&E
species

beside fall Chinook, i.e., steelhead, spring/summer Chinook, sockeye and bull trout, will receive some benefit from these actions as well.

From: [Sierra Club](#) on behalf of [Betty Hayzlett](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Wednesday, March 27, 2013 9:23:21 AM

0113_Hayzlett

Mar 27, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8667 Costs and funding

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

8668 Aquatic resources; threatened and endangered species (aquatic)

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8669 Hydrology and sediment; watershed sediment production

Let's make a logical decision rather than just the one pushed by moneyed interests. Please.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Betty Hayzlett
2044 E Lamar Ct
Boise, ID 83712-8443
(208) 336-4470

From: [Sierra Club](#) on behalf of [Bonita Parodi](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Thursday, March 28, 2013 9:07:08 AM

0114_Parodi

Mar 28, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8670 Costs and funding

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

8671 Aquatic resources; threatened and endangered species (aquatic)

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8672 Hydrology and sediment; watershed sediment production

Please reconsider and put our environment and wildlife first.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Ms. Bonita Parodi
310 S Garden St
Boise, ID 83705-1372
(208) 577-6939

From: [Sierra Club](#) on behalf of [Margaret Rosenthal](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Monday, March 25, 2013 2:41:59 PM

0115_Rosenthal

Mar 25, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8673 Costs and funding

What are we doing to the salmon?

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

8674 Aquatic resources; threatened and endangered species (aquatic)

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8675 Hydrology and sediment; watershed sediment production

Can you help fix this?

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Dr. Margaret Rosenthal
PO Box 1332
Mccall, ID 83638-1332
(208) 634-6723

From: [Sierra Club](#) on behalf of [Richard Rusnak](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Monday, March 25, 2013 5:42:25 PM

0116_Rusnak

Mar 25, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8676 Costs and funding

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round. Haven't we done enough to destroy salmon habitat, stop these measures now.

8677 Aquatic resources; threatened and endangered species (aquatic)

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8678 Hydrology and sediment; watershed sediment production

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Mr. Richard Rusnak
2400 S Wildrye Way
Nampa, ID 83686-4922

0117_Sierra Club Form Email

Mar [date], 2013

Army Corps of Engineers

[rail _____]

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8988 Aquatic resources; threatened and endangered species (aquatic)

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8989 Hydrology and sediment; watershed sediment production

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

[Name & Address]



410 B East Main
Dayton, WA 99328

phone: 509.382.4115
fax: 509.382.4116

www.snakeriverboard.org

0118_Snake River Salmon Recovery

March 25, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: EIS/PSMP Comments from the Snake River Salmon Recovery Board

Dear Ms. Shelin:

9010 General project support

The Snake River Salmon Recovery Board appreciates the U.S. Army Corps of Engineers Walla Walla District's Draft Environmental Impact Statement (EIS) for the Lower Snake River Programmatic Sediment Management Plan (PSMP). The outcome of the EIS/PSMP has significant impacts to the environment and economy of the Snake River Salmon Recovery region. We agree with the letters that you have received from the Commissioners from Asotin and Whitman counties, and the City of Clarkston.

We support navigation to the inland seaports on the Snake/Columbia River system. We know that a properly functioning river deposits sediment during the spring run-off and/or summer storm cells within the watersheds (natural events). Having the ability to remove the build-up of sediment in areas that could, in the future, affect infrastructure or human life is warranted. We appreciate the comprehensive examination undertaken by the U.S. Army Corps of Engineers (USACE) to examine depositional areas and formulate long term solutions so that navigation from our region to the Pacific Ocean and beyond can continue effectively and efficiently. We support the USACE proposing to implement a long-term plan to manage, and prevent if possible, river sediment accumulation or "depositions" that are interfering with "authorized project purposes" of the USACE's Lower Snake River Projects (LSRP) and reservoirs in southeastern Washington and north central Idaho.

9011 NEPA; range of alternatives

We believe that USACE has properly identified a range of alternatives and assigned the right priority to navigation solutions that allow for continued barging, as well as providing for safety (flood control) for the Clarkston/Lewiston valley. We support Alternative 7 – Comprehensive (Full System and Sediment Management Measures) of the draft EIS/PSMP. The Columbia/Snake River System is critical to transportation movement in north central Idaho and southeastern Washington. We believe that it is imperative that USACE maintain the congressionally authorized 14-ft. navigation channel. The Ports of Clarkston and Lewiston are currently experiencing shallow draft and current conditions are affecting freight moving operations and without strategic dredging operations infrastructure and human life are affected.

9012 Alternatives

While Alternative 7 provides an array of measures to address sediment accumulation, we are opposed to implementation of the following measures:

- Reconfiguring/relocate affected facilities: It simply is not feasible or realistic to relocate the local marinas, or the Ports of Clarkston, Lewiston and Wilma.
- Raise Lewiston levees to manage flood risk: Raising the levee system in Lewiston would simply prohibit public access to the rivers and would defer sediment issue into the future.

9013 Management measures

- Bendway weirs and dikes and dike fields need to be re-evaluated to ensure the river has room to function and ensure structures are placed to ensure intended outcomes are realized, this system has been modified and without proper flow the weirs may not operate as intended, especially if placed in natural deposition zones.
- Programmatic approach to permitting for dredging: We believe it is important that USACE does not have to start from scratch each time dredging is needed.

It is obvious the USACE's EIS aims for compliance with the National Environmental Policy and the Endangered Species Act (ESA). We support the emergency actions – the dredging of four sites to improve navigation safety – during a winter 2013-2014 work window. Winter work schedules are planned to minimize impacts on migrating salmonids, which move up and down the Columbia/Snake River system primarily in spring and summer.

9014
General
project
support

We support dredging so that both barging and the operation of minimum pool can be attained in concert with each other to help migrating juvenile salmonids reach the ocean. Granite Lake has been held above minimum operating pool in recent years to provide safe barge travel, which goes against NOAA Fisheries' 2008/2010 Federal Columbia River Power System biological opinion. This prescribed measures intended to improve the survival of listed stocks such as Snake River steelhead, fall and spring/summer Chinook salmon and sockeye.

The goal of holding reservoirs at their lowest possible elevation is to minimize water surface area, which results in reduced water travel time. The intent is to minimize travel time for migrating juvenile salmonids, which improves their survival. The USACE is legally obligated to try to achieve BiOp objectives, but common sense from the NOAA Fisheries document does say that "slight deviations from these levels, based on navigation needs, load following, and operational sensitivity, may be required on occasion."

Dredging will allow for the removal of sediment and the operation of the minimum pool flows. We cannot have both without dredging and the operation of the navigational channel is important for the economic well-being of the Clarkston/Lewiston valley and surrounding areas and minimum flows help migrating salmonids. Our Communities not only depend upon getting their products to market, but we also have a social and economic interest in protecting and restoring salmonid habitat and populations. The Snake River Region has worked with diverse interest groups for habitat protection and restoration on private and public land. We believe that LSRP's and fish can coexist and believe collaboration and partnerships are the backbone of this goal.

It is a significant short coming that the DRAFT EIS prepared by the USACE didn't identify areas to implement required Off-Site Mitigation when completing projects. All upstream watershed plans identify sediment management Best Management Practices and the USACE could use those to help off-set their required mitigation; which would be cost-effective relative to dealing with future sediment in reservoirs. Additionally, it didn't appear impacts to juvenile sturgeon or other species of concern were considered. We appreciate the opportunity to comment and support continued operation of the inland sea ports within the Snake River Salmon Recovery Region in a manner that protects and restores ESA listed salmonid stocks and maintains the intended use of the USACE's Lower Snake River Projects.

9015 General DEIS

Sincerely,



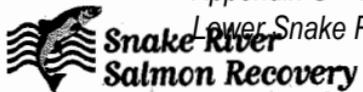
Del Groat, Chair

Snake River Salmon Recovery Board, Chairman, Garfield County Representative

9016 Aquatic
resources; T&E
species

Appendix G - Public Involvement

Lower Snake River Programmatic Sediment Management Plan - Final EIS



410B East Main
Dayton, WA 99328

DAYTON WA 99328

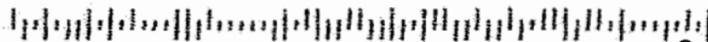
26 MAR 2013 PM 1 L



USACE
- Sandra Shelin
201 N 3rd Ave
Walla Walla WA 99362

August 2014

9936281876



G-572

0119_SOWS_Form Email

Mar [date], 2013

Walla Walla District of the Army Corps of Engineers
WA

To the Walla Walla District of the Army Corps of Engineers Army Corps
of Engineers,

I am writing to submit my official comment for the record concerning
the Lower Snake River Programmatic Sediment Management Plan and Draft
Environmental Impact Statement. I am very concerned about federal
efforts to protect and restore wild salmon and steelhead in the
Columbia and Snake Rivers.

The LSRPSMP and DEIS are deeply flawed and contain serious inaccuracies
and inadequacies. These documents fail to provide the clear, critical
information I need as a citizen and taxpayer about the impacts that
navigation corridor maintenance has on salmon and steelhead over time.
Though the report is voluminous, the information presented fails to
clearly and accurately detail the status of barging transportation on
the lower Snake River, nor the true costs, benefits, and value or
fiscal viability of this system as compared to alternative
transportation options in the lower Snake River corridor.

Below are a number of specific LSRPSMP shortcomings that must be
addressed in the Final EIS:

9022 Dredging

*** Dredging sediment is harmful to salmon and steelhead: Dredging
the lower Snake and Clearwater Rivers is harmful to salmon and
steelhead and the habitats they depend on for survival; this DEIS fails
to fully consider these impacts and ways to mitigate or minimize them.
The DEIS states without justification that the dredging alternatives
are the most ecologically friendly. Wishing for dredging to be
beneficial to salmon and steelhead does not make it so.

9023 Dam
Removal

*** The DEIS needs to look at lower Snake River dam removal and
transportation alternatives: The Corps DEIS fails to explore all
available options, including the removal of the four lower Snake River
dams, the costs and benefits of the current barge transportation
system, or the potential replacement of the waterborne transportation
by rail, trucks, and other means.

*** The DEIS fails to adequately address and incorporate the
intensifying impacts from climate change. Climate change is here; it is
increasing water temperatures, changing the hydrologic cycle (the

9025 Climate
change

distribution and amounts of water through the year) and is widely predicted to significantly, steadily increase sediment loading into the Lower Granite reservoir over time. These anticipated impacts must be adequately described and fully analyzed in terms of costs, impacts on reservoir capacity, dredging activity, flood control, and levee-raising - analyses that are absent from the DEIS.

*** The DEIS fails to accurately or transparently assess if lower Snake River dredging - along with maintenance and investment in this water transportation system - is actually a high funding priority for the Corps and the Northwest in an era of tremendous project backlogs and tightening federal fiscal resources. The DEIS provides no assessment of the value and priority of this project in comparison to other proposed projects, costs or benefits; nor does it include an assessment of the likelihood of available funding in an era of across-the-board spending reductions by the federal government. Local communities need to understand how this Corps project compares with other regional and national projects and be able to fully consider the likelihood and availability of federal funding for dredging from the federal government over the twenty-year life of this plan. The Army Corps must include in the final EIS a full cost-benefit analysis of dredging the lower Snake over the next 20 years.

9026 Costs and funding

9027 Costs and funding

Thank you for the opportunity to submit these comments for the official record for the LSRPSMP and Dredging Draft EIS. I look forward to seeing these important issues and shortcomings addressed in the Final EIS.

Sincerely,

[Name & Address]

From: [Sierra Club](#) on behalf of [Darcy Vansteelant](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Sunday, March 31, 2013 10:30:51 AM

0120_Vansteelant

Mar 31, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

8679 Costs and funding

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

8680 Aquatic resources; threatened and endangered species (aquatic)

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

8681 Hydrology and sediment; watershed sediment production

Certainly we are able to better manage these life-giving resources for the benefit of all involved.
Darcy Van Steelant

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Darcy Vansteelant
76 Scriver Bluff Rd
Garden Valley, ID 83622-5016

0121_CWA_AmRiversEtAl

From: [Steve Mashuda](#)
To: [PSMP](#)
Subject: Comments on Public Notice No. CENWW-PM-PD-EC 13-01
Date: Tuesday, April 30, 2013 1:50:48 PM
Attachments: [404 permit comments.pdf](#)

Ms. Shelin:

Please see the attached copy of comments regarding the Corps' Public Notice No. CENWW-PM-PD-EC 13-01.

A courtesy hard copy will follow by U.S. Mail.

Please confirm receipt of this message.

Thank you for your consideration.

Sincerely,

Steve Mashuda

Steve Mashuda
Earthjustice
705 Second Ave., Suite 203
Seattle, WA 98104
P: (206) 343-7340 ext. 1027
F: (206) 343-1526
www.earthjustice.org

April 30, 2013

U.S. Army Corps of Engineers
Walla Walla District
Attention: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, Washington 99362-1876
psmp@usace.army.mil

via electronic mail and U.S. Mail

Re: Comments on Public Notice No. CENWW-PM-PD-EC 13-01

Dear Ms. Shelin:

This letter is written on behalf of American Rivers, Earthjustice, Friends of the Clearwater, Idaho Rivers United, Institute for Fisheries Resources, Borg Hendrickson, Linwood Laughy, Pacific Coast Federation of Fishermen’s Associations, Save Our Wild Salmon, and Sierra Club, in order to comment on proposed dredging activities in 2013-2014 associated with the Corps’ Lower Snake River Programmatic Sediment Management Plan (“PSMP”). The dredging activities are identified in the Corps’ March 11, 2013 Public Notice No. CENWW-PM-PD-EC 13-01 (“Public Notice”). On March 26, 2013, these groups and individuals submitted comments on the Draft Environmental Impact Statement (“DEIS”) for the PSMP prepared by the Army Corps of Engineers (“DEIS Comments”). We attach and incorporate those comments by reference and offer these additional comments on the proposed issuance of a Section 404 permit for the Corps’ 2013-2014 proposed maintenance dredging of the Lower Snake River.

The DEIS comments discussed in considerable detail the deficiencies of the DEIS under the National Environmental Policy Act (“NEPA”), as well as the major shortcomings of the PSMP generally. While there is overlap between the requirements of NEPA and the review required under the Clean Water Act, these comments detail the additional reasons the proposed dredging activities falls short of the substantive requirements necessary to obtain a Section 404 permit under the Clean Water Act.

I. GENERAL COMMENTS.

general opposition;
costs and funding

We have three major concerns with the dredging presented in the Public Notice . First, the Public Notice indicates the Corps’ intention to move forward in implementing its PSMP. As explained in the DEIS comments for the PSMP, we are strongly opposed to the PSMP and believe that the Corps has not adequately analyzed its effects, nor considered the full suite of costs and benefits of its proposals. While the Corps alleges in both the Public Notice and the DEIS that the need to dredge is both immediate and inevitable, the Corps has not provided sufficient information to evaluate these characterizations. Indeed, it is the Corps’ own action and inaction (along with its erroneous legal position) that leads to both of these conclusions. In 2005, several organizations entered a settlement agreement with the Corps to allow dredging to occur in the winter of 2005-2006 and requiring the Corps to complete an analysis of options to manage

Environmental laws and regulations

sediment in the Lower Snake River.¹ While sediment accumulation in the navigation channel under current conditions is a predictable event, the Corps took over seven years to issue a draft of this study (four years later than originally anticipated). After this prolonged process, the Corps now seeks to move ahead with the PSMP while the public review process for that proposal is underway and well before the Corps can permissibly issue a final EIS or make a formal decision at the end of the NEPA process. Indeed, the public comment period for the DEIS had not closed before the Corps indicated its intent to move forward with that plan by proposing the issuance of a Section 404 permit. Rather than rush to proceed with what appears to be the Corps' foregone conclusion to maintain the channel through dredging this winter, the Corps must address the public's and other agencies' concerns about the shortcomings of its analysis in the DEIS and complete the NEPA process.

Environmental laws and regulations

Second, the Public Notice does not explain how the Corps will satisfy the substantive provisions of the Clean Water Act in executing its proposed 2013-2014 dredging or the PSMP. In contrast to NEPA, which imposes a set of procedural requirements on federal agencies pursuing a major federal action, Section 404 of the Clean Water Act ("CWA"), 33 U.S.C. § 1344, imposes substantive requirements that must be met before the Corps may issue a permit for the discharge of pollutants into waters of the United States.² In evaluating whether a permit should issue, the Corps must follow its own regulations as well as the 404(b)(1) guidelines promulgated by the Environmental Protection Agency ("EPA"). See 33 C.F.R. §§ 320-325, and 40 C.F.R. § 230. The Corps has neither demonstrated compliance with the CWA nor its own regulations.

Environmental laws and regulations

Third, we are concerned that the Corps apparently intends to rely on the DEIS to satisfy its CWA obligations. See Public Notice at 9. Even if the DEIS had adequately analyzed the impacts of the PSMP – and it did not – there is a fundamental disconnect between the broad scope of the actions analyzed in the DEIS and the specificity of the actions that must be analyzed before the Corps can issue a 404 permit under the CWA. Indeed, the action proposed in the Public Notice is different than the dredging outlined in the DEIS in its scope – and therefore in environmental effects and socioeconomic costs. This disconnect between the two projects prevents the Corps from blindly relying on its DEIS to support its actions here. The 404 permit must include a full, comprehensive public interest review and analysis necessary to fulfill the 404 (b)(1) guidelines.³ Moreover, while the Public Notice states the Corps' view that it

¹ See Stipulated Order of Dismissal in *National Wildlife Fed'n. v. U.S. Army Corps of Engineers*, 2:02-cv-2259-RSL (Sept. 8, 2005).

² *Sierra Club v. U.S. Army Corps of Engineers*, 772 F.2d 1043, 1051 (2nd Cir. 1985) (holding that "[l]ike NEPA, the Clean Water Act requires that an environmental concern—here the impact on the aquatic environment—be considered at an early enough stage in the policymaking process to affect the agency decision. But the Clean Water Act provides for a more intrusive power of review, one whose purpose is to prohibit agency action whenever certain environmental impact thresholds are met."). See also 40 C.F.R. § 230.10.

³ The Corps has applied to the Washington Department of Ecology for certification that the dredging complies with the State's water quality standards. We incorporate by reference our comments, submitted April 30, 2013, to Washington.

Environmental laws and regulations

“does not need” a Section 401 permit from Idaho, Public Notice at 10, dredging under the proposed 404 permit will take place in Idaho (such as at the Port of Lewiston) and will result in discharges in Idaho. The Corps must seek certification for those discharges.

II. A PUBLIC INTEREST REVIEW PURSUANT TO THE CLEAN WATER ACT CANNOT BE BASED SOLELY ON INFORMATION CONTAINED IN THE DEIS FOR THE PSMP.

Before the Corps may issue a 404 permit authorizing dredging under the Clean Water Act, it must conduct a public interest review pursuant to 33 C.F.R. § 320.4. “The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case,” including environmental and socioeconomic factors. 33 C.F.R. § 320.4(a). The Corps, in its Public Notice, acknowledges that it must base its decision whether to perform the dredging on a public interest review.

Aquatic resources; threatened and endangered species (aquatic)

The only discussion of environmental impacts in the Public Notice for the Winter Dredging proposal, however, is a short paragraph incorporating by reference the impacts discussed in the DEIS. Public Notice at 9. As we have explained, the Corps’ evaluation of environmental impacts in the DEIS is insufficient and fails to provide a foundation from which the Corps may conduct an adequate public interest review. Some, but not all, of the relevant concerns raised in comments on the DEIS include:

- The Corps relied on its unsupported assumption that fish protected under the ESA will not be harmed by dredging because of the in-water work windows. But as the Corps admitted, Snake River steelhead and Snake River fall chinook are both likely to be in the reservoirs when dredging occurs, yet the Corps did not suggest or analyze measures to mitigate any impacts from dredging (including turbidity and water quality, and the effects of plumes of suspended sediments affecting fish downstream of the dredge locations). Nor did the Corps consider the impacts of dredging on spawning habitat.
- The Corps overstates the environmental benefits of the proposed dredging activities. The Corps assumes that in-river disposal will create beneficial juvenile salmon habitat, but does not assess the extent to which that habitat may become useless because of continued warming in the Lower Snake River.⁴

Dredged materials disposal

⁴ In the Public Notice, the Corps states that using dredge spoils for this habitat creation requires cobbles from the Ice Harbor lock approach, but does not discuss in the Public Notice or DEIS whether sufficient cobble material is available, nor where it proposes to obtain any necessary cobble now or in the future.

Socioeconomics;
rail

Costs and funding

- The Corps has presented an incomplete and inadequate picture of the costs and benefits of the PSMP and of the dredging elements in particular. Readily available evidence demonstrates that the costs of the Corps' preferred alternative outweigh any benefits. For example, the assertion that barge transportation provides benefits because it is an inexpensive and efficient means for transporting goods, is based on irrelevant and outdated information. More recent and specific evidence demonstrates that rail transportation uses less fuel (and has lower emissions) than barge traffic, largely because it reduces the number of miles trucks must travel to reach facilities. As long ago as 2001, a study concluded that cessation of commercial barge traffic on the Snake River would save 12.1 billion BTUs of energy use each year.⁵ More recent studies indicate even greater reductions from improved rail capacity.⁶ The Corps' failure to evaluate these and other true costs and benefits in the DEIS is particularly relevant in the Clean Water Act context because the Act requires the Corps to perform a thorough cost-benefit analysis to determine whether issuance of the 404 permit is in the public interest. 33 C.F.R. § 320.4(a) (requiring "a careful weighing of all those factors which become relevant in each particular case."). See also Public Notice at 11 (noting that the "benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effect thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use [. . .] and, in general, the needs and welfare of the people.").

Range of alternatives

- The Corps did not adequately consider or discuss a full range of alternatives, including a true "no action" alternative, other transportation options in the Lower Snake River corridor, or other options that would provide water transportation without the need for dredging.

Cumulative effects

- The Corps did not adequately consider reasonably foreseeable cumulative impacts that affect the same resources impacted by this proposal, nor did it consider the impacts of reasonably foreseeable ongoing and future activities and events such as water temperature impacts and sediment volume increases from climate change.

Finally, as we stated earlier, the Corps cannot rely on the DEIS to satisfy its CWA obligations. Even if the DEIS did adequately analyze the impacts of the PSMP—and it did not—there is a fundamental disconnect between the broad scope of the actions analyzed in the DEIS and scope and specificity of the actions that must be analyzed before the Corps can issue a 404

⁵ Ball, Trent and Casavant, Ken, "Impacts of a Snake River Drawdown on Energy and Emissions Based on Regional Energy Coefficients," University of Washington Dept. of Civil Engineering and Washington State University Department of Agricultural Economics, 2001.

⁶ See Port of Whitman. 2012. *P&L Shortline Railroad Bridge Replacement and Shuttle Loader: TIGER Discretionary Grant*. Retrieved 12 March 2013 from <http://www.portwhitman.com/Narrative%20Final.pdf>; Washington State Department of Transportation, S. Peterson, and J. Tee. 2012. *Benefit-Cost Analysis Summary*. Retrieved 11 February 2013 from <http://www.portwhitman.com/Benefit-Cost%20Analysis.pdf>

permit under the CWA. The DEIS nominally contemplates a programmatic management plan, while the 404 permit would cover dredging for the upcoming winter season, only. While many of the issues will certainly be similar, the DEIS for the PSMP lacks details unique to this dredging proposal. Indeed, the dredging proposed in the Public Notice includes more than 69,368 additional cubic yards of material than what was presented in the DEIS. The sediment volume presented in the Public Notice conflicts with information presented in the DEIS. According to Appendix F of the DEIS, the Corps must remove approximately 700,000 cy of sediment per year to maintain a 14-foot channel. Thus, the 491,000 cubic yards presented in the Public Notice does not appear to maintain the channel for more than one year. The Corps presents inadequate information to determine whether the volumes presented in the PSMPS DEIS are inaccurate or whether those presented in the Public Notice underestimate the dredging volume for 2013-2014. Before the proposed dredging is permitted, the Corps must consider independently the factors listed in 33 C.F.R. § 320.4, especially “general environmental concerns... fish and wildlife values ... and water quality.” It has not provided any evidence that it has done so for the specific project it is proposing.

III. THE CORPS HAS NOT SHOWN HOW THE PROPOSED WINTER DREDGING WOULD COMPLY WITH THE 404(B)(1) GUIDELINES.

The Corps’ regulations governing the public interest review state that, “for activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency’s 404(b)(1) guidelines.” 33 C.F.R. § 320.4(a). Those EPA guidelines provide specific criteria which enable the Corps to determine whether the dredging complies with Section 404(b)(1) of the Clean Water Act. 40 C.F.R. § 230; 33 U.S.C. § 1344(b)(1).

The 404(b)(1) guidelines mandate that a permit be denied under a number of circumstances. The Corps must deny a permit when, for example: (1) there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem; (2) when, based on factual determinations outlined in 230.11, the Corps determines that the discharge will cause or contribute to significant degradation of the waters of the United States; (3) when the proposed discharge does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem; and finally (4) when there is insufficient information to make a reasonable judgment as to whether the discharge will comply with the guidelines. 40 C.F.R. § 230.12. Each of these factors is particularly relevant to the Corps’ review here.

The Corps gives no indication in its Public Notice as to how it plans to comply with these, and other, 404(b)(1) Guidelines. We are concerned that the Corps will issue the permit without conducting the proper analysis or making the appropriate factual determinations as required under 404(b)(1). As with the public interest review, we must assume that the Corps intends to use the contents of its DEIS to satisfy the 404(b)(1) analysis. This would not suffice. As the Environmental Protection Agency has pointed out in its comments on the DEIS, the document does not “appear compliant with the 404(b)(1) Guidelines.” EPA comments on DEIS (Mar. 26, 2013) at 11-12. The 404(b)(1) Guidelines impose unique substantive requirements, and the Corps must comply with these requirements. Compliance with the 404(b)(1) Guidelines

Environmental laws
and regulations

NEPA; range of alternatives

requires the Corps to complete an analysis that includes, but is not limited to, the following criteria.

A. The Corps Cannot Rely On Its Inadequate Analysis Of Alternatives In The DEIS To Comply With 40 C.F.R. § 230.10(a).

Section 230.10(a) of the guidelines mandate that a permit application be denied where there is “a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.” 40 C.F.R. § 230.10(a). If the proposed action is subject to NEPA, the analysis of alternatives in the NEPA document may be sufficient for evaluation of alternatives under the Clean Water Act. However, “on occasion, these NEPA documents...may not have considered the alternatives in sufficient detail to respond to the requirements of these Guidelines.” 40 C.F.R. § 230.10(a)(4).

That is precisely the case here. As stated in our DEIS comments, the alternatives considered in the DEIS by the Corps will not be sufficient in determining whether any practicable alternatives exist because the Corps did not adequately consider non-dredging alternatives that would obviate the need for this project and because the programmatic evaluation in the DEIS does not focus on the specific details of this proposal. The seven alternatives the Corps presented in the DEIS substantially overlap with one another and all are built upon the legally incorrect assumption that the Corps must maintain a fourteen-foot channel at all times of the year. Non-dredging or reduced dredging alternatives, such as dam removal, sediment flushing through reservoir drawdown, or lighter barge traffic, were ignored. Indeed, although Appendix F of the DEIS concluded that “[p]eriodic drawdown of the reservoir as a means to erode sediment from the confluence area appears feasible,” App. F. at 20 and 126-32, the DEIS dismissed this alternative action as inconsistent with its purpose and need. DEIS at 2-24. This failure to look at sufficient alternatives renders the Corps unable to assess whether there are any practicable alternatives to the dredging proposal that would have a lesser impact on the environment. A permit cannot legally issue until all viable alternatives have been evaluated for their relative impacts and the Corps has determined that there is no practicable alternative that would have less adverse effect. Additionally, the alternatives considered in the DEIS pertained to a long-term management plan, not a specific dredging activity. If the Corps intends to rely solely on its DEIS to determine whether there are practicable alternatives, it will be in violation of Section 404 of the Clean Water Act.

B. The Corps Has Failed To Show That The Proposed Dredging Activities Will Not Result In Significant Degradation Of The Waters Of The United States.

The EPA guidelines prohibit the issuance of a 404 permit where the discharge of the dredge or fill material, “will cause or contribute to significant degradation of the waters of the United States.” 40 C.F.R. § 230.10(b). The Corps must make factual determinations based on criteria included in the guidelines to determine whether significant degradation would occur. The criteria include physical substrate determinations; water circulation, fluctuation, and salinity determinations; suspended particulate-turbidity determinations; contaminant determinations; aquatic ecosystem and organism determinations; proposed disposal site determinations; determination of cumulative effects on the aquatic ecosystem; and determination of secondary

Water, and sediment
quality; water quality

Aquatic resources;
general aquatic

effects on the aquatic ecosystem. *See* 40 C.F.R. § 230.11. Subpart C of the Guidelines describe in detail the potential impacts that correspond with the criteria used for the factual determinations in 230.11 (e.g. impacts to “substrate” from the discharge of dredged material may include change in the complex physical, chemical, and biological characteristics of the substrate). If, based on factual determinations, the project would cause or contribute to significant degradation, the Corps must reject the proposal. The Corps must set forth in writing its factual determinations and finding of compliance or non-compliance. 40 C.F.R. § 230.12(b).

The Corps has thus far failed to make the factual determinations under the 404(b)(1) Guidelines to determine whether the proposed dredging would cause significant degradation of the waters of the United States. And again, the Corps gives no indication in its Public Notice as to how or when it intends to conduct this statutorily-required analysis.

C. The Corps has Not Shown How It Will Minimize Adverse Impacts

Finally, the Guidelines require that all appropriate and practicable steps be taken to minimize potential adverse impacts of the discharge on the aquatic system before the Corps may issue a permit. Aside from the overly optimistic hope that habitat will be created by removing sediment from one part of the river and replacing it in another, there is no detailed discussion as to how the Corps plans to mitigate for the impacts of the project.

D. Cumulative Effects

Cumulative effects

We refer the Corps to our DEIS comments at 17-19 for a more complete discussion of the DEIS’s deficiencies in analyzing cumulative effects. The Corps cannot rely on that analysis here and must complete an independent, and truly comprehensive, analysis of cumulative effects both as part of the public interest review and as required by the 404(b)(1) Guidelines. This analysis must include the proposed dredging in the context of the PSMP and the cumulative impacts of the activities contemplated in that plan.

CONCLUSION

We urge the Corps to engage in a full public interest review, including details on how it will satisfy the 404(b)(1) Guidelines, before it issues the 404 permit for Winter 2013-2014 dredging activities. In contrast to the DEIS, this review must be searching, comprehensive, and substantive to pass muster under the CWA. Unless and until the agency completes an adequate assessment of the impacts of this action under NEPA and the CWA, the Corps must deny the permit.

We appreciate the opportunity to comment on this Public Notice. If you have any questions about these comments, or would like to discuss any matter discussed in these comments, please contact any of the undersigned.

Environmental laws
and regulations

Sincerely,

/s/

Steve Mashuda
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ATTACHMENT

**AMERICAN RIVERS • CITIZENS FOR PROGRESS • EARTHJUSTICE • FRIENDS OF
THE CLEARWATER • BORG HENDRICKSON • LINWOOD LAUGHY • IDAHO
RIVERS UNITED • INSTITUTE FOR FISHERIES RESOURCES • PACIFIC COAST
FEDERATION OF FISHERMEN’S ASSOCIATIONS • SAVE OUR WILD SALMON •
SIERRA CLUB • WILD STEELHEAD COALITION**

March 26, 2013

U.S. Army Corps of Engineers,
Walla Walla District
PSMP/EIS, Attention: Sandy Shelin, CENWW-PM-PD-EC,
201 North Third Avenue
Walla Walla, Washington 99362-1876
psmp@usace.army.mil

via electronic mail and U.S. Mail

Dear Ms. Shelin:

This letter is written on behalf of American Rivers, Citizens for Progress, Earthjustice, Friends of the Clearwater, Borg Hendrickson, Linwood Laughy, Idaho Rivers United, Institute for Fisheries Resources, Pacific Coast Federation of Fishermen’s Associations, Save Our Wild Salmon, Sierra Club, and Wild Steelhead Coalition to comment on the Draft Environmental Impact Statement (“DEIS”) for the Lower Snake River Programmatic Sediment Management Plan (“PSMP”) prepared by the U.S. Army Corps of Engineers (“Corps”). We appreciate this opportunity to comment on the Corps’ DEIS.¹

Representing the voices of more than 6,000,000 people, these individuals and organizations share a common goal of restoring Snake and Columbia River Salmon to healthy, sustainably harvestable levels. Many of these groups were involved in litigation in 2002 and 2004 over the Corps’ previous plans to dredge the navigation channel in the Lower Snake River. That litigation was settled in 2005 to allow interim dredging while the Corps completed a comprehensive long-term study of sediment management options for the navigation channel. For salmon advocates and others, that study presented the opportunity to consider a broad range of alternatives to business-as-usual in the Lower Snake River and to consider the environmental, economic, and social impacts of a number of different alternatives that allow goods to move to markets, provide for recreational and commercial uses of the river, and that would enhance and restore salmon and steelhead populations.

Unfortunately, the Draft EIS for the PSMP does not seize that opportunity. Instead, after over seven years of study and at least \$16 million dollars spent so far, the Corps has returned with a proposal that once again asks a the same narrow question and answers it with the same

¹ We and other interested parties had requested an extension of the comment deadline for this DEIS. Thank you for your consideration with regard to this extension.

foregone conclusion: dredging. But the Corps’ analysis is based on outdated and incorrect assumptions about the benefits of maintaining the navigation system and incomplete consideration of the harms and costs imposed by that continual maintenance. There is far more public information relevant to the Corps’ decision than presented in the DEIS, which the Corps has apparently failed to consider. For example, the Corps’ unanalyzed assumptions about the net economic benefits of the navigation system are no longer valid, even if they may have been at some time. To the contrary, the most up-to-date available information shows that the costs of the existing system are approximately double the benefits provided; dredging to maintain the channel will return less than a dollar in benefits for every dollar spent. Cargo moving down the river has declined dramatically in the past decade, and alternative options to ship goods for export will likely accelerate that decline. Climate change will continue to alter the landscape that influences the Snake River, exacerbating the sediment build-up behind the dams, driving up the costs of channel maintenance over time. Climate change will also make an already too-hot river even hotter for salmon, steelhead, and other cold-water fish. Salmon and steelhead that depend on the Lower Snake River to access the cold-water refugia in the central Idaho wilderness continue to decline and are in dire need of a scientifically and legally valid restoration plan. Flood risk from the buildup of sediment behind Lower Granite dam (regardless of dredging the narrow navigation channel) continues to threaten Lewiston, Idaho and will require difficult and expensive choices about the existing levee system during the period of the PSMP. On top of all of this, new opportunities exist for regional stakeholders to together craft solutions that would save salmon, enhance clean energy, and develop more efficient and economical transportation options while retaining and enhancing the non-barging economic benefits provided by port facilities.

The Corps should not pretend that Snake River navigation system exists independently of these other important factors and must explore the relative benefits of alternatives to continued harmful and expensive dredging. If nothing else, the Corps should not be moving ahead with a major long-term project with serious impacts to the river and river communities without the hard look the region deserves at all of these issues and transparent consideration of the all the costs (environmental, economic, social) of continuing the business-as-usual approach that the Corps prefers. The law – including the National Environmental Policy Act, Endangered Species Act, Clean Water Act, and Northwest Power Act – demands it. To satisfy these requirements, the Corps must significantly alter its approach to the analysis in the DEIS and complete an analysis that provides the information necessary for the public and the Corps to make an informed decision. The following comments are meant both to identify many of the flaws in the DEIS and to provide the Corps with the information and framework necessary to fulfill the purposes of NEPA.²

I. THE DEIS DOES NOT FULFILL THE LEGAL REQUIREMENTS OF NEPA.

The fundamental purposes of NEPA are to guarantee that: (1) federal agencies take a “hard look” at the consequences of their actions before the actions occur by ensuring “that the agency, in reaching its decision, will have available, and will carefully consider, detailed

² We support the comments submitted by the Nez Perce Tribe on this DEIS and incorporate them here by reference. Where applicable, we emphasize specific elements of those comments below.

information concerning significant environmental impacts,” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989); and (2) “the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of that decision,” *id.* at 349; 40 C.F.R. § 1502.1 (EIS “shall” inform decision-makers and public of reasonable alternatives and environmental impacts); *see also Marsh v. ONRC*, 490 U.S. 360, 369 (1989) (“NEPA promotes its sweeping commitment to ‘prevent or eliminate damage to the environment and biosphere’ by focusing Government and public attention on the environmental effects of proposed agency action.”). In short, NEPA requires federal agencies to look before they leap.

To satisfy the requirement that it take a “hard look” at the environmental consequences of its actions, an agency must engage in a “reasoned evaluation of the relevant factors” to ensure that its ultimate decision is truly informed. *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1992). The DEIS must be searching, detailed and comprehensive; “[g]eneral statements about ‘possible’ effects and ‘some risk,’ do not constitute a ‘hard look’ absent a justification for why more definitive information could not be provided,” *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998). An agency’s failure to include and analyze information that is important, significant, or essential renders an EIS inadequate. Without such detailed information, there is no way for the public or the agency to adequately assess the impacts of a proposed action. *See California v. Belgrade*, 483 F. Supp. 465, 495 (E.D. Cal. 1980), *aff’d sub nom, California v. Block*, 690 F.2d 753 (9th Cir. 1982) (by failing to disclose key data, “the Forest Service effectively undercut the twin goals of environmental statements: informed decision-making, and full disclosure”).

It is hence of critical importance that an EIS be factually accurate and well supported. 40 C.F.R. § 1502.24 (agencies must ensure the scientific integrity of an EIS). An agency’s failure to use the most up-to-date information and tools available undermines the public’s confidence in the EIS and renders it legally defective. *Tribal Village of Akutan v. Hodel*, 869 F.2d 1185, 1192 n.1 (9th Cir. 1989) (EIS “which is incomplete due to the omission of ascertainable facts, or the inclusion of erroneous information, violates the disclosure requirement”); *Seattle Audubon Soc. v. Espy*, 998 F.2d 699 (9th Cir. 1993) (agency cannot rely on “stale” science or “ignore reputable scientific criticism”); *Coleman*, 521 F.2d at 676 (rejecting agency position that uncertainty is grounds for not disclosing potential impacts). While “perfect” knowledge is not required, the EIS at least is required to disclose data gaps and the basis for assumptions. 40 C.F.R. § 1502.22 (agency shall make clear where information is inadequate or unavailable).

As detailed further below, the PSMP DIES fails to satisfy these requirements: its purpose and need is impermissibly narrow, it fails to consider an adequate range of alternatives, it fails to consider the full impacts of the proposed alternative and the cumulative impacts, and it fails to present a full picture of the economic and social costs and benefits of the alternatives. The sum total of these shortcomings are a DEIS that fails to inform the public or decision-makers about the consequences of the proposed – or any other –action.

II. THE CORPS' NARROW PURPOSE AND NEED STATEMENT IS BASED ON AN ERRONEOUS LEGAL CONCLUSION.

Although the Corps continues to believe otherwise, Congress has never indicated that navigation – via a fourteen-foot or any other depth of channel – must be preserved at all times on the Snake River. Congress originally authorized the Snake River navigation system with the Rivers and Harbors Act of 1945. *See* Pub. L. No. 79-14 (1945), *adopting* H.R. Doc. No. 75-704. According to the authorizing legislation, the four lower Snake River dams are authorized to provide for slackwater navigation, irrigation, and power generation. *Id.* The authorizing report indicates that the lower Snake River dams would provide navigation on average for ten months a year. H.R. Doc. No. 75704, at 9, 39.

The Flood Control Act of 1962, which authorizes several new projects, includes a provision that reads: “The depth and width of the authorized channel in the Columbia-Snake River barge navigation project shall be established at fourteen feet and two hundred and fifty feet, respectively, at minimum regulated flow.” Flood Control Act of 1962 Pub. L. No. 87-874, 76 Stat. 1173, 1193 (Oct. 23, 1962). Minimum regulated flow is not defined. Nothing in the 1962 Act alters or qualifies Congress’s expectation that navigation through the project would be unavailable a few months each year, as indicated in House Doc. 704. Instead, when it passed the Flood Control Act of 1962, Congress was operating with the background of House Document number 704. Congress is presumed to know that law and is presumed to know the background against which it passed the 1962 Flood Control Act. *See South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329, 351 (1998) (citing *Miles v. Apex Marine Corp.*, 498 U.S. 19, 32 (1990)). If Congress meant to reverse course and require the Corps to maintain a fourteen-foot channel depth 365 days a year, it would have said so explicitly. *See In re Operation of the Mo. River Sys. Litig.*, 363 F. Supp. at 1151. Absent “a clearly expressed congressional intention,” repeals by implication are disfavored. *Branch v. Smith*, 538 U.S. 254, 273 (2003) (citations omitted).

Moreover, the Corps’ authority to provide for navigation as part of the projects is not dominant over other uses and purposes of the River but is one of many Congressionally-authorized uses. The Snake River projects are authorized to fulfill multiple other purposes equally on par with navigation. For example, in the Northwest Power Act, 16 U.S.C. §839 *et seq.*, Congress provided a clear and “affirmative conservation mandate” for the agencies to protect fish and wildlife, specifically including salmon. 16 U.S.C. § 839b(h)(11) (requiring “equitable treatment” of fish and wildlife). *See also NRIC v. Northwest Power Planning Council*, 35 F.3d 1371, 1388 (9th Cir. 1994) (Act passed to put fish and wildlife “on par with energy” and other uses/purposes of the dams).³ Congress requires the Corps to consider several purposes – including fish and wildlife conservation, power generation, recreation – rather than to pursue navigation alone at the expense of all other uses. Were Congress to wish to require the Corps to maintain a fourteen-foot channel at all times of the year, at the expense of all other uses

³ The ESA similarly mandates that the Corps take no action that will jeopardize listed species or adversely modify critical habitat. That provision is unambiguous, and in our view, requires that the Corps further consider additional scenarios and alternatives, such as alternative means of moving goods through this corridor, that would have less impact on salmon.

the Snake River system, it could certainly do so through a clear expression of intent, but it has chosen not to do so. *See Yankton Sioux Tribe*, 522 U.S. at 351; *Branch*, 538 U.S. at 273.

In a similar case, the Eighth Circuit found that the Flood Control Act of 1944 did not mandate a particular length of navigation season in the Missouri River, instead finding that it requires the Corps to consider navigation in addition to other competing interests. *In re Operation of Mo. River Sys. Litig.*, 421 F.3d 618, 631 (8th Cir. 2005). In that case, the district court found that nothing in the statute or case law required the Corps to maintain a specific channel depth, especially at the expense of other uses of the River. *See In re Operation of the Mo. River Sys. Litig.*, 363 F. Supp. 2d 1145, 1151 (D. Minn. 2004) *aff'd in part, vacated on other grounds in part*, 421 F.3d 618 (8th Cir. 2005). The same is true here – Congress made no such express provision in either the Flood Control Act of 1962 or any other statute to give priority to navigation or to elevate a specified channel depth over other uses of the river.

Given that Congress has neither mandated a fourteen-foot channel nor the promotion of navigation without consideration of other goals, the Corps cannot credibly assert that Congressional “authorization” to maintain a particular channel depth is the same as an absolute *requirement* from which it cannot vary no matter the circumstances. A few miles downstream, the Corps has demonstrated as much. The Columbia River authorized navigation channel depth is 27 feet to the Dalles Dam. Nonetheless, the Corps admits that it is only maintained to a 17 foot depth to reflect “the needs of vessels using this reach.” U.S. Army Corps of Engineers, *Dredged Material Management Plan and Environmental Impact Statement* (Final: July 2002) at 1-4. There is no principle of law or logic that would allow the Corps to claim that Congress’s authorization on the Columbia allows Corps discretion but that the same is not also true on the Snake. Indeed, the Corps has historically exercised its discretion not just to decrease the channel depth but to halt all navigation on the Snake and/or the Columbia for weeks or months at a time for maintenance. In the winter of 2010 - 2011, the Corps eliminated navigation for fifteen weeks to accommodate navigation lock work on Snake and Columbia dams. Through its actions, the Corps has rightly acknowledged that Congressional authorization to maintain a specified channel depth in the Snake is not an ironclad mandate but instead allows the Corps discretion to maintain bigger-picture, authorized uses through departures from what it sees as its mandate. The same authorization allows the Corps to consider other alternatives to a fourteen-foot channel depth.

Nor is the Corps’ narrow view of the Flood Control Act of 1962 relevant for purposes of NEPA. In *NWF v. NMFS*, 235 F.Supp.2d 1143, 1156 & n.7 (W.D. Wash. 2002), the Court “expresse[d] no opinion regarding whether the Corps is authorized to maintain the navigation channel at a depth of less than fourteen feet,” but held that “[e]ven if the Corps were not presently empowered to maintain the channel at a depth of less than fourteen feet, it would not be permitted to disregard a reasonable alternative” that may alter the depth of the channel or even shut it down for some parts of the year. That is, even if a fourteen-foot channel depth were required – though clearly it is not – the Corps may not blindly adopt that depth requirement without considering other alternatives.

Yet despite the wide discretion afforded in these statutes and the case law, the Corps defines the purpose and need for the proposed action by saying that “immediate action is needed to reestablish the navigation channel to its authorized dimensions”, i.e. fourteen feet. DEIS at 1-4. The Corps’ purpose and need, while acknowledging other purposes generally, is far too

narrowly-defined, focused in the near term only on deepening the channel. Under this purpose and need, dredging is a foregone conclusion.

Courts have been clear, however, that “an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, [which would cause the EIS to] become a foreordained formality.” *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991). Where “the agency constricts the definition of the project’s purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role.” *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 666 (10th Cir. 1997). See also *Forelaws on Board v. Johnson*, 743 F.2d 677, 683 (9th Cir.1985) (“NEPA’s legislative history reflects Congress’s concern that agencies might attempt to avoid any compliance with NEPA by narrowly construing other statutory directives to create a conflict with NEPA.”).

As noted above, Congressional authorization to maintain a navigation channel to a certain depth is not to be confused with a requirement that the Corps do so. In fact, as the Corps is well aware, it is under multiple legal obligations to manage the river in certain ways, some of which may conflict with one another at any given time. The purpose and need for this DEIS should be focused more broadly on transportation of products from Lewiston downstream. Barge navigation is not an end in itself, but rather a means of shipping various products, primarily grain exports, to and from Lewiston. There are multiple different ways to transport products that don’t require the full navigation channel, or even any barge navigation at all, and that would also retain and enhance the non-barging economic benefits provided by port facilities. This DEIS should evaluate the relative merits, costs, and environmental risks presented by different transportation regimes, including barge navigation, so that Congress and the public can have a complete picture of the situation.

III. THE CORPS DOES NOT CONSIDER ALL REASONABLE ALTERNATIVES.

NEPA requires that an EIS contain a discussion of the “alternatives to the proposed action.” 42 U.S.C. § 101(2)(C)(iii). The discussion of alternatives is at “the heart” of the NEPA process. 40 C.F.R. §1502.14. The CEQ regulations require the agency to “[r]igorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. §1502.14(a). All federal agencies shall, to the fullest extent possible, “[s]tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4322(2)(E); *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519-20 (9th Cir. 1992). A federal agency must look at every reasonable alternative within the “nature and scope of the proposed action,” *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982), “sufficient to permit a reasoned choice,” *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810, 815 (9th Cir. 1987), rev’d on other grounds sub nom. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989), and cannot limit its consideration to only those alternatives that it believes it has the current authority to implement, *NRDC v. Morton*, 458 F.2d 872 (D.C. Cir. 1972). The failure to consider all reasonable alternatives is fatal to the adequacy of an agency’s NEPA analysis. *Idaho Conservation League*, 956 F.2d at 1519 (“The existence of a viable, but unexamined alternative renders an environmental impact statement inadequate.”).

By presenting a range of alternatives far too narrow to serve NEPA’s goals, the Corps has failed even to pay lip service to these fundamental requirements of NEPA. Owing to its improperly narrow purpose and need statement, the Corps has nominally presented seven alternatives, which consist of five alternatives and two combinations.⁴ The “alternatives,” are hardly stand-alone options that would amount to any marked difference in strategy or provide the basis for comparative discussion. The first two alternatives are dismissed essentially out of hand, and the remaining three alternatives are aggregated to form the preferred alternative. Each, including the “no action” alternative is measured against the Corps’ erroneous criterion of creating a 14-foot channel, and the Corps has provided no discussion of true alternatives to that strategy. Setting the purpose and need as “maintaining a 14-foot channel” may be accurately restated as “dredging a 14-foot channel” since according to the Corps, there is no other way – at least in the short-term – to maintain such a channel in the immediate way the Corps envisions; an alternative that includes dredging is a therefore a preordained conclusion. The Corps’ improperly narrow purpose and need statement also underlies its rejection of several reasonable alternatives without sufficient explanation.

A. The Corps’ “No Action Alternative” is Not a True No Action Alternative and Did Not Receive Adequate Consideration.

NEPA requires that the EIS contain a “no action” alternative. 40 C.F.R. §1502.14. The no action alternative must be “considered in detail,” *Alaska Wilderness Recreation and Tourism Ass’n v. Morrison*, 67 F.3d 723 (9th Cir. 1995) (citing *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988)), and it “serves as the benchmark by which the effects of all action alternatives are measured.” *Id.* at 730. CEQ guidelines explain both the import and the necessity of the “no action” alternative.

[T]he regulations require the analysis of the no action alternative even if the agency is under a court order or legislative command to act. This analysis provides a benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the action alternatives. . . . Inclusion of such an analysis in the EIS is necessary to inform the Congress, the public, and the President as intended by NEPA.

46 Fed. Reg. 18,026 (March 16, 1981) (“Forty Most Asked Questions Concerning CEQ Guidelines to NEPA Regulations”), available at <http://ceq.hss.doe.gov/nepa/regs/40/1-10.HTM#3> (accessed March 20, 2013) (“Forty Questions”). That is, the Corps should provide a true no action alternative regardless of what it perceives to be its obligations.

The Corps has defined the no action alternative, Alternative 1, as “no change in current practices.” DEIS at 2-22. It describes this alternative as “represent[ing] a continuation of the Corps’ current operational practices of managing the LSRP through navigation objective reservoir operations in the lower Snake.” *Id.* Under this alternative, the Corps would address

⁴ The preferred alternative, Alternative 7, consists of Alternatives 3, 4, 5, and 6. Alternative 6 is a combination of Alternatives 3 and 4.

navigation through operating reservoirs as close to MOP as possible at some times of the year and eventually up to “maximum operating pool,” which it concludes would not address future needs as further sediment accumulates and limits the amount the water level can be raised . *Id.* at 2-24.⁵

The Corps’ “no action” alternative suffers from two major problems. The first is that rather than “no action” it involves substantial action and cannot form the proper baseline for evaluating the PSMP. The second problem is that while it is not a “no action” alternative, Alternative 1 still deserves – but did not receive – full consideration as an alternative to dredging.

1. *Alternative 1 is not a true no- action alternative.*

The Corps’ erroneous conclusion that it must provide a 14-foot navigation channel permeates even its “no action” alternative. Rather than providing a true alternative of no action, the Corps has simply hypothesized a means to achieving a 14-foot navigation channel using different actions than its other alternatives. This is an action alternative, not a no action alternative.⁶

What constitutes an appropriate “no action alternative” depends on the nature of the action under consideration. CEQ Forty Questions. If the action is a decision on a proposal for a project, “‘no action’ . . . would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.” *Id.*; *see also Or. Natural Res. Council v. U.S. Forest Serv.*, 445 F. Supp. 2d 1211, 1225 (D. Or. 2006) (finding that the Forest Service did not consider true no action alternative when it failed to consider abandoning timber sales, even though timber contracts were in place); *Western Watersheds Project v. Rosencrance*, Case No. 4:09cv298 (D. Id. 2011) (when deciding whether to renew livestock grazing permits, BLM must consider denial of the permit, and no subsequent grazing, as the no action alternative). But where “ongoing programs initiated under existing legislation and regulations will continue,” it may be appropriate to consider a no action alternative of continuing existing management. CEQ Forty Questions.

Here, as in *Oregon Natural Resource Council*, there is no “ongoing program” to provide a 14-foot navigation channel. While the Corps is authorized to provide efficient transportation of goods in and out of the region insofar as it is consistent with the other purposes of the Snake River projects, barging through a 14-foot channel is only one piece among many in that puzzle. Likewise, as discussed above, the Corps’ obligations in the Lower Snake River include much more than maintaining its vision of navigation, such as power generation and preservation of fish

⁵ The Corps’ description of this operation is itself a fiction. Under the terms of the Biological Opinion for the Federal Columbia River Power System, the Corps is prohibited from raising MOP as the Corps envisions to continue to provide for year-round navigation.

⁶ Indeed, this alternative shares many of the same measures and features of the “action” alternatives – including the preferred Alternative 7 – discussed in the DEIS. A no action alternative cannot mirror the actions contained in the preferred alternative.

and wildlife. *See supra* Section II. The Corps has no obligation to maintain a 14-foot navigation channel. *Id.* Indeed a federal district court confirmed that the Corps has historically addressed sediment by dredging on an as-needed basis, rather than through an ongoing program. *NWF v. NMFS*, C02-2259L, Order Granting Preliminary Injunction (filed Nov. 1, 2004); *see also* DEIS at 1-9 to 1-10.⁷ There was no programmatic sediment management plan in place for the Lower Snake River prior to 2002, and the Record of Decision for the Dredged Material Management Plan was withdrawn in 2005. Since 2005, there has been no overall management plan for the lower Snake River in place. DEIS at 1-2. Although the Corps dredged three areas in the winter 2005-2006, this was a one-time action. DEIS at 1-11.

Thus, a true no action alternative would not have as its goal the maintenance of a 14-foot channel and would not involve navigation oriented reservoir management. Under such a plan, there would be no programmatic sediment management plan, and sediment would continue to accumulate in the river with the Corps doing nothing beyond necessary dam maintenance. This sort of true no action alternative would allow an examination of the consequences of not maintaining the channel at a 14-foot depth against the action alternatives provided by the Corps. That no action alternative would form the NEPA-required baseline to measure its effects on navigation – in addition to the Corps’ other competing responsibilities in the Lower Snake river – against the action alternatives provided by the Corps.⁸

2. *Inadequate evaluation of the Corps’ “no action alternative”*

The second major flaw in the Corps’ presentation of its “no action alternative” is that it fails to provide a rigorous analysis of that alternative. Again, while the Corps’ “no action alternative” is not a true no action plan, it still qualifies as an alternative that must be evaluated fully. The Corps, however, has provided nothing but the most surface-level evaluation of its “no action alternative.” Rather than considering that plan in the context of the many and varied interests the Corps must consider in the Lower Snake River, the Corps dismisses Alternative 1 out of hand because it may eventually result in less than a 14-foot navigation channel. When that would occur is not specified.

The Corps should have considered light-loading and other alternatives that would render Alternative 1 a workable solution (within the MOP constraints imposed by the FCRPS BiOp) and that might obviate the perceived need to maintain a 14-foot channel in perpetuity. The Corps’ responsibility on the Lower Snake River is not to provide a 14-foot channel for the sake of a 14-foot channel but only to do so if it is justified under the various economic and statutory considerations the Corps must consider. Failing to give due consideration to Alternative 1 is further evidence the Corps has neglected that responsibility; the Corps doomed this alternative when it formulated its narrow and mistaken purpose and need.

⁷ As explained above, neither the governing statutes nor the regulations require the Corps to manage sediment to maintain a 14-foot navigation channel during all months of the year, so there is similarly no “ongoing program” to provide a year-round 14-foot navigation channel.

⁸ As noted below and addressed more fully in the attached comments prepared by Natural Resource Economics, a true no action alternative is vital for the Corps to understand and present an accurate and balanced discussion of the benefits and costs of its alternatives and proposals.

B. The Corps Failed to Consider A Range of Reasonable Alternatives.

The Corps' cursory analysis of its non-dredging alternatives – along with entirely failing to consider other viable options – is a new application of the familiar law of the instrument fallacy: when you have a clamshell bucket, every problem looks like it should be dredged. An agency must consider all reasonable alternatives to a proposed action. 42 U.S.C. § 4332(2)(C)(iii); *Alaska Wilderness Recreation v. Morrison*, 67 F.3d 723, 729 (9th Cir.1995). What constitutes a “reasonable” alternative depends on the nature of the proposal. CEQ's Forty Questions. Generally speaking, “[t]he stated goal of a project necessarily dictates the range of ‘reasonable’ alternatives and an agency cannot define its objectives in unreasonably narrow terms.” See *City of Carmel-By-The-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 1160 (9th Cir. 1997) (citing *Citizens Against Burlington*, 938 F.2d at 196). Of course, the agency cannot narrow the purpose and need in order to limit the choice among alternatives. See *supra* Section II.

Where an agency identifies an alternative but drops it from further analysis, the agency must offer a sufficient and reasonable explanation for doing so. 40 C.F.R. § 1502.14(a); *N. Alaska Env'tl. Center v. Kempthorne*, 457 F.3d 969, 978-79 (9th Cir. 2006). The elimination of a reasonable alternative from detailed consideration on a basis that is legally incorrect is, of course, insufficient and unreasonable.

Here, the Corps identified and then rejected without detailed consideration four reasonable alternatives based on the assumption that it must maintain a 14-foot navigation channel year round: navigation-oriented reservoir management (Alternative 1), the implementation of system management measures only (Alternative 3), the implementation of structural management measures only (Alternative 4), and a combination of system management and structural management (Alternative 6). DEIS at 2-25 to 2-28, 2-30. The Corps entirely failed to consider alternatives or a combination of alternatives that would involve maintaining the navigation channel at less than 14 feet.

The Corps briefly identified and then summarily dismissed a “system management” measure to maintain channel depth at less than 14 feet. See DEIS at 2-5, 2-8. This measure should have been analyzed. It would have overlapped with the true no action alternative the Corps should have considered. Even if it were not the true no action alternative, however, managing the river for a different channel depth would still be a reasonable alternative in its own right inasmuch as it could meet the various obligations of the Corps in the Lower Snake River system. Managing the river for channel depth of less than 14 feet, or for 14 feet only during certain months of the year, is a reasonable alternative under the broader purpose and need that the Corps should have used in preparing NEPA analysis for a sediment management plan. The Corps' proposed action is to adopt a plan that manages sediment that interferes with the authorized purposes of the LSRP. DEIS at 1-2. “The authorized purposes of the LSRP include commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation.” *Id.* at 1-4.

A channel depth of less than 14 feet is consistent with both the production of hydroelectric power and wildlife conservation. Nor would a change in channel depth preclude

navigation on the lower Snake River. As the DEIS itself acknowledges, “[m]aintaining the federal navigation channel at a less than 14-foot depth could be accomplished through establishing another depth as a minimum (such as 12 foot, 10 foot, etc.), or maintaining the 14-foot channel on a periodic basis . . .” DEIS at 2-5. In the former case, shippers could still use the river by “adjust[ing] their vessels and/or shipping practices to accommodate the new paradigm.” *Id.*

Despite the fact that adjusting channel depth is consistent with the broader purpose and need, the Corps summarily rejected this alternative – giving it a total of two sentences of analysis – on the grounds that it did not meet the purpose and need of the management plan: “The Congressionally-authorized channel depth is 14 feet.” *Id.* at 2-8. Even if the Corps were correct in its reading of the Flood Control Act of 1962 (and it is not, for the reasons discussed above), it cannot reject an alternative merely because it lacks current authority to implement it. *NWF v. NMFS*, 235 F.Supp.2d at 1154-1155. In rejecting this management measure for consideration among the alternatives, the Corps also foreclosed consideration of the feasibility and comparative advantages of light-loading barges. As a result, the Corps has provided no discussion of true alternatives to maintaining a 14-foot channel that might have allowed the public to evaluate the Corps’ vision for barging in the larger context of the movement of goods and other goals

The Corps relied on the same rationale as a basis for elimination of Alternative 3 from detailed consideration. Implementation of Alternative 3 would have addressed sediment problems by raising and lowering the level of the reservoir, adjusting flows to draw sediment downstream, and modifying or moving existing facilities affected by the sediment. *Id.* at 2-25 to 2-26. The Corps found that such system management measures would partially address long-term sedimentation problems and flood risk. *Id.* at 2-33. Alternative 3 was thus consistent with the purpose and need of developing a sediment management plan, the proposed action, because it would have had the potential to “manage, reduce and . . . sediment accumulation in areas of the lower Snake River reservoirs that interfere with federally authorized purposes.” DEIS at 1-3. Nevertheless, the Corps eliminated Alternative 3 on the grounds that “[f]urther system management measures would not reestablish the navigation channel.” *Id.* at 2-24. This again illustrates the unduly narrow scope of the purpose and need defined by the Corps.

Likewise, the Corps relied on its erroneously narrow definition of the purpose and need in eliminating Alternatives 4 and 6 from detailed consideration. Alternative 4 would have authorized the construction of structures such as bendway weirs and dikes, as well as activities like agitation to suspend sediment at existing structures. *Id.* at 2-27. Alternative 6 is a combination of Alternatives 3 and 4. *Id.* at 2-30 to 2-31. Neither of these alternatives received due consideration because they would not fulfill the Corps’ incorrect 14-foot channel purpose and need.

As a result of eliminating the alternatives that would not provide for an immediate 14-foot channel, the Corps ultimately considered only two alternatives in detail: Dredging Based Management (Alternative 5) and “Comprehensive” (Alternative 7). While there is no minimum number of alternatives that must be discussed in an EIS, the agency must consider a range of alternatives sufficient to “foster[] informed decision-making and informed public participation.”

California v. Block, 690 F.2d 753 (9th Cir. 1982). Having only two real alternatives, both involving the same primary action – dredging – and with a goal to “initiate action to reestablish the authorized dimensions of the navigation channel,” DEIS at 2-22, the DEIS does not fulfill this purpose.

As explained more fully in comments from the Nez Perce Tribe (which we adopt and incorporate here by reference), Alternative 7, the Corps’ chosen alternative, amounts to a “we’ll tell you later” approach; it is not a real action alternative. It contains no real plan but is just a limited menu of options the Corps may consider at some unspecified point after dredging, or perhaps after dredging another time, or another. There is no limiting principle to Alternative 7; it is essentially a license to take whatever actions on the list the Corps chooses, whenever it chooses, without actually selecting which options would be better than others or describing what standards the Corps will apply when choosing among these options. And as the Corps has demonstrated repeatedly, dredging will always be its default choice. Without establishing a hierarchy of measures and any standards or benchmarks for those measures, the Corps cannot evaluate the environmental or socioeconomic impacts of this Alternative.

The purpose of analyzing alternatives to a proposed action is to “identify and assess the reasonable alternatives to the proposed action that will avoid or minimize adverse effects of these actions upon the human environment.” 40 C.F.R. § 1500.2(e). The Corps’ failure to give detailed consideration to any alternative that does not rely on dredging is fatal to the legality of its NEPA analysis. *See Or. Natural Desert Ass’n v. BLM*, 531 F.3d 1114, 1145 (9th Cir. 2008) (holding that BLM violated NEPA’s alternatives requirement because, “[i]t considered no alternative that proposed closing more than a fraction of the planning area to ORV use”); *Or. Natural Desert Ass’n v. Singleton*, 47 F. Supp. 2d 1182, 1194 (D. Or. 1998) (holding that BLM unreasonably failed to consider “an alternative which simply eliminates cattle grazing, without compromising the rivers’ scenic, geologic, wildlife and cultural values” in preparing a management plan for Owyhee Rivers designated as Wild and Scenic). The DEIS does not accomplish any of these goals. By looking only narrowly at a set of alternatives designed to achieve a narrow predetermined outcome, the DEIS fails to satisfy NEPA’s requirement that it take a “hard look” at alternatives to its proposed action.

IV. THE CORPS HAS UNLAWFULLY PREDETERMINED THE OUTCOME OF THE NEPA PROCESS.

The requirement that an agency must look before it leaps is a bedrock principle of the NEPA process. *Save the Yak Comm. v. Block*, 840 F.2d 714, 718 (9th Cir. 1988). An agency may not decide to proceed with a proposed action until after it has considered the action’s potential environmental impacts. The CEQ regulations require federal agencies to begin preparing NEPA documents as early as possible in the decision-making process “so that preparation can be *completed* in time for the final statement to be included in any recommendation or report on the proposal.” 40 C.F.R. 1508.25 (emphasis added). An EIS “shall be prepared early enough so that it can serve practically as an important contribution to the decision-making process and will not be used to rationalize or justify decisions already made.” *Id.* This is important because, “[a]fter major investment of both time and money, it is likely that more environmental harm will be tolerated” than would otherwise be acceptable if the agency

had considered that harm before it acted. *Confederated Tribes and Bands of the Yakima Indian Nation v. FERC*, 746 F.2d 466, 471-72 (9th Cir.1984).

The Corps has violated these key principles by deciding to adopt a sediment management plan, and specific contents of that plan, before completing the NEPA process. The DEIS “provides a menu of potential measures that may be applicable for sediment accumulation issues.” DEIS at 1. These options include dredging and dredged materials management. *Id.* at 13. Although it has not officially adopted Alternative 7 or the draft plan in Appendix A, the Corps is seeking a permit to authorize maintenance dredging activities at three locations in the Lower Granite Reservoir and at Ice Harbor Dam under Section 404 of the Clean Water Act. Specifically, on March 11, 2013, the Corps issued a press release inviting public comments on the proposed Clean Water Act Permit.⁹ While members of the public are diligently preparing comments on the DEIS in order to provide the Corps with full information, the Corps is proceeding with other actions as if it had already adopted Alternative 7 and the draft plan included in Appendix A in a Record of Decision.

The Corps’ pursuit of a Clean Water Act permit tiered to an as-yet unfinished NEPA process demonstrates that the Corps has predetermined the result of this NEPA process. This defeats the purposes of NEPA and is unacceptable. The Corps should abandon its intent to undertake any activities tiered to the PSMP or its EIS until *after* the NEPA process has been completed. In addition, unless the Corps makes substantial changes to the EIS and/or the PSMP in response to public comments, it can be presumed that the final EIS and PSMP will be predetermined results that do not satisfy NEPA.

V. THE DEIS FAILS TO ADEQUATELY EVALUATE THE ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES IT DOES PRESENT.

A. The DEIS Fails to Adequately Consider Effects to ESA-Listed Salmon and Steelhead.

There are two categories of direct effects that dredging or other in-water construction actions will have on threatened and endangered salmon and steelhead in the Snake River. The Corps’ discussion of both effects raises more questions than it answers. First, dredging will affect any fish in the river at the time through potential entrainment in dredge equipment, turbidity, noise, and other water quality impacts. The Corps repeatedly dismisses these impacts as unlikely or minimal because in-water work would occur during the “work windows” when “the fewest ESA-listed fish are found in the reservoir[s].” DEIS at 4-5. But as the Corps acknowledges, some Snake River Fall chinook overwinter in the reservoirs and steelhead may also be present during these work windows. The DEIS does not discuss whether or how the work windows will minimize impacts to these fish, does not consider impacts that will not be

⁹ See <http://www.nww.usace.army.mil/Portals/28/docs/programsandprojects/psmp/Pubnotice-2013-14drdg.pdf> (accessed March 20, 2013). Although the Corps seeks to rely on the DEIS for the NEPA review required for the 2013-2014 dredging, the dredged quantity identified in it Public Notice exceeds the amount discussed in the DEIS by 69,368 cubic yards.

avoided, and does not present or discuss any additional mitigation to address the impacts to fish that are there during the work window months. The DEIS cites several studies about Fall chinook that overwinter but does not attempt to quantify the number or percentage of overwintering fish or how affecting overwintering fish would affect the overall population. DEIS at 3-11 to 3-13, 4-5.

Second, dredging impacts salmonid habitat. The entire lower Snake River is designated critical habitat for Snake River Fall chinook salmon spawning, rearing and migration. The Corps notes that Snake River Fall chinook do spawn in the tailrace areas downstream of the four dams and that its most recent survey data (from 2006-2009) identified a number of Fall chinook redds in the tailrace portions of all four Lower Snake River dams. *Id.* at 3-10 to 3-11. The Corps also notes that the lock approaches in the downstream tailraces of these dams contain suitable habitat for spawning, but emphasizes that redds have not been detected in these areas recently. *Id.* at 4-5. Many of these lock approaches will be dredged under the dredging alternatives. *See id.* at 1-8 to 1-9 (each of the lock approaches listed as a “problem area”). Based on this data, the Corps appears to believe that dredging will not harm salmon spawning habitat. This conclusion is speculative and is based, at best, on outdated information. As the Corps and other federal agencies have touted in several other forums over the past three years, Snake River Fall chinook returns have, on average, increased in the past five years. Redd surveys last completed when these returns were up to 50% lower do not constitute complete or accurate information about what habitat is important for Fall chinook spawning now or in the future.

B. The Benefits Predicted from “Habitat Improvement” Resulting from In-Reservoir Deposition of Dredge Spoils are not Justified.

The DEIS assumes that in-river disposal will create effective “habitat” for salmon and other species. While we would support valid salmon habitat restoration measures, we are concerned that the benefits of in-river disposal are overstated and the risks have been ignored. We are primarily concerned that in-river disposal is being pursued primarily for economic, not environmental, reasons. To the extent the Corps contends that this use of dredge spoils is beneficial, it must consider the value of this habitat over the life of the PSMP and whether it will benefit specific runs of threatened and endangered salmon and steelhead.¹⁰ Even now, water temperatures in the Snake River during the months of July-September routinely exceed 70 degrees, which not only harms salmonids and other cold-water fish, but also violates Washington’s water quality standards. While a large portion of this increase is caused and exacerbated by the increased surface area of the reservoirs and slow-moving water behind the dams, these temperatures exceedences are projected to increase in both severity and duration over the next 20 years due to the effects of climate change. As temperatures increase, the temperature exceedences in the Snake River – particularly in shallow-water areas – will become longer and more severe. The Corps’ creation of shallow-water habitat (even if successful structurally) may provide no benefit if summer rearing fall chinook using shallow water habitat are forced by higher temperatures to move downstream to the cooler Columbia mainstem. The Corps’ projections of benefits from its placement of dredge spoils does not account for this or

¹⁰ As the Nez Perce Tribe explains, for example, the Corps must consider whether its projected benefits extend to significant portion of fall chinook that rear in the Clearwater River.

any other risks. Before the Corps embarks upon such a risky and expensive project, more evaluation on the risks and benefits should be provided.

C. Mobilization of Toxics into the Water Column.

The DEIS largely dismisses the potential for dredging to stir up toxic wastes contained in sediments. DEIS at 3-54 (one-paragraph summary of several sediment samples). We believe that the risks presented could be far greater than those acknowledged by the DEIS. Previous data has shown sediment samples contaminated with dioxin and petroleum products, substances that will be activated in the river during dredging. Industrial facilities like the Clearwater Paper facility continue to pour out dioxin and many other toxics into this area. Other than the most general description, there is no information in the DEIS on the sampling sites or whether any targeted sediment sampling has been done in the river. The Corps should provide much more detailed information, including the results of recent comprehensive sampling and core tests throughout the areas to be dredged. Moreover, the Corps should provide more detailed information on how it intends to monitor the dredging to ensure that toxics “hot spots” do not cause habitat degradation. Forthrightly addressing the toxics issue is particularly important where sediments will be used to attempt to create shallow water habitat for salmonids.

D. The DEIS Fails to Evaluate Fully the Impacts of its Preferred Alternative.

Although the DEIS contains some – albeit limited and inadequate – information about some of the impacts of dredging, it contains little to no analysis of the impacts of other features of Alternative 7. For example, though it includes raising the levees in Lewiston in its menu of options under Alternative 7, the Corps does not analyze the social, economic, and environmental costs of raising the levees, but rather treats this measure as a hypothetical that may become necessary in the future. *See* DEIS at 2-18. Other than noting that construction associated with raising the levees may cause “short-term” recreation or socioeconomic effects, the Corps ignores the impacts of this measure.

The levee that protects downtown Lewiston from flooding originally had 5 feet of freeboard. Much of that freeboard is now gone. In 2001, because of sediment accumulation, the Corps proposed raising the levee by 3 feet to decrease the risk of flooding downtown Lewiston. In the absence of any information that this measure is “off the table” (combined with the Corps’ failure to consider climate change and other risk factors – *see infra*), raising Lewiston’s levees seems inevitable – at least insofar as the Corps has presented no plan that would alleviate that need.¹¹

The Corps is no doubt aware that raising the levees is a controversial measure that would adversely affect Lewiston by, among other things, further separating the community from the

¹¹ The Corps’ failure to analyze the impacts of this measure also undermines its consideration of cumulative effects. Regardless of whether this measure is necessary for the Corps’ impermissibly narrow focus on maintaining the navigation channel, it is at least reasonably foreseeable that additional sediment accumulation in the Lower Granite reservoir outside the navigation channel will continue over the course of the PSMP and require the Corps to address how to protect Lewiston from flood risk.

river and by requiring major changes to existing infrastructure. It will also be expensive and by itself should compel the Corps to look at other remedies for the flood risk to Lewiston. The Corps' wish to avoid addressing such a costly, unpopular, but integrally connected, issue in the DEIS does not allow the agency to sweep it under the rug. To the contrary, NEPA requires a full examination of all of the impacts of the action and any cumulative effects. By selectively discussing only some of the aspects of the action, the Corps has blinded both itself and the public to the full effects of its preferred course of action.

E. The DEIS fails to Consider Climate Change Impacts.

The Corps fails to consider the extent to which continued operation of the navigation channel contributes to climate change. Climate change must be considered among the direct or indirect impacts of an action. *See Mid States Coal. for Progress v. Surface Transportation Board*, 345 F.3d 520 (8th Cir. 2003) (EIS that failed to consider the climate change impacts of the coal planned for transport on the proposed rail line being analyzed in the EIS was inadequate); *Border Power Plant Working Group v. Dep't of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003) (EA for new electricity transmission line was inadequate because it failed to consider the impacts to climate change from power plants). An indirect impact is one that is "caused by the action and later in time or farther removed in distance, but still reasonably foreseeable." 40 C.F.R. § 1508.8(b).

The continued use of the Lower Snake River navigation channel contemplated in DEIS will result in the emission of greater greenhouse gases. As identified in the attached comments from Natural Resource Economics, the current barge system results in higher carbon dioxide emissions – at least 1,259 million tons higher – than shipping by rail. *See Attachment A at 19* (Natural Resource Economics comments discussing reports showing reductions in CO₂ from McCoy facility alone due to efficiencies and a reduction in the number of truck miles travelled to rail line grain facilities versus the river navigation system). Less reliance on trucking to the river and barging would result in a measurable net reduction in energy consumption and air pollution, but these effects are not captured anywhere in the Corps' analysis.¹²

Moreover, climate change compounds the harm to salmon caused by the operation of the Lower Snake River dams, including for navigation. In a rapidly warming world, access to cold-water refugia, such as that in central Idaho and eastern Oregon, is vital for resilience and for survival and recovery of salmon and steelhead. These cold-water refugia in central Idaho and Oregon support the highest and longest migrating salmon group on earth, a unique feature cited by scientists as vital to maintain given its adaptive value during climate change.¹³ There is

¹² "[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of [the agency's] control ... does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming." *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008). Rather, "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *Id.*

¹³ *See, e.g., J.T. Martin, Climate and development: Salmon Caught in the Squeeze. Response to 2007 Draft Biological Opinion on the Federal Columbia River Power System and Mainstem Effects of the Upper Snake and Other Tributary Actions* (2007); L. Crozier, R. Zabel, and A.

widespread scientific agreement that the current configuration and operation of the Snake River dams – that the Corps seeks to perpetuate through the PSMP – precludes these fish from reaching and fully utilizing that habitat. While the Corps recognizes that the current system of slackwater lakes does result in higher and longer lasting water temperatures in the summer, DEIS at 4-60, it fails to analyze its decision to continue maintaining a navigation system (for the term of the PSMP or beyond) that perpetuates this exceedence, nor does it recognize or consider that increasing temperatures from climate change will make this current problem worse. *See, e.g., id.* at 4-66 (finding that Alternative 7 would not change current conditions and so will not contribute to cumulative effects to these species).¹⁴ In choosing to maintain this waterway, the Corps is making a decision to perpetuate these impacts and must fully consider them in its EIS.

VI. THE DEIS FAILS TO IDENTIFY AND ADEQUATELY ANALYZE CUMULATIVE IMPACTS.

NEPA requires a cumulative impacts analysis to: (1) catalogue past projects in the area; (2) assess the cumulative environmental impacts of those projects with the proposed project; and (3) analyze the additive cumulative impact of all reasonably foreseeable Federal and non-Federal actions, whether or not they have actually been proposed. *See City of Carmel-By-The-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 1160 (9th Cir. 1997) (rejecting cumulative impacts analysis that referred generally to other past “development projects” and did not discuss the additive impacts of foreseeable future projects); *Fritiofson v. Alexander*, 772 F.2d 1225, 1243 (5th Cir. 1985) (agency must consider reasonably foreseeable actions regardless of whether they have yet formally been proposed). Furthermore, NEPA requires that a cumulative impacts analysis provide “some quantified or detailed information” because “[w]ithout such information, neither courts nor the public . . . can be assured that the Forest Service provided the hard look that it is required to provide.” *Cuddy Mountain*, 137 F.3d at 1379; *Carmel-By-The-Sea*, 123 F.3d at 1160 (faulting EIS for describing other projects in inadequate detail to permit review of their cumulative impacts). The DEIS does not contain an analysis of cumulative effects that meets these requirements.

Hamlet, *Predicting Differential Effects of Climate Change at the Population Level with Life-cycle Models of Spring Chinook Salmon* (2008); *Global Change Biology* 14: 236-249 at 247 (study by NOAA Fisheries scientists and others concluding that because “[g]lobal warming will likely reduce potential habitat at lower elevations in the Pacific Northwest,” preserving high-elevation populations in the Snake basin is a “top conservation priority.”)

¹⁴ For example, according to Goniea, et al. (2006), “[t]he impoundment of the lower Columbia and Snake rivers [behind] a series of hydroelectric projects and the resulting flow manipulations have correlated with a trend of warmer water temperatures within the system. Over the last several decades, the main stem has steadily warmed earlier in the spring and cooled later in the fall. Warming due to impoundment and water diversion has been exacerbated by regional climate change.” Goniea, T.M., et al., *Behavioral Thermoregulation and Slowed Migration by Adult Fall Chinook in Response to High Columbia River Water Temperatures*, 135 *Transactions of the American Fisheries Society* 408, 408-19 (2008).

1. *The DEIS does not identify other reasonably foreseeable actions.*

First, rather than identifying and cataloguing the full suite of projects and impacts in the affected area (both past and present), the Corps cryptically states that, with the exception of Alternative 3, it will only consider activities that the Corps itself has or will undertake in its cumulative impact analysis. DEIS at 4-55. But the Corps' duty is to evaluate cumulative effects – including reasonably foreseeable effects – from all entities in the action area. Although the Corps assumes that the alternatives will not have cumulative effects with other projects in the action area, the DEIS does not contain information about any other projects that would allow the Corps to draw this conclusion. There is no discussion of impacts from, for example, timber sales or other activities planned in the watershed, other maintenance dredging at the Mouth of the Columbia or in the Lower Columbia River, impacts from the port of Lewiston's dock expansion and related dredging, or the future impacts of FCRPS management on salmon and steelhead. There are likely far more than just these actions that are reasonably foreseeable over the course of the PSMP, but the point is that none are even catalogued, let alone analyzed in the Corps' cumulative effects discussion.

2. *The cumulative effects analysis does not account for a changing baseline from climate change.*

The DEIS fails to incorporate climate change into its cumulative impacts analysis, either as part of its catalog of past projects and events, or as a reasonably foreseeable future impact. In fact, the only reference to “climate change” in the “Cumulative Effects” section of the DEIS uses climate change as an excuse to avoid estimating or providing a qualitative description of the amount of sediment entering the river from upland sources. See DEIS at 4-67 (“Conditions related to climate change could change sediment loading and transport dynamics in the cumulative effects study area. Therefore, Alternative 7 would not have a cumulative effect on hydrology and sediment.”). This statement misses the point entirely.

It is a fact that increasing temperatures in the Snake River watershed will likely bring an increase in forest fires and an increase in the amount of sediment that reaches the river. See, e.g., DEIS at 1-16 (fires are responsible for the largest amounts of sediment in this basin). The frequency and severity of these fires has increased over the past 40 years, see *id.* at 1-21 to 1-23, and is expected to increase as the climate continues to warm. *Id.* at 1-25. The DEIS cites a recent study looking at the likely impacts of climate change on sediment loads in central Idaho. DEIS, App'x D (*Enhanced Sediment Delivery in a Changing Climate in Semi-arid Mountain Basins: Implications for Water Resource Management and Aquatic Habitat in the Northern Rocky Mountains*). A quote from this study is particularly applicable here.

Climate-modulated interactions among vegetation, wildfire, and hydrology suggest that sediment yields will likely increase in response to climate change. Within central Idaho recent climate-driven increases in wildfire burn severity and extent have the potential to produce sediment yields roughly 10-times greater than those observed during the 20th century. ...these elevated sediment yields are probably outside of the range of expectations for downstream reservoirs, which may have consequences for reservoir management and life expectancy.

It is at least reasonably foreseeable – and indeed, likely – that the sediment accumulation the Corps is attempting to address in the DEIS will increase and will require additional measures and additional costs over time.¹⁵ None of these increases, however, are factored into the Corps’ consideration of the environmental impacts from increased needs for channel maintenance over time and are not considered in any analysis of the benefits and costs of the PSMP. The Corps is not permitted to ignore the changing on-the-ground reality of its action over the term of the DEIS. By doing so, the Corps not only ignores a host of cumulative environmental impacts, but also fails to account for changes that will alter the economics of continuing to maintain a 14-foot navigation channel.

VII. THE DEIS PRESENTS INCONSISTENT AND INACCURATE INFORMATION.

Agencies are required to ensure the professional integrity of all discussions and analyses in an EIS, including economic analyses. 40 C.F.R. § 1502.24. The DEIS does not do so.

A. The DEIS Presents Contradictory and Inaccurate Information About Sediment Volumes.

Due to the Corps’ erroneous and unspecific sediment deposition estimates, it is impossible to understand the environmental and economic costs of dredging. Based on dredging history, the area requiring 95% of past dredging in the Lower Granite Reservoir is generally referred to as the confluence of the Snake and Clearwater Rivers, or from the Port of Lewiston at RM 2.0 on the Clearwater to RM 137.69 just below the Port of Clarkston. The volume of sediment that accumulates in this area is the key element in any sediment management plan.

According to the DEIS, an estimated average 2.2 million cubic yards (mcy) of sediment arrives at the confluence of the Snake and Clearwater Rivers annually. This figure is based upon the Corps’ estimate that about 80 mcy of sediment has accumulated in the Lower Granite Reservoir between 1974 and 2010, or the previous 36 years. DEIS App’x A at 19. A small portion (estimated at .2 mcy) is transported over Lower Granite (fine sand and silt). The rest gets deposited in the upper reservoir, mostly around the confluence, with much of this deposit later moving down stream to deeper water.

¹⁵ Even apart from the increase in sediment predicted from the effects of climate change, the Corps’ sediment projections do not account for increases in sediment from other events. For example, the SWAT model the Corps relies on in Appendix F does not appear to account for mass wasting events that contribute massive amounts of sediment to river systems in one-time pulses. Nor does the Corps present the most recent information. *See, e.g.*, App. F at 163 (fire map does not include recent fires in the Selway-Bitterroot or Nez-Perce/Clearwater national Forests that burned over 50,000 acres in 2012). Finally, the Corps’ sediment projections do not account for reasonably foreseeable increases in timber harvest of federal (or any other lands) lands. The Forest Service seeks to increase logging in National Forests over this same time period – the sediment from that logging and associated road construction will result in increased sedimentation.

The Corps, however, fails to provide any accurate information about historical sediment deposition at the confluence. Table 3.16 omits any figures for dredging in the most critical reach of the Lower Granite Reservoir – the confluence of the Snake and Clearwater Rivers, where most of the dredging occurs. Table 3.16 data includes 2.76 mcy as the amount of sediment dredged in Lower Granite Reservoir from 1974-2010. However, Table 1-3 of the DEIS and Appendix A list the total volume for all the dredging in Lower Granite reservoir as over 4.5 mcy, with about 95% of the total completed at/near the confluence.

These contradictory and confusing data infect other sections of the DEIS. In reality, sediment accumulation becomes less and less of an issue downstream from the Port of Wilma as reservoir depths increase. The DEIS needs to better evaluate sediment transport and deposition in the Clearwater River from the upper limits of the pool down to the confluence with the Snake River and in the Snake River from the upper limits of the pool downstream past the confluence with the Clearwater River and down to the Port of Wilma area. It is difficult for the Corps, let alone the public, to understand the environmental effects and the economic costs of dredging when it is unclear what volumes of sediment the Corps has dredged – and will need to dredge in the future – and from where.

B. The DEIS Fails to Adequately Discuss Flood Risks to Lewiston.

While Appendix F’s “Flood Risk Analysis” may appear robust at first blush, its analysis lacks important considerations and downplays the flood risk to the City of Lewiston. In 26 pages of discussion, tables, and figures, the issue of climate change is never mentioned, yet climate change will likely play an important role in the future flood risk for Lewiston.

Instead, the Flood Risk Analysis looks only at past flow events for its conclusions without modeling any of the contingencies Lewiston will face in the future. For example, a major cause of large flood events on the west coast and inland is a weather event known as a “Pineapple Express.” A Pineapple Express is a non-technical term for a meteorological phenomenon characterized by a strong and persistent flow of atmospheric moisture and associated with heavy precipitation from the waters adjacent to the Hawaiian Islands and extending to any location along the Pacific coast of North America.

When a Pineapple Express follows a period of colder weather and lower elevation snow accumulations, large scale flooding is often the result. While northern and central California has been the historic recipient of these events (1955, 1964, 1986 and 1997) the Willamette Valley in 1996 and the Puget Sound region from Olympia, Washington to Vancouver, BC in 2006 experienced massive flooding from Pineapple Express storm cycles. The 1997 event centered in northern California still caused significant flooding in the state of Idaho.

To understand the magnitude of these storm cycles, the 1964 flooding in northern California was described as a 600-year flood event – well below the Corps’ 1,000 year System Probable Flood (SPF) determination. The Smith River, a watershed of only 719 square miles reached a peak flow of 228,000 cubic feet per second (cfs) and the Eel River with a larger watershed of 3,684 square miles exceeded 750,000 cfs. By comparison, the Clearwater River watershed covers 9,645 square miles yet the identified SPF for the Clearwater River is either 125,000 cfs or 150,000 cfs (depending on which section of Appendix F one is referencing).

Further, the total watershed of Lower Granite Reservoir is 27,140 square miles with a combined Snake & Clearwater River SPF of 420,000 cfs.

Clearly, if a strong Pineapple Express event followed a period of snow accumulation and was centered on the Clearwater and/or Snake watersheds, the potential exists for record streamflows well in excess of predicted SPF's and a significant flood threat to Lewiston. At the very least, this analysis should evaluate the possible effects of climate change and the potential for shifting storm tracks instead of simply looking at the past.

Additionally, Appendix F of the DEIS identifies significant uncertainty in its flood risk analysis even when looking at existing conditions. The DEIS lacks analysis on the possible effects of increased sediment delivery due to increased wildfire and mass wasting events that result from climate change. The impact analysis of increased sedimentation on flow conveyance, levee height & freeboard should include a benefit/cost assessment that includes information (including economic and social costs) on levee maintenance and expansion and sediment dredging for flow conveyance purposes.

The analysis should recognize that the major flood risk to Lewiston is the very existence of Lower Granite Reservoir. The ongoing accumulation of sediment, decreased channel capacity, and project operations guarantees an ongoing flood risk greatly in excess of the risk prior to the construction of Lower Granite Dam.

VIII. THE CORPS HAS FAILED TO TAKE A HARD LOOK AT THE SOCIETAL AND ECONOMIC EFFECTS OF MAINTAINING THE NAVIGATION CHANNEL.

A. NEPA Requires the Corps to Use Accurate Information and to Fully Assess the Economic and Social Impacts in the DEIS.

To satisfy NEPA's requirement to take a "hard look" at the consequences of its actions, an agency must engage in a "reasoned evaluation of the relevant factors." *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1992). An agency's failure to include and analyze information that is important, significant, or essential renders an EIS inadequate. 40 C.F.R. § 1500.1. These fundamental NEPA principles apply to both the economic and environmental analyses in an EIS. *See Animal Defense Council v. Hodel*, 840 F.2d 1432, 1439 (9th Cir. 1988); *Hughes River Watershed Council v. Glickman*, 81 F.3d 437, 446 (4th Cir. 1996) ("For an EIS to serve [its] functions, it is essential that the EIS not be based on misleading economic assumptions."); 40 C.F.R. § 1502.23 (cost-benefit analysis); 40 C.F.R. § 1508.8 (the "effects" that an EIS must evaluate include economic impacts), *id.* at § 1508.14 (requiring discussion of interrelated economic or social impacts in EIS). Agencies are additionally required to ensure the professional integrity of all discussions and analyses in an EIS, including economic analyses. *Id.* § 1502.24. Thus, an EIS that relies on misleading economic information or fails to include all relevant costs in its economic analysis cannot fulfill NEPA's purpose of providing decision-makers and the public a valid foundation on which to judge proposed projects. *See, e.g., ONRC v. Marsh*, 832 F.2d 1489, 1499 (9th Cir. 1987); *Animal Defense Council*, 840 F.2d at 1439.

Applying these principles in *Hughes River Watershed Council*, 81 F.3d at 446-48, the Fourth Circuit found the Corps violated NEPA because its EIS for a proposed dam construction

project overstated recreation benefits and undermined the decision-makers’ ability to balance the environmental impacts and economic benefits. Similarly, in *Van Abbema v. Fornell*, 807 F.2d 633, 640-42 (7th Cir. 1986), the Seventh Circuit concluded the Corps’ economic analysis relied on inaccurate data, unexplained assumptions, and outdated reports. *See also Johnston v. Davis*, 698 F.2d 1088, 1094 (10th Cir. 1983) (unqualified use of artificially low discount rate in economic analysis, even though legally required, resulted in misleading EIS that violated NEPA); *Sierra Club v. Sigler*, 695 F.2d 957, 975-76 (5th Cir. 1983) (“There can be no ‘hard look’ at costs and benefits unless all costs are disclosed.”).

The DEIS fails to satisfy any of these requirements. As explained more fully in the attached comments prepared on behalf of the undersigned organizations by Natural Resource Economics, the DEIS fails to discuss a host of relevant information, presents only one-sided and misleading information and conclusions about the benefits of the project, and fails to apply the requirements of NEPA, its own regulations, applicable standards and guidelines, and does not adhere to recognized professional standards for evaluating the benefits and costs of any of the alternatives. *See* Natural Resource Economics, *Comments On the Lower Snake River Programmatic Sediment Management Plan: Draft Environmental Impact Statement* (Mar. 25, 2013) at 3-14. Those comments are appended as Attachment A and fully incorporated by reference here. To correct these deficiencies, the Corps must start over and transparently evaluate the full suite of socioeconomic impacts of its preferred action and a full range of alternatives rather than relying on general statements and outdated assumptions about the costs and benefits of its preferred course.

B. The EIS Presents Misleading and One-Sided Information to Show a Net Benefit From the Project and Ignores Available Information Demonstrating that the Costs Far Exceed the Benefits.

Because of the Corps’ failure to comply with the above requirements, the DEIS (unlike past Corps EISs on this same issue), does not even estimate a benefit/cost ratio for the preferred – or any other – alternative. We question whether that failure is a mere oversight, or whether it reflects the fact that the available information shows that this ratio shows a net detriment would result from the PSMP.

Here, the entire justification for the Corps’ proposal to maintain a 14-foot navigation channel in the Snake River is that the navigation system provides net economic benefits by reducing the costs of transporting freight. But all of the available information indicates that this action will not produce those benefits and will instead result in a loss for every dollar spent.

First, as detailed in Attachment A, the available information – much of which the Corps ignored or failed to find – paints a very different picture of the current value of the waterway and indicates that the trends undermining its value are likely to continue and accelerate. But even under current conditions, dredging costs alone likely will exceed the economic benefits, if any, of the Corps’ Preferred Alternative.

The DEIS shows that, between 1982 and 2006, the Corps dredged about 4 million cubic yards of material above Lower Granite Dam, or more than 150,000 cubic yards per year, on average. DEIS at 1-10 and 1-11. The Corps estimated in 2005 that dredging this annual volume costs at least \$2 million. These

costs will at least carry forward and likely increase over the time period of the PSMP, especially as the volume of sediment likely will increase over time. Grain shippers – the primary beneficiary of the navigation system – avoid, on average, costs of about \$1–2 million per million tons of grain shipped by barge. In recent years, the Port of Lewiston, the primary beneficiary of dredging in the Lower Granite reservoir, has shipped about 500,000 tons of grain per year by barge. Assuming a continuation of these volumes (a conservative assumption given other developments in regional transportation),

grain shippers would incur additional costs of \$0.5–1.0 million per year, if they were unable to ship by barge. The avoidance of these costs represents the Preferred Alternative’s primary economic benefit. This benefit, \$0.5–1.0 million per year, however, falls short of the annualized cost of dredging of at least \$2 million.

Attachment A at 16. *See also id.* at 17 (explaining similarly negative cost/benefit ratio even when considering all cargo moving through Lower Granite navigation locks). In fact, at present levels of shipping from the Port of Lewiston, the subsidy for barge transport for channel dredging alone is \$11,000 for every full barge that leaves the port. If the \$16 million cost of the DEIS is amortized over the next 20 years and included as a cost of this dredging, that subsidy rises to \$18,000 per barge.

There is other information available, however, that shows the net costs of dredging the navigation channel are even larger than this. Shipments through the waterway have steadily declined over the past decade, with most of this decline occurring even before the recession that began in 2007. *See* Attachment A at 17 (summarizing a 47 percent decline in shipping over Lower Granite, 30 percent over Little Goose, 31 percent over Lower Monumental, and 33 percent over Ice Harbor).¹⁶ If these volumes continue to decline in the future, any potential benefits from maintaining the navigation channel, all else equal, will decline as well.

Indeed, although the Corps does not discuss the issue in the DEIS, further declines are likely. As long ago as 2003, close to one third of the grain from this region was already shipped by rail or truck. The Ritzville train loading facility completed in 2002 had an immediate and significant impact on shipping from this region. *See* Attachment A at 17-18 (discussing study showing 30 percent drop in barging and concomitant increase in rails use at Ritzville facility by 2005). The trend toward rail shipping continues. The soon-to-be-opened McCoy shuttle train

¹⁶ While the recession no doubt had an impact, this decline in barge shipping had been underway for the previous six years. Pulp and paper, wood products, and grains make up about 90% of what is barged on the Snake. In 2000, for example, the Port of Lewiston shipped 914,344 tons of wheat, by far its primary export. That number had declined steadily to 681,005 tons in 2005 and to 499,505 by 2011. Container shipments from the Port of Lewiston declined from 17,590 twenty-foot equivalent units (TEUs) in 2000 to 5735 TEUs in 2005 and to 3653 TEUs in 2011. Pulp and paper shipments at Lower Granite dam declined 85% from 2000 to 2005, then another 37% from 2005 to 2010, for a total 10-year decline of 90%. Wood products declined 40% over the ten-year period. The Port of Lewiston, for example, has not shipped any lumber for the past 5 years. For all products passing through the Lower Granite lock, tonnage declined 45% from 2000-2010, with more than half of this decline occurring before 2006. Changes at Lower Granite closely mirror changes at the other three Snake River dams.

loader facility near Oakesdale will provide yet another competitive alternative to trucking grain for shipment by barge on the waterway. In all likelihood, the facility will result in diverting even more grain to rail that otherwise would be shipped by barge. The DEIS does not discuss – or even mention – either of these developments or the likelihood that they further decrease any navigation-related economic benefits.

What little information on economics the Corps does present in the DEIS ignores all of this evidence and grossly exaggerates the volume of commercial freight transported on the lower Snake River and overestimates the benefits of the system. For example, the DEIS broadly – but without any explanation – asserts that approximately 10 million tons of cargo are transported annually on the lower Snake River. DEIS at 3-43. But the Corps’ own figures reveal that this 10-million ton figure in the DEIS overstates the facts. According to the Corps’ Waterborne Commerce Statistics Center (WCSC), the total tonnage passing Ice Harbor Dam (the first dam on the Snake River above the confluence with the Columbia) in 2010 was only about 2.9 million tons, roughly half of the tonnage that passes over McNary dam.¹⁷

The amount of cargo transported on the Snake River is even less significant when viewed on a national scale. The Lower Snake River carries 5 percent of total tonnage of the Columbia/Snake River System and about 1/2 of 1 percent of the nation’s total tonnage on inland waterways. In terms of ton-miles, a more accurate reflection of a given river’s relative importance in U.S. waterborne freight transport, the Lower Snake River accounts for a mere 1/10th of 1 percent of all freight transported on the U.S. inland waterway system.¹⁸

Moreover, the overall costs of maintaining the Columbia/Snake River system include much more than those required for channel dredging at the Snake/Clearwater confluence. For example, the Corps spent \$43.6 million on lock repairs on the Columbia/Snake River inland waterway in 2010/2011 after spending more than \$200 million for the lock replacement at Bonneville Dam. The cost of other lock and dam repairs since 2004 totals \$24 million. Thus over the past 8 years, the Corps has spent at least \$267.6 million for direct repairs and improvements needed to keep barges traveling up and down the Snake and Columbia Rivers. That figure does not include the Corps’ operations and management costs or any share of the more than \$180 million of lower Columbia dredging expenditure to allow larger ocean-going ships to reach the ports at Portland or Vancouver. Nor does it include the costs (or even some percentage share of the costs) of failed measures to mitigate the impacts of the Snake River dams on salmon and steelhead, which would add hundreds of millions more to this total.

¹⁷ According to the WCSC, total tonnage passing through McNary locks in 2010 was only 5.5 million tons. All marine freight traveling from and to the Snake River and to ports in the mid-Columbia, including the Pasco, Kennewick and Richland area, passes through the McNary lock. Given this, it is difficult to understand how the Corps arrives at its 10 million tons per year figure for just the Snake River.

¹⁸ In 2010, total ton-miles on all U.S. inland waterways was 263.2 billion. In 2010, the entire Columbia-Snake River System provided 2.2 billion ton-miles to the national total, or 0.8 percent. The lower Snake River provided 0.3 billion-ton miles of waterborne freight movement, or 0.1 percent of all U.S. inland waterway freight movement.

Recognizing the extent of its infrastructure and agency responsibilities, the growing rate of deterioration of its facilities and decreasing agency and federal budgets, the Corps recently requested the National Academy of Sciences to prepare a report on possible options. The resulting report: *Corps of Engineers Water Resources Infrastructure: Deterioration, Investment, or Divestment?* noted that the Corps is in “an unsustainable situation for maintenance of existing infrastructure. This scenario entails increased frequency of infrastructure failure and negative social, economic, and public safety consequences.” One major alternative outlined in the NAS report suggests the possible divestiture or decommissioning of parts of the Corps’ infrastructure. In light of the information provided above, the maintenance of barge transportation on the Lower Snake River appears to be a good candidate for such consideration. Given this recommendation, the requirements of NEPA, and the Corps’ proposal to maintain the Snake River as a waterway through the PSMP, this DEIS is the place where the Corps should examine that alternative.

IX. THE CORPS’ FLAWED NEPA ANALYSIS ALSO INFECTS ITS RESPONSIBILITIES TO COMPLY WITH THE CLEAN WATER ACT

The Corps’ flawed NEPA analysis also infects its responsibilities to comply with the Clean Water Act. Like NEPA, the Clean Water Act (“CWA”) requires that, before proceeding with projects affecting water of the United States, the Corps conduct an analysis of the project’s potential impacts. The CWA seeks to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). One mechanism through which it serves these ends is by prohibiting the discharge of pollutants into navigable waters without a § 404 permit. 33 U.S.C. § 1344(a); 33 C.F.R. § 320.4(a)(1). The public interest review required to issue that permit is similar to NEPA and requires that “[t]he benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments.” *Id.*

Thus, just like NEPA, the CWA requires the Corps to conduct a comprehensive analysis of the impacts of dredging and levee construction before those projects may proceed. The Corps’ failure to do so in this DEIS therefore not only violates NEPA, but if not corrected, also infects its CWA permitting process. *See Friends of the Earth v. Hall*, 693 F. Supp. 904, 946 (W.D. Wash. 1988) (gaps in data and scientific uncertainty in Corps’ NEPA analysis fatally undermined its conclusion under § 404(b) guidelines that project would not “cause significant degradation”); *Van Abbema v. Fornell*, 807 F.2d 633, 643 (7th Cir. 1986) (Corps’ reliance upon NEPA analysis’s inaccurate economic information rendered CWA public interest review similarly invalid). Only with knowledge in hand can the agency determine what best serves the public interest. This EIS does precisely the opposite.

The undersigned groups will detail their CWA concerns further in commenting on the Public Notice issued by the Corps on March 11, 2013.

CONCLUSION

As detailed throughout these comments, the context in which the Corps is considering a long-term plan to maintain the navigation channel in the Lower Snake River has changed substantially since the Corps last considered the maintenance of the navigation channel. Those changes and the new information behind them, however, are not reflected in the DEIS; rather, the

Corps in the DEIS continues to take the same narrow view of its responsibilities and potential alternatives that has led to substantial controversy in the past. We urge the Corps in its final EIS to take a far broader – and more accurate – view of its legal responsibilities by giving adequate consideration to non-dredging alternatives and by properly disclosing the full costs, ecological and monetary, of its proposed actions.

If you have any questions about these comments, or would like to discuss any matter discussed in these comments, please contact any of the undersigned.

Sincerely,

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ATTACHMENT A

Comments

On the Lower Snake River Programmatic Sediment Management Plan: Draft Environmental Impact Statement

25 March 2013

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These comments were prepared on behalf of American Rivers, Earthjustice, Friends of the Clearwater, Borg Hendrickson, Linwood Laughy, Idaho Rivers United, Institute for Fisheries Resources, Pacific Coast Federation of Fishermen’s Associations, Save Our Wild Salmon, and Sierra Club by Ernie Niemi of Natural Resource Economics, Inc., which is solely responsible for their content.

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I. Executive Summary

The Walla Walla District of the U.S. Army Corps of Engineers (Corps) has published a draft environmental impact statement (DEIS) for the Programmatic Sediment Management Plan (PSMP) for the Corps' Lower Snake River Project (LSRP). The Corps' Preferred Alternative for the PSMP, if adopted, would provide the programmatic framework for evaluating and implementing potential sediment management measures the Corps will define in the future. The Preferred Alternative would employ all available measures, including dredging and the construction of new structures, to manage sediment in the river to maintain a navigation channel that would enable barge traffic along the Lower Snake River from its confluence with the Columbia River to the Port of Lewiston, Idaho.

In preparing the PSMP DEIS, the Corps had an obligation, under the National Environmental Policy Act (NEPA) to provide details of the environmental consequences of the Preferred Alternative "to the fullest extent possible." The courts have interpreted this obligation as a "requirement of a substantial, good faith effort at studying, analyzing, and expressing the environmental issues in the EIS and the decisionmaking process,"¹ including the socioeconomic impacts of the action and its alternatives. The Corps also had obligations to satisfy widely accepted professional standards of analysis, as well as the agency's own analytical standards. Moreover, it had an obligation to formulate an alternative that would maximize net national economic development benefits, consistent with the authorized purposes of the LSRP, and to choose it as the one it prefers unless it could demonstrate that the beneficial effects of another alternative would outweigh the corresponding national economic development losses.

The PSMP DEIS fails completely to satisfy these obligations with respect to socioeconomics. Rather than presenting "to the fullest extent possible" the details regarding the socioeconomic consequences of the Preferred Alternative, it provides no details whatsoever. This gap does not stem from a lack of relevant information. Extensive socioeconomic information exists regarding major elements of the Preferred Alternative, such as the annualized dredging costs to maintain the navigation channel, the amount of freight that uses the channel, the benefits to shippers who realize cost savings when they send their freight via barge rather than use other transportation modes, investments in the rail system likely to extend its ability to draw future shipping traffic away from the barge system, the transportation system's likely response if the navigation channel were not maintained, and the impacts of a cessation of barge traffic in the Lower Snake on regional jobs and incomes.

Rather than present a "substantial, full faith effort at studying, analyzing, and expressing" the socioeconomic issues associated with the PSMP and the process that resulted in the selection of the Preferred Alternative, the DEIS presents vague, superficial generalities. The DEIS lacks quantitative substance of any kind regarding the Preferred Alternative's economic costs and benefits; its impacts on economic activity, jobs, and incomes in the surrounding region; and the uncertainties and risks that would accompany implementation of the Preferred Alternative. Contrary to professional standards established by the President, the Office of Management and Budget, and the Corp itself, the DEIS never identifies the effects on net national economic benefits (or costs) or on net regional jobs and incomes as relevant issues for evaluating the

¹ Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir., 1972).

various alternatives’ socioeconomic consequences. Nor does it report that the decision-making process for selecting the Preferred Alternative employed the maximization of these variables as relevant selection criteria. As a result, the DEIS provides no socioeconomic basis for the selection of the Preferred Alternative, nor does it come close to providing the public with the information it needs to judge the socioeconomic reasonableness of that decision.

The DEIS never formulates an alternative that would maximize net national economic development benefits, nor does it describe each alternative’s national economic development costs and benefits. Lacking this information, the DEIS makes no mention of the Preferred Alternative’s net national economic development benefits.

Substantial, readily available information, however, indicates that the Corps’ Preferred Alternative likely would have a negative net effect on national economic development, i.e., its costs would exceed its benefits. In contrast, this information suggests that taking no action likely would have a positive effect, by avoiding expenditures on dredging and sediment-control structures aimed at maintaining the navigation channel through the Lower Granite Pool. The dredging costs, alone, under the Preferred Alternative likely would exceed the economic benefits of maintaining barge traffic to and from this pool. Overall, maintaining the navigation channel, as proposed under the Preferred Alternative, likely would result in wasteful use of economic resources to subsidize barge traffic, reduce economic growth to the extent that those resources otherwise would be put to better use, and curtail opportunities for jobs and incomes associated with competing systems, especially rail, for moving freight into and out of the LSRP region. In other words, the DEIS presents information and selects a Preferred Alternative biased in favor of dredging and other activities that require taxpayer support and subsidies to the barge industry. Taking no action, however, would yield more desirable socioeconomic outcomes for everyone except the beneficiaries of those subsidies.

To rectify these shortcomings in the DEIS, the Corps must start over. It must identify socioeconomic issues – such as the net economic benefits (or costs) of sediment management and the long-term regional impacts on jobs and incomes – relevant for evaluating and choosing among alternatives for managing sediment in the LSRP. For each issue, the Corps must specify appropriate analytical methods and data for examining the absolute and relative effects of different management approaches. It then must define a baseline scenario that describes, from a socioeconomic perspective, the status of each issue without federal action, and employ the methods and data to describe in detail how each alternative would make the world different. For each alternative, it must, at a minimum, specify relevant assumptions and determine the benefits and costs and the changes in jobs and incomes relative to the baseline scenario, with a full discussion of the significant uncertainties and risks. With this detailed, comparative information in hand, it then must define the socioeconomic criteria appropriate for comparing the alternatives, apply the criteria, and explain, from a socioeconomic perspective, which of the alternatives is the Preferred Alternative.

II. Background

In December 2012 the Corps' Walla Walla District published a draft environmental impact statement (DEIS) for the Programmatic Sediment Management Plan (PSMP) for the Corps' Lower Snake River Project (LSRP).² Its stated purpose is to adopt and implement actions for emergency, short-term, and long-term management of sediment that interferes with the Corps' interpretation of the authorized purposes of the LSRP. These stated purposes are commercial navigation, recreation, and fish and wildlife conservation and mitigation. The PSMP attempts to provide a programmatic framework to evaluate and implement potential sediment management measures that, if the PSMP is adopted, will be developed in the future.

In developing the PSMP DEIS, the Corps formulated seven alternatives, but evaluated in detail only these three:

Alternative 1 - No Action (Continue Current Practices)

"The No Action Alternative represents a continuation of the Corps' current operational practices of managing the LSRP through navigation objective reservoir operations in the lower Snake River, and sediment reduction measures implemented in the Snake River watershed by other agencies and land managers."³

Alternative 5 – Dredging-Based Sediment Management

"Alternative 5 represents a continuation of the Corps historical practices of using dredging as the primary tool for managing sediment that interferes with authorized uses of the LSRP. The Corps would continue its current program of monitoring sediments that affect the authorized purposes of the LSRP. Sediment management would consist of dredging and dredged material management. Sediment management activities would be undertaken in response to or anticipation of sediment accumulation problems.

Agencies and land owners responsible for land management in the basins that drain into the LSRP (including federal and state agencies, tribes, and conservation districts) would continue to implement existing land management programs and practices related to erosion control, consistent with their current authorizations and funding. The Corps would continue implementing erosion and sediment control on lands adjacent to the LSRP."⁴

Alternative 7 – Comprehensive (Full System and Sediment Management Measures)

"Alternative 7 is a combination of Alternatives 5 and 6 and provides all available dredging, system and structural measures for the Corps to manage sediments that interfere with the authorized uses of the LSRP. The alternative includes dredging and dredged material management along with other sediment and system management measures, and provides the Corps with a complete toolbox for addressing sediment that interferes with the authorized purposes of the LSRP."⁵

The Corps selected Alternative 7 as its Preferred Alternative. In its socioeconomic evaluation leading to the selection, the PSMP DEIS concluded Alternative 7 would have the effects shown in Table 1.

² U.S. Army Corps of Engineers, Walla Walla District. 2012. *Lower Snake River Programmatic Sediment Management Plan Draft Environmental Impact Statement*. Retrieved 4 February 2013 from <http://www.nww.usace.army.mil/Missions/Projects/ProgrammaticSedimentManagementPlan.aspx>.

³ *PSMP DEIS*, pp. 2-22, 23.

⁴ *PSMP DEIS*, p. 2-28.

⁵ *PSMP DEIS*, p. 2-31.

Table 1. Socioeconomic Effects of Alternative 7, Reported in the PSMP DEIS

-
- Beneficial use of dredged material for fish habitat creation or ecosystem restoration projects, which would have indirect benefits, including potential recreation benefits.
 - Minor, short-term, beneficial direct effects on income and employment through construction activities.
 - No long term impacts to population, employment, and income.
 - No adverse impacts to the transportation and related sectors, because Alternative 7 includes actions to maintain current navigation operations.
 - Temporary interruptions in commercial navigation, which would also affect port operations.
 - Positive economic impact to the navigation and related industries in the region because navigation interests would not need to light load and would not have to take the extra measures they now take to position and move tugs and barges.
 - Relocation or reconfiguring of affected facilities would temporarily interrupt economic activity associated with them.
 - Construction activity associated with the relocation or reconfiguration would create a temporary local economic benefit.
 - Modifying flows to flush sediments would have a temporary adverse impact on commercial and recreational navigation.
 - Adverse impacts on the capacity of the rail or highway system whenever interruption of or constraints on the navigation system shifted shipments to other modes.
 - A long-term beneficial effect on navigation, by improving the navigation channel.
 - There may be some loss of grain sales if enough grain cannot be shipped out of the affected pool, but use of downstream storage facilities and shipping of grain prior to drawdown would minimize economic effects.
 - Impairment of navigation would lead to stock-piling of commodities other than grain, such as fuel oil, gasoline, chemicals, and wood products. Trucks or rail could be used to transport these commodities for short-term supply. This will temporarily increase costs to those who usually use the river system for the transportation of commodities, but the increases should be small.
 - Loss of hydroelectric power sales for the region.
 - Potential disruption by reservoir drawdown of cruise ship traffic, causing economic loss for the cruise industry and the local supporting industries in the affected area.
 - Potential adverse effects from reservoir drawdown on infrastructure adjacent to and crossing Lower Granite Reservoir.
 - Potential maintenance of an acceptable level of flood protection for a portion of downtown Lewiston if the levee is raised.
-

Source: *PSMP DEIS* p. 2-36, pp. 3-30 – 3-51, pp. 4-31 – 4-34.

By choosing this alternative, the Corps, in effect, has determined that, in some configuration, dredging and construction of structures offer the most desirable socioeconomic and other environmental consequences. If the PSMP and the Preferred Alternative are adopted, subsequent environmental review will focus on the specifics of the configuration of these measures, not on whether or not to proceed with dredging and construction.

III. Comments

The National Environmental Policy Act (NEPA) sets the stage for defining the analytical standards the Corps must meet in developing an environmental impact statement (EIS) for the PSMP. It states that federal agencies "to the fullest extent possible" must provide a detailed EIS (42 U.S.C. 4332). In applying this standard, courts have held that, at a minimum, NEPA imposes on an agency a duty to take a "hard look at environmental consequences" (Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir., 1972)) and a "requirement of a substantial, good faith effort at studying, analyzing, and expressing the environmental issues in the EIS and the decisionmaking process" (Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir., 1972)). A sufficient EIS must provide good faith analysis and sufficient information to allow a firm basis for weighing the risks and benefits of a proposed action (County of Suffolk v. Secretary of the Interior, 562 F.2d 1368 (2nd Cir. 1977), cert. denied, 434 U.S. 1064 (1978)).

The Corps also is obligated to comply with widely accepted professional standards of socioeconomic analysis applicable to this setting. These standards have been described through presidential executive order, follow-up guidance from the Office of Management and Budget, and analytical principles and guidelines developed by the Water Resources Council. Consistent with NEPA, these standards generally require providing the public and decision-makers with all relevant information about the potential socioeconomic effects of each alternative.

The socioeconomic analysis in the PSMP DEIS fails to satisfy these requirements. Its shortcomings fall into these two distinct, but related categories:

- A. The PSMP DEIS falls far short of its obligations to provide all relevant information and demonstrate a good faith effort at studying and analyzing the socioeconomic consequences of the Preferred Alternative. The socioeconomic elements of the DEIS ignore a large body of socioeconomic information relevant to the EIS, provide no analytical basis whatsoever for the Corps' selection of the Preferred Alternative, and fail to provide the public and decision-makers with coherent and reliable information they can use to assess the socioeconomic consequences of implementing this alternative.
- B. The PSMP DEIS presents an incomplete and biased picture of the socioeconomic effects of the Preferred Alternative, exaggerating its positive effects and diminishing or overlooking its negative effects. Information not included in the DEIS indicates that implementation of the Preferred Alternative likely would result in negative overall socioeconomic outcomes, with the benefits smaller than the costs of producing them.

The following discussion fleshes out each of these shortcomings and describes the actions the Corps must take to rectify them.

A. The PSMP DEIS Does Not Meet Relevant Analytical Standards

Three sets of standards apply to the Corps' socioeconomic analysis in the PSMP DEIS. One includes the generally accepted, professional standards that apply to analyses of this type and govern the assessment of the accuracy, precision, and reliability of the analytical results. The second includes standards specifically applicable to Corps. The third includes the standards embedded in the Environmental Operating Principles expressed at the beginning of the PSMP DEIS.

1. The PSMP DEIS Does Not Meet Generally Accepted, Professional Standards

The Corps can satisfy its obligation to describe fully the socioeconomic effects of the PSMP only if it uses relevant, widely accepted, professional standards of analysis. These standards are expressed through Presidential Executive Order 12866 and related guidance from the Office of Management and Budget (OMB).

Executive Order 12866: Regulatory Review and Planning specifies standards for economic analyses.⁶ Although it uses regulatory actions as its focus, the standards are widely accepted among professional economists to have broader application. These are the core standards expressed in Executive Order 12866:

- Each agency shall assess both the costs and the benefits....
- Each agency shall...impose the least burden on society....

The first statement makes clear the Corps' obligation to assess both the costs and the benefits of each alternative approach for managing sediment in the LSRP. The second statement requires the Corps to select a Preferred Alternative only after measuring the net benefits (or costs) of each alternative and determining that the Preferred Alternative has the greatest net benefit (least net cost), so that its implementation would impose the least burden on society. The PSMP DEIS makes no demonstrable effort to satisfy either of these obligations.

It does not assess the costs and benefits of any alternative. Indeed, it provides no substantive discussion of costs whatsoever. Instead, it offers at most vague promises – “Based on Corps regulations, the Corps would evaluate disposal options to identify the least costly....” (p 2-29) – and contingencies – “Changes to the ways in which barge tows are operated could affect the costs of barge shipping....” (p.4-33). The terms, “cost” and “costs,” appear rarely in the discussion of the socioeconomic effects of the alternatives (Section 4.5), but never in the context of actually measuring anything. That is, the DEIS never links these terms with any dollar amount. Thus, it contains no quantified discussion, let alone analysis, of the Preferred Alternative and fails completely to satisfy widely accepted professional standards of socioeconomic analysis that require thorough assessment of the costs, in monetary terms where possible and in detailed qualitative terms where not.

Similarly, the PSMP DEIS does not assess the socioeconomic benefits of each alternative. The terms, “benefit” and “benefits” collectively appear only a few times in the discussion of the socioeconomic effects of the alternatives, but none is the basis for measuring and comparing the socioeconomic benefits of the different alternatives. Instead, the PSMP DEIS uses the terms only to refer generally to vague assumptions: “Beneficial use of dredged material for fish habitat creation or ecosystem restoration projects would have indirect benefits, including potential recreation benefits” (p. 4-32); “construction activity...would create a temporary local economic benefit (p. 4-33); and “maintaining acceptable levels of flood protection in Lewiston, the result would be positive long-term benefits to the communities protected by the levees” (p. 4-34). The DEIS makes no attempt to quantify the potential socioeconomic benefits of the Preferred Alternative, or of the other alternatives. It mentions benefits only in the abstract and, thus, fails to satisfy widely accepted professional standards of socioeconomic analysis that require thorough assessment of the benefits, in monetary terms where possible and in detailed

⁶ Available at <http://www.archives.gov/federal-register/executive-orders/pdf/12866.pdf>.

qualitative terms where not.

Lacking any description of the socioeconomic costs and benefits of each alternative, the PSMP DEIS does not even attempt to describe or quantify the net benefits (net costs) of each. With no information about their respective net benefits or costs, the PSMP DEIS offers no evidence that the Preferred Alternative would impose the least socioeconomic burden on society. There is simply far too little information in the DEIS to rank the alternatives given the total lack of any description, and especially a quantified monetary description, of the net benefits (net costs) of each. Thus, the PSMP DEIS fails completely to meet the general standards that must be satisfied if the DEIS is to satisfy the obligations specified by the courts under NEPA. This conclusion becomes even stronger when the socioeconomic sections of the PSMP DEIS are compared to the analytical guidance associated with Executive Order 12866.

Office of Management and Budget (OMB) Circular A-4: Regulatory Analysis, provides operational, analytical guidance for satisfying the standards of Executive Order 12866.⁷ Here is a short description of some of the core elements of this guidance, and how the Corps complied with each in the PSMP DEIS :

- “A good...analysis is designed to inform the public and other parts of the Government (as well as the agency conducting the analysis) of the effects of alternative actions ... Benefit-cost analysis is a primary tool used for...analysis.” (p. 2)
The PSMP DEIS, however, contains no socioeconomic benefit-cost analysis, nor any comparison of the alternatives’ net benefits (or net costs).
- “To evaluate properly the benefits and costs of...alternatives, you will need to do the following:
 - “Identify a baseline. Benefits and costs are defined in comparison with a clearly stated alternative. This normally will be a “no action” baseline: what the world will be like if the proposed rule is not adopted.”
The PSMP DEIS, however, does not identify a baseline scenario of the future showing, from a socioeconomic perspective, what the world will be like if the Preferred Alternative is not adopted. It superficially identifies “current operational practices” under the “No Action” alternative as the baseline, but nowhere provides information regarding what specific socioeconomic variables will look like in the future under this alternative. With no quantitative description of the baseline, the PSMP DEIS cannot and does not provide a basis for assessing the socioeconomic effects of the referred Alternatives against those of the other alternatives.
 - “Identify the expected undesirable side-effects and ancillary benefits of the...alternatives. These should be added to the direct benefits and costs as appropriate.” (pp. 2-3)
The PSMP DEIS, however, mentions some side-effects and ancillary benefits, but never in quantitative terms that would allow adding them to the direct benefits and costs. For example, it says that using dredged material to create fish habitat or restore ecosystems “would have indirect benefits, including potential recreation benefits.” (p. 4-32), but it provides no detailed description of these benefits and their socioeconomic significance, nor does it offer qualitative or quantitative information for assessing how these side-effects and ancillary benefits would vary across the alternatives.
- “When your analysis is complete, you should present a summary of the benefit and cost estimates for each alternative, including the qualitative and non-monetized factors ..., so that readers can evaluate them.” (p. 3)

⁷ Available at www.whitehouse.gov/omb/circulars_a004_a-4.

The PSMP DEIS, however, does not provide a summary of the socioeconomic factors, qualitative or quantitative, that would allow readers to evaluate the alternatives against one another.

- “A good analysis is transparent. It should be possible for a qualified third party reading the report to see clearly how you arrived at your estimates and conclusions. For transparency’s sake, you should state in your report what assumptions were used, such as the time horizon for the analysis and the discount rates applied to future benefits and costs. It is usually necessary to provide a sensitivity analysis to reveal whether, and to what extent, the results of the analysis are sensitive to plausible changes in the main assumptions and numeric inputs.” (p. 3)
The socioeconomic sections of the PSMP DEIS, however, contain no statement of assumptions or sensitivity analysis – none – making it impossible to see how the Corps arrived at its estimates and conclusions.
- “You should show that a government intervention is likely to do more good than harm.” (p. 4)
The PSMP DEIS, however, does not show that the Preferred Alternative is likely to do more socioeconomic good than harm. Instead, it provides only general statements asserting that the Preferred Alternative would yield benefits for some groups. For example, it states, “Modifying flows to flush sediments (drawdown)...would have a long-term beneficial effect on navigation, by improving the navigation channel.” (p. 4-33) It provides no yardstick – indeed, no quantitative information at all – for gauging the socioeconomic importance of these benefits, however. Nor does it provide any information about the magnitude of the simultaneous socioeconomic cost that a drawdown would impose on taxpayers, competitors of the barge companies, or others.
- “You should be alert for situations in which...alternatives result in significant changes in treatment or outcomes for different groups. Effects on the distribution of income that are transmitted through changes in market prices can be important, albeit sometimes difficult to assess. Your analysis should also present information on the streams of benefits and costs over time in order to provide a basis for assessing intertemporal distributional consequences, particularly where intergenerational effects are concerned.” (p. 14)
The PSMP DEIS, however, provides only general statements about the distribution of socioeconomic effects on current groups. For example, it observes that the Preferred Alternative’s long-term beneficial effect on navigation “could adversely affect the capacity of the rail or highway system.” (p.4-33) It makes no effort to detail these effects or assess their magnitude, however. Moreover, the socioeconomic elements of the PSMP DEIS contain no information whatsoever for assessing the intertemporal distributional consequences, i.e., the effects on future generations, of implementing the Preferred Alternative and for comparing them to those of the other alternatives.

2. The PSMP DEIS Does Not Meet Agency-Specific Standards

The agency-specific standards include a requirement that, before proceeding with the Preferred Alternative, the Corps must demonstrate, with reasonable certainty, that its benefits to the national economy will outweigh its costs. Evaluation of the national economic benefits and costs are to be addressed in the so-called National Economic Development (NED) account, with monetary measurement of benefits (increases in the economic value of goods and services) and costs (decreases in economic value). This requirement, described in the *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (Principles and Guidelines)*,⁸ is generally equivalent to the one stated above in Executive Order

⁸ U.S. Water Resources Council. 1983. *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies*. Specifically, the *Principles and Guidelines* state:

“The Federal objective of water and related land resources planning is to contribute to national economic development consistent with protecting the Nation’s environment, pursuant to national environmental statutes, applicable executive orders, and other Federal planning requirements.

12866: the Corps must demonstrate that the Preferred Alternative is the one that will impose the least economic burden on society.

The PSMP DEIS acknowledges the relevance of the *Principles and Guidelines* to the document when it observes that reductions in the generation of hydropower “are a National Economic Development cost.” (p. 4-34) The PSMP DEIS does not, however, quantify this cost or any other cost. Nor does it present an evaluation of each alternative’s national economic benefits and costs, and net benefits (net costs). Thus, it ignores the agency’s own standards of analysis.⁹

These standards require a full accounting of costs and benefits that would accrue to other projects or to third parties. This obligation is recognized clearly in the Corps’ manual. “Many economic activities provide incidental benefits to people for whom they were not intended. Other activities indiscriminately impose incidental costs on others. These effects are called externalities. ...**Negative externalities** make someone worse off without that person being compensated for the negative effect. ...The NED principle requires that externalities be accounted for in order to assure efficient allocation of resources.”¹⁰ The socioeconomic elements of the PSMP DEIS make no mention of externalities, however. Yet several are immediately obvious, such as the impacts of dredging and other activities on the population and value of salmon, and the effects of the Preferred Alternative on the emission of airborne and waterborne pollutants harmful to human health, fish, and wildlife.

The Corps also had an obligation to distinguish between each alternative’s benefits and costs, i.e., changes in economic value of goods and services, and its impacts on jobs, incomes, and other indicators of the level and distribution of economic activity. The *Principles and Guidelines* explains benefits and costs in the context of national economic development. Accordingly, the PSMP might generate benefits or costs by increasing or decreasing the economic value of the

“...Contributions to national economic development (NED) are increases in the net value of the national output of goods and services, expressed in monetary units. Contributions to NED are the direct net benefits that accrue in the planning area and the rest of the nation. Contributions to NED include increases in the net value of those goods and services that are marketed, and also of those that may not be marketed.” (p. 1)

“[I]n addition to a plan which reasonably maximizes contributions to NED, other plans may be formulated which reduce net NED benefits in order to further address other Federal, State, local, and international concerns not fully addressed by the NED plan. These additional plans should be formulated in order to allow the decisionmaker the opportunity to judge whether these beneficial effects outweigh the corresponding NED losses.” (p. 7)

⁹ Although the Corps acknowledged, but did not apply, the 1983 *Principles and Guidelines*, the Council on Environmental Quality recently released a new set of *Principles and Requirements for Federal Investments in Water Resources* and draft Interagency Guidelines that supersede the *Principles and Guidelines*. See <http://www.whitehouse.gov/administration/eop/ceq/initiatives/PandG>. The *Principles and Requirements* is consistent with many of the factors discussed below. For example, it emphasizes that “Federal investments in water resources as a whole should strive to maximize public benefits, with appropriate consideration of costs. Public benefits encompass environmental, economic, and social goals, include monetary and non-monetary effects and allow for the consideration of both quantified and unquantified measures.” *Principles and Requirements* (p. 4). The Corps should closely examine and apply the *Principles and Requirements* as it completes an accurate and balanced analysis of the costs and benefits of each course of action in any final EIS.

¹⁰ U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources. 1991. *National Economic Development Procedures Manual: Overview Manual for Conducting National Economic Development Analysis*. IWR Report 91-R-11. October. pp. 21- 23 (bold emphasis in original).

national output of goods and services resulting from the PSMP; the value of output resulting from external economies caused by the PSMP; and the value associated with the use of otherwise unemployed or under-employed labor resources. (*Principles and Guidelines*, p. 8) The *Principles and Guidelines* describes a separate framework for measuring changes in economic activity, which it calls the regional economic development (RED) account. “The RED account registers changes in the distribution of regional economic activity that result from each alternative plan. Two measures of the effects of the plan on regional economies are used in the account: Regional income and regional employment.” (p. 11) The PSMP can affect economic activity through expenditures that alter the pattern of income and employment, or when its impacts on the supply of goods and services, such as recreational opportunities, affects the location decisions and spending patterns of households and businesses.

The distinction between changes in value and changes in economic activity is important, because the former represents increases or decreases in the overall wellbeing of the nation’s economy resulting from the PSMP and the latter indicates the distribution of wellbeing among different groups. The distinction is particularly important in this setting insofar as substantial information, discussed below, indicates that, although the DEIS asserts that implementation of the Preferred Alternative would increase economic activity, jobs, and incomes associated with dredging and the barge industry, it can do so only by reducing national economic wellbeing. The local increases, therefore, would occur only through the transfer of economic resources from the rest of the nation to the recipient businesses and workers, and the benefits to the recipients likely would not exceed the overall national costs.

The PSMP DEIS provides no information about these issues. It fails to distinguish between economic values and activity and provides, at best, no accounting of either, or, at worst, an incomplete and misleading accounting of both. For example, it states, “construction activity associated with the relocation or reconfiguration would create a temporary local economic benefit.” (p. 4-33) The phrase, “temporary local economic benefit,” presumably refers to an increase in income and jobs in the area. These effects are changes in economic activity, not changes in the value of goods and services available to the national economy. That is, some businesses and workers in the local economy would experience an increase in economic activity, jobs, and income because of the construction, but others – in the local economy or beyond it – would experience a reduction insofar as they would pay the taxes that would provide the funding for the construction. Hence, the benefit to some would be a cost to others. By describing the former but not the latter, the DEIS presents a biased picture of the overall economic consequences. This is an important omission, as the discussion below shows that the overall effect likely would be negative, i.e., the value of the goods and services resulting from the construction likely would be less than the value of the goods and services these taxpayers would forgo as their payment of taxes to finance the construction reduces their net earnings and disposable incomes.

The PSMP DEIS also fails to meet its obligation to give a full accounting of the Preferred Alternative’s economic risks and uncertainties. This accounting should be broad, rather than narrow, in accordance with the guidance expressed by the agency’s own manual: “It is the analyst’s job to identify, clarify, and quantify areas of risk and uncertainty *wherever possible*, especially for those pieces of information which have a substantial influence on either the choice

of an alternative and/or its size and cost.”¹¹ The PSMP DEIS does not identify, clarify, or quantify areas of risk and uncertainty. It especially does not quantify how risks and uncertainties under the Preferred Alternative compare with those under the other alternatives.

3. The PSMP DEIS Does Not Apply the Agency’s Environmental Operating Principles

The PSMP DEIS presents a set of “Environmental Operating Principles applicable to all its decision-making and programs.” It further states that, “The principles are consistent with the National Environmental Policy Act.” These are four of the principles:

- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.
- Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.
- Seeks ways and means to assess and mitigate cumulative impacts to the environment; bring systems approaches to the full life cycle of our processes and work.
- Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work.

Even a cursory review of the PSMP DEIS reveals, however, that it falls far short of the aspirations expressed in these statements, failing to clarify the extent and effect of taxpayer subsidies to barging under the Preferred Alternative. This failure arises, from an economic and social perspective, insofar as the document fails to provide a full accounting of all the costs and all the benefits of each alternative, including the Corps’ Preferred Alternative. As a consequence, there is no way of knowing, from the PSMP DEIS, if the Preferred Alternative represents economic and environmental solutions that support and reinforce one another. The ambiguity is especially acute because the PSMP DEIS does not provide information about the costs embedded in the Preferred Alternative. These costs are important because, to the extent that taxpayers rather than barge operators bear these costs, they represent subsidies to the barge system. As such, they distort the overall transportation system by reducing barge shipping prices below the actual costs, inducing shipments of freight by barge and barge-related investments that otherwise would not occur. The subsidies also can lead to distortions outside the barge sector, for example by drawing customers away from using rail and encouraging rail operators to reduce service or close facilities. Information presented below – but not included in the PSMP DEIS – indicates that the costs of maintaining the navigation channel exceed the benefits, and that the Preferred Alternative therefore is not consistent with the Environmental Operating Principles because it is not an economically sustainable solution to the problems the Corps is addressing.

Moreover, by being totally devoid of any accounting of socioeconomic effects, the PSMP DEIS does not demonstrate that the Corps accepts responsibility and accountability for all the consequences of the Preferred Alternative’s impacts on human welfare, as required by the Environmental Operating Principles. The PSMP DEIS provides such an incomplete description of the Preferred Alternative’s costs that it does not come close to complying with the

¹¹ U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources. 1992. Guidelines for Risk and Uncertainty Analysis in Water Resources Planning, Volume I: Principles. IWR Report 92-R-1. March, p. 17 (italics emphasis added).

Environmental Operating Principles’ commitment to assess and mitigate the Preferred Alternative’s cumulative impacts. By disregarding the full costs of the Preferred Alternative, the PSMP DEIS dismantles, rather than builds, the integrated knowledge base called for in the statement of Environmental Operating Principles.

4. Summary of Shortcomings Regarding Analytical Standards

The PSMP DEIS falls woefully short of all the standards applicable to the analysis of the socioeconomic consequences of the PSMP. It exemplifies not the promised application of Environmental Operating Principles but the behaviors these principles seek to prevent. It does not adhere to, or even demonstrate an awareness of, applicable standards of economic analysis that the Corps must satisfy if it is to provide a good faith analysis and sufficient information to allow a firm basis for weighing the risks and benefits of the Preferred Alternative. Instead of taking a “hard look” at the socioeconomic consequences of the Preferred Alternative, the PSMP DEIS offers no more than casual observations. Instead of providing details and figures to the fullest extent possible, it offers a few, vague generalities.

Specific shortcomings include, but are not limited to:

- No explanation of significant socioeconomic issues to be addressed in managing sediment.
- No description of the process for evaluating the alternatives with respect to these issues and for incorporating their socioeconomic consequences into the selection of the Preferred Alternative.
- No description of a baseline scenario that reveals the Corps’ detailed expectations of what specific, important socioeconomic variables will look like in the future without the proposed action.
- No description of how the world will look different under each alternative, relative to these socioeconomic variables.
- No description of relevant extant data and past research regarding these variables.
- No description of, or justification for, socioeconomic assumptions embedded in the design of the analysis, the analytical findings, or the comparative assessment of the alternatives based on the findings.
- No quantitative information regarding the costs and benefits of each alternative.
- No description, especially a quantitative description, of the net benefits (net costs) of each alternative.
- No comparison, especially a quantitative comparison, of the alternatives’ costs, benefits and net benefits (net costs).
- No description and comparison, especially in quantitative terms, of the alternatives’ impacts on jobs, income, and other indicators of economic activity.
- No assessment, quantitative or qualitative, of uncertainties and risks associated with each alternative.
- No description of the distribution of costs, benefits, jobs, income, uncertainties, and risks among different groups, including future generations.
- No summary, especially a quantitative summary substantiated by data and analysis, of the similarities and differences among the alternatives in their socioeconomic consequences.

5. Necessary Actions To Correct the Shortcomings

To correct these shortcomings, the Corps should, at a minimum, complete these steps:

1. Review and incorporate into the DEIS past research on socioeconomic issues associated with sediment management in the lower Snake River.¹² These issues include, but are not necessarily limited to:
 - The direct costs and benefits of alternative approaches for managing sediment.
 - The external costs and benefits of these alternative approaches.
 - The net benefit (net cost) of the different approaches.
 - Trends in variables affecting costs, benefits, uncertainties, risks, and the distribution of regional economic activity. These variables include, but are not necessarily limited to: construction costs, freight shipments, market structure for freight transport, availability of appropriated funds to support federal components of the navigation system, and fish and wildlife values (market and non-market values).
 - The short- and long-term effects of the different approaches on markets, including the competitiveness of different transportation modes for freight shipments.
 - Uncertainties and risks associated with each approach.
2. Augment the review of relevant past research with an appropriately designed scoping process to identify important issues and variables for assessing the socioeconomic effects of the different alternatives examined in the PSMP DEIS. These variables should include, but are not necessarily limited to:
 - Significant direct costs and benefits.
 - Significant external costs and benefits.
 - Net benefit (net cost).
 - Jobs, income, and other indicators of economic activity.
 - Significant uncertainties and risks.
 - Significant trends in construction costs, dredging costs, freight shipments, fish populations, fish values, and other relevant socioeconomic variables.
 - The short- and long-term effects of the different approaches on markets and economic activity, including the competitiveness of different modes for freight shipments.
3. Prepare a baseline scenario that describes in detail what the relevant socioeconomic variables will look like in the future absent federal action. As part of this step, describe key assumptions.
4. Describe fully the costs, benefits, and net benefits (costs) of each alternative from the national economic development perspective, accounting for those that can reasonably be expressed in monetary terms, as well as those that cannot. As part of this step, describe key assumptions.
5. Describe fully the impact of each alternative on the distribution of regional economic activity, focusing on employment and income. Account fully for income transfers to the region resulting from implementation outlays, subsidies to navigation and other modes,

¹² Some of this relevant research is specific to this geographic area, but research with a broader scope or from other areas may also be relevant.

transfers of economic resources into or out of the region, indirect effects, and induced effects. Describe in detail the allocation of economic activity associated with different transportation modes. As part of this step, describe key assumptions.

6. Describe fully the uncertainties and risks associated with each alternative. As part of this step, describe key assumptions.
7. Provide a summary comparison of the alternatives that includes: (a) costs, benefits, net benefits (net costs); (b) the distribution of costs and benefits among different groups; (c) the distribution of regional economic activity among different groups; and (d) uncertainty and risk.
8. Prepare an analysis of the Preferred Alternative consistent with directions provided by the *Principles and Guidelines* for the National Economic Development and Regional Economic Development accounts. This effort should parallel, if not build on, the NED, RED, and related analyses the Bureau of Reclamation and Washington Department of Ecology recently completed in conjunction with the development of a programmatic environmental impact statement for the Integrated Water Resource Management Plan for the Yakima River Basin.¹³
8. Clearly explain criteria used to evaluate the socioeconomic differences among the different alternatives and the process used to apply the criteria and select the Preferred Alternative.

B. The PSMP DEIS Presents an Incomplete and Biased Picture of the Preferred Alternative's Socioeconomic Effects

The preceding sections describe in general terms the failure of the PSMP DEIS to satisfy the Corps' obligation to provide a description of the socioeconomic effects of the PSMP "to the fullest extent possible." This section identifies specific information that the PSMP DEIS ignored. It also explains the bias resulting from this omission, with the PSMP DEIS favoring dredging over alternative methods for managing sediment and the navigation industry over other transportation alternatives. This section also demonstrates that a more thorough and accurate analysis than what is in the DEIS likely would show that the costs of the PSMP outweigh its benefits.

1. The PSMP DEIS Presents an Incomplete Picture of the Preferred Alternative

The PSMP DEIS not only fails to take a "hard look" at all the available, relevant information regarding all aspects of the PSMP's socioeconomic effects, it closes its eyes to this information. In particular, it fails to utilize extensive, readily available information regarding the economic benefits and costs of the Preferred Alternative, and its impacts on the distribution of economic activity between the barge industry and its competitors in the rail and trucking industries. This failure occurs despite the Corp's having available to it not just a large amount of relevant information but also a detailed prescription, grounded in the *Principles and Guidelines*, for how to utilize this information to assess the socioeconomic effects.

¹³ See <http://www.usbr.gov/pn/programs/yrbwep/reports/fouraccounts.pdf>; and <http://www.usbr.gov/pn/programs/yrbwep/reports/DPEIS/DPEIS.pdf>.

a. The PSMP DEIS Presents an Incomplete and Biased Description of the Preferred Alternative’s Benefits and Costs

The socioeconomic sections of the PSMP DEIS should compare the benefits of each alternative against its costs to determine the net benefit (net cost) and demonstrate that, unless other factors outweigh the objective of maximizing net national economic benefit, the Preferred Alternative selected by the Corps has the greatest net benefit (lowest net cost). They do neither. This omission has important consequences, insofar as even a brief review of the available information suggests that the Preferred Alternative’s costs outweigh its benefits. As a result, the DEIS presents information and selects a Preferred Alternative biased in favor of dredging and other activities that require taxpayer support and subsidies to the barge industry.

The *Principles and Guidelines* explains that, “The basic economic benefit of a navigation project is the reduction in the value of resources required to transport commodities.” (p. 49) The benefit can materialize through reduction in the cost of transporting goods that would (a) use the waterway with or without the PSMP; (b) use another, more costly mode without the PSMP; or (c) experience an origin-destination shift with the PSMP. The PSMP DEIS, however, does not substantiate that the Preferred Alternative would yield any of these reductions in the cost of transporting goods. Instead, it makes only general statements, such as these, that suggest the benefits, if any, of the Preferred Alternative would be limited:

“Modifying flows to flush sediments (drawdown) would require substantial changes in reservoir operations that would temporarily preclude most barge navigation in the reservoirs where and while drawdown was occurring. This would be a temporary adverse impact on commercial and recreational navigation. Normal operating water levels would be restored following the implementation of the drawdown or flushing measure, which would allow navigation to resume. Some shipments would likely shift to other modes (rail, truck), which could adversely affect the capacity of the rail or highway system. However, these measures would have a long-term beneficial effect on navigation, by improving the navigation channel. Changes to the ways in which barge tows are operated could affect the costs of barge shipping, as well as recreational vessels operating in the vicinity of the tows.” (p. 4-33)

This language reveals that the Corps apparently does not know with certainty if the Preferred Alternative would yield any economic benefits whatsoever. Instead, although it makes the general statement that improving the navigation channel, through dredging and other activities included in the Preferred Alternative, would have a beneficial effect on navigation, the most it says about the economic consequences of these actions is that they “could affect” the costs of shipping goods via the waterway. Or not. It is impossible to tell from the information presented in the DEIS. Some of these actions would have a “temporary adverse impact on commercial and recreational navigation” by precluding most barge traffic in some reservoirs. Although this disruption likely would cause some cargo that otherwise would be shipped by barge to be shipped, instead, by rail or truck, the PSMP DEIS does not say that this shift would have any effect on shipping costs. Instead, it says that the shift “could adversely affect” – the Corps apparently does not know for sure – “the capacity of the rail or highway system.” The DEIS makes no attempt to quantify these potential costs and benefits, or the uncertainty attached to its general projections.

The *Principles and Guidelines* also explains that the assessment of the costs of a planned program, such as the Preferred Alternative, should examine “the opportunity costs of resources used in implementing the plan. These adverse effects include: Implementation outlays, associated costs,

and other direct costs.” (p. 8) The socioeconomic sections of the PSMP DEIS, however, provide no information about the Preferred Alternative’s implementation outlays, associated costs, or other direct costs.

This lack of information in the DEIS does not stem from a dearth of relevant data and studies. The Corps itself has generated extensive information about the benefits and costs of maintaining the navigation channel and supporting barge traffic. In particular, the Corps’ records about its past operations should enable it to provide a reasonably accurate description of the dredging costs under the Preferred Alternative, as well as the costs of maintaining and operating the locks at the four dams on the lower Snake River. For example, the PSMP DEIS shows that, between 1982 and 2006, the Corps dredged about 4 million cubic yards of material above Lower Granite Dam, or more than 150,000 cubic yards per year, on average.¹⁴ This volume translates into an annualized dredging cost of at least \$2 million, in the dollars of 2005-06.¹⁵ This level of costs, exclusive of inflation, should carry forward, even increase, insofar as the PSMP DEIS anticipates that wildfires and other events likely will increase sediment delivery to the Lower Granite pool. Increases seem likely, as evidenced by the Corps’ decision, three months after publishing the DEIS, in which it stated an immediate need to dredge 421,675 cubic yards above Lower Granite Dam, to seek a permit to now dredge 491,043 cubic yards. The costs would be even higher, measured in real terms, if the nominal costs of dredging rise faster than general inflation.

These dredging costs, alone, likely will exceed the economic benefits, if any, of the Preferred Alternative. Economic benefits would materialize to the extent that the Preferred Alternative would reduce the transportation costs of shipping grain. In the costs and benefit of dredging, one must measure the true reduction in costs to the national economy, not the reduction in barge rates that reflect a subsidy from taxpayers. Extensive research provides insights into the true benefits (or costs) of maintaining the navigation channel in the LSRP. Some of this has focused on the competition to barge traffic from rail and trucks in this region and how the competition affects the potential benefits and costs of actions that would maintain or, alternatively, cease barge traffic along the Lower Snake River. A study completed in 2003, for example, found that, if the navigation system on the lower Snake River were closed, grain shippers would, on average, incur additional costs of about \$1–2 million per million tons of grain. In recent years, the Port of Lewiston has shipped about 500,000 tons of grain per year.¹⁶ These numbers, combined, indicate that, if the tonnage remains at this level, grain shippers would incur additional costs of \$0.5–1.0 million per year, if they were unable to ship by barge. The avoidance of these costs represents the Preferred Alternative’s primary economic benefit. This benefit, \$0.5–1.0 million per year, however, falls short of the annualized cost of dredging of at least \$2 million.

¹⁴ PSMP DEIS pp. 1-10 and 1-11.

¹⁵ The Corps reported dredging costs of \$12.75 per cubic yard. Barker, E. 2005. “Dredging to begin next week,” *Lewiston Morning Tribune*. 12 December. Retrieved 13 March 2013 from http://lmtribune.com/northwest/article_0b952047-4a7e-5808-b30f-f1fd39e15296.html.

¹⁶ Port of Lewiston. 2013. “Shipping Reports.” Retrieved 11 February 2013 from http://www.portoflewiston.com/wordpress/?page_id=69.

The dredging costs likely also will outweigh the overall benefits for all commodities shipped through the Lower Granite locks. In 2009, about 1.2 million tons of freight passed through these locks (DEIS, Table 3-13). If the savings per ton to shippers for other commodities are similar to those for grain, the total annual benefits of maintaining the navigation channel would total about \$1.2–2.4 million for the same amount of freight barged in 2009, with the midpoint of this range, \$1.6 million, falling well below the estimated annualized dredging cost. Information presented below indicates that the gap between the dredging costs and the benefits to shippers probably will be even greater, because the amount shipped by barge likely will fall and dredging costs likely will rise.

Market data support the conclusion that maintaining the navigation channel through the Lower Granite Pool is especially inefficient. Table 3-13 of the PSMP DEIS shows that tonnage through the Lower Granite locks fell from 2.3 million tons in 1994 to 1.2 million tons in 2009. Most of this decline occurred prior to the onset of the Great Recession and reflects structural trends. The overall decline during this period, 47 percent, was considerably greater than the declines at the dams down river: Little Goose (30 percent), Lower Monumental (31 percent) and Ice Harbor (33 percent). The DEIS presents no information to substantiate an expectation that the downward trend will not continue. If tonnage continues to decline in the future, potential benefits from maintaining the navigation channel, all else equal, will decline as well.

Further reductions in shipments through the Lower Granite locks seem likely. Many shippers have good substitutes for barge transportation, and, at the margin, the incremental costs of shifting to rail or truck transport are small, or even negative. Rail and truck transport already is competitive with barge transport for many grain producers. The 2003 study found that more than one-third of the grain produced in the counties tributary to Lower Granite pool is transported to market by rail or truck.¹⁷

Competition to the barge industry along the Lower Snake River from rail has increased in recent years, drawing freight away from barges. A major shift occurred in 2002, with the completion of a unit-train/shuttle loading facility at Ritzville. An assessment of the facility's impact concluded, "The facility at Ritzville immediately began to compete for grain volume that previously was shipped...to the river."¹⁸ The authors observed further that, although truck-barge and rail shipping rates for grain north of Ritzville were comparable prior to the facility's completion, truck-barge rates subsequently grew almost 10 cents higher. The percentage of grain shipped from this area via truck-barge fell from 94 percent in 2001 to 65 percent in 2005, as the amount shipped by rail via Ritzville rose from about 3 percent to 30 percent. In their market analysis for further investments in the rail system, the authors offered this explanation for why grain producers and others are investing in rail-system upgrades:

"The principal and critical constraint on the barge system is a need for continued dredging at the entrances to some terminals and in some parts of the navigation channel. The U.S. Army Corps of

¹⁷ BST Associates. 2003. p. 42.

¹⁸ Casavant, K. and E. Jessup. 2006. Palouse River and Coulee City Railroad: CW Line Market Assessment. Washington State Department of Transportation Office of Freight Strategy and Policy. March. Retrieved 12 March 2013 from http://www.wsdot.wa.gov/NR/rdonlyres/9847F8D2-33B4-4B34-83D8-B34F0ACC70DC/0/PCCMarketAnalysis_Revised_March3.pdf.

Engineers has a plan to provide the required dredging, costing about \$2.1 to \$4.9 million per year over a 70+ year period, and this plan was partially implemented this winter, due to a compromise between the Army Corps of Engineers and the Tribes/environmental interests. Without dredging, the barges had, in some cases, been loaded light (as much as 35% light), decreasing efficiency and increasing per unit costs to shippers. Shippers and ports had stepped in and contracted for private dredging until this compromise was reached. The future status of this effort remains uncertain.

“...The uncertainty surrounding both the halt in annual dredging and the renewed possibility (though extremely low) of breaching of some dams has a direct effect on the CW line. First, the competitive position of the short line railroad is greatly enhanced if either of these actions continues. Secondly, in the extreme case, the need for service from the line is greatly increased since loss of dredging or implementation of a river draw down will both necessitate hauling grains and products to the Tri-City area, if barge is to be accessed and efficiently used in the future. If barge is no longer competitive, then rail movement the full distance to the port becomes necessary....” (pp. 31-32)

Additional expansion of competition from rail is underway. The development of the McCoy shuttle train loader facility near Oakesdale, expected to be operational for the 2013 harvest, will give producers a strong competitive option to trucking grain for shipment by barge. In all likelihood, the facility will result in diverting to rail grain that otherwise would be shipped by barge. The DEIS does not discuss – or even mention – the uncertainty this new development creates for the ability of the Preferred Alternative to generate navigation-related economic benefits.

The potential economic benefits of the McCoy facility and related investments in the rail system are substantial, as the surrounding region produces almost one-third of Washington’s exported wheat. The loading facility offers transportation savings and other benefits even without improvements to the rail line serving it. With the improvements, the benefits would increase, as illustrated by a benefit-cost analysis that found the project would yield these benefits, discounted at 3 percent per year over a 20-year period:^{19, 20}

- Net transportation savings of \$72.3 million
- Net road damage savings of \$13.8 million
- Net safety savings of \$7.5 million
- Net reduction in CO2 emissions of \$519 thousand
- Total net benefits of \$67.4 million”

The Port of Whitman County, which supports facilities for both rail and water transportation, has offered this summary assessment of the economic benefits of diverting grain from barge to rail:²¹

“The greatest benefits from the project are the net transportation savings from reduced trucking of grain. With the construction of the [McCoy] Shuttle Loader Facility, the projected number of truck trips to the rail loading facility increases as a result of additional bushels being hauled to the shuttle

¹⁹ Port of Whitman County. 2012. *P&L Shortline Railroad Bridge Replacement and Shuttle Loader: TIGER Discretionary Grant*. Retrieved 12 March 2013 from <http://www.portwhitman.com/Narrative%20Final.pdf>.

²⁰ Washington State Department of Transportation, S. Peterson, and J. Tee. 2012. *Benefit-Cost Analysis Summary*. Retrieved 11 February 2013 from <http://www.portwhitman.com/Benefit-Cost%20Analysis.pdf>.

²¹ Port of Whitman. 2012. *P&L Shortline Railroad Bridge Replacement and Shuttle Loader: TIGER Discretionary Grant*. Retrieved 12 March 2013 from <http://www.portwhitman.com/Narrative%20Final.pdf>.

loading facility from farm storage and other commercial grain storage and handling facilities, rather than being hauled to the river for barge transport. This reduces the truck-to-barge mileage. A projected 6,500,000 bushels of wheat will be loaded and shipped directly from storage facilities along the P&L shortline to the private sector loading facility. Another 9,868,000 bushels will be trucked to the loading facility from an average distance of 50 miles round trip. Without the project, all 16,368,000 bushels will be trucked an average of 150 miles round trip to the port at Central Ferry. This project reduces annual truck miles by 2,295,199 and saves 217,431 gallons of fuel, resulting in a net CO₂ reduction of 1,259 Mtons.” (p. 17)

Barge terminals down river also compete with those in the Lower Granite pool. In addition, an increasing portion of grain is being transported in larger trucks and, if this trend continues, it likely would make truck transport even more competitive.²²

A shift away from barge transport originating in Lewiston also would have associated benefits for some parts of the road system. The 2003 study observes:

“The road systems in Idaho, Montana, and North Dakota should also benefit, as the long- distance truck moves to Lewiston are eliminated in favor of rail transport to export elevators. The wear and damage to roadways caused by loaded trucks will be substantially reduced for these states. In contrast, the highway maintenance costs in Washington would increase slightly.” (p. 69)

“Idaho accounts for 49.2% of the grain flowing into the Lower Granite Pool, with most of the grain originating in the area around Lewiston and Southwest Idaho. Washington accounts for 27.0%, with most of the grain originating in Whitman County. The remaining grain originates in Montana (14.2%), North Dakota (6.9%), Oregon (2.5%) and Utah (0.3%).” (p. 44)

The PSMP DEIS presents none of this information indicating that the economic benefits from maintaining the navigation channel through the Lower Granite Pool are uncertain and, if they exist currently, are likely to decline in future years. It also presents no information about how past maintenance of the navigation channel has had adverse, indirect impacts on the rail system. Expenditure of taxpayers’ dollars to maintain the channel means that barge operators do not bear the full, direct cost of shipping freight by barge. In other words, barge shipments are subsidized. Some of the subsidy materializes as the channel is dredged, others occur as the Corps maintains the locks and incurs other costs, such as responding to the impacts of its activities on fish. Additional subsidy materializes outside the LSRP, for example, as tribal members, recreationists, local communities, and others are harmed without compensation by the adverse impacts of activities related to the navigation channel and barge traffic on fish and wildlife.

Subsidies to the navigation system have enabled the barge lines to transport grain and other products at prices that do not cover the system’s full costs. For many years, some shippers realized economic benefits from these lower prices, both as they shipped products by barge and as competition between barge and rail induced railroads to keep their prices lower than would exist absent the navigation subsidies. Over the past couple of decades, however, the hidden costs and unsustainability of these subsidized prices have become apparent as railroads, struggling to compete with the subsidized prices of barge shipments, cut investments in and maintenance of rail lines. In some cases, the lines were abandoned or sold to the state, which has had to make substantial investments to keep them running. The DEIS fails to account for any of these costs.

²² BST Associates. 2003. p. 11.

In sum, this discussion reveals that information available to the Corps but not included in the DEIS suggests strongly that the socioeconomic benefits of the Preferred Alternative fall far short of the costs. By not expressing, studying, and analyzing this information, the DEIS fails to “take a hard look” at a critically important aspect of the PSMP’s economic consequences. The Corps must re-work the DEIS and fully examine the net benefits (net costs) of each alternative if it is to satisfy its obligation to provide good faith analysis and sufficient information to allow a firm basis for weighing the risks and benefits of the agency’s Preferred Alternative.

b. The PSMP DEIS Presents an Incomplete and Biased Description of the Preferred Alternative’s Impacts on Regional Economic Activity

The PSMP DEIS summarizes the Preferred Alternative’s impacts on economic activity with this observation: “Maintaining the navigation channel would maintain the flow of commodities thereby maintaining existing related conditions in employment and income in related economic sectors.” (p. 4-33) It provides no other information, or analysis, of the impacts.

This treatment of the Preferred Alternative’s impacts on the regional distribution of economic activity violates a fundamental standard of impact analysis. This standard recognizes that impact analysis requires defining two scenarios, one with and the other without the Preferred Alternative, and describing the differences between them to represent the alternative’s impact. The *Principles and Guidelines* states, for example:

“**Section III — Summary of the Planning Process ... 1.3.6 Evaluation of Effects ... (b) Assessment.** Assessment is the process of measuring or estimating the effects of an alternative plan. Assessment determines the difference between without-plan and with-plan conditions for each of the categories of effects.” (pp. 1-2)

Because of the failure to conduct a with-vs.-without analysis, it is impossible to know, from the information provided in the PSMP DEIS, how the Preferred Alternative would affect economic activity. Specifically, it is impossible to know if income and jobs would go up or down, or which workers in which industries would be affected.

The DEIS fails to show how maintaining the navigation channel, through implementation of the Preferred Alternative, would “maintain the flow of commodities” by barge. The tonnage barged on the Lower Snake River has been declining over many years and the DEIS does not demonstrate how the Preferred Alternative would arrest this decline. Moreover, it does not discuss, let alone analyze, the potential effects on the flow of commodities by barge of the recent and planned investments in the rail system that likely will draw even more freight away from the barge system in the future.

The DEIS also fails to substantiate its assertion that by maintaining the navigation channel, the Preferred Alternative would maintain existing conditions in employment and income in economic sectors related to navigation and the barge industry. If maintaining the navigation channel is unable to maintain the current flow of commodities by barge, in the face of long-established downward trends and increasing competition from rail, jobs and incomes associated with the barge industry likely will decline.

Conversely, if subsidies to the barge industry are sufficiently large to enable it to maintain the flow of commodities, then the jobs and incomes associated with it will come at the expense of jobs and incomes associated with the barge industry’s competitors. The discussion above

demonstrates that, if barge transport of cargo through the Port of Lewiston were not available, the cargo would be shipped via rail or truck or through a barge terminal down river. If successful in maintaining the flow of commodities by barge, implementation of the Preferred Alternative would preclude workers associated with transport by rail or truck or through down river barge terminals from being employed and earning income. The PSMP DEIS provides no information about the Preferred Alternative’s potential impacts on these jobs and incomes. Indeed, it provides no quantitative information about any jobs or incomes. Nor does it account for changes underway in the competition for freight that indicate existing conditions in employment and income in sectors related to navigation and the barge industry likely will change, perhaps dramatically, regardless of the Corps’ approach for managing sediment in the LSRP. Hence, it is impossible to determine, from the PSMP DEIS what the impact the Preferred Alternative would have on the regional distribution of economic activity. The document simply does not address the issue.

2. The PSMP DEIS Presents a Biased Picture of the Preferred Alternative

The incomplete socioeconomic picture in the PSMP DEIS is a biased picture. The bias emerges as, out of the void created by the absence of socioeconomic data or analysis, the PSMP DEIS avoids communicating the negative socioeconomic effects that would accompany implementation of the Preferred Alternative. The information presented above indicates that these negative effects likely would offset much, if not all, of the positive effects, with costs exceeding benefits and jobs and income in the barge industry coming at the expense of jobs and income in the rail and truck industries. The incomplete picture thus allows the PSMP DEIS to portray the Preferred Alternative as more desirable than taking no action, or pursuing other alternatives that would avoid some or all of these costs, when, from a socioeconomic perspective, the reverse likely is true.

C. Summary

The socioeconomic elements of the PSMP DEIS fail completely to satisfy the full suite of applicable analytical standards: those required by NEPA, the widely accepted professional standards applicable to this setting, and agency-specific standards. This failure does not stem from a lack of relevant data and other information. There is a wealth of data, much of it generated by the Corps, itself, and studies of the economics of navigation are numerous. Instead, the failure stems from an analytical black hole. The document contains no analysis. As a result, the PSMP DEIS provides no socioeconomic basis for the selection of the Preferred Alternative, nor does it come close providing the public with the information it needs to judge the reasonableness of that decision from a socioeconomic perspective.

The Corps’ selection of the Preferred Alternative, which would re-start suspended dredging activities and initiate the construction of structures to enable continued barge traffic in the Lower Snake River ignores substantial information indicating that this approach to sediment management likely would generate socioeconomic costs that exceed the benefits. Information included in the PSMP DEIS supports the conclusion that the dredging costs, alone, likely would exceed the transportation-cost savings, if any, that would result from future shipments of grain from the Lower Granite Pool. For example, if the tonnage shipped into and out of the Lower Granite Pool remains at current levels, maintenance of the navigation channel would generate shipping-cost savings for grain producers of \$0.5–1.0 million per year. This benefit, however, falls short of the annualized cost of dredging, at least \$2 million. The dredging costs also likely

will outweigh the transportation-cost savings, if any, for all freight shipped through the Lower Granit locks. Accounting for the additional costs of maintenance of the locks and construction of structures likely would show the overall costs are even greater than the potential transportation-cost savings, if any.

Information excluded from the PSMP DEIS supports the conclusion that the Preferred Alternative's net costs would be even larger, insofar as the tonnage shipped by barge likely will decrease, as will the benefits of maintaining the navigation channel. A new rail-loading facility at Ritzville began siphoning grain shipments away from the barge system as soon as it was completed in 2002, so that the percentage of the grain produced in the surrounding area and shipped by barge fell from 94 percent in 2001 to 65 percent in 2005. Similar investments to be completed soon at McCoy likely will have similar effects, further reducing barge shipments.

To rectify its failure to produce an unbiased DEIS that takes a "hard look" at the socioeconomic consequences of managing sediment in the LSRP, the Corps must start over. It must define a baseline scenario that describes what the world would look like without federal action, describe in detail how each alternative would make the world different, and determine the benefits and costs attributable to each alternative, as well the changes in economic activity and changes in uncertainty and risk. With this detailed, comparative information in hand, it then must explain which of the alternatives, from a socioeconomics perspective, is the Preferred Alternative.

0122_CWA_AndersonT

From: [Vicki Anderson](#)
To: [PSMP](#)
Subject: dredging
Date: Wednesday, April 10, 2013 12:17:41 PM

9685 Aquatic resources;
threatened and endangered
species (aquatic)

WITH ENDANGERED SALMON AND STEELHEAD DREDGING WOULD BE A DISASTER. THIS YEAR ALONE THE RUNS ARE AT A MINIMUM. THE SILT WOULD DO GREAT HARM TO WHAT FEW FISH WILL SPAWN THIS YEAR. THE COST IS PROHIBITIVE FOR TAX PAYERS AS WELL. DREDGING COSTS ARE AN ONGOING COST OF 3.2 MILLION PER YEAR. AT CURRENT SHIPPING RATES THIS AMOUNTS TO 18,900 DOLLARS PER BARGE LEAVING THE PORT OF LEWISTON. HOW RIDICULOUS!!! RAIL IS ALL THAT IS NEEDED, AND WOULD BE MORE EFFICIENT. PLEASE DON'T MAKE THE MISTAKE OF DREDGING AND RUIN WHAT LITTLE FISHING WE HAVE LEFT. ---TOM ANDERSON--

9687
Socioeconomics;
rail

9686 Costs and
funding

0123_CWA_Babson

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

Dear Sandy,

9688/ 9710/ 9711
Public Hearing
Request

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

9690 Water quality,
and sediment
quality; sediment
quality

I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

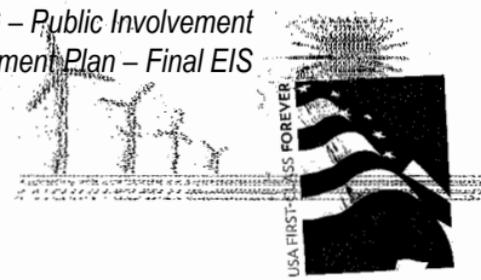
Sincerely,

Neil Babson
Neil Babson
1971 SE Locust Ave.
Portland OR, 97214

N. Babson
1971 SE. Locust Ave.
Portland OR. 97214

Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

29 APR 2013 PM 5 L

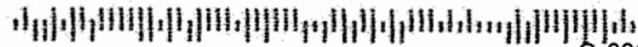


U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third Ave.
Walla Walla WA.

99362-1876

August 2014

99362187601



G-639

0124_CWA_Burke

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9713 Water quality,
and sediment
quality; sediment
quality

9712 / 95
Public Hearing
Request

Dear Sandy,

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

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In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,



M. Burke

Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

29 APR 2013 PM 5 L

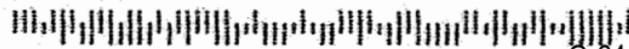
USA FIRST CLASS FOREVER



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third ave.,
Walla Walla WA
99362-1874

August 2014

99362187601



G-641

0125_CWA_Corder

From: [Sierra Club](#) on behalf of [Zeke Corder](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Thursday, May 02, 2013 8:37:24 AM

May 2, 2013

Army Corps of Engineers

Dear of Engineers,

9717 Costs and funding



In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

9718 Aquatic resources; threatened and endangered species (aquatic)



Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

9719 Hydrology and sediment; watershed sediment production



Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Mr. Zeke Corder
1397 N Kolnes Ave
Kuna, ID 83634-2965
(208) 841-8927

0126_CWA_CreamRidgeMorgans

From: [Cary and Leigh Ann Newman](#)
To: [PSMP](#)
Subject: I support and am for the dredging on the Snake River
Date: Thursday, April 11, 2013 8:03:37 AM

9720 General
project support

I support and am for the planned dredging on the Snake River and the following statement from the Lewiston Tribune,

"The spoils would come from the more than 470,000 cubic yards of sediment the corps has proposed to dredge from an area near the confluence of the Snake and Clearwater rivers. If the dredging proposal is approved, the agency wants to dump the sand and silt 23 miles west of the valley near Knoxway Canyon, where it would be used to create shallow water habitat for salmon and steelhead."

Cary Newman

Lenore Idaho

--

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www.creamridgemorgans.com

0127_CWA_Edeline

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9712 / 9723 / 9724
Public Hearing
Request

Dear Sandy,

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

9722 Water quality,
and sediment
quality; sediment
quality

I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,

Kevin T. Edeline
3030 SE Pine #27
Portland, OR. 97214

FORTLAND OR 970

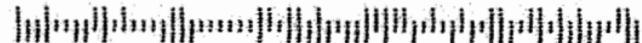
29 APR 2013 PM 2 1



K. Edeline
3030 SE Pine #27
Portland OR. 97214

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third Ave,
Walla Walla WA.
99362-1876

99362187601



August 2014

G-645

0128_CWA_EPA_Region10_EnvReview_SegMgt

From: [Shelin, Sandy L NWW](#)
To: [Grass, Charlene G \(Contractor\) NWW](#)
Subject: FW: EPA Comment Letter PN # CENWW-PM-PD-EC 13-01, Lower Snake and Clearwater Rivers Winter Dredging 2013-2014 (UNCLASSIFIED)
Date: Thursday, May 02, 2013 1:06:42 PM
Attachments: [CENWW-PM-PD-EC 13-01 Lower Snake and Clearwater Rivers Winter Maintenance Dredging 2013-2014 WA and ID.pdf](#)

Classification: UNCLASSIFIED
Caveats: NONE

Charlene,

Please add this to our comment letter collection for the PSMP/EIS. This is responding to the Corps' public notice and Clean Water Act compliance.

Sandy

From: Barton, Justine [<mailto:Barton.Justine@epa.gov>]
Sent: Thursday, May 02, 2013 11:49 AM
To: Shelin, Sandy L NWW
Cc: Laura Inouye (LINO461@ecy.wa.gov); Celia Barton (Celia.Barton@dnr.wa.gov); Warner, Luran C NWS; Diane Driscoll; Chris Warren (Chris_Warren@fws.gov); DeGering, Tracy
Subject: EPA Comment Letter PN # CENWW-PM-PD-EC 13-01, Lower Snake and Clearwater Rivers Winter Dredging 2013-2014

Hi Sandy -- Attached please find our comment letter and 2 attachments for the referenced notice. Thanks for your quick responses to my questions these past couple of weeks! Let me or Tracy know if you have any questions regarding our comments. JB

Justine Barton

U.S Environmental Protection Agency, Region 10

1200 Sixth Ave., Suite 900, ETPA-088

Seattle, WA 98101

206.553.6051

barton.justine@epa.gov

Classification: UNCLASSIFIED
Caveats: NONE



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ECOSYSTEMS,
TRIBAL AND PUBLIC
AFFAIRS

May 2, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN. Sandra Shelin
CENWW-PM-PD-EC
201 N. 3rd Avenue
Walla Walla, Washington 99362-1876

Re: Comments on Public Notice # CENWW-PM-PD-EC 13-01, Lower Snake and Clearwater Rivers
Winter Maintenance Dredging 2013-2014, Washington and Idaho.

Dear Ms Shelin:

Thank you for the comment period extension on the referenced public notice. Last month the EPA also provided extensive comments on the draft Lower Snake River Programmatic Sediment Management Plan EIS that provides both background and context for this project. The EPA acknowledges the potential need for dredging as a management tool and part of an overall sediment management strategy. However, we anticipate that interagency work on long-term sediment reduction measures and an active adaptive management process could result in a significantly reduced need for dredging and associated disposal in and around the Snake and Clearwater Rivers. We hope the Walla Walla District Corps will continue to be an active leader and convener in those management efforts.

In the referenced notice, the Walla Walla District Corps of Engineers proposes to perform almost 500,000 cubic yards (cy) of maintenance dredging at four locations on the lower Snake and Clearwater Rivers. This material has accumulated since dredging last occurred in winter 2005/2006. The proposed locations include the Ice Harbor navigation lock approach, berths at the Ports of Clarkston and Lewiston, and the Federal navigation channel adjacent to the two ports at the confluence of the Snake and Clearwater Rivers. The Corps' dredging and disposal would occur during the winter 2013-2014 in-water work window, from December 15 through March 1. Dredged material disposal is proposed at an in-water location in Lower Granite Reservoir, at RM 116, near Knoxway Canyon, with the goal of creating a 7.3 acre shallow water habitat bench beneficial for juvenile fall Chinook salmon. The material would overall occupy a 26 acre footprint along about 3,500 linear feet of reservoir shoreline.

Our comments on the public notice fall into two main areas: review of compliance with Clean Water Act 404(b)(1) guidelines (Guidelines), and dredged material placement specifics, including the characterization of the dredged material proposed for in-water placement. Project details are taken from both the public notice, as well as environmental documentation from appendices associated with the Programmatic Sediment Management Plan DEIS we reviewed last month.

Compliance with Clean Water Act 404(b)(1) Guidelines.

Section 230.10 of the Guidelines contains the four principle requirements for compliance. Failure to "clearly demonstrate" that there is no "practicable alternative to the proposed discharge which would

9697 Dredged material disposal

have less adverse impact on the aquatic ecosystem”, in accordance with Section 230.10(a), renders a project noncompliant with the Guidelines. Similarly, if a proposal contains insufficient information to determine compliance, the Guidelines require that no discharge be authorized. The EPA acknowledges that, under 33 CFR Part 335.2, “the Corps does not issue itself a CWA permit to authorize Corps discharges of dredged material or fill material into U.S. waters, but does apply the 404(b)(1) guidelines...” (emphasis added). While a 404 permit may not be required in this particular case, it is still the Corps’ responsibility to demonstrate compliance with the Guidelines. The EPA reviewed the 404(b)(1) analysis associated with the referenced dredging and disposal as part of the review of the DEIS (Appendix L). The purpose of the immediate proposed maintenance dredging is to restore the authorized depth of the Federal navigation channel and to remove sediment from adjacent port areas.

The EPA often supports in-water disposal/placement of dredged material; however, the Corps should more rigorously document that in-water disposal for the immediate maintenance action complies with the Guidelines. Our detailed comments on compliance with the Guidelines are included in Attachment I, and are organized into three main areas, including alternatives analysis, project purpose and in-water disposal/placement for habitat, and definition of practicability.

Dredged Material Management Program Sediment Characterization.

The EPA has very recently been involved in an interagency review, via the Dredged Material Management Program, of existing sediment quality characterization information for the proposed dredging prism. Until recently, the Walla Walla District had not provided necessary information on the most recent August 2011 characterization efforts, and thus this analysis lagged behind the draft EIS and current public notice review process. Recent work is being coordinated by the Seattle District Corps’ Dredged Material Management Office, on behalf of the Walla Walla District. A “Next Steps” memo was provided to Walla Walla District by Lauran Warner on behalf of the DMMP agencies (the DMMP agencies include the Corps of Engineers, EPA Region 10, and the Washington State Departments of Ecology and Natural Resources). This memo, dated April 23, 2013, is included as Attachment 2. It is based on review of older information and the August 2011 findings (which were provided April 1, 2013), and outlines a DMMP proposal for additional information gathering. This information is necessary for determining whether the proposed dredged material is suitable for beneficial use and/or open-water placement. We understand that Walla Walla District is working on a draft Sampling and Analysis plan, and will be gathering the additional necessary information. We look forward to reviewing a draft Sampling and Analysis Plan in the near future. Until this information has been collected and provided in a comprehensive draft report, we do not agree with the Corps’ contention that the material proposed for placement is appropriate for use at Knoxway Canyon or any other unconfined open-water disposal option.

9698 Dredged material disposal

Dredging/Placement and Water Quality Concerns.

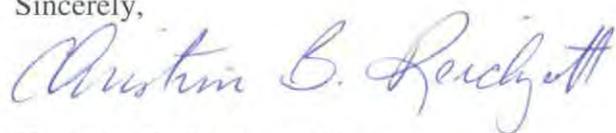
The EPA is concerned about potential turbidity effects on water quality both during dredging and placement, especially with the flat-top barge/bulldozer disposal option, and during reworking of placed sediments. Final underwater regrading of the material into a gradually sloping bench, and placing the final 10 foot thick dressing of sandy material along a 3,500 foot long linear segment of the reservoir may prove to be particularly difficult to manage. The Corps’ 2006 water quality monitoring report (“Water Quality Final Report, FY 06 Lower Snake River Dredging Project, Manson Construction Company, USACE Walla Walla District, submitted by Dixon Marine Services Inc, dated May 12, 2006) states that during the 851 hours of dredging in the reach near Port of Clarkston, the project was in compliance only 64% of the time with an average turbidity of 5.84 NTU over background (at a deep station 300+ feet downstream). Due to the “monitoring zone” monitoring set up, this station was likely more than 300 feet

downstream, with the deep station 600+ feet downstream in compliance 85% of the time. The report states that dredging operations were consistently halted during this project phase to allow turbidity levels to decrease to within specified limits.

In addition, the water quality monitoring report states that, “During the final phase of the dredging operation (March 3, 2006), the main dredge *Vulcan* was relocated to the disposal area, specifically to reshape the disposed material. This activity was closely monitored for elevated turbidity, and both compliance stations did signal alarms for a long series of elevated turbidity, ceasing operation in excess of 10 hours. The threshold for this operation was raised to 75 NTU, which was implemented on March 3, 2006.” While it may be decided that the short-term turbidity effects are reasonable and unavoidable in order to accomplish the final shaping/dressing of the benches, these effects should be anticipated, past actual results should be clearly summarized and best management practices discussed with water quality agencies, especially the Washington Department of Ecology. How long will turbidity remain relatively high, how far is turbidity likely to be dispersed and how will turbidity issues be better addressed this dredging/placement cycle?

For further information/coordination on our 404(b)(1) analysis comments please contact Tracy DeGering, degering.tracy@epa.gov, 208-378-5756. For further information/coordination our review of sediment characterization information and project dredging and placement specifics, please contact Justine Barton, barton.justine@epa.gov, 206-553-6051.

Sincerely,



Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Attachments

- cc. Washington Department of Ecology – Laura Inouye
- Washington Department of Natural Resources – Celia Barton
- Seattle District Corps of Engineers – Lauran Warner
- NOAA/NMFS – Diane Driscoll
- USFWS – Mr. Chris Warren

9700 Dredged material disposal

Attachment 1: Compliance with Clean Water Act 404(b)(1) Guidelines.

Alternatives Analysis. Based on the available information, we do not believe the proposed disposal action (placement at the Knoxway Canyon site) has been clearly demonstrated to be the least environmentally damaging practicable alternative. The identification of practicable alternatives to be analyzed is constrained only by the definition of a practicable alternative (as further discussed below). Pursuant to 40 CFR Section 230.10(a), an alternatives analysis is conducted to identify practicable alternatives to a proposed discharge. An alternative is practicable if it is available and capable of being done and would achieve the overall project purpose. Practicable alternatives with fewer adverse impacts are presumed to exist for non-water dependant activities, unless “*clearly demonstrated otherwise.*” The environmental impacts of the various practicable alternatives are then compared so that the Corps can ensure it is authorizing only the practicable alternative which generates the least environmental damage, the LEDPA. Except as permitted under Section 404(b)(2), the Guidelines prohibit the authorization of any alternative that is not the LEDPA.

Both the project description in the DEIS Appendix H and the Evaluation in Appendix L acknowledge that dredged material has previously been placed in uplands, and that dredged material could be discharged in upland areas or in-water. As such, it is our understanding that the proposed discharge resulting from the immediate maintenance action is not a water dependent activity. The disposal of dredged material does not require access or proximity to, or siting within, a special aquatic site to fulfill its basic purpose. In summary, the Corps needs to more clearly demonstrate selection of the LEDPA (augmenting Appendix L), and we recommend the Corps clearly address the alternatives analysis for future disposal of dredged material as well as the cumulative impacts from continued disposal of dredged material, should in-water disposal be the LEDPA.

Project Purpose and In-Water Disposal/Placement for Habitat. The project purpose does not clearly support in-water disposal. The purpose of the immediate proposed maintenance dredging is to restore the authorized depth of the Federal navigation channel and to remove sediment from adjacent port areas. Reestablishment of the navigation channel is an entirely different purpose than the proposed creation of shallow water habitat. We also understand that dredging may sometimes be necessary in order to achieve the desired 14-foot deep navigation channel. Since dredged material disposal is not a water dependent activity, however, we emphasize that for any proposed discharge of dredged or fill material into waters of the U.S., there must be a very clear purpose and need, and that any final action must always be demonstrated to be the LEDPA. In this specific case, while the immediate dredging action may be real, the need to create shallow water habitat for juvenile salmonids at the proposed disposal site has not been adequately demonstrated. It is our understanding that NMFS considers the construction of “beneficial” shallow habitat benches at Knoxway Canyon experimental. As such, continued monitoring should be required if benches are constructed in the future. Sharing of this information could be part of an interagency adaptive management process that considers and includes new information with a broader sediment management goal and systems approach -- the EPA would be happy to participate in such an interagency management forum. In summary, we recommend that the Corps demonstrate the need to create shallow water habitat for juvenile salmonids at the Knoxway Canyon site, should in-water disposal prove to be the LEDPA.

Definition of Practicability. The Corps has not clearly assessed whether disposal alternatives other than in-water disposal exist. “An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes”

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[§230.10(a)(2)]. As discussed above, the overall project purpose plays a critical role in determining whether a particular alternative is practicable or not. The consideration of cost, existing technology, and logistics is to determine whether one or more of these factors render an alternative unavailable and/or incapable of being done. This is a very high standard, and an alternative must be demonstrated to be impracticable before it can be excluded from the analysis.

The purpose of consideration of cost is not to compare the cost of different alternatives but to determine whether or not the costs of a specific alternative are so prohibitively high (beyond industry standard) that the alternative is rendered unavailable and incapable of being done. As stated in the preamble to the Guidelines: *“The consideration of cost is not an economic analysis.” “The mere fact that an alternative may cost somewhat more does not necessarily mean it is unreasonably expensive and therefore not practicable”* (45 FR 85339).

The consideration of existing technology and logistics are handled similarly to that of cost. For example, an alternative which requires the use of advanced (but existing) technology that is available and capable of being done is a practicable alternative. Similarly, an alternative which is logistically more complex but is still available and capable of being done is a practicable alternative.

Given the above, the EPA has concerns about the Guidelines’ consideration of cost in comparison to the Civil Works’ federal standard for disposal of dredged material, defined as, *“[T]he least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process...”* (emphasis added) (33 CFR 335.7). Since the Guidelines apply to civil works projects, as stated under 33 CFR Part 335.2, alternatives that are practicable, but more expensive, must be considered in determining the LEDPA. Both Appendix H and the Evaluation in Appendix L state that upland disposal is more expensive than in-water disposal, rendering them impracticable.

According to Appendix H, only two upland disposal sites, Joso and Port of Wilma, were identified as alternatives to the proposed in-water disposal. The two alternatives were evaluated separately. The Port of Wilma site, by itself, may not be a practicable disposal site due to its limited capacity to contain the anticipated 500,000 cubic yards of material. The Joso disposal site, alone or in combination with the Port of Wilma site, however, appears to offer ample space and could result in approximately 80 acres of uplands being restored. Cost appears to be the only reason the Joso alternative was eliminated, yet no cost-comparison was provided, nor were ways to further reduce costs discussed. It is not clear whether additional upland sites within the vicinity were considered, and if so, why they were determined not to be practicable. We recommend the Corps compare the environmental impacts of this (and other potential) upland alternatives against the in-water disposal alternative. Once all environmental impacts of the various practicable alternatives have been compared, the Corps can only authorize the practicable alternative which generates the least environmental damage. If the cost of an upland alternative is so prohibitively high, that it renders it unavailable and incapable of being done, this must clearly be demonstrated. At present, the Evaluation in Appendix L does not adequately address how cost, existing technology, and/or logistics render upland alternatives unavailable and/or incapable of being done. In summary, we recommend that a full suite of disposal alternatives (e.g. uplands, in-water and combination thereof, at individual or multiple sites) be more fully evaluated for practicability.

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material disposal

CENWS-OD-ME-DM

MEMORANDUM FOR: NWW

April 23, 2013

SUBJECT: Dredged Material Management Program, comments on report, "Lower Snake and Clearwater Rivers, Sediment Evaluation Report from Proposed 2013/2014 Channel Maintenance Dredging."

- 1. Introduction and Background.** Many thanks for the subject report, received April 2, 2013. The Dredged Material Management Program (DMMP) agencies (including the Corps of Engineers – Seattle District, the Environmental Protection Agency, and Washington State Departments of Ecology and Natural Resources) reviewed the report to evaluate whether the 2011 sediment evaluation provided sufficient information with which to make a determination of suitability for unconfined open-water disposal/placement of the proposed approximately 495,000 cubic yards of dredged material.

The original objectives of the 2011 sediment characterization included updating the district sediment database for comparison to historical data in support of a Programmatic Sediment Management Plan for the lower Snake River watershed, and to help determine testing requirements for future specific dredging projects. It was not designed as a typical DMMP characterization.

The DMMP review focused on a) whether a suitability determination for open water disposal could be issued with the information provided in the report, and b) if additional information was necessary to make a determination, to define what additional information would be necessary.

- 2. DMMP Findings.** The review found that additional information will be necessary to determine suitability for the majority of the project. This finding is based on several lines of evidence:

- a. Tier 1 Evaluation.** A suitability based on a Tier 1 evaluation has also been referred to as "exclusionary" in previous guidance. A Tier 1 evaluation is done for every project, and includes a comprehensive analysis of all existing information on the proposed dredging, including potential sources of contamination, site history, and existing data. If the information compiled in Tier 1 is adequate to meet exclusionary criteria, factual determinations can be made without proceeding to the higher tiers ([ITM 1998](#)).

Section 404 of the Clean Water Act (CWA) includes provisions for exclusion from testing based on Tier 1 evaluations, as does the ITM guidance documents. Exclusions can be made if a Tier 1 evaluation indicates that the dredged material is not considered to be a "carrier of contaminants" (40 CFR 230.60 (b)). Potential exclusion situations occur most commonly "if the dredged material is composed primarily of sand, gravel and/or inert materials; the sediments are from locations far removed from sources of contaminants, or if the sediments are from depths deposited in preindustrial times and have not been exposed to modern sources of pollution" ([ITM 1998](#)). Testing may also not be necessary "where the discharge site is adjacent to the excavation site and subject to the same sources of contaminants, and materials at the two sites are substantially similar" (40 CFR 230.60(c)).

The DMMP carefully considered whether the proposed dredged material could be given a Tier 1 suitability determination based on existing information. Although much of the sediment meets the

general guidelines for physical characteristics, it is clearly exposed to potential sources of contamination, and cannot be considered “far removed” from those potential sources.

b. **Recency.** The DMMP also considered whether a suitability determination could be issued based on the results of previous characterizations or other existing information. Because the 2011 characterization was not designed to address DMMP suitability, we considered whether previous data could be used to augment this dataset. However, the most recent previous characterization occurred in 2003, ten years ago. Both SEF and DMMP guidelines give seven years as the maximum time for which data can be considered in a suitability determination. This is especially important in areas that are not far removed from potential sources of contamination.

c. **Sufficiency of Characterization.** The locations and level of effort of the specifics of the 2011 testing did not fulfill the level of effort or information required per SEF and DMMP guidance, as discussed below.

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Although the DMMP could not issue a suitability determination for the majority of the material in the proposed dredging project, the subject report definitely provided excellent background and historic information that was invaluable for the next steps supporting the design of a suitable characterization.

3. **Sampling Reaches.** According to descriptions and data given, the DMMP recognized five separate sections, or reaches, of the proposed dredging prism that should be considered separately for sampling/characterization purposes. These five reaches are:

1. Ice Harbor Lock (sufficient data available for tier 1 evaluation, no further testing needed)
2. Clarkston West (including both the Federal Navigation Channel (FNC) and the Port of Clarkston Grain Elevator)
3. Clarkston East (including the Federal Navigation Channel)
4. Port of Clarkston (including only areas identified in Figure 20 of subject report)
5. Lewiston (including the Federal Navigation Channel and the Port of Lewiston)

These areas were identified based on apparent shoaling patterns and sediment characteristics. Please note that these are not DMMUs, which are described below.

4. **Dredged Material Management Units (DMMUs).** The DMMP defines DMMUs as manageable, dredgeable units of sediment which can be differentiated by sampling and which can be separately dredged and disposed within a larger dredging area. The volume of sediment in each DMMU is based on the rank and character of the material.

The subject report allowed the DMMP to verify rank and homogeneity/heterogeneity of the sediments. These are the two factors that influence sampling and testing frequency. Heterogeneous sediment has sediment layers of potentially different characteristics or levels of chemicals of concern. They are typically sampled with a coring device that samples all layers of the sediment. Homogeneous sediment is well-mixed and typically deposited over a short time-frame. Homogenous sediments are often found in settling basins or some navigation channels where river flow slows down abruptly. A dredge prism made up of homogenous sediment can be represented with grab samples. For this project, it appears that the vast majority of the proposed dredged material can be considered homogenous and thus can be sampled with surface grabs.

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Based on core logs from the 2011 sampling, as well as on shoaling patterns often seen in such areas, Clarkston West, Clarkston East and Lewiston reaches can all be considered homogenous, and ranked of low concern. Clarkston West showed some indications of heterogeneity, but the DMMP agencies determined that grab samples would represent the mixture of fines and sand that were observed in the core samples. DMMUs in these areas need to be defined based on Table 1.

Table 1. Maximum sediment volume represented by each sample and DMMU

Project Rank	Homogeneous Material		Heterogeneous Material			
	# of samples required	# of analyses (DMMUs) required	# of samples required		# of analyses (DMMUs) required	
			Surface	Subsurface	Surface	Subsurface
L	8,000 cy	60,000 cy	8,000 cy	48,000 cy	72,000 cy	60,000 cy
LM	8,000 cy	40,000 cy	8,000 cy	32,000 cy	48,000 cy	40,000 cy
M	4,000 cy	20,000 cy	4,000 cy	16,000 cy	24,000 cy	20,000 cy
H	4,000 cy	8,000 cy	4,000 cy	4,000 cy	12,000 cy	8,000 cy

Thus reaches 2, 3 & 5 listed above (Clarkston West, Clarkston East and Lewiston respectively) need to be divided into maximum 60,000 cubic yard DMMUs that can each be characterized with one analysis of a composite of all grab samples. Area 4 (Port of Clarkston) showed the greatest amount of core variability and fines content. This area is considered heterogeneous and must be sampled with core samples. We also agree with the report that this area should be ranked low moderate for this sampling.

5. **Sampling Density.** Based on guidelines from Table 1 above, the DMMP expects the following sampling density to be required. These sampling requirements are based on volumes given in Table 9 of the subject report. Volumes listed for separate reaches appear to have discrepancies within the subject report. Sampling and analysis requirements should be verified and potentially recalculated based on volumes from the most recent November 2012 project survey. It is understood that project proponents require separate DMMUs for the federal and port proposed dredging. Table 2 reflects this breakdown.

Table 2. Number of samples and analyses required for Snake River dredging.

Reach	Given Rank	Adjusted Rank	Volume (from report Table 9)	# of grab samples required	# of core samples required	# of analyses required (DMMUs)
Ice Harbor Lock	Very low	Very low	2,155	-	-	0
FNC Clarkston West	Low	Low	133,482	17	-	3
POC Grain Elevator	LM	Low	3,218	2	-	1
FNC Clarkston East	Low	Low	168,910	22	-	3
Port of Clarkston	LM	LM	9,041	-	2	1
FNC Lewiston	Low	Low	140,210	18	-	3
Port of Lewiston	LM	Low	3,275	2	-	1
Totals			460,291	63	2	12

Notes:

- All sampling and analysis requirements are based on the given volumes. The SAP should reflect the most current volumes estimates and recalculate requirements as necessary.
- All sample and analysis requirements have been rounded up to the nearest whole number.
- A minimum of two samples is required for one DMMU, regardless of volume.

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6. **Chemicals of Concern.** Based on the subject report, the list of chemicals of concern can be reduced from the standard DMMP list. Those chemicals and classes of chemicals which were demonstrated to have no or very low detections over multiple characterizations will not require analysis. Table 3 defines those chemicals for which the 10 DMMU composite samples need to be analyzed.

Analysis needs to be performed on those chemicals listed in black and blue. Those chemicals listed in blue are new to the COC list for freshwater that have been proposed by the Washington Department of Ecology, and should have analyses performed for this characterization. Those chemicals listed in red do not, as of the date of this memo, show sufficient reason-to-believe for analysis in this characterization, for reasons described below:

- a. **Dioxins.** Very low TEQs were found in most samples analyzed in 2011, and in all the samples in areas proposed for dredging. They indicated a low “reason-to-believe” that dioxins are of concern in the proposed dredge prism. Due to the presence of an upstream paper plant, however, this decision may need to be revisited for future characterizations.
- b. **PAHs.** Levels of PAHs, when occasionally detected, have been found at orders of magnitude below levels of concern in either marine or freshwater guidelines. There are few sources in the area for this class of chemicals.
- c. **Other organics.** Again, lack of sources and previous data show low reason-to-believe for presence of these chemicals at levels of concern.

Please be aware that non-detected chemicals with practical quantitation levels above the regulatory guidelines may either trigger bioassay testing or result in a determination of unsuitability for unconfined open-water disposal/placement. Laboratories should endeavor if at all possible to meet the regulatory guidelines with their reporting limits, and problems meeting these guidelines must be reported and coordinated with the DMMP immediately.

7. **Caveats.** Though we have been as thorough as possible in outlining required testing and the regulatory guidelines to which chemical concentrations will be compared, there are a few cautions we need to mention that may affect this project.
- a. Table 3 shows only proposed freshwater guidelines that have not yet been adopted by dredging programs. These guidelines are based on effects to benthic resources—not to fish. RSET is considering evidence for fish-based regulatory levels that may or may not be more restrictive than the guidelines based on benthic resources.
 - b. Table 3 has been coordinated with all DMMP agencies; it has not yet been coordinated with state and federal fisheries agencies which may have additional analysis requirements for sediment being placement for fish habitat. It is expected that those agencies will be available for coordination in the near future, but we cannot rule out further input from them.
8. **Next Steps.** The DMMP stands ready to provide timely review and assistance in characterizing this project, in any way we can. The next step in pursuing this characterization will be preparation and approval of a coordinated sampling and analysis plan.

Please contact Lauran Warner, DMMO, at 206-764-6550 or lauran.c.warner@usace.army.mil with questions, concerns or requests.

Table 3. Chemicals of Concern for Snake River Characterization

CHEMICAL	CAS ⁽¹⁾ NUMBER	Analyze for all chemicals in standard list; only analyze for chemicals in non-standard list if DMMP reason-to-believe guidelines require them			Used for freshwater dredged material w/in DMMP area		Proposed FW (2013)	
		DMMP Guidelines			Interim FW (2006)		SL1	SL2
		SL	BT	ML	SL1	SL2	SL1	SL2
METALS (mg/kg dry weight)								
Antimony	7440-36-0	150	---	200	---	---	---	---
Arsenic	7440-38-2	57	507.1	700	20	51	14	120
Cadmium	7440-43-9	5.1	11.3	14	1.1	1.5	2.1	5.4
Chromium	7440-47-3	260	260	---	95	100	72	88
Copper	7440-50-8	390	1,027	1,300	80	830	400	1200
Lead	7439-92-1	450	975	1,200	340	430	360	>1300
Mercury	7439-97-6	0.41	1.5	2.3	0.28	0.75	0.66	0.8
Nickel	7440-02-0	---	---	---	60	70	26	110
Selenium	7782-49-2	---	3	---	---	---	11	>20
Silver	7440-22-4	6.1	6.1	8.4	2	2.5	0.57	1.7
Zinc	7440-66-6	410	2,783	3,800	130	400	3200	>4200
PAHs (µg/kg dry weight)								
Naphthalene	91-20-3	2,100	---	2,400	500	1,300		
Acenaphthylene	208-96-8	560	---	1,300	470	640		
Acenaphthene	83-32-9	500	---	2,000	1,100	1,300		
Fluorene	86-73-7	540	---	3,600	1,000	3,000		
Phenanthrene	85-01-8	1,500	---	21,000	6,100	7,600		
Anthracene	120-12-7	960	---	13,000	1,200	1,200		
2-Methylnaphthalene ⁽²⁾	91-57-6	670	---	1,900	470	560		
Total LPAH	---	5,200	---	29,000	6,600	9,200		
Fluoranthene	206-44-0	1,700	4,600	30,000	11,000	15,000		
Pyrene	129-00-0	2,600	11,980	16,000	8,800	16,000		

CHEMICAL	CAS ⁽¹⁾ NUMBER	Analyze for all chemicals in standard list; only analyze for chemicals in non-standard list if DMMP reason-to-believe guidelines require them			Used for freshwater dredged material w/in DMMP area		Proposed FW (2013)	
		DMMP Guidelines			Interim FW (2006)		SL1	SL2
		SL	BT	ML	SL1	SL2	SL1	SL2
Benz(a)anthracene	56-55-3	1,300	---	5,100	4,300	5,800		
Chrysene	218-01-9	1,400	---	21,000	5,900	6,400		
	205-99-2							
	205-82-3							
Benzofluoranthenes (b, j, k)	207-08-9	3,200	---	9,900	600	4000		
Benzo(a)pyrene	50-32-8	1,600	---	3,600	3,300	4,800		
Indeno(1,2,3-c,d)pyrene	193-39-5	600	---	4,400	4,100	5,300		
Dibenz(a,h)anthracene	53-70-3	230	---	1,900	800	840		
Benzo(g,h,i)perylene	191-24-2	670	---	3,200	4,000	5,200		
Total HPAH	---	12,000	---	69,000	31,000	55,000	17,000	30,000
CHLORINATED HYDROCARBONS (µg/kg dry weight)								
1,4-Dichlorobenzene	106-46-7	110	---	120	---	---		
1,2-Dichlorobenzene	95-50-1	35	---	110	---	---		
1,2,4-Trichlorobenzene	120-82-1	31	---	64	---	---		
Hexachlorobenzene (HCB)	118-74-1	22	168	230	---	---		
PHTHALATES (µg/kg dry weight)								
Dimethyl phthalate	131-11-3	71	---	1,400	46	440		
Diethyl phthalate	84-66-2	200	---	1,200	---	---		
Di-n-butyl phthalate	84-74-2	1,400	---	5,100	---	---	380	1000
Butyl benzyl phthalate	85-68-7	63	---	970	260	370		
Bis(2-ethylhexyl) phthalate	117-81-7	1,300	---	8,300	220	320	500	22000
Di-n-octyl phthalate	117-84-0	6,200	---	6,200	26	45	39	>1100
PHENOLS (µg/kg dry weight)								
Phenol	108-95-2	420	---	1,200	---	---	120	210
2-Methylphenol	95-48-7	63	---	77	---	---		

CHEMICAL	CAS ⁽¹⁾ NUMBER	Analyze for all chemicals in standard list; only analyze for chemicals in non-standard list if DMMP reason-to-believe guidelines require them			Used for freshwater dredged material w/in DMMP area			
		DMMP Guidelines			Interim FW (2006)		Proposed FW (2013)	
		SL	BT	ML	SL1	SL2	SL1	SL2
4-Methylphenol	106-44-5	670	---	3,600	---	---	260	2000
2,4-Dimethylphenol	105-67-9	29	---	210	---	---		
Pentachlorophenol	87-86-5	400	504	690	---	---	1200	>1200
MISCELLANEOUS EXTRACTABLES (µg/kg dry weight)								
Benzyl alcohol	100-51-6	57	---	870	---	---		
Benzoic acid	65-85-0	650	---	760	---	---	2900	3800
Dibenzofuran	132-64-9	540	---	1,700	400	440	200	680
Hexachlorobutadiene	87-68-3	11	---	270	---	---		
N-Nitrosodiphenylamine	86-30-6	28	---	130	---	---		
beta-Hexachlorocyclohexane							7.2	11
PESTICIDES & PCBs (µg/kg dry weight)								
4,4'-DDD	72-54-8	16	---	---			310	860
4,4'-DDE	72-55-9	9	---	---			21	33
4,4'-DDT	50-29-3	12	---	---			100	8100
sum of 4,4'-DDD, 4,4'-DDE and 4,4'-DDT		---	50	69	---	---		
Aldrin	309-00-2	9.5	---	---	---	---		
Total Chlordane	5103-71-9							
	5103-74-2							
(sum of cis-chlordane, trans-chlordane, cis-nonachlor, trans-nonachlor, oxychlordane)	5103-73-1							
	39765-80-5							
	27304-13-8	2.8	37	---	---	---		
Dieldrin	60-57-1	1.9	---	1,700	---	---	4.9	9.3
Heptachlor	76-44-8	1.5	---	270	---	---		
Endrin ketone							8.5	---
Carbazole							900	1100

CHEMICAL	CAS ⁽¹⁾ NUMBER	Analyze for all chemicals in standard list; only analyze for chemicals in non-standard list if DMMP reason-to-believe guidelines require them			Used for freshwater dredged material w/in DMMP area		Proposed FW (2013)	
		DMMP Guidelines			Interim FW (2006)		SL1	SL2
		SL	BT	ML	SL1	SL2	SL1	SL2
Total PCBs (Aroclors)	---	130	38 ⁽³⁾	3,100	60	120	110	2500
ORGANOMETALLIC COMPOUNDS								
Tributyltin ion (interstitial water; ug/L)	56573-85-4	0.15	0.15	---	---	---	---	---
Tributyltin ion (bulk; ug/kg) ⁽⁵⁾	56573-85-4	73	73	---	75	75	47	320
Dibutyltin							910	130000
Monobutyltin							540	>4800
Tetrabutyltin							97	>97
DIOXINS/FURANS								
Total TEQ (ppt dry wt)	See DMMO Dioxin page	10-Apr	10	---	---	---		
GUAIACOLS & BUTADIENES								
Guaiacol (2-methoxyphenol)		No guidelines determined			---	---		
Chlorinated guaiacols (3,4,5-trichloroguaiacol; 4,5,6-trichloroguaiacol; tetrachloroguaiacol)		No guidelines determined			---	---		
Tri-, tetra-, and pentachlorobutadienes		No guidelines determined			---	---		

Notes:

(1) Chemical Abstract Service Registry Number

(2) 2-Methylnaphthalene is not included in the summation for total LPAH.

(3) This value is normalized to total organic carbon, and is expressed in mg/kg carbon.

(4) Analyses required only when there is sufficient reason-to-believe for presence in given project or location. See the DMMP Users Manual for more information on when to include these compounds in a characterization.

(5) Bulk sediment measurement of TBT is used only when porewater extraction cannot be accomplished.

Analyses for chemicals listed in **RED** do not need to be performed for this characterization.

Analyses for chemicals listed in **BLUE** are proposed additions to the SEF freshwater guidelines and should be included in this characterization.

0129_CWA_Fagerholm

From: [Vectorfins](#)
To: [PSMP](#)
Subject: Comment
Date: Tuesday, April 09, 2013 4:08:20 PM

Dear People

9679 Costs and
funding



There is no way that this should happen.
There is too much sediment in the whole area and over a short period of time, the money wasted by dredging will be lost due to it filling back in.
The taxpayer should not be accountable for this.

Sincerely
Jeff Fagerholm
Parkdale Oregon

0130_CWA_Frank

From: [Sierra Club](#) on behalf of [Bridget Frank](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Wednesday, May 01, 2013 3:05:02 PM

May 1, 2013

Army Corps of Engineers

Dear of Engineers,

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Mrs. Bridget Frank
4655 N Bluegrass Ave
Boise, ID 83703-3107
(208) 602-1274

9592 Costs and funding

9593 Aquatic Resources; Threatened and Endangered Species (Aquatic)

9594 Hydrology and Sediment; Watershed Sediment Production

0131_CWA_Herbert

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

Dear Sandy,

9584 Public
Hearing Request

9585 Water Quality
and Sediment
Quality; Sediment
Quality

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

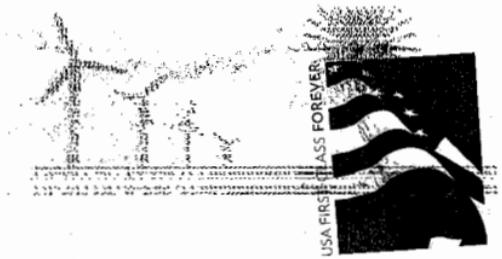
Sincerely,

Mike Herbert
Mike Herbert
6305 Shetland Pl.
West Linn, OR 97068

N. Herbert
6305 Shetland Pl.
West Linn, OR. 97068

PORTLAND OR 970

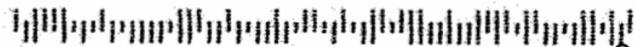
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U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PO-EC,
201 N. Third Ave,
Walla Walla WA
99362-1876

August 2014

99362187601



G-664

0132_CWA_KernsE

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

From: Edward Kerns
2335 SE Pine Street
Portland, OR 97214

9576 Public
hearing request

9577 Water quality,
and sediment
quality; sediment
quality

Dear Sandy,

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

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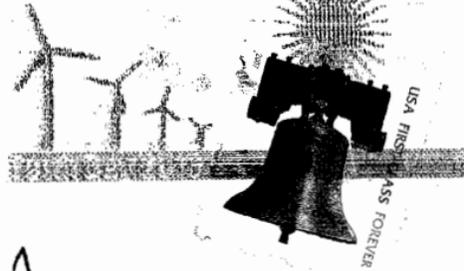


Ed Kerns

Ed Kerns
2335 SE Pine
Portland OR
97214

PORTLAND OR 970

23 APR 2013 PM 3 L



Sandy Shelin
US ARMY CORPS OF
ENGINEERS Wall Walla
201 N. 3rd Ave
Walla Walla WA 99362

August 2014

950623457
950623457

IG-066

0133_CWA_KernsS

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9573 Water quality,
and sediment
quality; sediment
quality

9572 Public
hearing request

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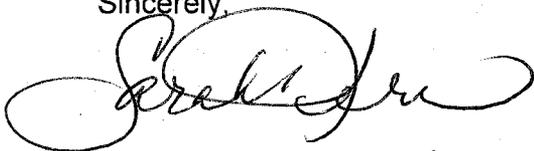
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Sincerely,



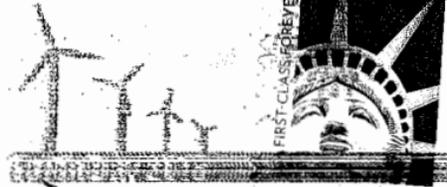
Sarah Kerns
5536 S.E. Harlow St.
Milwaukie OR. 97222

Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

S. Kerns
5536 SE Harlow St
Milwaukie, OR 97222

PORTLAND OR 97201

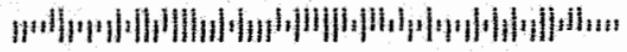
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U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,

201 N. Third Ave.
Walla Walla WA.
99362-1874

99362187401



August 2014

G-668

0134_CWA_Lauro

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9562 Water quality,
and sediment
quality; sediment
quality

9561 Public
hearing request

Dear Sandy,

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

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Sincerely,

MIKE LAURO

1630 NE 126

Portland 97230

M. LAURO

1630 NE. 126th
Portland OR. 97230

PORTLAND OR 970

29 APR 2013 PM 2 L

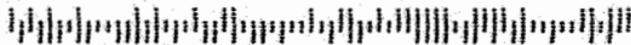


U.S. Army Corps of Engineers, Walla Walla District
PSMA/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,

201 N. Third Ave,
Walla Walla WA.
99362-1876

August 2014

99362187601



G-670

0135_CWA_McLanther

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

Dear Sandy,

9556 Public hearing request

9557 Water quality, and sediment quality; sediment quality

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

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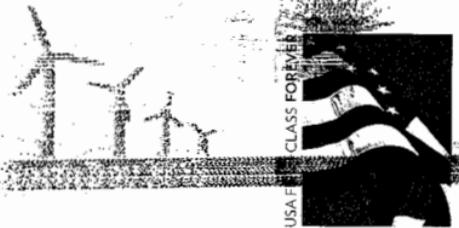
Arthur J. McLanther
1515 SW Jefferson #19
Portland, OR 97201

a. Melanther

1515 SW. Jefferson #19
Portland, OR 97201

FORTLAND OR 970

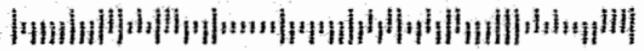
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U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS Attn. Sandy Shelin, CENWW-PM-PD-EC,

201 N. Third Ave.
Walla Walla WA
99362-1876

99362187601



August 2014

G-672

0136_CWA_Melton

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9554 Water quality,
and sediment
quality; sediment
quality

Dear Sandy,

9553 Public
hearing request

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

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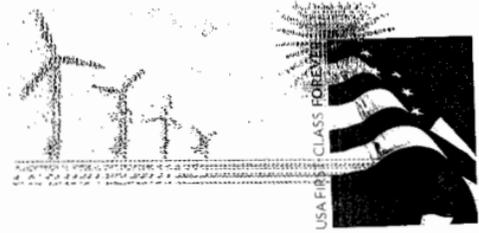
Sincerely,

Jan Melton
2714 SE 29th Ave #E
Portland, OR 97202

J. Melton
Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

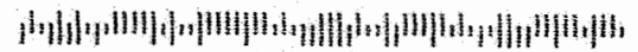
2714 SE. 29th Ave #E
Portland OR. 97202

PORTLAND OR 97201
29 APR 2013 PM 5 L



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third ave.,
Walla Walla WA
99362-1876

99362187601



August 2014

G-674

0137_CWA_NezPerce

From: [Marlene Trumbo](#)
To: [PSMP](#)
Cc: [Turnipseed, Donna NWW](#)
Subject: Nez Perce Tribe's comments on the Lower Snake and Clearwater Rivers Winter Maintenance Dredging 2-13-14 Washington and Idaho (Public Notice No: CENWW-PM-PD-EC 13-01)
Date: Tuesday, April 30, 2013 3:03:02 PM
Attachments: [30apr13 NPT ACOE LSR-dredging404 comments.pdf](#)

ATTN: Sandra Shelin

Attached are the Nez Perce Tribe's comments on the Lower Snake and Clearwater Rivers Winter Maintenance Dredging 2-13-14 Washington and Idaho (Public Notice No: CENWW-PM-PD-EC 13-01). If you have any problems opening the attachment please contact me.

Marlene Trumbo
Office of Legal Counsel
Nez Perce Tribe
P. O. Box 305
Lapwai, ID 83540

(208) 843-7355

(208) 843-7377, fax

P Please consider the environment before printing this email



Nez Perce

TRIBAL EXECUTIVE COMMITTEE

P.O. BOX 305 • LAPWAI, IDAHO 83540 • (208) 843-2253

April 30, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue, Walla Walla WA 99362-1876

By Electronic (psmp@usace.army.mil) Mail

Re: Nez Perce Tribe's comments on the Lower Snake and Clearwater Rivers Winter Maintenance Dredging 2-13-14 Washington and Idaho (Public Notice No: CENWW-PM-PD-EC 13-01)

Dear Ms. Shelin:

9534 Environmental laws and regulations

The Nez Perce Tribe (Tribe) appreciates the opportunity to comment on the Walla Walla District of the U.S. Army Corps of Engineers (Corps) Lower Snake and Clearwater Rivers Winter Maintenance Dredging 2013-14 Washington and Idaho (Public Notice No: CENWW-PM-PD-EC 13-01). The Tribe attaches and incorporates by reference its March 26, 2013 comments to the Corps regarding the Programmatic Sediment Management Plan and Draft Environmental Impact Statement. For the reasons below, the Tribe has concluded that the Corps has not adequately analyzed the proposed dredging activities under NEPA or met the requisite permit requirements under Section 404 of the Clean Water Act and accordingly the permit for the proposed 2013-14 dredging and disposal activities should not be authorized.

I. Project Description

According to the March 11, 2013 Public Notice, the Corps proposes to perform maintenance dredging activities at four locations in the Lower Granite and McNary Reservoirs on the lower Snake and Clearwater Rivers in Washington and Idaho. The purpose of the maintenance dredging, according to the Corps, is "to restore the authorized depth of the Federal navigation channel and to remove sediment from port areas." The sites and amount to be dredged (in cubic yards) include the Federal Navigation Channel at Confluence of Snake and Clearwater Rivers (469,212); Port of Clarkston (14,143); Port of Lewiston (4,485); and Ice Harbor Navigation Lock Approach (3,203) for a total of 491, 043 cubic yards. The Corps proposes to perform the dredging during the 2013-14 winter in-water work window which is currently identified as December 15 through March 1. The Corps plans to use the dredged material to create shallow water habitat for juvenile salmon at RM 116 creating, the Corps calculates, about 7.3 acres of shallow water habitat.

U.S. Army Corps of Engineers, Walla Walla District

April 30, 2013

Page 2

II. General Comments

Since time immemorial the Tribe has used and occupied the lands and waters of north-central Idaho, southeastern Washington, northeastern Oregon and areas of Montana for subsistence, ceremonial, commercial, and religious purposes. In 1855 the United States negotiated a treaty with the Tribe. Treaty of June 9, 1855, with the Nez Perces, 12 Stat. 957 (1859). In Article 3 of this treaty, the Tribe explicitly reserved to itself certain rights, including “the exclusive right to take fish in streams running through or bordering the Reservation,” “the right to take fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed lands.” These reserved rights include the right to fish within the project area identified in the PSMP/DEIS and the right to take fish passing through the Lower Snake River.

Salmon, steelhead, sturgeon and lamprey are integral to the spiritual, physical and economic health of the Tribe. The Tribe reveres the fishery and the waters that support the life and sustenance these resources have given, and continue to provide Tribal members. The Snake River corridor is an important migratory route for threatened spring, summer, and fall Chinook salmon and steelhead, as well lamprey and sturgeon. Any activities that potentially threaten these important resources are of great concern to the Tribe.

The Tribe cannot overstate how significant a burden the United States has imposed on the Nez Perce people through the construction and operation of the Lower Snake River and Columbia River Dams. These structures have contributed to a massive decline in salmon, steelhead and lamprey that have returned to our waters and nourished our people and the land since time immemorial. Nez Perce elders believe the circle of life has been broken and ask us to consider what the consequences of breaking that circle may mean for future generations. For the Nez Perce people, the loss of the sacred Chinook salmon, steelhead, lamprey and other species has meant a loss of our most important food source, and has been directly linked to a decline in the health and welfare of tribal members. The impact to our cultural and spiritual foundation, language, beliefs and way of life is incalculable.

As the Tribe stated in its March 26, 2013 comments on the PSMP/DEIS, it does not support the Corps’ preferred Alternative 7 and has determined that the PSMP/DEIS is inadequate for many reasons. The PSMP is the product of an unreasonably narrow purpose and need that relies on dredging while eliminating from consideration viable options such as increased implementation of sediment reduction measures, maintenance of the Lower Snake River navigation channel at the less than 14 feet depth as has been occurring using light-loading of barges, and partial breaching of the Lower Snake Dams. As a result of the narrow purpose and need, the Corps failed to fully evaluate a reasonable range of alternatives. To safeguard and advance the Corps’ treaty and trust responsibilities to the Tribe, the Tribe requests that the Corps fully analyze and adopt a new alternative that prioritizes the additional measures above as well as components of Alternatives 2, 3 and 4 in a manner that provides a regional sediment management approach which emphasizes non-dredging-based sediment control measures.

9535 NEPA; range of
alternatives

U.S. Army Corps of Engineers, Walla Walla District

April 30, 2013

Page 3

9538 Socioeconomics;
environmental justice communities

9539 Aquatic resources; threatened
and endangered species (aquatic)

The Corps also needs to perform significant additional analysis of the project's impacts. The PSMP/DEIS fails to analyze the project's impacts on Tribal treaty rights, Tribal cultural resources, and socioeconomics. The PSMP/DEIS inadequately analyzes the project's effects on ESA-listed species and lamprey. The economic analysis regarding the costs and benefits of the proposal is inaccurate and incomplete. Additional analysis is also necessary to address the impacts of climate change, as well as impacts from potential future changes in flood storage contemplated in the Columbia River Treaty. Despite the many problems with the PSMP/DEIS, the Corps is relying on the inadequate DEIS to satisfy its obligations under NEPA for the proposed dredging activities.

16122 climate change

9540 Costs and funding

The Corps also offers no analysis or meaningful explanation in the Public Notice addressing how the Corps' proposed dredging activities will comply with the Clear Water Act. See Public Notice at 9 ("The Corps' analysis of the environmental impacts associated with the proposed maintenance dredging activity is addressed in the PSMP/DEIS dated December 2012"). Relying on the PSMP/DEIS NEPA analysis alone will not fulfill the substantive requirements of Section 404(b)(1). As the Corps is aware, the agency must perform a public interest review which includes an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. In addition the Corps must perform, among other mandates, an evaluation of practical alternatives that may obviate the need for dredging; assess whether the proposed dredging and disposal activities will result in no significant degradation of U.S. waters; and ultimately base a determination on sufficient information reasonably justifying compliance with the Section 404(b)(1) Guidelines. The Tribe is unable to identify any evidence that the Corps performed this substantive analysis required under the Clean Water Act.

9542 Environmental laws and regulations

The Tribe is also concerned with the Corps' reliance on the DEIS for the Section 404 permit because the DEIS still is still undergoing public review. Yet the Corps published the 30-day Public Notice while the DEIS was still in the public comment period, demonstrating, in the Tribe's view, the Corps' commitment to proceed with dredging even before the agency had received any comments from the Tribe or others concerning the PSMP/DEIS. The Corps should have completed the NEPA process rather than relying on a *draft* EIS to justify NEPA compliance with the Section 404 permit.

9543 Environmental laws and regulations

A. The Corps Has Failed To Perform a Comprehensive Public Interest Review Required Under the Clean Water Act.

Under Section 404 of the CWA, the Corps regulates the discharge of dredged or fill material into waters of the United States. 33 CFR § 335.2. The Corps does not issue itself a CWA permit to authorize Corps discharges of dredged material or fill material into U.S. waters, but does apply the 404(b)(1) guidelines and other substantive requirements of the CWA and other environmental laws. 33 C.F.R. 335.2. "The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the

9544 Environmental laws
and regulations

U.S. Army Corps of Engineers, Walla Walla District

April 30, 2013

Page 4

proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case.” 33 C.F.R. § 320.4(a).

The Tribe is concerned that the only discussion of environmental impacts in the Public Notice is a statement asserting that the activity “is addressed in the PSMP/DEIS dated December 2012.” This assertion is erroneous because, as the Tribe’s March 26 comments make clear, the Corps’ DEIS inadequately evaluates the environmental impacts arising from the “immediate need” to dredge and therefore cannot be used to satisfy the required public interest review that the agency is required to perform under the CWA.

First, the DEIS fails to evaluate the impacts of dredging on the Tribe’s interests. The Corps provides no identification of treaty and trust resources that may be affected by the project, and performs no evaluation at all of the project’s impacts on treaty rights. The PSMP/EIS also fails to evaluate the Tribe as an affected population for environmental justice purposes, and performs no analysis of the project’s socioeconomic impacts to the Tribe. The Corps also provides an inadequate analysis of the impacts to Tribal cultural resources.

Second, the DEIS also fails to provide sufficient information supporting its assertion that in-water disposal of dredge spoils to create shallow water habitat will, in fact, benefit juvenile fall Chinook. The research the Corps references in support of its conclusion that creating shallow-water habitat benefits natural subyearling fall Chinook does not state whether Clearwater juveniles would benefit. This is an important consideration because the portion of fall Chinook spawning in the Clearwater consistently makes up about 1/3rd of the naturally spawning population of NOAA’s Snake River Fall Chinook Evolutionarily Significant Unit (ESU).

Third, there is an inadequate analysis concerning the impacts of predation on juvenile fall Chinook salmon that may use this new shallow habitat, as well as the impacts to sturgeon due to the decrease in mid-depth habitat for sturgeon. The Tribe comments also noted that the Corps’ analysis of impacts to lamprey was based on flawed methodologies.

Fourth, the Corps also did not perform an evaluation of the thermal impacts, including climate change, on aquatic resources caused by the creation of shallow water from dredging and the in-water disposal of dredge spoils. The agency also did not look at the impacts of potential changes to Columbia River administration arising from the Columbia River Treaty.

Fifth, the DEIS also failed to adequately analyze the impacts of dredging on barge traffic, socioeconomics, and environmental justice. Under Section 320.4(q), the Corps should undertake “an independent review of the need for the project from the perspective of the overall public interest.” This analysis was not performed in the DEIS.

Sixth, the Corps did not adequately assess dredging’s impacts to cultural resources. Section 320.4(e) specifically states that a “full evaluation of the general public interest requires that due consideration be given to the effect which the proposed...activity may have on values such as those associated with...historic properties and...Indian religious or cultural sites.” The Tribe

U.S. Army Corps of Engineers, Walla Walla District
April 30, 2013
Page 5

9545 Cultural
resources

submitted numerous comments for the DEIS identifying instances where the Corps has not adequately identified and evaluated the environmental impacts of the PSMP, including dredging. The Nez Perce Tribe remains very concerned about the adequacy of the efforts to identify and protect cultural resources in the proposed dredging and disposal areas. The Corps acknowledges that dredging will occur on two pre-contact archaeological sites, but assumes that all cultural remains in the dredge corridor have been destroyed by previous dredging events. To our knowledge, the Corps has made no effort to confirm this assumption, so cannot guarantee that no intact cultural remains will be impacted. The Corps also appears to be unsure if there are archaeological remains at the in-water disposal site at Knoxway Canyon. The Corps assumes that burying any potential archaeological sites is a benefit, as it might discourage erosion impacts. Finally, and perhaps most disturbing, is the potential for redeposited ancestral and archaeological remains in the sediment to be dredged in Lewiston and Clarkston. The Corps asserts that there will be no impact to these resources as long as they remain in the Snake River, and thereby bolsters the case for in-water disposal. The Corps should not make this assumption without Tribal consultation, as the Nez Perce Tribe attaches cultural and religious significance to ancestral remains, even those found in disturbed contexts.

B. The Corps Has Not Complied With EPA’s 404(b)(1) Guidelines

Section 320.4(a) provides that “for activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency’s 404(b)(1) Guidelines.” 33 C.F.R. § 320.4(a). “Fundamental to these Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.” 40 C.F.R. § 230.1(c).

The 404(b)(1) Guidelines require that a permit be denied for several reasons, including when, for example: (1) there is a practicable alternative to the proposed discharge which would have less adverse impacts on the aquatic ecosystem; (2) when the Corps determines that the discharge will cause or contribute to a significant degradation of the waters of the United States; and (3) when there is insufficient information to make a reasonable judgment as to whether the discharge will comply with the Guidelines.

1. The Corps Cannot Conclude That No Practical Alternative to the Proposed Discharge Exists.

The Corps has not complied with the Guidelines in evaluating the proposed 2013-14 dredging and disposal activities. Section 230.10(a) requires that a permit application be denied where there is a “a practical alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.” 40 C.F.R. § 230.10(a). Although a NEPA alternatives analysis *may* be sufficient for complying with the least environmentally damaging practical alternative requirement, the NEPA alternatives “may not have [been] considered in sufficient detail to respond to the requirements of these Guidelines.” 40 C.F.R. § 230.10(a)(4).

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Range of
Alternatives

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The Tribe's March 26 comments on the PSMP/DEIS indicate that the Corps failed to evaluate a reasonable range of alternatives. By narrowly defining the purpose and need to require maintenance of the navigation channel at *no less* than 14 feet by 250 feet *year-round*, and then applying two levels of screening criteria for the alternatives development that eliminate alternatives which, according to the Corps, interfere with authorized purposes (again maintaining the navigation channel at no less than 14 feet year-round), the Corps has impermissibly limited the range of alternatives it believes it must analyze to just *two* alternatives which both include dredging. These two dredging-based alternatives belie the Corps' assertion that it is stressing a "system based approach" to solve sediment-related problems. For example, Appendix F of the DEIS indicates that "[p]eriodic drawdown of the reservoir as a means to erode sediment from the confluence area appears feasible, but to be the most effective would have to occur during a period of high seasonal discharge." DEIS Appendix F at 20. The document goes on to conclude that "[t]his method sediment management should be tested to prove reliability and evaluate possible adverse impacts on infrastructure in Lower Granite Reservoir." *Id.*

Yet the Corps eliminated this "feasible" alternative from further review because it would not meet the narrow purpose and need. Such an excessively narrow range of alternatives for a programmatic document is unreasonable and does not satisfy NEPA. The Tribe recommended that the Corps develop and fully evaluate a new alternative that protects tribal treaty rights and resources by, for example, including measures that would include maintaining the navigation channel at less than 14-feet, increasing upland sediment reduction measures, and dam breaching. Without fully evaluating these viable alternatives, the Corps cannot conclude that there may be "a practical alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem."

EPA, like the Tribe, has also concluded that the Corps' DEIS does not comply with the Guidelines. According to comments EPA submitted to the Corps on March 26, 2013 regarding the PSMP/DEIS

[t]he DEIS does not fully analyze the effects of in-water disposal or appear compliant with the 404(b)(1) Guidelines. The EPA often supports in-water disposal of dredged material; however, the EIS should more rigorously document that in-water disposal for the immediate maintenance action complies with the Guidelines. Based on the available information we do not believe the proposed action [including dredging] has been clearly demonstrated to be the least environmentally damaging practicable alternative.

EPA DEIS comments at 11-12. EPA goes on to provide four recommendations for the final EIS including (1) alternatives analysis for future disposal of dredged material, both in-water and in appropriate and available upland sites, be addressed; (2) a full suite of disposal alternatives be evaluated; (3) the need to create shallow water habitat for juvenile salmonids at Knoxway Canyon be demonstrated; and (4) selection of the Least Environmentally Damaging Practicable Alternative be demonstrated. *Id.* at 12.

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9547 Water quality, and sediment quality; water quality

In summary, the DEIS has not properly evaluated a full range of reasonable alternatives. This failure is inconsistent with the Guidelines' requirement that the Corps identify a proposal that would have a lesser impact on the environment. As a result, a permit cannot be issued until, among other requirements, the Corps identifies and evaluates a broader range of practical alternatives to comply with the Guidelines.

2. The Corps Has Not Demonstrated that the Proposed Dredging Will Not Result in Significant Degradation to U.S. Waters.

"No discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States." 40 C.F.R. § 230.10(c). The Tribe raised concerns in its DEIS comments concerning the lack of analysis regarding temperature impacts from the creation of shallow water habitat from dredge spoils. The Tribe also noted the lack of any analysis concerning the impacts of climate change on Snake River water temperatures and how changing climate may affect the Corps' proposal to dredge, among other measures.

The Tribe also agrees with concerns EPA raised in its March 26 EIS comments concerning uncertainties with sediment quality. EPA states that "[t]he DEIS does not provide sufficient information to determine the suitability of immediate need dredged material prism for in-water placement." EPA comments at 12. EPA notes that the Corps' sampling efforts in August 2011 in support of the EIS which is now being used to support proposed 2013-14 "immediate need" dredging were inadequate. *Id.* EPA's review of the draft report "did not include basic information that would allow a reasonable review." *Id.* For example, "there was not an adequate description of the fieldwork and compositing scheme, grain size data, number of samples related to proposed dredging volume, basic table comparing the data to applicable limits, detection limits, and supporting information explaining how the Corps determined sample size for a certain portion of samples and chemical analyses." *Id.* EPA concluded that "[b]ased on current information it is unclear whether the level of documentation is adequate to characterize this project without further testing." *Id.*

EPA also noted in its comments that "[t]he DEIS not include the most recent water quality results from the 2006 Water Quality Monitoring Report, which provides real-time results applicable to active dredging activities as well as placement and regarding activities at the previous placement site, adjacent to the current proposed placement site. EPA comments at 13. The Corps has therefore not addressed significant questions from the Tribe and EPA regarding how dredging will be not result in significant degradation to U.S. waters.

3. The Corps Has Insufficient Information To Make a Reasonable Judgment That the Proposed 2013-14 Dredging and Disposal Activities Will Comply With the Guidelines.

A Section 404 permit must also be denied if "[t]here does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with the[] Guidelines." 40 C.F.R. § 230.12(a)(3)(iv). As stated above, the Corps has not evaluated a

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9549 Environmental laws and regulations

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reasonable range of alternatives under the DEIS and therefore lacks sufficient information to determine that a practical alternative to dredging exists. The Corps has also not provided sufficient information analyzing the thermal impacts on aquatic species from the creation of shallow water habitat using dredge spoils, or evaluated the impacts of climate change on Snake River water temperatures and how climate change may further affect dredging activities.

Also as stated above, EPA, concluded, and the Tribe agrees, that the Corps did not provide enough information or analysis regarding sediment characterization and quality, raising substantial questions about the Corps' determinations regarding the Corps' interpretations of sediment sources in the DEIS and suitability for in-water placement of dredged material. EPA expressly assigned the DEIS an "Environmental Objection- Insufficient Information." Without this additional information and analysis, the Corps cannot reasonably determine that the disposal activities will comply with the Section 404(b)(1) Guidelines.

III. Conclusion

The Tribe appreciates the opportunity to comment on the Public Notice and requests that the Corps address the Tribe's issues and concerns with the agency's NEPA analysis, and perform a full public interest review, including full compliance with 404(b)(1) Guidelines, before any Section 404 permit is issued. If you have any questions, please contact Michael Lopez, Staff Attorney, Nez Perce Tribe Office of Legal Counsel, at (208) 843-7355.

Sincerely,



Silas C. Whitman
Chairman



Nez Perce

TRIBAL EXECUTIVE COMMITTEE
P.O. BOX 305 • LAPWAI, IDAHO 83540 • (208) 843-2253

March 26, 2013

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, ATTN: Sandra Shelin, CENWW-PM-PD-EC
201 North Third Avenue, Walla Walla WA 99362-1876

By Electronic (psmp@usace.army.mil) Mail

Re: Nez Perce Tribe's comments on the Lower Snake River Programmatic Sediment Management Plan and Draft Environmental Impact Statement

Dear Ms. Shelin:

The Nez Perce Tribe (Tribe) appreciates the opportunity to comment on the Walla Walla District of the U.S. Army Corps of Engineers (Corps) Lower Snake Programmatic Sediment Management Plan and Draft Environmental Impact Statement (PSMP/DEIS).

Since time immemorial the Tribe has used and occupied the lands and waters of north-central Idaho, southeastern Washington, northeastern Oregon and areas of Montana for subsistence, ceremonial, commercial, and religious purposes. In 1855 the United States negotiated a treaty with the Tribe. Treaty of June 9, 1855, with the Nez Percés, 12 Stat. 957 (1859). In Article 3 of this treaty, the Tribe explicitly reserved to itself certain rights, including “the exclusive right to take fish in streams running through or bordering the Reservation,” “the right to take fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed lands.” These reserved rights include the right to fish within the project area identified in the PSMP/DEIS and the right to take fish passing through the Lower Snake River.

Salmon, steelhead, sturgeon and lamprey are integral to the spiritual, physical and economic health of the Tribe. The Tribe reveres the fishery and the waters that support the life and sustenance these resources have given, and continue to provide Tribal members. The Snake River corridor is an important migratory route for threatened spring, summer, and fall Chinook salmon and steelhead, as well lamprey and sturgeon. Any activities that potentially threaten these important resources are of great concern to the Tribe.

The Tribe cannot overstate how significant a burden the United States has imposed on the Nez Perce people through the construction and operation of the Lower Snake River and Columbia

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River Dams. These structures have contributed to a massive decline in salmon, steelhead and lamprey that have returned to our waters and nourished our people and the land since time immemorial. Nez Perce elders believe the circle of life has been broken and ask us to consider what the consequences of breaking that circle may mean for future generations. For the Nez Perce people, the loss of the sacred Chinook salmon, steelhead, lamprey and other species has meant a loss of our most important food source, and has been directly linked to a decline in the health and welfare of tribal members. The impact to our cultural and spiritual foundation, language, beliefs and way of life is incalculable.

After reviewing the documents, the Tribe does not support the Corps' preferred Alternative 7 because it is a product of an unreasonably narrow purpose and need that relies on dredging while eliminating from consideration viable options such as increased implementation of sediment reduction measures, maintenance of the Lower Snake River navigation channel at the less than 14 feet depth as has been occurring using light-loading of barges, and partial breaching of the Lower Snake Dams. As a result of the narrow purpose and need, the Corps failed to fully evaluate a reasonable range of alternatives. To safeguard and advance the Corps' treaty and trust responsibilities to the Tribe, the Tribe requests that the Corps fully analyze and adopt a new alternative that prioritizes the additional measures above as well as components of Alternatives 2, 3 and 4.

The Corps also needs to perform significant additional analysis of the project's impacts. The PSMP/DEIS fails to analyze the project's impacts on Tribal treaty rights, tribal cultural resources, and socioeconomics. The PSMP/DEIS inadequately analyzes the project's effects on ESA-listed species and lamprey. The economic analysis regarding the costs and benefits of the proposal is inaccurate and incomplete. Additional analysis is also necessary to address the impacts of climate change, as well as impacts from future changes in flood storage contemplated in the Columbia River Treaty.

PROJECT DESCRIPTION

The Corps is proposing to adopt and implement a Programmatic Sediment Management Plan for managing sediment within the Lower Snake River system to meet the authorized project purposes that are affected by sediment deposition. According to the PSMP/DEIS, the purpose of the proposed action is to establish a programmatic framework to evaluate and implement potential sediment management measures to address problem sediment accumulation that interferes with authorized purposes of the Ice Harbor, Lower Monumental, Little Goose, and Lower Granite Dams and their associated locks and reservoirs located on the Lower Snake River (collectively the Lower Snake River Projects or LSRP). According to the Corps, the "authorized purposes" are the following: (1) commercial navigation by reducing the depth of the Federal navigation channel to less than the authorized depth of 14 feet when operating at minimum operation pool; (2) recreation by limiting water depth at boat basins to less than original design dimensions; and (3) fish and wildlife conservation by sediment accumulation interfering with irrigation water intakes, juvenile ESA-listed fish barge access to loading facilities, and fish barge passage through the reservoirs and locks within the LSRP.

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In addition to developing a Programmatic Sediment Management Plan for long-term sediment management within the LSRP, the Corps is also proposing and evaluating in the DEIS an “immediate need action” to reestablish, through dredging of approximately 421, 675 cubic yards during the first available in-water work period (December 15-March 1) following the Record of Decision for the PSMP/DEIS, the navigation channel and port berthing areas at the following four locations: Ice Harbor Navigation Lock downstream approach; Federal navigation channel at confluence of Snake and Clearwater Rivers; Port of Clarkston berthing area; and Port of Lewiston berthing area. The dredged materials will be placed in the Lower Granite reservoir, Snake River Mile 116 just upstream of Knoxway Canyon, for in-water disposal to create additional shallow water habitat for juvenile salmonids.

On March 11, 2013 the Corps issued a 30-day public notice proposing to perform maintenance dredging totaling 491,043 cubic yards at the above four locations. The dredging quantity exceeds the amount identified in the PSMP/DEIS by 69,368 cubic yards. The public notice further indicates that the NEPA review required for the proposed maintenance dredging is addressed in the PSMP/DEIS.

The Corps identified seven potential alternatives for the project: (1) No Action (required for evaluation under NEPA); (2) Increased implementation of sediment reduction measures; (3) system management; (4) non-dredging sediment management measures; (5) dredging-based sediment management; (6) system management and non-dredging sediment management; and (7) comprehensive (full system and sediment management measures). Following application of several screening criteria, the Corps decided to further evaluate Alternatives 1 (required under NEPA), 5 and 7. The other four alternatives were eliminated from further evaluation (2, 3, 4, and 6) based on the Corps’ assertion that they do not meet the project’s purpose and need.

Alternative 5 represents a continuation of the Corps’ historical practices of using dredging as the primary tool for managing sediment that interferes with authorized uses of the LSRP. Sediment management would consist of dredging and dredged material management. Alternative 7 provides all available dredging, system and structural measures for the Corps to manage sediments that interfere with authorized project purposes. The alternative includes dredging and dredged material management along with other sediment and system management measures.

Over the long-term, the Corps would monitor sediment in the LSRP. When conditions meet criteria for action, the Corps would initiate review of site-specific conditions, screening of alternative measures, and determine which measure or measures to implement to address sediment accumulation.

GENERAL COMMENTS

A. Treaty and Trust Responsibilities

President Obama's November 5, 2009 Memorandum to the heads of all Federal agencies reaffirming Executive Order 13175 requires all Federal agencies to formulate "an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory

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policies that have tribal implications." This document affirms the Corps' legal responsibility to engage in pre-decisional consultation with federally recognized Tribes, an important component of that process. The Corps' adopted *Tribal Policy Principles* further embrace President Obama's directive by committing to "involv[ing] Tribes collaboratively, before and throughout decision making, to ensure the timely exchange of information, the consideration of disparate viewpoints, and the utilization of fair and impartial dispute resolution processes."

Another key commitment of the *Tribal Policy Principles* is that the Corps "will work to meet trust obligations, protect trust resources, and obtain tribal views of trust and treaty rights. Embedded in the *Principles* and available on the Corps' website is a "Trust Responsibility and Consultation Matrix" prepared by the OSD Office of General Council. The document identifies a trust responsibility to "protect 'to the highest degree of fiduciary standards trust lands and water and land habitats that support meaningful exercise of off-reservation hunting, fishing, and gathering rights." The document states: "[w]here the trust responsibility applies, Indian interests cannot be subordinated to the interests of DOD absent overriding legal authority to do so." The document further states that the duty applies when, among other circumstances, "[a] proposed action may affect off-reservation treaty rights [which are] those use and occupancy rights reserved for Indians in a treaty, statute, judicial decision, or E.O. establishing a reservation."

As the Corps is well aware, the Tribe has a longstanding history with this project. The Tribe submitted numerous and detailed comments on the previous iterations of the Corps' sediment management plan describing the historic and contemporary importance of salmon and other aquatic resources to the Tribe and how the dramatic decline in those resources in the wake of the construction and operation of the Lower Snake River and Columbia River Dams have dramatically affected the Tribe in numerous ways. The Tribe also repeatedly reminded the Corps of its responsibilities to protect and advance treaty rights. The Tribe recommended alternatives to dredging such as increased upstream sediment reduction measures, drawdown, light barge loading, operating the navigation channel at less than 14 feet, and partial breaching of the Lower Snake River Dams.

As the Corps is also aware, the Tribe participated in the litigation that resulted in the court enjoining the Corps' plans to dredge in 2002 and 2004. The Tribe also participated in the settlement discussions that culminated in an agreement permitting the Corps to perform a limited, one-time maintenance dredge but with the condition that the agency complete a NEPA analysis on the long-term management of sediment in the Lower Snake River.

On December 21, 2012 the Corps released the PSMP/EIS with a 45-day comment period. By letter to the Corps dated January 9, 2013 the Tribe requested that the Corps extend the comment period a minimum of 45 days to account for the intervening holidays and to facilitate pre-decisional consultation. At the Tribe's request, Corps staff met with Tribal staff in Lapwai to discuss the PSMP/DEIS on February 15, 2013.

Despite the Tribe's extensive previous involvement in the Corps' Lower Snake River sediment management initiatives, including the numerous comments, meetings, and litigation, the PSMP/EIS fails to acknowledge the Tribe's historic ties to the project area and ignores the

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cultural, religious, economic and nutritional importance the Tribe attaches to the resources that reside in the project area. The Corps does not describe the 1855 Treaty in any meaningful way, including failing to list it among the statutory authorities it is required to consider in its analysis. The Corps provides no identification of treaty and trust resources that may be affected by the project, and performs no evaluation at all of the project's impacts on treaty rights. The PSMP/EIS also fails to evaluate the Tribe as an affected population for environmental justice purposes, and performs no analysis of the project's socioeconomic impacts to the Tribe. The Corps also provides an inadequate analysis of the impacts to Tribal cultural resources.

There is accordingly no meaningful effort in the PSMP/DEIS to recognize and evaluate the impacts to the myriad Nez Perce Tribal interests in connection with the project. The Tribe expects to see a substantial improvement in this evaluation in the FEIS.

B. Range of Alternatives

1. The purpose and need are impermissibly narrow

NEPA's implementing regulations require that a statement of purpose and need "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 40 C.F.R. § 1502.13. Because the purpose and need determine the range of reasonable alternatives, an agency cannot define the purpose and need of a project in unreasonably narrow terms. See *Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1070 (9th Cir.2010). "[A]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality." *Friends of Southeast*, 153 F.3d at 1066 (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C.Cir.1991)).

The DEIS identifies the purpose of the proposed action is to adopt a PSMP that includes actions for long-term, immediate need, and emergencies for managing sediment that interferes with the *authorized* purposes of the LSRP. DEIS at 1-2. The stated need for the PSMP is to reduce and prevent if possible sediment accumulation in areas of the Lower Snake River reservoirs that interfere with the following federally authorized purposes: (1) commercial navigation by reducing the depth of the Federal navigation channel to less than the authorized 14 feet when operating at minimum operating pool; (2) recreation by limiting water depth at boat basins to less than original design dimensions; and (3) fish and wildlife conservation by sediment accumulation interfering with irrigation water intakes at HMUs, juvenile ESA-listed fish barge access to loading facilities, and fish barge passage access through the LSRP. DEIS at 1-2,1-3.

In assessing the reasonableness of a purpose and need specified in an EIS, courts consider the statutory context of the federal action. *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 866 (9th Cir.2004)("Where an action is taken pursuant to a specific statute, the statutory objectives of the project serve as a guide by which to determine the reasonableness of objectives outlined in an EIS.").

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The DEIS provides statutory context concerning authorized purpose 1 – maintaining the federal navigation channel at 14 feet when operating at MOP - in the Corps Authorities, Directives, and Obligations section. The DEIS states: “[t]he Flood Control Act of 1962 (PL 87-874) mandated the establishment of the navigation channel within the LSRP at 14 feet deep by 250 feet wide at the minimum operating pool level, and provides the Corps with the authority to maintain the channel at those dimensions.” DEIS at 1-5. The DEIS further provides: “[b]ased on those authorizing documents and subsequent related Congressional documents, the Corps interprets that Congress intended for the Corps to maintain the channel to provide year-round navigation.” *Id.* The DEIS goes on to state that “[i]n 1991, Congress reiterated its intent to provide for navigation in the Columbia and Snake River system (102 Senate Report 80).

The Corps’ interpretation of what Congress intended for commercial navigation on the Snake River system is flawed. First, although the FCA requires the federal navigation channel to be established at 14 feet deep by 250 feet wide, the Flood Control Act does not *mandate* the Corps to *maintain* the federal navigation channel at 14 feet when operating at Minimum Operating Pool (MOP). Second, neither the Flood Control Act nor any subsequent Congressional documents support an interpretation that Congress intended for the Corps to maintain the channel at no less than 14 feet at MOP year-round. To the contrary, Congress, in authorizing the Snake River Dams, considered and recognized that navigation may not be available year-round. House Doc. 704, 75th Cong., 3rd Sess. At 9, 39. In addition, the Corps has previously acknowledged time periods when full navigation on the Snake River will not be available. The Corps has also recognized that seasonal light loading has occurred and is occurring on the Snake River. There is therefore no principled statutory interpretation on which the Corps can support a need to *maintain* the federal navigation channel at no less than 14 feet deep at MOP year-round.

2. The PSMP/DEIS does not fully evaluate a reasonable range of alternatives.

The draft PSMP/EIS does not provide a reasonable range of alternatives. NEPA requires agencies to “[s]tudy, develop, and describe appropriate alternatives to recommended courses of action, 42 U.S.C. § 4332(e), and to “rigorously explore and objectively evaluate all reasonable alternatives” to a proposed plan of action that has significant environmental effects. 40 C.F.R. § 1502.14(a) (2000). This is “the heart” of an EIS. *City of Carmel-by-the-Sea v. United States Dep’t of Transp.*, 123 F.3d 1142, 1155 (9th Cir.1997). “The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.” *Citizens for a Better Henderson v. Hodel*, 768 F.2d 1051, 1057 (9th Cir.1985).

The Corps developed a range of management measures that could address identified sediment accumulation problems. The measures fall within four general categories: dredging and dredged material management; structural management, system operations management, and upland sediment reduction. DEIS at 2-3. The Corps then developed twelve criteria to “screen” measures and determine which measures meet the purpose and need and are technically feasible to include in the PSMP alternatives. DEIS at 2-7. Significantly, “maintain[ing] navigation channel at less than 14 feet” was eliminated at this stage because “[it] does not meet purpose and need. The Congressionally-authorized channel depth is 14 feet.” DEIS at 2-8.

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From these four general categories six alternatives were developed as well as a No Action alternative which is required for evaluation under NEPA. Alternative 2 provides for increased implementation of upstream sediment reduction measures such as streambank erosion control and forest and agricultural practices. Alternative 3 provides for navigation objective reservoir operation, increasing flow velocities to flush sediments, and modifying, relocating, or reconfiguring facilities affected by sediment accumulation. Alternative 4 provides for structural sediment management measures such as weirs, dikes and continued upland sediment reduction measures by the Corps. Alternative 5 involves dredging-based sediment management. Alternative 6 includes system management and non-dredging sediment management (such as continued upland sediment reduction measures). Alternative 7 includes all measures included in Alternative 5 and 6.

The Corps then developed a second level of screening criteria to evaluate these 7 alternatives. These criteria are: (1) alternatives must provide sufficient measures to remedy sediment deposition that interferes with authorized purposes of the LSRP, for both future and immediate needs; (2) alternatives must provide for reestablishing the navigation channel from current conditions to authorized dimensions (14 feet deep by 250 feet wide at MOP throughout the designated navigation channel).; and (3) alternatives must provide the ability to address flood risk at Lewiston and Clarkston. DEIS at 2-32. Applying these additional criteria, alternatives 2, 3, 4, and 6 were eliminated from further consideration because these alternatives did not reestablish the navigation channel to authorized dimensions (14 feet deep) at MOP. DEIS at 2-33. The Corps' preferred alternative, Alternative 7, adopts a "toolbox" approach by including measures included in Alternatives 5 and 6.

By narrowly defining the purpose and need to require maintenance of the navigation channel at *no less than 14 feet by 250 feet year-round*, and then applying two levels of screening criteria for the alternatives development that eliminate alternatives which, according to the Corps, interfere with authorized purposes (again maintaining the navigation channel at no less than 14 feet year-round), the Corps has impermissibly limited the range of alternatives it believes it must analyze to just *two* alternatives which both include dredging. These two dredging-based alternatives belie the Corps' assertion that it is stressing a "system based approach" to solve sediment-related problems. Such an excessively narrow range of alternatives for a programmatic document is unreasonable and does not satisfy NEPA.

3. The no action alternative is invalid.

NEPA requires agencies to include a no action alternative in its range of alternatives to be evaluated. 40 C.F.R. § 1502.14(d). Where "no action" involves federal decisions on proposals for projects...the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward." CEQ Forty Questions.

According to the PSMP/DEIS, the No Action Alternative represents "a continuation of the Corps' current operational practices of managing the LSRP through navigation objective

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reservoir operations in the lower Snake River, and sediment reduction measures implemented in the Snake River watershed by other agencies and land managers.” DEIS at 2-22, 23.

Yet the No Action Alternative as described is not a true no action alternative for several reasons. First, the No Action Alternative is predicated upon the Corps’ assertion that the Snake River must be maintained at no less than 14 feet for navigation. As described above, this assertion is based on the Corps’ flawed interpretation of the Flood Control Act. The Corps is not *mandated* to maintain the navigation channel at a minimum 14-foot depth for navigation. The No Action alternative is therefore not a valid alternative because it fails to describe a scenario where the Corps does nothing to maintain the 14-foot navigation channel, including no navigation objective reservoir operations.

Second, the No Action Alternative is not a valid alternative because the No Action Alternative includes actions that are explicitly included in the preferred alternative (Alternative 7). According to the preferred alternative, navigation objective reservoir operation and continued upland sediment measures are included in the available “toolbox” of measures. DEIS at 2-31. As a result the No Action Alternative just mirrors measures that are already in the preferred alternative.

In summary, the Corps needs to develop a true No Action Alternative that contemplates the agency not managing the lower Snake River to maintain a 14-foot navigation channel for navigation. The agency also needs to fully evaluate the environmental effects of this No Action Alternative compared with the effects of permitting the proposed activity.

4. The Tribe opposes the preferred alternative and requests the development and full evaluation of a new alternative that protects treaty rights.

The Tribe opposes this preferred alternative for several reasons. First, the Corps states that the purpose of programmatic management is to provide consistency in and a “roadmap” for future project-specific decision-making. The Corps’ preferred Alternative 7 does not provide such a “roadmap.” Rather, Alternative 7 provides a listing of potential measures that may possibly be implemented, singly or in combination, with little edification on what actually will happen. Rather than a roadmap, Alternative 7 offers confusion and uncertainty regarding the future of sediment management and transportation channel maintenance in the lower Snake River. For example, drawdown is a measure that would, although temporarily, create more natural riverine flow conditions that would aid the downstream migration of salmonids and provide normative conditions for downstream lamprey migration. That is, it would allow the Lower Snake to act more like a river. Absent adequate forethought, planning and preparation for implementation of this type of alternative, the only road map that is apparent is the continuation of channel maintenance dredging.

Second, the preferred alternative does not provide an order or preference in which a measure or measures will be implemented when sediment “interferes with authorized purposes.” The PSMP/DEIS only establishes “immediate” and “future” needs as conditions that trigger action and which are virtually indistinguishable. DEIS at 2-22. The immediate need authorizes action

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when the federal navigation channel “is less than authorized dimensions at MOP.” This is another way of stating the channel must be maintained at 14 feet deep and 250 feet wide. The future needs authorize action when sediment accumulation interferes with an authorized purpose: (1) at the same location more frequently than every 5 years; (2) is anticipated at a location or locations in less than five years; or (3) unanticipated sediment accumulation occurs.

The PSMP/DEIS is supposed to be a programmatic document. Yet it does not identify what measure or measures in the “toolbox” will be implemented to address any of the conditions. Nor do the documents identify any order or preference for how the measure or measures will be implemented. Without a hierarchy or preference guiding how the Corps will select one measure or measures over another to address a “condition,” alternative 7 lends itself to reliance on one tool – dredging – that the Corps has historically demonstrated to strongly prefer as a management tool over other, non-dredging options. Accordingly, the Tribe requests that the Corps identify programmatic selection criteria for each measure as well as a hierarchy or order that will establish a fair and transparent decisionmaking framework for determining when, how, and in what order a measure or measures will be implemented.

Third, the preferred alternative does not include operating the Lower Snake River at less than the “authorized” 14 foot deep navigation channel. As stated above, the Tribe maintains that the Corps’ has erroneously eliminated this viable measure from consideration based on a flawed interpretation of the Corps’ authorizing legislation. The Corps is not *required* to operate the navigation channel at 14 feet deep by 250 feet wide year-round, but is only authorized to do so. The Corps may and has operated the navigation channel at less than 14 feet through a menu of options such as restricting commercial traffic during higher flows or implementing a light-load barging requirement. The Corps needs to include and analyze in detail this viable option either as a stand-alone alternative *and* as a measure in the preferred alternative.

Fourth, the preferred alternative eliminates *increased* upland sediment reduction measures consistent with Alternative 2. The preferred alternative limits upstream sediment reduction measures to *existing* levels. The PSMP/DEIS fails to provide any explanation why the preferred alternative cannot incorporate *increased* upland sediment reduction measures rather than just implementing existing measures. The Corps eliminated Alternative 2 from consideration because “sediment reduction from upland sourced would not, by itself, be effective at reducing sediment accumulation that interferes with authorized purposes of the LSRP, either for future or immediate needs.” DEIS at 2-34. Yet the preferred alternative incorporates other measures, including dredging, to address what the Corps characterizes as an immediate need to maintain the navigation channel at 14 feet year round. Therefore, the Corps’ reason for eliminating Alternative 2 as a stand-alone alternative does not apply to the preferred alternative.

Fifth, the preferred alternative does not incorporate partial dam breaching of the four Lower Snake River dams. As you know, the Tribe has long advocated for partial dam breaching is by far the most consistent with the United States’ obligation to protect treaty rights and support Tribal self-determination. Dam breaching:

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- Best increases survival of anadromous fish migrating through the area of the four lower Snake River dams;
- Increases the area of spawning and rearing for Snake River fall Chinook;
- Is the only alternative that addresses restoration or natural or near natural riverine conditions that would produce myriad positive influences on natural processes and fish and wildlife;
- Is the only alternative that enhances migrating conditions for lamprey and white sturgeon;
- Improves water quality; and
- Is the only alternative that would improve fish migration rates and rates of juvenile anadromous fish through the existing reservoir pool areas.

The Tribe requests that the Corps include dam breaching as a viable measure in the preferred alternative and as a stand-alone alternative for detailed environmental analysis.

C. The Corps Has Not Performed the Requisite Hard Look on the Project’s Impacts to the Environment

Through the NEPA process, a federal agency must “take a ‘hard look’ at the potential environmental consequences of the proposed action.” Oregon Natural Res. Council v. Bureau of Land Management, 470 F.3d 818, 820 (9th Cir. 2006) (internal quotations omitted). NEPA’s regulations require that an EIS include a discussion of direct, indirect, and cumulative environmental impacts of the proposed action. Direct impacts are “caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Indirect impacts are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” Id. at § 1508.8(b). Cumulative impacts result when the “incremental impact of the action [is] added to other past, present, and reasonably foreseeable future actions” undertaken by any person or agency. Id. at § 1508.7.

The overall organization of the Environmental Effects of Alternatives section needs improvement. The section refers interchangeably to “direct effects” and “effects” but does not clearly distinguish direct from indirect impacts. The Tribe recommends that the section be reorganized to include, by alternative, a Direct Impact and Indirect Impact Sections so that the reader clearly understands how the Corps is characterizing those impacts.

1. The PSMP/DEIS fails to adequately analyze the direct impacts of each measure in the preferred alternative.

Section 4 describes the environmental effects of Alternative 5 and the preferred alternative 7. This section needs significant improvement. Currently the document does not adequately evaluate the direct, indirect and cumulative impacts of each of the 15 measures identified in Alternative 7. The Tribe recommends that the Corps take each of the 15 measures and evaluate their direct, indirect, and cumulative impacts individually each of the affected environment components. First, the PSMP/DEIS provides little or no evaluation of the impacts of several measures on the affected environment. For example, impacts of raising the levees to manage

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flood risk is not evaluated for aquatic or terrestrial species. Agitation to suspend sediments is not evaluated.

Second, the PSMP/DEIS lumps together installation and maintenance of bendway weirs and dikes, dike fields and in-reservoir trapping systems based on broad assumptions about their impacts and analyzes them collectively, rather than individually. *See* DEIS at 4-12 (“Because actions associated with structural sediment management measures and *some* system management measures involve *many* of the same impacts such as in-water work, use construction equipment, and localized substrate disturbance and increased turbidity, they will be discussed together...”)(emphasis added). Each measure is different and therefore needs to be fully evaluated individually.

Third, in the instances where the Corps does evaluate impacts from a measure or measures, the analysis is inadequate. The Corps, for example, states that “the process for adding in-stream structures (bendway weirs, dike fields, or in reservoir sediment trapping systems) would alter flow patterns, sediment, and adversely affect water quality by increasing stream turbidity.” DEIS at 4-12. These vague statements do not provide the reader with any meaningful sense of the *degree* to which these measures will affect the environment. How much will water quality be affected? What are the impacts to the environment of altering flow patterns? The result of this piecemeal and cursory evaluation is an inadequate examination of the preferred alternative’s 15 measures and accordingly does not comply with NEPA. NEPA requires the Corps to provide in the PSMP/DEIS a comprehensive and accurate evaluation of the impacts of the project on the environment. This evaluation cannot be deferred to a later date or included in some theoretical site-specific proposal that may or may not occur during the life of the PSMP.

2. Creation of In-Water Habitat for Fish

The PSMP/DEIS states that “[a]n important element of fish use of the Lower Snake Reservoirs is the availability and use of shallow water habitat. DEIS at 3-5. The document also states: “Because shallow water habitat is considered the most productive habitat in aquatic ecosystems in terms of supporting the largest populations and most diverse array of species, the aquatic productivity of the reservoirs could potentially be enhanced by increasing the amount of shallow water habitat.” *Id.* Based on research the Corps has performed within the Lower Snake River, the Corps determined that shallow-water disposal of dredged material has positively created resting and rearing habitat in the Lower Snake River reservoirs for juvenile salmonids, primarily juvenile fall Chinook.

The research the Corps references in support of its conclusion that creating shallow-water habitat benefits natural subyearling fall Chinook does not state whether Clearwater juveniles would benefit. This is an important consideration because the portion of fall Chinook spawning in the Clearwater consistently makes up about 1/3rd of the naturally spawning population of NOAA’s Snake River Fall Chinook Evolutionarily Significant Unit (ESU). The off-spring from naturally spawning fish in the Clearwater emerge from the gravel at a later date than those spawned and incubated in the Snake River (or those released from a hatchery) because the water temperature

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is cooler than that in the Snake. Consequently, this emergence timing is an important biological characteristic for a large portion of the ESU.

When the juveniles from the Clearwater begin their outmigration in late June and July, they encounter a thermal block in the Snake River and tend to congregate just upstream of the confluence in the vicinity of the Port of Lewiston. Consequently, any analysis of benefits of the project on fall Chinook juveniles, including the purported benefits of creating shallow water habitat using dredge spoils, must take into consideration the specifics of the outmigration timing and behavior of those fish reared in the Clearwater River. Because of the contribution of the Clearwater River population to the ESU as a whole, this information is important. The Tribe is concerned that juveniles reared in the Clearwater River which emerge at a later date due to the cooler water, enter the warmer Snake River and seek deeper water for rearing and not necessarily the shallow water habitat. Given this difference in behavior it remains unclear whether Clearwater juveniles will derive any significant benefit from the creation of shallow-water habitat from dredge spoils. The Corps should provide additional information or if necessary perform additional studies addressing this important question.

The Corps also needs to provide additional information concerning another impact on juvenile fall Chinook. There is inadequate analysis concerning the impacts of predation on juvenile fall Chinook salmon that may use this new shallow habitat. There is also a lack of information regarding the impacts to sturgeon due to the decrease in mid-depth habitat for sturgeon. The Corps also needs to perform a better analysis of the thermal impacts, including climate change, on aquatic resources caused by the creation of shallow water impacts.

3. Climate Change

The PSMP/DEIS needs to actually analyze the impacts of climate change. The CEQ's draft guidance suggests an environmental impacts statement include an analysis of (1) cumulative emissions over the life of the project; (2) measures to reduce GHG emissions, including consideration of reasonable alternatives; and (3) a discussion of the link between such GHG emissions and climate change.

Section 3.9 of the PSMP/DEIS provides some discussion of regional climate conditions in the context of air quality. The section states that "[t]he study area is generally rural with relatively few major sources of air pollution emissions." DEIS at 3-88. The document goes on to identify the major GHG gasses in the region and the sources of GHG emissions in the study area. DEIS 3-89 to 91. However, there is no analysis concerning the cumulative emissions over the life of the project, measures to reduce GHG emissions, or a discussion of the link between such GHG emissions and climate change.

Warming of the global climate is unequivocal. Evidence includes increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global mean sea level. ISAB 2007. Eleven of the last twelve years (1995 -2006) rank among the 12 warmest years in the instrumental record of global surface temperature (since 1850). *Id.* The linear warming trend over the last 50 years (0.13 +/- 0.03°C per decade) is nearly twice that for the last 100

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years. *Id.* The total global average temperature increase from 1850 – 1899 to 2001 – 2005 is 0.76 +/- 0.19°C. *Id.*

Climate records show that the Pacific Northwest has warmed about 1.0 °C since 1900, or about 50% more than the global average warming over the same period. *Id.* The warming rate for the Pacific Northwest over the next century is projected to be in the range of 0.1-0.6° C/decade. *Id.* Climate change will result in the following:

- Warmer temperatures will result in more precipitation falling as rain rather than snow
- Snow pack will diminish, and stream flow timing will be altered
- Peak river flows will likely increase
- Water temperatures will continue to rise

Id. These changes will have a variety of impacts on aquatic and terrestrial habitats in the Columbia Basin. The Corps needs to identify and evaluate how the projected climate change may affect the project area over the life of the project. Although the Corps did reference climate change in the context of contributing sources of sediment from wildlife, there is no analysis of climate change impacts to Snake River water temperatures. Regional climate models show increasing temperatures in lower and transitional elevation areas such as the proposed project area, and thermal models should be employed to ascertain the cumulative effects of creating a number of shallow water deposition areas. Climate change impacts should also be fully evaluated regarding water quantity and quality, sediment production and deposition, and impacts to ESA-listed species or other aquatic life.

D. Indirect Impacts

Agencies conducting NEPA review must consider the indirect effects of the proposed project. Indirect effects are those effects “caused by the [agency] action [that] are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). Such effects “include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” *Id.*

As a general matter, as mentioned above, there is no Indirect Impacts section in the PSMP/DEIS to refer to. In fact, the Tribe identifies very few instances where indirect impacts are even explicitly identified in the document. Failure to identify and fully evaluate indirect impacts in the EIS violates NEPA. The Corps needs to develop a new section, clearly labeled Indirect Impacts, for each alternative.

1. The Corps needs to analyze the indirect impacts of increased barge traffic facilitated attendant to the project.

Table 4.2 labeled “Reasonably Foreseeable Future Actions” identifies an impact to urban land uses that will “maintain and potentially minimally expand existing urban areas.” DEIS at 4-63. Under the Socioeconomics Section, the document states that “...the Pacific Northwest wheat

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forecast for 2011 is strong and world demand is growing, which is likely to result in substantial cargo volume growth.” DEIS at 3-47. Similarly, under Section 4.5, the document concludes that “[s]ediment and system management measures... would generally have a long-term indirect positive effect on regional economies by providing for continued commercial navigation and movement of commodities, providing options for commodity shippers, and maintaining acceptable levels of flood protection in Lewiston, the result would be positive long-term benefits to the communities protected by the levees.”

Given these pronouncements points to economic growth in the region the project will facilitate, such as “substantial cargo volume growth” and “potentially minimally expand existing urban areas” there is no accompanying identification of the indirect impacts of increased barge or other boat traffic to and from the area. The Corps needs to identify and evaluate this information as an indirect (and possibly cumulative effect) in the document.

One of the likely indirect effects caused increased barge traffic on the Snake River System is the impact to Tribal treaty fish and fishing. Increased barge and other boat traffic can result in increased fish mortality caused by entrainment, wake stranding, and other causes. Regarding treaty fishing, increased barge and boat traffic to and from the Snake River System can interfere with Tribal treaty fishing on the Columbia River. Nez Perce fishers engage in gill-netting on the Columbia mainstem. More boat traffic to and from the Snake River can interfere with the nets or prevent treaty fishers from placing their nets safely on the river.

The Corps also needs to evaluate the socioeconomic impacts of the project on transportation industries that do not rely on the LSRP to move their goods to and from market. Section 3.5.4 acknowledges that “[t]he study area rail system is integrated with and competes with the barge transportation system...particularly with respect to shipments of grain.” Section 3.5.5 states that “...roads and highways have become the primary mode of transport in the region,” noting also that “trucks carry a significant volume of grain to the region.” DEIS at 3-51. Based on this acknowledged relationship, facilitating barge shipments may negatively affect shipments by rail and truck but this impact has not been identified or evaluated at all.

E. Cumulative Impacts

Cumulative impacts are “the impact[s] on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency...or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.27(b)(7).

As stated above, the Corps needs to identify and fully evaluate the impact of increased barge traffic and commodity shipments on growth-inducing patterns, fish, Tribal treaty fishing and socioeconomics.

The Corps also needs to evaluate the cumulative effects of implementing multiple measures from the “toolbox” over time. Currently the PSMP/DEIS evaluates the measures’ impacts

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individually. However, the document acknowledges that a measure *or measures* may be implemented from the toolbox to address an immediate or future need. No analysis has been performed to determine what the incremental effects would be of applying more than one measure simultaneously or close in time.

1. Columbia River Treaty

The Columbia River Treaty is a 1964 agreement between Canada and the United States on the development and operation of dams in the upper Columbia River basin for power and flood control benefits in both countries.

As the Corps is aware, the United States and Canada are reviewing the treaty before the 2014 opportunity for notice for earliest termination. One of the key topics under negotiation concerns the called upon storage operations. Under the current treaty, the U.S. may call upon up to approximately nine million acre feet of flood storage in Canada. Changes to the 2024 treaty, however, may condition calling upon Canadian flood storage space only after effective use of U.S. flood storage capacity. This condition may likely require maintaining storage capacity at Dworshak Dam over other uses such as fish and cultural resources. In an average flow year, for example, Dworshak reservoir volumes would need to be dropped to accommodate for flood control. This drop in volume will likely translate into lower than average flows in the Snake River in April, May and into the summer. As a result, Snake River fall Chinook may have less water available for rearing and outmigration. Less water in the Snake River system, in conjunction with possible continued operation of the reservoir pools at MOP +1 or +2, may negatively affect Snake River juvenile salmon. This and other scenarios relating to changes in the Columbia River Treaty during the life of the project are not identified or evaluated in the PSMP/DEIS and should be fully analyzed.

F. Environmental Justice

A Presidential memorandum accompanying Executive Order 12898 cites the NEPA process as an opportunity for agencies to address the environmental injustice of disproportionate impacts. The CEQ also published guidance for environmental justice analyses to determine any disproportionately high and adverse human health or environmental effects to low-income, minority, and tribal populations. One of these principles is to “recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed action.”

Currently, the Nez Perce Tribe harvests less than one percent of traditional salmon harvest levels. Traditional roots and berries are becoming increasingly rare. The decimation of salmon runs and disappearance of other traditional foods have seriously affected the Tribal economy. Today, Tribal members face a poverty rate of almost 30% and winter unemployment rates of 62%. The draft PSMP/DEIS find that there are not disproportionate impacts of the project on the Tribe or its members. Any impacts on salmon, steelhead, lamprey or other trust resources, will have a disproportionate impact on the Tribe due to their reliance on fish and the importance of fish to

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Tribal culture, spirituality and economy. Tribal members consume a substantially higher rate of fish than the non-Tribal communities.

G. Socioeconomics

PSMP/DEIS excludes economic analysis of the impact of the project on the Nez Perce Tribal economy and the health and welfare of its people. The socioeconomic analysis is flawed because it is limited to counties that encompass the project area and does not consider social and economic factors unique to the Tribe and its treaty rights and resources, which extend outside of the county areas analyzed.

Federal agencies are also required to develop methods to ensure that unquantified and environmental amenities and values will be taken into account in decision-making. 42 U.S.C. § 4332(2) (B). The PSMP/DEIS does not provide a complete or accurate accounting of the costs and benefits of dredging with respect to maintaining the navigation channel at 14 feet by 250, as well as access to port berthing areas. The Corps also does not evaluate the costs of dredging and barging with other transportation such as trucking and rail.

The PSMP DEIS also does not contain any analysis evaluating whether the preferred alternative even makes economic sense at a local or regional scale. The Corps possesses substantial information assessing the economics of river navigation, yet none of this information is provided or evaluated in the context of the project. The preferred alternative may result in greater socioeconomic costs than benefits. The reader does not know the answer to this question because the Corps has failed to address it as a socioeconomic consideration. The available information in the PSMP DEIS suggests that the costs of dredging alone may greatly outweigh any perceived benefits captured through facilitating barge, rather than rail or truck, traffic.

H. Cultural Resources

The Tribe is deeply concerned about the project's effects on Nez Perce cultural properties. The PSMP/DEIS acknowledges the existence of numerous known archaeological sites within the project area. The Tribe has determined that the Corps' survey work to date does not adequately cover the project area and therefore the agency's conclusions about the nature and extent of possible impacts is based on incomplete information. The Tribe is also concerned that the Corps is speculating about impacts on tribal historic properties without consulting in advance with the Tribe.

SPECIFIC COMMENTS

- Increased predation to Snake River fall Chinook

Draft EIS states that shallow water deposition will provide beneficial habitat for juvenile fall Chinook (Draft EIS at 4-8 and Appendix H at 13) while concurrently referencing increased fish species diversity and abundance at shallow water habitats, including high quantities of smallmouth bass (Draft EIS at 3-2, 3-5, 3-21 and 3-22).

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The 2001 USACE Dredged Material Management Plan for Lower Snake River Reservoirs (<http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA412805>) noted that experimental in-water disposal of dredged material created shallow water habitat in Lower Granite Reservoir that was utilized by subyearling Chinook and *several introduced fishes, considered game fishes* (page K-ES-2). This document states that subyearling fall Chinook survival may be compromised when using shoreline habitat as these areas are shared with a number of predators (page K-6).

A 2010 USFWS Washington state study partially funded by USACE (http://www.fws.gov/wafwo/fisheries/Publications/Pred_tracking_LWSC_final_report_Sept2010.pdf) found that smallmouth bass primarily used 2-4 m deep water but also positively selected 0-2 m depths (page 20) and commonly used open areas with silt and sand/silt substrate (page 27).

The Draft EIS does not provide analysis of avian predation or increases in piscivorous predation resulting from creating shallow water adjacent immediately upstream of Knoxway Bay, a large backwater which would appear to provide the highest quality largemouth bass and crappie habitat in the reservoir as well as the highest quantity of perching structure for double-crested cormorants

- The use of dredge material to create shallow water habitats may increase the amount of available habitat for juvenile fall Chinook. However, it will decrease the amount of mid-depth habitat used by sturgeon. Further assessment of the availability of mid-depth habitat and sturgeon is necessary.

The DEIS at 3-21 notes that white sturgeon densities surveyed near proposed deposition zone were significantly higher than those of other mid and lower reservoir survey locations while acknowledging that shallow water deposition would potentially reduce the amount of mid-water bench habitat used by white sturgeon (page 4-15).

- There are potential concerns regarding elevated summer water temperatures:

The DEIS at 4-35 states that summer water temperatures may increase at shallow water deposition sites but are not anticipated to be significant. The DEIS does not analyze thermal impacts, however, instead providing irrational and flawed justification for anticipated lack of impact (page 4-35).

Conversely, the 2001 USACE Dredged Material Management Plan for Lower Snake River Reservoirs states that creation of shallow water habitat could increase the availability of warmer near-shore waters, potentially resulting in enhanced growth and higher survival for resident game fish and, possibly, subyearling Chinook (page K-17).

More detailed discussion about elevated summer water temperatures is provided in Attachment A.

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- While above listed impacts may be found to be relatively insignificant for the proposed shallow water deposition of a 26 acre area, information (and lack of same) provided for Preferred Alternative options may suggest that dredging be identified for regular implementation. Given that the Corps' 2001 Dredged Material Management Plan proposes six additional LGR disposal sites totaling 1,022 acres, future impacts on salmonid predation, sturgeon habitat and temperature could be highly significant.
- Figure 3-1 describing typical migration timing of anadromous salmonids needs to be revised to cover the complete migration period. Juvenile spring/summer Chinook migration period needs to be extended. Juvenile fall Chinook are migrating/present all year. Coho adult migration can likely be initiated in September not August. Steelhead adults are present all year.
- Description of fall Chinook redd distribution on page 3-10 should be revised to acknowledge that 30% of the redds occur in the Clearwater River.
- Coho salmon description on page 3-13 states the 1995 reintroduction was done "in cooperation with USFWS and IDFG". This should be deleted as the effort was a NPT program with actual objection by IDFG.
- Juvenile lamprey may be present in dredging areas. Monitoring of dredged materials for juvenile lamprey should be required.
- Regarding other issues related to lamprey:

Regarding sampling for presence/absence of larval Pacific lamprey in the LSRP, the following is stated (Section 3.0, Affected Environment 3.1, Aquatic Resources):

"In response to concerns regarding potential impacts to juvenile Pacific lamprey as part of potential sediment management actions, a minimally obtrusive electroshocking sled with an optical camera was developed in 2011 to survey for presence or absence of juvenile Pacific lamprey. Arntzen et al. (2012) conducted surveys at 24 sample sites within the lower Snake River to determine presence of juvenile Pacific lamprey including locations where sediment accumulation is interfering with commercial navigation (Clarkston Upper and Lower, RM 138), past dredge disposal sites, and reference sites. No lamprey were observed at any of the 24 sample sites during either of the two sample periods in late July and September 2011. It is plausible that juvenile lamprey were present but not observed with this electroshocking sled as it was recently developed for this specific objective and had a limited testing period prior to deployment."

The Tribe's comment is that:

Rather than apply the experimental, untried electro-fishing/optical camera approach, using the method and statistical treatment employed by Jolley et al. (2012), including the

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Generalized Random Tessellation Stratified (GRTS) sampling approach, would have made more sense. Jolley et al. (2012) was able to confirm that larval Pacific lampreys occupy Bonneville Reservoir, a larger body of water than Lower Granite pool. Therefore, it is an understatement to say that, "It is plausible that juvenile lamprey were present but not observed with this electro-shocking sled as it was recently developed for this specific objective and had a limited testing period prior to deployment." Actually, the results of the survey are meaningless and would errantly be used, even by suggestion, as evidence that larval Pacific lamprey are absent in the LSRP.

The narrative also states:

"However, while juvenile lamprey are often found in silt/sand substrate (Arntzen et al 2012), it is unlikely that juveniles are present in moderate or high numbers within the reservoirs of the lower Snake River due to a paucity of available rearing habitat and relatively low expected abundance of juveniles. Juvenile lamprey typically have a patchy distribution related to other environmental variables such as water depth and velocity, light level, organic content, chlorophyll concentration, proximity to spawning area and riparian canopy (Moser et al. 2007).

The Tribe's comments are:

Jolley et al. (2012) offered that the reservoirs created by many dams on the Columbia River may create habitats (e.g., relatively slower velocity, increased sediment deposition) that did not exist prior to dam construction or were likely less abundant. Larval lamprey may use these areas at a disproportionately higher rate than they did prior to dam construction. A plausible hypothesis was posed that detection rates of larval lamprey would increase in the mainstem Columbia River below rivers known to produce larvae, as the mainstem accumulates larvae from the tributaries. Further, the Clearwater River is a known producer of Pacific lamprey larvae and macrophthalmia. Annual releases of adult Pacific lamprey have occurred since 2007 in several major Clearwater tributaries as part of the Nez Perce Tribe translocation initiative (Ward et al. 2012). Ward et al. (2012) concludes that results suggest that translocation of adult Pacific lamprey have resulted in increased spawning in recipient subbasins, as evidenced by increases in number and distribution of ammocoetes from preprogram conditions. Maintenance dredging areas are in close proximity to the mouth of the Clearwater River, and consistent with the Jolley et al. (2012) hypothesis, the likelihood of larvae presence and detection rates (using suitable methods) in this area should be relatively high.

The Tribe's suggestion is that, based on the above comments, the narrative and assessment of potential impacts to Pacific lamprey need to be redrafted accordingly.

- "Over the long-term, the Corps would monitor sediment in the LSRP. When conditions meet criteria for action, the Corps would initiate review of site-specific conditions....." pg ES-11. In the staff-to-staff meeting, Corps staff informed us their own internal triggers had been met

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that dredging alone was not the answer to the sediment issues, yet the EIS only looks at dredging.

- Sediment input is suggested to be at the highest since 1970. ACOE staff suggests long bankfull events route more sediment than short peak flood events. ACOE ran model simulations of 50 years and suggest the bed level would vary from 1 ft to over 15 ft. Yet in staff to staff when asked if the cross-section data showed the river had reached equilibrium they felt it had reached this point. So is the section at equilibrium or will it continue to fill in?
 - Cumulative Effects (pg. 4-66). The Corps will continue to dredge but never address where future dredging spoils will be placed and potential impacts.
 - The Tribe’s ultimate goal is to have the lower Snake dams breached. As such, deposition of dredged materials should be done in manner that will preclude their downstream transport under natural river conditions (either remove from river or placed in stream well outside of historical river channel).
- 1) Section 3.4.1 – “Archaeological resources, historic buildings and structures, and traditional cultural properties that have been evaluated on the basis of specific criteria and *found eligible for the National Register of Historic Places are referred to as historic properties.*”

Is this list comprehensive? The term “historic properties” does not apply only to evaluated resources.

- 2) 3.4.1.1 – are the lists of archaeological resources meant to be definitive? In the discussion of historic resources, ACEWW must acknowledge that Tribal resources may also be historic (i.e., post-contact).
- 3) 3.4.1.2 – The section heading and subsequent repeated phrase “historic property of religious and cultural significance” is incorrect. The language in NHPA is “historic property of cultural and religious significance TO INDIAN TRIBES.” The document appears to combine HPCRSIT and traditional cultural properties (TCP), which are defined in National Register Bulletin 38. These are related but separate classifications, and the document uses the definition of TCP to discuss HPCRSITs. ACEWW needs to add a section for TCPs.

Remove the word “aboveground” from the definition for historic buildings and structures.

This section implies that historic themes define which resources are valid. Whose themes? Is there a list? Is the list static? Themes are important, but not all NR eligible resources may fit into existing themes.

- 4) 3.4.2 – p 3-36, paragraph 2 – “The Confederated Tribes of the Yakama Reservation, Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Colville

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Nation, the Nez Perce Tribe, and the Wanapum Band have interests in *traditional resources* in this area.”

Define this term, as I’m not sure what it means. Are these treaty resources, TCPs, HPCRSITs, etc.?

p 3-36, paragraph 5 – “The Lower Snake area contains the type sites for phases identified as a foundation of the cultural chronology: Windust Cave, the Tucannon site, and the Harder site. The earliest dates in the region come from *Marmes Rock shelter and the Granite Point (10,000-9,000 years ago), Windust Cave (before 5,000 years ago), and Ash and Burr Caves (8,000 years ago).*”

These are not the oldest sites in the region. Hatwai and Lower Salmon River sites are older, and well known.

p 3-37, paragraph 1 – “In 1948 the Columbia Basin Project of the River Basin Surveys conducted an intensive reconnaissance of Ice Harbor, Lower Monumental, and Lower Granite Reservoirs as well as the Hells Canyon Dam area.”

This survey took 2 weeks for over 100 miles of river shoreline. This was not an “intensive survey” by contemporary standards, and the results of the survey should not be regarded as authoritative or conclusive.

p 3-37, paragraph 2 – “Salvage excavations were undertaken at a number of places along the Snake River and on major tributaries, including the Palouse River and Alpowa Creek. *Most of the data was never formally reported and many of the assemblages were not analyzed.*”

This is true, so it is difficult to use the excavation results as baseline data, or draw many conclusions about the archaeological record or Columbia Plateau cultures and/or cultural change from the excavation data.

p 3-37, paragraph 7 – “Most areas with high potential for cultural resources in the lower Snake River portion of the study area were inundated by reservoirs associated with the four dam projects on the Lower Snake. Cultural resource sites in these areas may contain both prehistoric and historic period components. The areas with high potential for cultural resources include mesa tops and overhangs, talus slopes, confluences, tributary streams, springs, terraces, alluvial fans, flood channels, and channel bars.”

This is an accurate statement, but it is unclear what its relevance is to the PSMP or discussion of its effects on cultural resources.

p 3-39, paragraphs 3 and 4 – “Ninety-three archaeological sites have been identified within the *Little Goose study area. Two sites have been recommended potentially eligible for the NRHP and reevaluation of other sites is being initiated.*”

U.S. Army Corps of Engineers, Walla Walla District

March 26, 2013

Page 22

AA total of 159 archaeological sites have been identified within the **Lower Granite study area**. Seventy-six of these are inundated. **Three sites have been determined eligible for NRHP listing and two have been recommended potentially eligible.**”

- 5) 4.4.1 – “Historic buildings, including the dams, would not be affected by maintaining pool levels at the navigation objective.”

Maintaining pool levels might not cause *further impacts*, but will not undo the existing impacts of the project.

- 6) 4.4.2.1

p 4-27, paragraph 3 - “Dredging and the disposal of dredged material also have the potential to disturb values associated with historic properties of religious and cultural significance to Indian tribes. The **Corps recognizes a number of these types of sites, many of which were inundated when the reservoirs associated with the LSRP were filled.**”

What site type does the Corps recognize? Are there site types that the Corps does not recognize?

p 4-27, paragraph 4 - “One other aspect of dredging that has the potential to affect historic properties is the disturbance of secondary deposits of archaeological material that may occur within sediments identified for dredging; including, potentially, human remains. Although the secondary deposition of the archaeological material likely means it retains no archaeological value, it may have traditional religious and cultural significance, especially in the case of human remains. **For this reason, in-water disposal of dredged material is preferred as it ensures that the material remains in the river, in a secondary depositional environment.** However, in shallow areas where dredged material may be placed for beneficial use, material placement and contouring and anchor lines also have the potential to disturb or bury inundated sites.”

The Corps cannot say this without consultation with the Tribe. At this time, this is the opinion of the contractor and maybe the Corps.

p 4-28, paragraph 1 – “Placement of fill has the potential to bury archaeological sites. This may entail some beneficial protection; however, the chemical effect of burying sites is not well understood. **Reuse of fill in conjunction with habitat enhancement may have beneficial effects for historic properties of religious and cultural significance to Indian Tribes.**”

The Corps should not say this without consultation with all the Tribes with interest in the Lower Snake River. At this time, this is the OPINION of the contractor and maybe the Corps.

U.S. Army Corps of Engineers, Walla Walla District
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Page 23

- 7) 4.4.2.2 – p. 4-28, paragraph 5 – **“some dredging would be done in close proximity to archaeological sites, but should not directly impact any of them.”**

How can the Corps guarantee this?

p 4-28, paragraph 6 – **“In Idaho, two locations would be dredged. Each location has a portion of an archaeological site included within the study area but, again, it is not anticipated that dredging activity would impact cultural properties because both locations have been previously dredged several times to the same depths proposed for the near-term maintenance dredging actions.”**

Is the Corps asserting that existing impacts result in no effect to historic properties?

- 8) 4.11.2.1 – p 58, paragraph 1 – **“Dam building on the Snake River system has resulted today in 17 dams on the mainstem of the Snake River and more than 20 dams on tributaries, though most are outside the cumulative effects area (USACE 2005).”**

What is the area of cumulative effects? How did the Corps determine this area? Was it done in consultation with the Tribes? FCRPS does NOT have an agency approved APE for either direct or indirect effects.

Thank you again for the opportunity to provide comments on the PSMP/DEIS. The Tribe looks forward to government-to-government consultation with the Corps on this matter prior to a final decision so that the Tribe’s issues and concerns can be fully explored between our governments. If you have any questions, please contact Michael Lopez, Staff Attorney, Nez Perce Tribe Office of Legal Counsel at (208) 843-7355.

Sincerely,



Silas C. Whitman
Chairman

Attachment A

Concerns regarding elevated summer water temperatures

Draft EIS claims that dredging activities are not likely to impact water temperature but, in lieu of analysis, provides flawed and obfuscating justification.

Draft EIS Appendix G at 5, *“The following is a summary of the participants’ identified issues and comments...There are concerns about the possible relationship between dredged sediment deposition in the Lower Snake River and habitat/fisheries impacts in the shallow water areas, including water temperature increases.”*

Draft EIS at 4-5, *“Dredging and dredged material placement would not cause effects on water temperature or dissolved oxygen because activity would typically take place in cold weather during the in-water work window.”*

Draft EIS at 4-35, *“Dredging is not anticipated to affect water temperatures. However, water temperatures at in-river placement sites may slightly increase from current conditions in the summer. Water overlying the shallow habitat would likely exceed 68°F (20°C) during summer days, but may also cool off more at night relative to the open-water. Predicting the thermal effects of these opposing actions in the long term is hampered by uncertainty related to issues of vegetation that could become established nearby and create shading, global warming, and runoff volume. However, considering the small incremental change in volume of shallow water, greater cooling of shallow water at night, effects of wind and wave action on mixing near shore, and advection of water through these areas, the overall changes to the thermal budget of the reservoir are not anticipated to be significant.”*

...Water overlying the shallow habitat would likely exceed 68°F (20°C) during summer days, but may also cool off more at night relative to the open-water. Predicting the thermal effects of these opposing actions in the long term ...

A number of thermal models are available to predict diurnal effects on water temperature. In general, daytime water temperatures are influenced by absorption of both long and short wave radiation throughout the upper water column and substrate (when water is shallow and clear enough) while nighttime effects are primarily influenced by long wave radiative transfer at the air-water interface. As seasonal shifts in solar insolation produce greater heating effects in summer than winter, decreased depths in streams and rivers generally result in higher summer water temperature and lower over-wintering temperatures; diurnal effects do not typically ‘equalize’ or ‘cancel out’ thermal impacts within summer or winter.

...is hampered by uncertainty related to issues of vegetation that could become established nearby and create shading... Riparian shading of the deposition zone is a non-factor due to, among other things, 10 to 20’ basalt escarpments which comprise the majority of bank adjacent the proposed deposition zone. Draft EIS at 3-23, *“The study area passes through steppe and shrub-steppe plant communities (Franklin and Dyrness 1973; Daubenmire and Daubenmire 1984).”* and *“A number of factors contribute to the lack of extensive riparian areas along the*

U.S. Army Corps of Engineers, Walla Walla District
March 26, 2013
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lower Snake River (Corps 1992, 2002a). The steep shorelines associated with project reservoirs are primarily responsible for limiting development of riparian communities in the study area. Furthermore, extensive grazing (Lewke and Buss 1977), the expansion of railroads, arid climate, and the inundation of the low-lying flood plain by dams have limited riparian vegetation to narrow vegetation corridors and backwater areas.”

Overview of proposed deposition zone



Shoreline along proposed deposition zone



U.S. Army Corps of Engineers, Walla Walla District
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...global warming... Draft EIS at 3.9 states *“The study area for the discussion related to climate change and GHG is considered to be the entire planet as climate change issues are global in nature...”* Large-scale models for the Pacific Northwest predict that global warming will increase summer air temperatures and exacerbate thermal issues extant within Lower Granite Reservoir.

...and runoff volume. Does USACE suggest that, contrary to climate change modeling, summer runoff volume may increase and minimize thermal impacts? Flow augmentation is addressed within EPA’s Temperature Simulation of the Snake River Above Lower Granite Dam Using Transect Measurements and the CE-QUAL-W2 Model, *“During flow augmentation, measurements and simulations indicate that a stable surface layer sets up beginning at approximately River Mile 125 to 135 and extends to [sic] downstream to the dam at River Mile 107. Flow augmentation appears to have little effect on temperatures within this surface layer; in fact, augmentation may cause temperature increases at the surface.”*

...effects of wind and wave action on mixing near shore... Data provided through EPA’s Temperature Simulation of the Snake River Above Lower Granite Dam Using Transect Measurements and the CE-QUAL-W2 Model, along with simulations developed through a thermal model developed by the USACE, reported that summer water temperatures four miles above the action area (RM 120) remained relatively consistent to a depth of at least 30 feet. As such, wind on wave mixing actions may increase summer water temperatures through increased exposure to hot wind/air, but cooler hypolimnion (deep-water) layers will not be accessed.

...and advection of water through these areas... Advection (and, through diffusion, convection) will serve to distribute waters warmed in shallow habitat throughout the lower reservoir, but it will not prevent water temperatures from increasing within the deposition zone.

Draft EIS at 4-17, *“However, depending on the timing of the drawdown, it is possible that flow reductions during refill following drawdown could result in slightly decreased juvenile Snake River fall Chinook survival due to water temperature increases. Recent research has shown that the proclivity of juvenile Snake River fall Chinook to continue migrating as subyearlings diminishes during July (Cook et al. 2007). Through the summer an increasing fraction of Snake River fall Chinook entering Lower Granite Reservoir remain in the reservoir and migrate during the following year as yearlings. Thus, higher water temperatures in summer (which negatively affects the survival of both migrating and resident salmonids) become increasingly important...”*

0138_CWA_Parsons

From: [Sierra Club](#) on behalf of [Claudia Parsons](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Wednesday, May 01, 2013 7:05:39 PM

May 1, 2013

Army Corps of Engineers

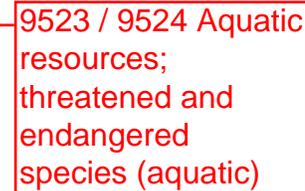
Dear of Engineers,

9522 Costs and
funding



In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

9523 / 9524 Aquatic
resources;
threatened and
endangered
species (aquatic)



The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

Sincerely,

Claudia Parsons
2148 Hollywood Blvd
Emmett, ID 83617-9517

0139_CWA_Pauley

From: [Stephen Pauley](#)
To: [PSMP](#)
Subject: Dredging above Lower Granite Dam
Date: Tuesday, April 09, 2013 2:09:29 PM

Dear Sirs

9518 Costs and funding

9519 Aquatic resources; general aquatic resources

My comments re dredging above Lower Granite Dam.

1. This is a good time to reevaluate the cost / benefit ratio of the four lower Snake dams.
2. Do the dredging costs make sense if the useful life of the 4 Snake dams is short.. Calculate the decommissioning costs for these dams vs repairs vs continuing dam improvements for fish passage. Do they warrant dredging?
3. Is the COE complying with the NW Power Act of 1980 that mandates that fish receive equal consideration as does energy production? Smolt barging has not increased native returns to sustainable levels. The summer water temps below some Snake dams is higher than permitted for fall chinook survival.
4. Figure the costs of dredging into the future. Will dredging be needed too often to justify the expense?.
5. Figure the costs of govt. subsidies to operate the 4 dams and the zero cost to the barge and tour boat companies. The govt. should not in the business of keeping the Army COE fully employed at the sake of losing native salmon populations.
6. Is the whole intent of dredging to keep the Army COE at full employment and to justify the Walla Walla office?
7. Does dredging violate the CWA and the ESA?

9520 Dredging

Thank you
Stephen M Pauley MD
Box 3759
Ketchum, ID 83340
spauley4@gmailcom

9521 Environmental laws and regulations

0140_CWA_Pearson

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

Dear Sandy,

9486 Public hearing request

9485 Water quality, and sediment quality; water quality

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,


Theodor Pearson
3433 NE Davis St
Portland OR 97227

August 2014

G-713

T. Pearson

3433 NE Davis St.
Portland OR. 97232

PORTLAND OR 970

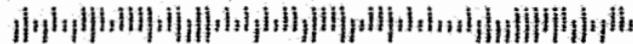
29 APR 2013 PM 2 1



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PO-EC,
201 N. Third ave.,
Walla Walla WA
99362-1876

August 2014

99362187601



G-714

0141_CWA_Peterson

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9484 Water quality
and sediment
quality; sediment
quality

Dear Sandy,

9483 Public
hearing request

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

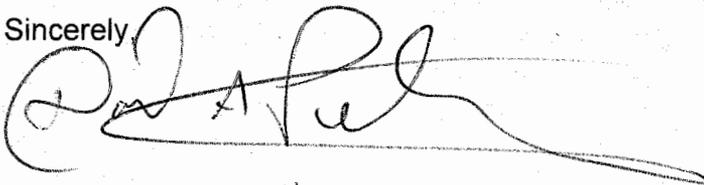
I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

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Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,



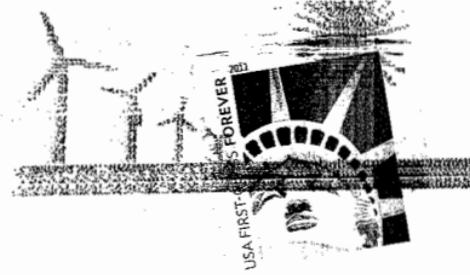
917 NW 59th st
Vancouver WA 98663

D. Peterson

917 NW 59th St.
Vancouver, Wa. 98663

PORTLAND OR 970

29 APR 2013 PM 2 L



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 W. Third Ave.
Walla Walla WA,
99362-1876

99362187601



August 2014

G-716

0142_CWA_PortofClarkston

From: [Wanda Keefer](#)
To: [PSMP](#)
Subject: Comments on Section 404 for dredging and in-water disposal of dredged materials
Date: Monday, April 29, 2013 10:00:42 AM
Attachments: [Port comments on in-water disposal of dredged materials.pdf](#)

Thank you for giving us the opportunity to comment (see attached). Please contact me if you have any questions.

Wanda Keefer
Manager, Port of Clarkston
509-758-5272



Port of Clarkston
Facilitating Sustainable Growth

849 Port Way
Clarkston WA 99403
Phone: (509) 758-5272
Fax: (509) 758-1746
Email: Portofclk@clarkston.com
Web: www.portofclarkston.com

April 29, 2013

VIA ELECTRONIC (psmp@usace.army.mil) AND FIRST CLASS MAIL

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Ave.
Walla Walla, Washington 99362-1876

Re: Section 404 for dredging and in-water disposal of dredged materials

Dear Ms. Shelin,

9481 Dredged materials disposal

The Port of Clarkston appreciates the opportunity to submit comments on the U.S. Army Corps of Engineers (USACE) proposed activity, subject to the provisions of Section 404 of the Clean Water Act of 1977 (Public Law 95-217).

The Port of Clarkston's position is that in-water disposal of dredged materials is a well-established beneficial use. The planned method to dredge, transport and place dredged materials is optimal for species in or near the river. Placement will follow natural, existing contours of land. Additionally, the Corps proposes to perform the dredging during the winter in-water work window, thereby minimizing any potential impacts.

We encourage approval of the work to move forward.

9482 General project support

Thank you for giving us the opportunity to comment on this issue.

Sincerely,

Wanda Keefer
Port Manager



Port of Clarkston
Facilitating Sustainable Growth

849 Port Way
Clarkston WA 99403
Phone: (509) 758-5272
Fax: (509) 758-1746
Email: Portofclk@clarkston.com
Web: www.portofclarkston.com

April 29, 2013

VIA ELECTRONIC (psmp@usace.army.mil) AND FIRST CLASS MAIL

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Ave.
Walla Walla, Washington 99362-1876

Re: Section 404 for dredging and in-water disposal of dredged materials

Dear Ms. Shelin,

The Port of Clarkston appreciates the opportunity to submit comments on the U.S. Army Corps of Engineers (USACE) proposed activity, subject to the provisions of Section 404 of the Clean Water Act of 1977 (Public Law 95-217).

The Port of Clarkston's position is that in-water disposal of dredged materials is a well-established beneficial use. The planned method to dredge, transport and place dredged materials is optimal for species in or near the river. Placement will follow natural, existing contours of land. Additionally, the Corps proposes to perform the dredging during the winter in-water work window, thereby minimizing any potential impacts.

We encourage approval of the work to move forward.

Thank you for giving us the opportunity to comment on this issue.

Sincerely,

Wanda Keefer
Port Manager

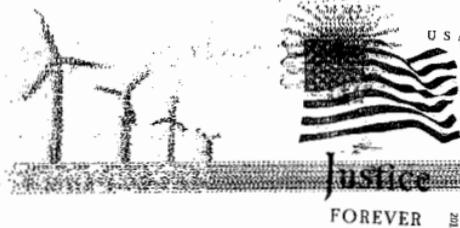
Appendix G – Public Involvement
Lower Snake River Programmatic Sediment Management Plan – Final EIS



PORT OF CLARKSTON
849 PORT WAY
CLARKSTON, WASHINGTON 99403

SPOKANE WA 990

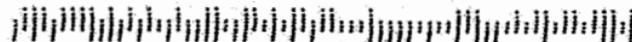
29 APR 2013 PM 3 L



U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Ave.
Walla Walla, Washington 99362-1876

August 2014

99362187601



G-720

0143_CWA_PortofLewiston

From: [Jaynie](#)
To: [PSMP](#)
Cc: [David Doeringsfeld](#)
Subject: Port of Lewiston/In-Water Disposal Comments - Due Apr 30
Date: Tuesday, April 30, 2013 9:57:12 AM
Attachments: [Port of Lewiston Comments.PDF](#)

U.S. Army Corps of Engineers

Walla Walla Dist, PSMP/EIS

Attention: Sandra Shelin

CENWW-PM-PD-EC

201 North Third Ave

Walla Walla, WA 99362-1876

Ms Shelin ~

Please find attached, the Port of Lewiston comments due April 30 regarding in-water disposal for the PSMP.

Thank you,

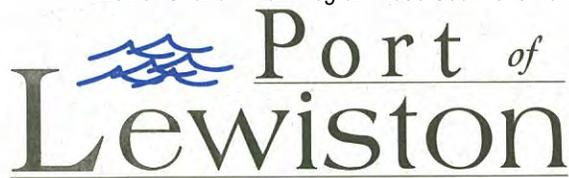
Jaynie Bentz

PORT OF LEWISTON

1626 6th Ave North

Lewiston, ID 83501

208.743.5531



1626 6th Avenue N. • Lewiston, ID 83501
(208) 743-5531 • Fax (208) 743-4243
E-mail: portinfo@portoflewiston.com
Container Yard
(208) 743-3209 • 1-877-777-8099

PORT COMMISSIONERS
President
Mary Hasenoehrl
Vice President
Jerry Klemm
Secretary-Treasurer
Mike Thomason

ADMINISTRATION
General Manager
David R. Doeringsfeld
Assistant Manager
Jaynie K. Bentz
Traffic Manager
Linda Heitstuman

April 29, 2013

VIA ELECTRONIC (psmp@usace.army.mil) AND FIRST CLASS MAIL

U.S. Army Corps of Engineers
Walla Walla District, PSMP/EIS
Attention: Sandra Shelin
CENWW-PM-PD-EC
201 North Third Avenue
Walla Walla, WA 99362-1876

RE: SECTION 404 FOR DREDGING AND IN-WATER DISPOSAL OF DREDGED MATERIALS

Dear Ms. Shelin,

9479 General project support

The Port of Lewiston appreciates this opportunity to submit comments on the U.S. Army Corps of Engineers (USACE) proposed activity as allowed under the provisions of Section 404 of the Clean Water Act of 1977 (Public Law 95-217).

The Port of Lewiston supports the efforts thus far conducted by USACE to restore and maintain the federal navigation channel to its Congressionally authorized dimensions of 14 feet deep by 250 feet wide at minimum operating pool. Sediment accumulation has negatively impacted the Port of Lewiston and its customers to safely maximize the economic benefits barging offers to industry stakeholders. As a marine highway, maintenance is necessary to keep commerce moving.

In-water disposal of accumulated sediment into identified areas that support habitat is a balanced approach to maximize the multiple use benefits of the Columbia-Snake River System. The Port of Lewiston supports the location of the proposed in-water disposal site and the need to implement this project.

Thank you for this opportunity to comment on this issue.

PORT OF LEWISTON
David R. Doeringsfeld



Port Manager

9480 Dredged materials disposal

0144_CWA_RedfishBluefish

From: [Scott Levy](#)
To: [PSMP](#)
Subject: Comment regarding Water Quality Certification of Programmatic Sediment Management Plan
Date: Monday, April 29, 2013 12:36:32 PM

To Whom It May Concern:

9474 Water Quality,
and sediment
quality; sediment
quality

"As good stewards of the environment, we always seek to prevent pollutants from entering the river," said District Commander Lt. Col. David Caldwell in a statement (Tri-City Herald, February 4, 2012).

Hoping that this is a true statement and that the Tri-City Herald's Annette Cary did not misquote the Lieutenant Colonel, I am curious to know why the same ACOE district would seek to dispose of dredge spoils into the Lower Snake River. The Corps Draft Environmental Impact Statement (December 2012) clearly states that the dredge spoils are not anticipated to be free of pollutants. I read that the recently established (1998) criteria for disposal were met by most of the samples, as such, the ACOE feels comfortable with putting this soils back into the river. Not being free of pollutants, this approach in which dredge spoils are deposited into the river appears to contradict the District Commander's assertion.

Excerpt from Corps' Draft Environmental Impact Statement date December 2012:

9575 Dredged materials
disposal

b) was detected in one elutriate sample from the Port of Clarkston but did not trigger any of the criteria previously mentioned. Most of the metals data met the guidelines as well. One exception was the mercury concentration in one sediment sample from the Port of Clarkston, less than the SEF and SMS criteria. Dioxin and furan toxic equivalents (TEQs) were calculated for the sediment and elutriate and were consistent with the results of previous studies in agricultural soils in Washington and less than Puget Sound background levels. Based on the results from the study, the sediments at the Port of Clarkston, Port of Lewiston, and the navigation channel in the confluence area meet the chemical and physical criteria for open and unconfined in-water placement. Additionally, sediments within the LSRP are not expected to require special management prior to handling or placement and would not be considered as industrial or hazardous waste."

It seems to me that it would be a better environmental choice to place the dredge spoils upon the land, rather than back into the river. Is that not correct? Depositing dredge spoils on land appears to make sense because one of the main reasons the Federal Action Agencies, of which the ACOE is a major part, decided against partial removal of four Lower Snake River dams is due to "Uncertainty about possible harmful effects associated with the potential resuspension of contaminants in sediments." (Glen Squires, Wheat Life, April 2002). So I wonder now, when putting forward dredging and resuspension as a preferred alternative, why this resuspension of contaminants is not a major concern.

In the proposal now under consideration, it is my understanding that the ACOE will not be requiring sampling of soils before dredge spoils are placed back in the river. Apparently the limited amount of samples already taken are good enough for the ACOE to feel confident that the uncertainty "associated with the potential resuspension of contaminants" has been addressed. If that were to be accurate statement of the ACOE position, then the same methodology could be applied to reduce the uncertainty "associated with the potential resuspension of contaminants" in considering the Dam Breach alternative of the "Lower Snake River Juvenile Salmon Migration Feasibility Report / Environmental Impact Statement (FR/EIS)."

That said, it would seem to me that if the ACOE decides to release dredge spoils back into the Lower Snake, then an identical methodology could be utilized to eliminate the uncertainty "associated with the potential resuspension of contaminants" in the dam breach alternative studied in the FR'EIS quoted

9476 Water Quality, and sediment quality; sediment quality

9477 Water Quality, and sediment quality; sediment quality

above. For instance, if the current dredge project takes one percent (or tenth of one percent) of the sediment that has accumulated in the Lower Snake reservoirs, then taking 100 times (1000 times) as many samples could sufficiently reduce the uncertainty "associated with the potential resuspension of contaminants." To date, the ACOE has yet to propose this viable and reasonable approach in considering the dam breach alternative. Moreover, this viable and reasonable approach was not mentioned in the "Lower Snake River Juvenile Salmon Migration Feasibility Report / Environmental Impact Statement (FR/EIS)."

Have I missed something in the statistical analysis here? If so, I would appreciate your response to this comment to include appropriate corrections. With these corrections, if any, then it seems a viable alternative would be put forward, an alternative that the "Lower Snake River Juvenile Salmon Migration Feasibility Report / Environmental Impact Statement (FR/EIS)" failed to mention in studying the Natural River Drawdown Alternative.

Flipping the discussion the other way, it would seem prudent if the recommendations (see below) from the "Lower Snake River Juvenile Salmon Migration Feasibility Report / Environmental Impact Statement (FR/EIS)" should be followed before the dredge spoils are resuspended in the Lower Snake River. To concisely put what I am trying to say, the two reports should be consistent as they come from the same ACOE district separated by less than fifteen years in time. If your agency does not believe that these reports need to be consistent then a response to this point is to be expected to be forthcoming.

Regards,

9478 Alternatives

Scott Levy
Host of www.bluefish.org

Below are relevant excerpts from "Lower Snake River Juvenile Salmon Migration Feasibility Report / Environmental Impact Statement (FR/EIS)"

The following recommendations would assist in gaining a better understanding of any potential risks to organisms should the Natural River Drawdown Alternative be implemented.

1. Complete a report for the 1997 Lower Snake River Feasibility Study Sediment Quality Analyses.
2. The report should include sample collection methods, composition of sediment samples, locations of sample sites, analytical methods, results, and discussion.
3. Appropriate sediment management reports should be referenced, and exceedences in recommended management concentrations should be flagged.
4. Additional sampling of the sediments should occur to develop a better understanding of the distribution and concentrations of elements and compounds in the impounded sediments.
5. Integrated depth sampling down to native sediment, where possible, in areas most likely to become resuspended during the drawdown, would provide the most useful analytical data.
6. Analyses of sediment should include heavy metals; organochlorine, organophosphorus, and carbamate pesticides; PCBs; dioxins; furans; and, total petroleum hydrocarbons.
7. Samples should be analyzed using appropriate detection limits sensitive enough for concentrations that may cause adverse effects to aquatic organisms.
8. In addition, toxicity tests should be performed and should include effects of a range of concentrations within realistic durations of exposure.
9. Bioassays, such as the H4IIE bioassay, could be applied for testing rather than a full analysis to measure dioxin-like compounds (dioxins, furans, and coplanar PCBs) activity.
10. Detection limits of any bioassay should be no greater than one pg/g.
11. To establish existing concentrations of the compounds expected to be released from the lower Snake River reservoirs, baseline 'pre-drawdown' sediment sampling should occur in the McNary Pool where the bulk of impounded sediment is predicted to be deposited.
12. Gather additional data to address how interdependent and interrelated actions of the

drawdown could impact the lower Snake and Columbia rivers contaminant loading.

13. Consider resuspension of contaminated materials as a point source discharge. Estimate the additional loading of DDT and metabolites, PCBs, and dioxin-like compounds (dioxin, furan, and planar PCBs), metals, organochlorine and organophosphorus pesticides, and petroleum hydrocarbons by determining the total amount of each contaminant (based on concentrations from chemical analysis on samples from a set amount of material) within the total amount of material to be resuspended.

14. Report estimates to the appropriate state environmental quality personnel to determine if additional loading would violate current water quality standards for the lower Snake and the Columbia rivers.

9.5 Environmental Contaminants (with Natural River Drawdown Alternative)

Effects to aquatic and terrestrial organisms from the Natural River Drawdown Alternative are complex. The drawdown of the lower Snake River reservoirs poses potential toxicological threats to fish and wildlife and their habitat from Lewiston, Idaho, to the Pacific Ocean. At this time, the effects to fish and wildlife resources from the resuspension of impounded sediment into this dynamic system are difficult to determine. Point and nonpoint sources of environmental contaminants have been identified from upstream agricultural and industrial origins, and some would be found in sediments behind the dams. These contaminants are known, under certain conditions, to cause adverse effects to aquatic-related organisms. However, information on the contaminants in the sediments and their distribution is insufficient to fully evaluate whether or not adverse impacts to organisms could result from drawdown.

9.5.1 Redistribution of Sediments

Should the Natural River Drawdown Alternative be implemented, redistribution of sediments would occur, altering the morphology and potentially the water quality of the lower Snake River. Approximately 50 percent of the 76.5 to 114.7 million cubic meters (100 to 150 million cubic yards) of sediment impounded behind the four dams is projected to erode and be transported downstream within the first few years following the breaching of the dams. Most of the fine sediments are anticipated to settle in the McNary Pool in the Columbia River. The very fine sediments that do not settle in the McNary Pool would continue to be transported downstream and ultimately settle in the Columbia River Estuary or the Pacific Ocean. If redistributed sediments contain certain levels of contaminants, they could pose a threat to fish and wildlife resources.

The resuspension and deposition of sediments resulting from the Natural River Drawdown Alternative may have varying effects on organisms. Potential threats to fish and wildlife from contaminated sediment and impaired water quality include increased availability of contaminants to organisms and potential exposure of additional contaminants during critical life stages. Increased exposure to contamination may affect organisms directly, bioaccumulate through the food chain, alter the prey base, or cause alterations of habitat. Adverse effects to fish and wildlife species from exposure to toxic levels of contaminants may include mortality, physiological responses, impaired reproduction, immune system alterations, behavioral changes, or avoidance or loss of important habitat. The timing of release of the impounded sediment is important. Untimely resuspension of sediments could have detrimental effects to some organisms. Exposure of organisms in the lower Snake River to newly available contaminated sediment could be relatively short (acute exposure) in some areas and longer term (chronic exposure) in other locations. Acute exposure would occur following the initial breaching of the dams causing resuspension of sediment. Long-term exposure (chronic exposure) of organisms to contaminated sediment would occur in the Snake and Columbia rivers where contaminated sediments would settle.

The removal of the four lower Snake River dams could make additional contaminated water and sediment available to organisms. When the earthen portions of the dams are removed during

implementation of the Natural River Drawdown Alternative, sediment behind the dams would be resuspended. This would expose fish, wildlife, and their habitat to potentially toxic concentrations of resuspended contaminants. The eroded materials would most likely be redeposited in Lake Wallula (McNary Pool) between the Snake River and the Wallula Gap on the Columbia River. Depending on the timing and route of deposition of resuspended sediment, impacts from contaminated sediment to fish and wildlife would vary. Sediment resuspended in the water column would become available to organisms by direct uptake.

9.5.2 Resuspension

Resuspension of sediments from drawdown is of concern to the health of fish and wildlife resources. The fine sediments would be suspended in the water column for an unknown period of time before their anticipated settling in the McNary Pool and locations further downstream in the Columbia River. Resuspending large volumes of potentially contaminated sediment could expose organisms to concentrations of compounds that could have sub-lethal or lethal effects. Released water and sediment may affect fish and wildlife resources through direct exposure and bioaccumulation through the food chain. Wind and rain erosion and channel incision processes will also contribute to additional sediment resuspension. Potentially contaminated sediments entering the Columbia River would contribute to an already impacted system.

9.5.3 Deposition

Some of the material deposited within the lower Snake River may create shoals and/or sand bars. Fine materials accumulating in shallow areas, mud flats, or other depositional zones would become available to organisms living in or utilizing these areas for foraging. Waterfowl, wading birds, and other birds and mammals would become exposed to potentially contaminated sediment by foraging in these habitats. Sediments settling in the McNary Pool may possibly remain there for a long period of time. Contaminated sediments redeposited in the McNary Pool could pose a threat to waterfowl and other migrating birds that utilize the McNary National Wildlife Refuge.

9.5.4 Exposure of Sediments

Following implementation of the drawdown, some sediments would be resuspended quickly. Other sediments would become resuspended more slowly through erosion from heavy rain, flood events, wave action along the newly created shoreline, and changes as the river meanders. Contaminated sediment that had been entrapped and unavailable to organisms would be mobilized. This may prolong the exposure time of organisms to potentially contaminated sediment.

9.5.5 Environmental Contaminants

Environmental contaminants have and continue to enter the lower Snake River from a variety of non-point and point sources. Sources include agricultural runoff, paper and pulp mills, storm water runoff, grazing, domestic wastes, and hazardous materials releases. Under current reservoir conditions, elements and compounds are bound to sediment and organic matter and are present in the pore water (water in between the sediment) and open water. The release of impounded water and sediment during the drawdown alternative will disrupt existing conditions in the reservoirs and the lower Snake River and the Columbia River. Changes in water quality parameters such as temperature, pH, hardness, alkalinity, and salinity can alter the toxicity and degradation rate of some of the compounds in the water and sediments currently in the system. Organic compounds can become biologically available when

sediments are disturbed. However, the amount of desorption that occurs depends primarily on sediment composition and the persistence and concentration of the chemical (Thomas 1996). Once liberated into the environment, it is unknown what the interdependent and interrelated reactions of the sediment, organic matter, and water may be. When multiple contaminants are present in a system, effects can be additive, synergistic, or antagonistic. This means the combination of toxicants in the environment could produce a response that is simply additive or greater or less than that expected by addition of these individual responses. Impacts to fish and wildlife from contaminants in the lower Snake River and Columbia River systems will change as the physical and chemical properties of the water and sediment changes from the drawdown event.

It is difficult, with existing information, to determine what the potential toxicity to organisms may be considering the large quantities of sediment and water, variety of compounds, and anticipated reactions that would be created by the drawdown scenario. Many of the toxic compounds that have, are, and will enter the river have chemical properties that bind or adhere to sediment particles and persist in the environment for many years. Contaminants are most often associated with the fine sediment particles because of their high surface area to volume ratio. Some of the chemical properties of these compounds enable them to persist in the environment at high enough concentrations to cause injury to organisms. Availability of contaminants is greatly affected by physical characteristics of sediments such as particle size, distribution, total organic carbon and mineral composition (Seelye and Mac, 1984).

Organochlorine and organophosphate pesticides, petroleum hydrocarbons, dioxins and furans, heavy metals, and PCBs, have been detected in the lower Snake River system. Resuspension of these compounds resulting from the Natural River Drawdown Alternative would increase the bioavailability of these contaminants to organisms. Seelye et al. (1982) have shown that persistent compounds such as DDE and polychlorinated biphenyls (PCBs) can be accumulated by fish directly from exposure to resuspended sediments. Low concentrations of persistent compounds such as some organochlorine pesticides, PCBs, dioxins, and furans can bioaccumulate within the food chain and impair reproduction in top level predators, such as the bald eagles. In addition, many of these organochlorine compounds disrupt the immune or endocrine system, and very low concentrations of these chemicals could impact fish and wildlife during sensitive life stages.

The U.S. Environmental Protection Agency (EPA) has classified the middle Snake River as having marginal water quality (PNL, 1995). Sampling and characterization of sediments in the lower Snake River has been limited. An EPA report (EPA, 1992) has identified pesticide problems in the Clearwater River which enters the lower Snake River system in the upper end of the Lower Granite Reservoir. Contaminants related to industrial sources along the lower Snake River have been detected during sediment sampling studies by the Corps (Anatek Labs, Inc., 1997) and Potlatch Corporation's Lewiston Complex (Potlatch, 1998). Sediment and water samples collected by the Corps during the 1997 Lower Snake River Sediment Quality Study detected concentrations of organochlorine and organophosphorus pesticides and heavy metals known to have toxicological effects to aquatic species. However, detection limits for other pesticides and metals of concern, such as mercury, DDT, dieldrin, endrin, and chlorpyrifos, were not low enough to detect concentrations of the compound at levels that are of concern to the health of aquatic organisms.

Although some sediment samples collected contained some detectable levels of environmental contaminants of concern to fish and wildlife, the distribution and concentrations of many contaminants in the lower Snake River system is still not well documented. Contaminant bioavailability from sediments is difficult to evaluate. The factors affecting the availability and toxicity of compounds to aquatic species are complex. Bioavailability of sediment-bound contaminants is a chronic exposure problem that cannot be determined by bulk-sediment analysis or elutriate testing alone (Cain, 1989). Bulk-sediment analysis does not take into account the potential changes in toxicity of compounds influenced by changes in the environment such as the drawdown alternative or physiological modifications within organisms. As the water chemistry changes during an event such as the drawdown, the chemistry of the sediment bound contaminants is also altered. This alteration of water and sediment chemistry may increase the bioavailability of some contaminants to the aquatic environment. In addition, elutriate testing of sediments is designed to analyze the concentrations of water soluble compounds and does not evaluate the nonsoluble compounds bound to the sediment. Therefore, it is difficult to make a determination of

the potential effects to the aquatic environment with existing information and without further investigation.

The time of year for initiating the Natural River Drawdown Alternative is also important. Toxicological effects to organisms are likely to be greatest should they become exposed to contaminated water or sediment during sensitive life stages. These life stages include migration, breeding, spawning, and early life stages. Health of the migrating and spawning Chinook salmon are of concern should a fall drawdown occur. Direct exposure to resuspension of contaminated sediments could cause adverse physiological effects to migrating fish, eggs, and fry/smolt. A spring or fall drawdown could also expose migrating birds and waterfowl to potentially toxic water and sediment.

Implementation of the Natural River Drawdown Alternative will redistribute sediments altering the morphology and water quality of the lower Snake River. The removal of the four lower Snake River dams will release potentially contaminated water and sediment not currently available to organisms. Industrial and municipal practices within the lower Snake River basin have contributed, and continue to contribute, organochlorine and organophosphate pesticides, petroleum hydrocarbons, dioxins and furans, heavy metals, and PCBs to the system. Increased exposure to contamination from the drawdown alternative may affect organisms directly, bioaccumulate through the food chain, or alter the prey base. Available data are insufficient to determine potential toxicological effects of the Natural River Drawdown Alternative to fish and wildlife. With existing information, it is not possible to determine the exact effects contaminants in the lower Snake River system may have on fish and wildlife resources.

0145_CWA_Reisch

From: [Sierra Club](#) on behalf of [Becky Reisch](#)
To: [PSMP](#)
Subject: Please carefully consider dredging the Lower Snake
Date: Wednesday, May 01, 2013 3:05:17 PM

May 1, 2013

Army Corps of Engineers

Dear of Engineers,

9471 Costs and funding

In these times of limited federal dollars, it's absurd for taxpayers to subsidize barging when the same cargo could be more efficiently transported on existing railroad. The Corps should conduct an honest cost-benefit analysis that determines the benefits of this proposal outweigh the costs.

9472 Aquatic resources; threatened and endangered species (aquatic)

The effects of dredging, including dumping dredge spoils into the reservoirs, may threaten Endangered Species Act-listed stocks of salmon and steelhead, which are in the system year-round.

Increased sediment load due to large forest fires - a result of climate change - will increase the flood risk to the city of Lewiston and would require an endless and unsustainable cycle of dredging at an ongoing cost to taxpayers.

9473 Hydrology and sediment; watershed sediment production

Please do a cost benefit analysis to ensure that the benefits of this proposal outweigh such steep costs.

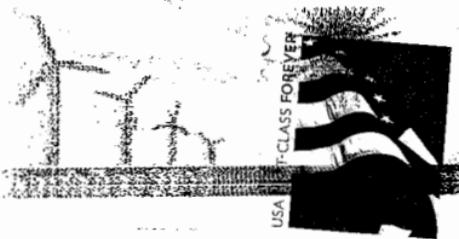
Sincerely,

Ms. Becky Reisch
8676 State Highway 78
Marsing, ID 83639-8206

G. Rinehart
3757 SE Clay St.
Portland OR 97214

PORTLAND OR 970

29 APR 2013 PM 2 L



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,

201 N. Third Ave.,
Walla Walla WA.

99362-1874

99362187601



August 2014

G-730

0146_CWA_Rinehart

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9470 Water Quality
and Sediment
Quality; Sediment
Quality

Dear Sandy,

9469 Public
Hearing Request

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,
Gregory D Rinehart
Gregory D Rinehart
3757 SE CLAY ST
Portland, OR 97214

August 2014

From: [nick_serrano](#)
To: [PSMP](#)
Subject: No!
Date: Tuesday, April 09, 2013 4:21:52 PM

0147_CWA_Serrano

I am an avid fisherman and think this is a terrible idea. Please do not dredge the lower snake river!

9468 Dredging



0148_CWA_Tanner

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9467 Water Quality
and Sediment
Quality; Sediment
Quality

Dear Sandy,

9466 Public
Hearing Request

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

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Sincerely,

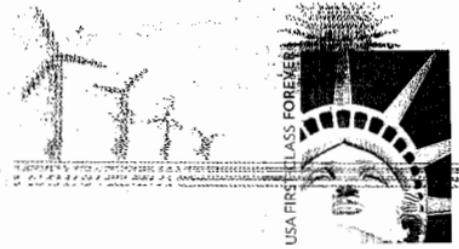
Sabrina Tanner 2947 NE 65th Ave PDX 97213

Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

S. Tanner
2947 NE. 65th Ave.
Portland OR. 97213

PORTLAND OR 970

29 APR 2013 PM 5 L



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third ave.,
Walla Walla WA.
99362-1874

August 2014

99362187601



G-734

0149_CWA_Tourtillott

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9464 Water Quality
and Sediment
Quality; Sediment
Quality

Dear Sandy,

9465 Public
Hearing Request

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

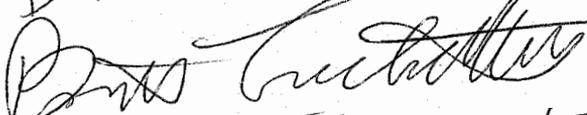
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Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

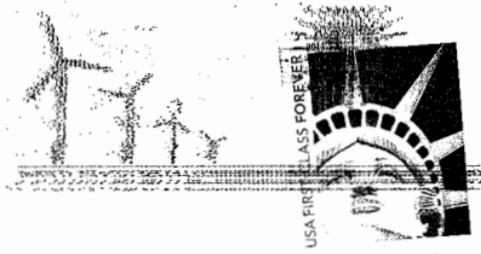
Sincerely,

Brett Tourtillott

2622 SE BELMONT ST
PDX OR 97214

Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

B Tourtelott
2622 SE Belmont ST
Portland OR 97214

PORTLAND OR 970
29 APR 2013 PM 5 L

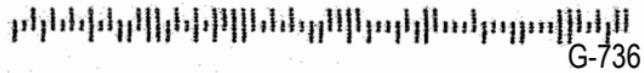


U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS Attn. Sandy Shelin, CENWW-PM-PO-EC,

201 N. Third Ave.
Walla Walla WA.
99362-1876

August 2014

99362187601



0150_CWA_Trunn

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

Dear Sandy,

9462 Public
Hearing Request

9463 Water Quality
and Sediment
Quality; Sediment
Quality

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

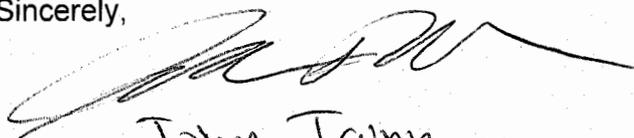
I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,



John Trunn
5935 SW Homesteader Rd
Wilsonville OR 97070

J. Truitt

5935 Sw. Homesteader Rd.
Wilsonville OR 97070

PORTLAND OR 970

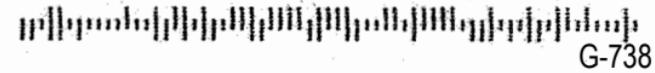
29 APR 2013 PM 5 L



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third Ave.
Walla Walla WA.
99362-1876

August 2014

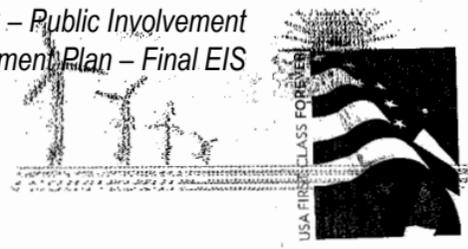
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1353 SE 32nd Ave.
Portland OR 97214

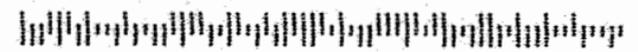
Appendix G - Public Involvement
Lower Snake River Programmatic Sediment Management Plan - Final EIS

29 APR 2013 PM 5 L



U.S. Army Corps of Engineers, Walla Walla District
PSMA/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third Ave.,
Walla Walla, WA.
99362-1876

99362187601



August 2014

G-739

0151_CWA_Unknown

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9461 Water Quality
and Sediment
Quality; Sediment
Quality

Dear Sandy,

9460 Public
Hearing Request

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,


1353 SE 32nd Ave
Port. OR 97214

From: [Joseph Widener](#)
To: [PSMP](#)
Subject: EIS
Date: Thursday, April 18, 2013 6:03:54 PM

0152_CWA_Widener

April 19, 2013

US Army Corps of Engineers

Walla Walla District

Refer to: Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement (December 2012)

Dear Army Corps of Engineers,

I am writing as a concerned citizen who loves both the Columbia and Snake rivers. My family and I are frequent recreational users of these rivers, and we frequently eat fish harvested from this watershed.

9456 NEPA; no
action alternative

I am writing to comment on the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

9457 Dredging

I am asking for alternative number 1 to be implemented. It is the action of no action. I am choosing this alternative because neither alternatives 5 nor 7 consider all of the authorized purposes stated in the Lower Snake River Draft Programmatic Management plan Environmental Impact Statement. Your authorized purposes in that document are stated as: commercial navigation, hydroelectric power generation, recreation, and fish and wildlife conservation. It seems to me that the only authorized purpose you are mitigating for in alternative 5 or 7 is commercial navigation. There are two authorized purposes that are clearly neglected in these alternatives - those are 1) fish and wildlife conservation with respect to wild salmon and 2) recreation. Dredging, which ultimately is what alternatives 5 and 7 are proposing, will have no beneficial effect on salmon population recovery – in fact it would most likely have a negative effect. Also stated in the environmental impact assessment, is that the Army Corps of Engineers plans to consider potential beneficial use of dredged material with one of the beneficial uses to create submerged fish habitat with the dredged material. This makes no sense. How could contaminated material dredged from the four reservoirs (Ice Harbor, Federal Channel, Port of Lewiston and Port of Clarkston) be of any benefit to salmon if put in the Lower Granite Reservoir. If this sediment was detrimental for salmon in the first four reservoirs than why would it be of any benefit for salmon in a different reservoir.

9458 Dredged materials disposal

Another factor not being considered within alternatives 5 or 7 is recreation. By dredging the

9459 Water quality, and sediment
quality; sediment quality

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contaminated sediment from these reservoirs, the amount of contaminants that would be dislodged and sent downstream would be considerable. I live in Portland Oregon, near the Columbia River, and I don't want this contaminated sediment in my river where my kids and I play. Dredging the sediment in these reservoirs would directly impact the recreational potential of both the Snake and Columbia rivers anywhere downstream.

Due to these stated factors, I am in favor of alternative 1 which is no action. Until you come up with an environmental impact assessment that clearly considers all the authorized purposes stated in your document, I believe nothing should be done.

Thank you for your consideration as we all work towards a healthier, cleaner river system.

Sincerely,

Joseph Widener

1706 Se 37th

Portland Oregon

97214

0153_CWA_Widener

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

Dear Sandy,

9340 Public
Hearing Request

9341 Water Quality
and Sediment
Quality; Sediment
Quality

I am writing to request a public hearing in response to the Lower Snake River Basin Programmatic Sediment Management Plan Environmental Impact Statement.

My family and I love both the Columbia and Snake rivers. We are frequent recreational users of these rivers, and frequently eat fish harvested from this watershed.

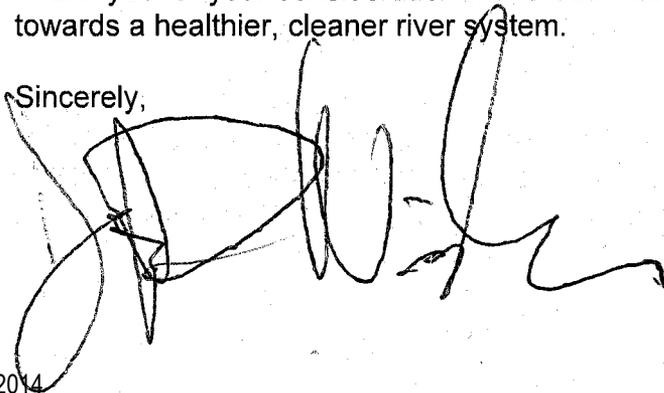
I live in Portland Oregon and am very concerned about the dredging that is being proposed behind the dams along the lower Snake river. The amount of sediment and contaminants that would be dislodged and sent downstream in this process would be considerable. This would directly impact the ecology and recreational potential of both the Snake and Columbia all the way downstream. This would impact my family and I - as well as every other recreational user along these two great rivers.

For these reasons I am asking for a public hearing. Furthermore, I am asking that this hearing be held in a place that is more easily accessible to Portland / Vancouver area residents (the previous hearing that was held in Lewiston, ID was not easily accessible – thank you very much). Portland / Vancouver has the highest population of any area within the Columbia Basin. The people of the Portland area would be impacted by this proposed dredging and they should have a say in the matter.

In fact, because the effected area would extend from Lewiston, ID all the way to Astoria, OR (effecting people in three different states - over 500 river miles) you might consider having two different hearings – one in Lewiston for the upper watershed and one in Portland for the lower watershed.

Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,



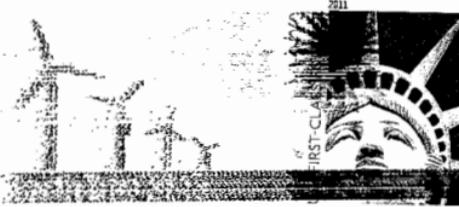
Joseph Widener
1706 se 37th
portland, OR
97214

J. Widener
1706 SE 37th

Portland, OR 97214

PORTLAND OR 970

29 APR 2013 PM 2 L



U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PO-EC,

201 N. Third Ave,
Walla Walla WA.

99362-1874

August 2014

G-744

0154_CWA_Wittman

From: [Ron Wittman](#)
To: [PSMP](#)
Subject: Dredge permit at Snake-Clearwater Confluence and Adjacent Ports
Date: Thursday, April 11, 2013 2:33:13 PM

I submit my original comments with a few small additions/corrections. Thank you.

To All Concerned;

9339 General
project support

I am in total support of the continued dredging of the Snake and Clearwater rivers for the purpose of river barge traffic up to and back out of the Ports of Lewiston, Clarkston and Wilma. The continued use of the river system for receiving and delivering product in and out of our area is critical to the economies of many states, not just our own. This system was put into place after much thought and consideration way before my time on this earth. It is vital to the strengths of the agricultural industry, timber industry, power industry, tourism industry and many many more. My father (B.H. Bob Wittman) was a Port of Lewiston commissioner for 22 years and I was proud to hear of the great things that this river system provides. I would hate to see his time and dedication, along with all the other port commissioners, managers and supporters along the river system, who have fought so hard to keep this a vital and prosperous "Highway system" to the rest of the world, be discontinued because of the idle meaningless complaints from the people opposing this project. I keep hearing of the costs associated with dredging. Why doesn't the opposition bring into the equation the costs associated with of the upkeep/rebuilding of our highways, railroads and other infrastructure needs if this system goes away? It is because of their narrow vision and self-serving interests. We need to look at this project openly and look farsighted into the future, for all our wellbeing. The costs associated with the savings of fuel alone should be enough. Not to mention the one lane in each direction highways leading into the Lewis-Clark Valley and on to the east, south, and north. The river system is our freeway and we need it just as any city/town along an interstate freeway system. I thank you for your time and hope that you continue on with dredging and maintaining our river system as it was intended.

Ronald J. Wittman
Former Nez Perce County Commissioner 2003-11'
and now concerned local private citizen

0155_CWA_Wolf

April 22, 2013

To: Sandy Shelin
U.S. Army Corps of Engineers, Walla Walla District
201 N. Third Ave
Walla Walla, WA 99362-1876

9338 Water Quality
and Sediment
Quality; Sediment
Quality

9337 Public
Hearing Request

Dear Sandy,

I am writing to request a public hearing in response to the Lower Snake River Draft Programmatic Sediment Management Plan Environmental Impact Statement.

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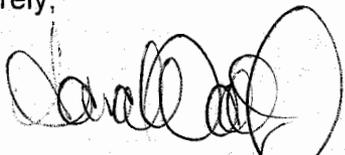
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Thank you for your consideration with these matters. We are all working together towards a healthier, cleaner river system.

Sincerely,



3236 NE 57th Ave
Portland, OR 97213

PORTLAND OR 970

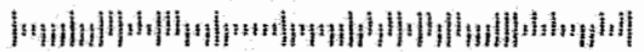
29 APR 2013 PM 2 L



S. Wolf
3236 NE. 58th Ave.
Portland OR. 97213

U.S. Army Corps of Engineers, Walla Walla District
PSMP/EIS, Attn. Sandy Shelin, CENWW-PM-PD-EC,
201 N. Third ave.,
Walla Walla WA.
99362-1874

99362187601



August 2014

G-747