APPENDIX C

COMMENT LETTERS ON DRAFT EIS

United States Department of Agriculture | Forest Service | Jackson Ranger District | P.O. Box 1689 Jackson, WY 83001

Reply to: 2850

Date: February 6, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Lt. Col. James A. Walter
District Engineer
Department of the Army
Corps of Engineers, Walla Walla District
Walla Walla, WA 99362-9265

Dear Col. Walter:

Thank you for the copy of the Draft Environmental Impact Statement for the Snake-Gros Ventre Rivers Levee Maintenance Project, which I received on December 14, 1989. I understand that when a Final Environmental Impact Statement on this project is completed, a Supplement to the FEIS will then be prepared to address selection of a quarry site which could provide a long term supply of rip rap for levee maintenance.

These written comments on the DEIS will supplement the discussions your staff had with Bill Bass, Jackson District Assistant Ranger, and Don Rivers, Assistant Forest Engineer, at the Corps' Workshop/Public Hearing held in Jackson on January 31. These comments are not intended to be a formal environmental analysis of potential quarry sites.

My staff has continued its preliminary review of the four potential quarry sites administered by the Jackson Ranger District of the Bridger-Teton National Forest, (Curtis Canyon, Flat Creek, Phillips Ridge, and Teton Pass), which the Corps has selected for further evaluation. While some analysis appears to have been done to narrow the potential quarry sites from 23 to 4, no rationale is given in the DEIS. The rationale must be identified in order for the Forest Service to accept this range of alternatives. Additionally, use of the existing quarry must be evaluated as a "No Action" alternative in the Forest Service NEPA process for quarry site selection. The reason for dropping the existing quarry site from the evaluation is not consistent between the Corps' documents available to us. I can find no supportable reason for dropping the existing quarry from consideration. I believe it is premature to limit the options in this DEIS. 1-1

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Caring for the Land and Serving People

I cannot agree with the statement made on page 13 of the DEIS that development costs are reasonable and that environmental impacts are not extremely negative for any of the four sites. The Forest-wide standards and guidelines, Management Area direction, and Desired Future Conditions which are contained within the Land and Resource Management Plan for the Bridger-Teton National Forest will be implemented very soon. I understand your staff received a copy of the Forest Plan and accompanying EIS for the Bridger-Teton National Forest last November when they held an informational meeting in Jackson. Two additional copies were given to your staff on January 31. These standards apply to all resources. They guide and limit activities which can occur on the Bridger-Teton. They are not optional or discretionary and can only be changed through an amendment to the Forest Plan.

Examples of serious environmental and resource concerns which apply to the four sites include: requirement that visual quality objectives be met; requirement for reclamation to include recontouring to a natural appearance; requirment that only low standard roads be constructed; a limit to number of roads (road density) in an area; requirement that wildlife habitat be maintained or enhanced; requirement that recreation opportunities be emphasized; identified cultural resources; and other concerns listed in Bridger-Teton Forest Supervisor Brian Stout's June 13, 1989 letter to the Corps. The Forest Service may not be able to approve a quarry on any of the four sites. Although the concerns applicable to each site vary, all have serious environmental concerns.

The June 13th letter also summarizes Forest Service authorities and policy regarding the disposal of common variety minerals such as rip rap. I have enclosed a copy of that letter.

I cannot agree that development costs for any of the four sites would be reasonable if any of the sites were approved. Costs such as cultural resource inventories (and mitigation if a site is found), recontouring during reclamation, road construction constraints, operating season constraints, operating constraints to protect other resources and the public, when added to what would likely be an expensive NEPA process, would make development costs very high for these sites. The costs of removing up to 150 feet of overburden at the existing quarry to continue operations there needs to be compared to a detailed estimate of the likely costs of developing a site on National Forest administered land. 1

The continuing evaluation of potential quarry sites will likely include exploratory drilling and other surface disturbance. Any surface disturbing activities will be evaluated to ensure that the effects on other National 1-2

Caring for the Land and Serving People

Forest resources are minimized, and effective reclamation measures are planned. These proposed activities will receive NEPA review on a case by case basis. Forest Service decision on a request for mineral material prospecting (drilling) generally would not be expected in less than 30 days. A 45 day delay in implementing such a decision is likely. 1-5

Thank you for the opportunity to comment. My staff is available to assist the Corps in its continuing evaluation.

Sincerely,

William T. Bass

CHARLES G. JONES
District Ranger

cc w/ encl: B. Stout, Forest Supervisor
D. Nelson, R-4 USFS Engineering
National Elk Refuge Headquarters
Wyoming Game and Fish Department
R. Starkey, U.S. Fish & Wildlife Service, Cheyenne, WT
Teton County Commissioners
Jackson City Council
North Zone Engineering (Rivers)
Jackson RD (Wilkerson)

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United States Department of Agriculture | Forest Service | Bridger-Teton National Forest | P.O. Box 1888 Jackson, WY 83001

Reply to: 2850

Date: June 13, 1989

Marvin G. Brammer, P.E.
Chief, Engineering Division
Department of the Army
Corps of Engineers, Walla Walla District
Walla Walla, WA 99362-9265

Dear Mr. Brammer:

Thank you for the copy of the Jackson Hole, Wyoming Geological Reconnaissance and Quarry Investigation Report which my office received on May 9, 1989. I understand this report evaluates riprap quarry potential of twenty quarry sites for the Snake River levee project.

I would first like to take the opportunity to summarize Forest Service authorities and policy regarding the disposal of common variety minerals, such as riprap. Applicable regulations (36 CFR 228 Subpart C) outline Forest Service responsibilities and authorities. In summary, riprap is available where reasonable protection of, or mitigation of effects on, other resources is assured, and where removal is not prohibited. Mineral materials may be disposed of only if the Forest Service authorized officer determines that the action is in the public's interest. Decisions to authorize the disposal of mineral materials must conform to approved land and resource management plans. An environmental analysis must be conducted, and adequate measures must be taken to protect, and to minimize damage to the environment.

My staff has conducted a preliminary review of existing resource inventories and management concerns for each of the twenty sites evaluated by the Corps of Engineers. Each site has serious resource and management concerns which may preclude approval of a quarry by the Forest Service.

All sites have significant wildlife concerns. The Forest Service would confer with the Wyoming Game and Fish Department during any detailed environmental analysis conducted to evaluate potential quarry sites. Sites 1, 2, 6, 7, 9, 18, and 19 have the potential to impact Endangered Species, (peregrine falcon and/or bald eagle). The Forest Service would consult with the U.S. Fish and Wildlife Service during the environmental analysis conducted to evaluate these potential sites.

I have enclosed a table which summarizes preliminary resource and management concerns for each potential quarry site. The O&G leasing restrictions listed also would apply to a quarry site. NSO refers to No Surface Occupancy. MA

(Management Area) and DFC (Desired Future Condition) refer to planning direction that will be contained in the soon-to-be-released land and resource management plan for the Bridger-Teton National Forest. Jim Caplan, Forest Planner at this office, can provide additional information about MA boundaries and the requirements of the DFC's.

It is my understanding that a draft environmental impact statement for the Snake River levee project currently is being prepared. It is also my understanding that the scope of this document currently does not include the selection of a quarry site. The selection of a quarry site is a significantly connected action to the decision whether to implement a levee reconstruction and maintenance project, especially in light of a preliminary review indicating significant resource concerns for each of the potential quarry sites.

I strongly recommend that the scope of the environmental impact statement currently underway be expanded to consider selection of a quarry site.

Detailed analysis of all potential quarry sites is needed now. Together we need to examine carefully all possible alternatives. Whether we can find an environmentally acceptable quarry site on National Forest system land may have a significant effect on the success of the Snake River levee project.

If you have any questions concerning these comments, please contact Chuck Jones, Jackson District Ranger, directly (307-733-4755). He can arrange and coordinate any additional comments or information you need to to complete your environmental analysis.

Sincerely,

BRIAN E. STOUT
Forest Supervisor

cc w/encl:
National Elk Refuge Headquarters
Wyoming Game and Fish Department
Jackson City Council
Teton County Commissioners
North Zone Engineering (Rivers)
Jackson Ranger District (Wilkerson)
U.S. Fish and Wildlife Service, Cheyenne, WY (Ron Starkey)

Caring for the Land and Serving People

1

PROPOSED PLANNING DIRECTION AND SPECIAL CONCERNS
POSSIBLE ARMY CORPS OF ENGINEERS RIPRAP QUARRY SITES

Site No.	Name	MA	DFC	Special Concerns
1	Curtis Can.	42	12	Would require significantly upgraded access Would require hauling through Elk Refuge and town Wildlife winter range Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
2	Sheep Cr.	42	12	Would require significantly upgraded access Would require hauling through Elk Refuge and town Wildlife winter range Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
3	Flat Cr.	42	12	Would require significantly upgraded access Would require hauling through Elk Refuge and town Crucial winter range (O&G leases would require Jackson Elk Herd Stip) Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
4	Flat Cr.Talus	42	12	Would require significantly upgraded access Would require hauling through Elk Refuge and town Crucial winter range (O&G leases would require Jackson Elk Herd Stip) Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
5	Rock Cr.	41	12	Crucial moose winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
6	Pritchard Cr.	40	12	Crucial deer, moose and elk winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
7	Phillips Ridge	41	10	May be near a peregrine falcon release area Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area

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Site No.	Name	MA	RPC	Special Concerns
8	Teton Pass	41	9A	(O&G would not be leased in this area) Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
9	Coburn Cr	41	10/12	Crucial moose and elk winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area
10	Gros Ventre Slide		6	Wilderness
11	Cache Cr.		6	Wilderness
12	Looke Canyon	41	9B	(O&G would not be leased in this area) Noise from blasting and operations Would be highly visible from the top of Snow King Increased traffic would interfere with recreation use in the area
13	Smith Canyon	41	12	Crucial deer winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Would be highly visible from main highway
14	Wilson Canyon	41	12	Just outside crucial deer winter range Would need to travel through crucial winter range (yearlong NSO for O&G) Would be highly visible from main highway Noise from blasting and operations
15	Horsethief	41	12	Crucial deer winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Would be highly visible from main highway
16	Game Cr.	41	12	May be highly visible from housing subdivision Noise from blasting and operations Increased traffic may interfere with housing subdivision Would need to travel through crucial winter range (yearlong NSO for O&G) Adjacent to South Park elk feed grounds
17	Porcupine Cr.	41	12	Just outside wilderness Crucial moose winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Adequacy of visual screening of operations Increased traffic would interfere with recreation use in the area

Site No.	Name	MA	RPC	Special Concerns
18	Hoback Canyon	49	12	Crucial deer, moose and elk winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Would be highly visible from main highway
19	Fall Cr. Can.	41	12	Crucial deer and elk winter range (O&G leases would require yearlong NSO) Noise from blasting and operations Increased traffic would interfere with recreation use in the area
20	Phillips Can.	41	2A	Crucial moose winter range (O&G would not be leased in this area) Noise from blasting and operations Would be highly visible Increased traffic would interfere with recreation use in the area

United States Department of Agriculture

Soil Conservation Service

Federal Building, Room 3124
100 East B Street
Casper, Wyoming 82601

January 3, 1990

Mr. James A. Walter
Lieutenant Colonel, Corps of Engineers
District Engineer, Walla Walla District
Walla Walla, Washington 99362-9265

Dear Mr. Walter:

The Soil Conservation Service in Wyoming has no comment on the Draft Environmental Impact Statement (DEIS), draft U.S. Fish and Wildlife Coordination Act Report, and Operation and Maintenance Decision Document Report for the Jackson Hole, Wyoming, Snake-Gros Ventre Rivers Levee Maintenance Project. 2-1

We thank you for the opportunity to comment.

Sincerely,

FRANK S. DICKSON, CPESC
State Conservationist

The Soil Conservation Service is an agency of the Department of Agriculture

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United States Department of Agriculture

Soil Conservation Service

Federal Building, Room 3124
100 East B Street
Casper, Wyoming 82601

January 8, 1990

Mr. William F. MacDonald
Planning Division
Corps of Engineers
Walla Walla District
Walla Walla, Washington 99362-9265

Dear Mr. MacDonald:

The Soil Conservation Service in Wyoming needs only one copy of any document on which our Wyoming SCS office is to make comment. That document should be mailed to our Casper office.

We eventually received five or six copies of an approximately inch-thick document. Two were forwarded to us from our Cheyenne office.

We are returning the address labels from three we received. We tossed the address labels from the ones opened earlier.

We thought you would appreciate knowing so that you could save on time and expense of mailing.

If you have questions, please call me at FTS 328-5210 or (307) 261-5210.

Sincerely,

HARVEY J. METZ
Assistant State Conservationist (Programs)

Enclosures

The Soil Conservation Service is an agency of the Department of Agriculture

4

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of the Chief Scientist
Washington, D.C. 20230

February 7, 1990

20 Feb 90

Lieutenant Colonel James A. Walter
Department of the Army
Walla Walla District, Corps of Engineers
Walla Walla, Washington 99362-9265

Dear Colonel Walter:

Enclosed are comments to your Draft Environmental Impact Statement on the Flood Protection Project, Jackson Hole, Wyoming. We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,

David Cottingham

David Cottingham
Director
Ecology and Environmental
Conservation Office

Enclosure

4

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
ROCKVILLE, MARYLAND 20852

FEB 2 1990

MEMORANDUM FOR: David Cottingham
Ecology and Environmental Conservation Office
Office of the Chief Scientist

FROM: Rear Admiral Wesley V. Hull, NOAA
Director, Charting and Geodetic Services

SUBJECT: DEIS 8912.02 - Flood Protection Project, Jackson Hole, Wyoming

The subject statement has been reviewed within the areas of Charting and Geodetic Services' (C&GS) responsibility and expertise and in terms of the impact of the proposed actions on C&GS activities and projects.

A preliminary review of C&GS records has indicated the presence of both horizontal (H) and vertical (V) geodetic control survey monuments in the proposed project area. Attached are the published geodetic control data for quadrangles 431103 and 431104 (H & V).

This information should be reviewed for identifying the location and designation of any geodetic control monuments that may be affected by the proposed project. If there are any planned activities which will disturb or destroy these monuments, C&GS requires not less than 90 days' notification in advance of such activities in order to plan for their relocation. C&GS recommends that funding for this project includes the cost of any relocation required for C&GS monuments. For further information about these monuments, please contact the National Geodetic Information Center, N/CG17, Rockwall Bldg., room 20, National Geodetic Survey, NOAA, Rockville, Maryland 20852, telephone 301-443-8631. 4-1

Attachments

cc:
N/CG1x32 - Cohen
N/CG17 - Spencer

FEB 7 19

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

5

Centers for Disease Control
Atlanta GA 30333
January 22, 1990

LTC James A. Walter
District Engineer
Walla Walla District
Corps of Engineers
Walla Walla, Washington 99362-9265

Dear LTC Walter:

We have reviewed the Draft O&M Decision Document and Environmental Impact Statement (DEIS) for the Proposed Jackson Hole, Wyoming Flood Protection Project. We are responding on behalf of the U.S. Public Health Service.

We see no potential significant public health impacts in either of the alternatives associated with maintenance of the levees by the Corps of Engineers. The operation would not differ significantly from the present on-going operation. 5-1

We wish to emphasize the need for compliance with the requirements of the Occupational Safety and Health Administration for worker safety during quarry operations. Particular attention should be given to noise and air pollution abatement during quarry operations. 5-2

Thank you for the opportunity to review this DEIS. Please insure that we are included on your mailing list for future Draft Environmental Impact Statements developed in accordance with the National Environmental Policy Act.

Sincerely yours,

Kenneth W. Holt, M.S.E.H.
Environmental Health Scientist
Center for Environmental Health
and Injury Control

U.S. Department of Housing and Urban Development
Denver Regional Office, Region VIII
Executive Tower
1405 Curtis Street
Denver, Colorado 80202-2349

December 28, 1989

James A. Walter, Lieutenant Colonel
Corps of Engineers District Engineer
Walla Walla District
Walla Walla, WA 99362-9265

Dear Colonel Walter:

This is in response to your request for comments to the Draft Environmental Impact Statement (DEIS) for the Jackson Hole, Wyoming, Flood Protection Project.

Your DEIS has been reviewed with consideration for the areas of responsibility assigned to the Department of Housing and Urban Development. This review considered the proposed action's impact on housing and community development in Jackson Hole, Wyoming. Within these parameters, we are supportive of the maintenance proposed for the levee system to protect the substantial residential and commercial development and associated infrastructure that has developed in the floodplain. We find your DEIS adequate for our purposes.

If we may be of further assistance, please call me at FTS 564-3102.

Very sincerely yours,

for

Howard S. Kutzer
Regional Environmental Officer
Office of Operational Support

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United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
BILLINGS AREA OFFICE
316 North 26th St
BILLINGS, MONTANA 59101

IN REPLY REFER TO:
Land and Minerals
Code 360

JAN 12 1990

James A. Walter, District Engineer
Department of the Army
Walla Walla District
Corps of Engineers
Walla Walla, Washington 99362-9265

Dear Mr. Walter:

This office has reviewed the Jackson Hole, Wyoming, Flood Protection Project document. The project, as proposed, is over 70 miles west of the nearest Indian reservation under the jurisdiction of the Billings Area Office. The Continental Divide is also a barrier between the reservation and the Snake-Gros Ventre riparian area. 7-1

For these reasons, we have no comments on the proposal. Mr. Richard Stefanic can be contacted at 406/657-6145, if you have questions.

Sincerely,

Harris W. Sale

Acting Area Director

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United States Department of the Interior
BUREAU OF MINES
P. O. BOX 25086
BUILDING 20, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

Intermountain Field Operations Center

February 1, 1990

Lieutenant Colonel James A. Walter
U.S. Army Corps of Engineers
Walla Walla District
Building 62
City-County Airport
Walla Walla, Washington 99362-9265

Dear Lieutenant Colonel Walter:

Subject: Review of Jackson Hole, Wyoming Flood Protection Project, Draft O&M Decision Document & EIS

Personnel of the U.S. Bureau of Mines reviewed the subject document as a part of the official Department of the Interior review and our comments will be incorporated in that review. The U.S. Fish and Wildlife Service (F&WLS) is the agency responsible for preparing that review. In response to your request for a review by the Bureau of Mines, a copy of the comments submitted by this office to F&WLS is enclosed.

Sincerely yours,

William Coleman, Chief
Intermountain Field Operations Center

Enclosure

United States Department of the Interior

BUREAU OF MINES

P. O. BOX 25086
BUILDING 20, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

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Intermountain Field Operations Center

February 1, 1990

Memorandum

To: Regional Director, Region 6, U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, Colorado 80225

From: Chief, Intermountain Field Operations Center

Subject: Review of Jackson Hole, Wyoming Flood Protection Project, Draft O & M Decision Document and EIS (ER 89/1059)

As requested by the Director, Office of Environmental Affairs, personnel of the Bureau of Mines reviewed the subject document for possible impacts on mineral resources or production facilities.

The document addresses proposed plans for the operation and maintenance of an existing levee system; no new construction is proposed at this time. The only potential impact on mineral resources and production facilities concerns the depletion of the current source of riprap for maintainence activities. Twenty new sites are being considered (appendix 5) and four preferred sites have been identified. Selection of the new quarry site will be made after a supplemental EIS has been prepared and evaluated. The Bureau of Mines will review that document when it is available.

Because the proposed action, as addressed in the subject document, does not directly impact mineral resources or production facilities at this time, the Bureau of Mines has no ejection to or comment on the operation and maintainence decision document. 8-1

William Cochran

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
2617 East Lincolnway, Suite A
Cheyenne, Wyoming 82001

IN REPLY REFER TO:

W.06 Corps of Engineers
(Snake River Levee Project)

February 15, 1990

District Engineer (Attention: Mr. Bill MacDonald, Environmental Coordinator)
Department of the Army
Corps of Engineers, Walla Walla District
Walla Walla, Washington 99362-9265

Dear Sir:

We have completed our review of your draft biological assessment and accompanying draft Environmental Impact Statement dated December, 1989, for the Jackson Hole, Wyoming, Flood Protection Project. The U.S. Army Corps of Engineers (Corps) is currently evaluating a proposal to maintain the existing levee system within the Snake and Gros Ventre River channels in Teton County, Wyoming. The purpose of this project is to provide emergency repairs and periodic maintenance of several Federal, State, and private levees within the river channels and to protect the surrounding area from periodic flood stages. The biological assessment (assessment) was prepared by the Corps in compliance with Section 7(c) of the Endangered Species Act of 1973, as amended (ESA).

The purpose of a biological assessment is to evaluate the potential effects of a proposed Federal action on listed and proposed species and designated and proposed critical habitat and to document how an agency arrived at a "no effect/may affect" determination. As mentioned in your January 23, 1990 telephone conversation with David Horning of my staff, our review of your assessment identified procedural inconsistencies with the ESA and insufficient biological data presented to support your "no effect" conclusions. As proposed, this action would place the Corps in a vulnerable and indefensible legal position. The following comments and recommendations are provided to assist the Corps in: 1) mitigating their proposed Federal action, and 2) modifying the assessment to ensure it is procedurally correct and biologically sound.

SPECIFIC COMMENTS

* Pg. A-1, 2nd para, 2nd sentence - The objective of the assessment ..... whether the proposed project would jeopardize the continued survival ..... .

The objective of the biological assessment is to determine whether listed species are "likely to be adversely affected" by the action. If this is the 8-2

case, the Service renders a "jeopardy" or "no jeopardy" conclusion in a biological opinion issued during formal consultation. 9-1

BALD EAGLES

* Pg. A-4, 4th para, 4th sentence - The critical nesting season ..... from early March to mid-August.

March is usually when egg laying occurs, however, nest building and courtship behavior occurs in February. The period prior to egg laying can also be sensitive to eagles, with disturbance manifested by nest site abandonment. 9-2

* Pg. A-5, last para, 1st sentence - The primary effect ..... would be disturbance from maintenance activities in the early spring.

The critical nesting season for bald eagles is between February and mid-August. No biological justification is presented for your stated conclusion that the "primary effect" will occur in the early spring. 9-3

* Pg. A-6, 1st para - Both project alternatives ..... little difference in effect among alternatives.

See general comments.

* Pg. A-6, 2nd para - Consultation with the U.S. Fish and Wildlife Service ..... .

See general comments.

* Pg. A-6, 3rd para, 4th and 5th sentence - In addition, road maintenance ... ... not be expected to affect bald eagle nesting in the project area.

No mention of what mitigation will be adopted to avoid adverse impacts to eagles at the Hansen Quarry. No data presented to support "no effect" conclusion. 9-4

* Pg. A-7, 4th line - ..... foraging bald eagles should have only minor effect.

Some wordsmithing is probably appropriate. The term "minor effect" implies a "may affect" and with no additional data presented to demonstrate that no adverse effects to eagles are likely to occur, we would have to initiate formal consultation. From this paragraph, I assume you have determined the impact would only be temporary in nature. You might consider the following language: ..... foraging bald eagles would only be temporary in nature. 9-5

* Pg. A-7, 2nd para - However, continued development ..... little difference between alternatives in this regard.

See general comments.

* Pg. A-7, 3rd para - No effects on bald eagle habitat are anticipated at the quarry sites, because most of these sites occur outside bald eagle nesting and wintering areas. ..... .

There is no discussion concerning the quarry sites within bald eagle nesting and wintering habitat. How will the Corps avoid adverse impacts to eagles that may be present at these sites during associated maintenance activities? No biological justification is presented here to support a "no effect" conclusion. 9-6

PEREGRINE FALCON

* Pg. A-9, 1st para, last line - Within recent times, only four active nests have been suspected in Wyoming, ...

Our records indicate that all of the current hack sites and known wild eyries in Wyoming are located in the northwest portion of the state; a few of which could potentially be impacted by the Corps proposed action. 9-7

* Pg. A-9, 2nd para, 3rd line - In 1985, 66 peregrine falcons were released, 25 to five hack sites in Wyoming.

Your responsibility is to use the best scientific and commercial data available. Our Wyoming file, for 1989, indicates their were 11 young produced at 12 wild eyrie sites and a total of 30 birds were released at hack sites of which 23 successfully fledged. 9-8

* Pg. A-10, last para - Two peregrine falcon hack sites ..... .

This paragraph discussion on peregrine falcon hack sites and foraging habitat, i.e., potential project area use by the birds, is incomplete. No reference is made to hack site locations found south of Jackson Dam, which are closer to the project area. There are two additional hack sites that could be influenced by the project, however, they were not included in your analysis of potential project impacts. In addition, the entire project area should be considered potential foraging habitat for peregrine falcons and evaluated as such. All potential project related impacts to peregrine falcons and their habitat need to be addressed in your assessment. 9-9

* Pg. A-11, 1st and 2nd para - Both paragraphs discuss project effects on peregrine falcons.

These two paragraphs need to be clarified and your "no effect/may affect" conclusion clearly stated, with supporting biological rational, when you have completed the additional analysis of potential project related impacts. 9-10

WHOOPING CRANE

* Pg. A-13, 4th para - Human presence and equipment noise from levee maintenance and quarry operations might disturb cranes 9-11

This paragraph initially discusses potential project impacts and then states that most of the habitat types preferred by whooping cranes occur outside the project area. Based on this fact and the low number of sightings, a no effect determination was concluded. Whooping crane numbers, and therefore sightings, will never be abundant due to strict adherence to ancestral breeding areas, migratory routes and wintering grounds, delayed sexual maturity, small clutch size, short ice-free seasons in breeding grounds, high post-hatching mortality, severe weather and man associated mortality factors. However, as you have recognized, suitable habitat exists within the project area and whoopers are occasionally observed within and adjacent to the project area. Therefore, an evaluation of potential project impacts to whooping cranes and their habitat needs to be completed. 9-11

* Pg. A-13, 5th para - Continued development due to the flood protection ... .

See general comments.

GRIZZLY BEAR

* Pg. A-15, last para - Human conflicts might occur if grizzly bears ..... .

Where is the "no effect/may affect" conclusion? I would recommend the second sentence of this paragraph include some language concerning the fact that if a grizzly bear sighting occurs, the Corps will immediately notify the Service and through consultation take steps necessary to minimize or avoid any potential conflicts. The final sentences of the paragraph should include your "no effect/may affect" determination and the rational used to arrive at your stated conclusion. 9-12

GENERAL COMMENTS

The Water Resources Development Act of 1986 (PL 99-662) authorized the Corps to provide emergency repairs and periodic maintenance of several Federal, State, and private levees within the Snake and Gros Ventre River channels to protect the surrounding area from periodic flood stages. Under this authority, the Corps is required to comply with all Federal laws and regulations.

The ESA grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife or plants and associated critical habitat. Section 7(a)(1) of the Act directs Federal agencies, in consultation with the Service, to utilize their authorities to further the purposes of the Act by carrying out conservation programs for listed species. Section 7(a)(2) of the Act requires every Federal agency, in consultation with the Service, to insure that any action authorized, funded or carried out is not likely to jeopardize the continued existence of any listed species or destroy or adversely modify any critical habitat. Section 9 of the Act prohibits any taking of listed species without special exemption. As defined by the Act, the term "take" means to "harass, harm, pursue, hunt,

shoot, wound, kill, ..., or attempt to engage in any such conduct" 10 U.S.C. 1532(19). Furthermore, "harm" is defined to include "an act .... [that] may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns including breeding, feeding, or sheltering " (50 CFR 17.3).

To be procedurally correct with respect to the Federal regulations governing Section 7 (Interagency Cooperation) of the ESA, we recommend that you do the following:

1) Submit a written request to this office for a list of any listed or proposed species or critical habitat that may be present in the action area or a written notification of the species and critical habitat that are being included in the assessment for our written concurrence;

2) Evaluate the "effects of the action" and "cumulative effects" and incorporate into the assessment (see below);

3) Complete the final assessment within 180 days upon receipt of or concurrence with the submitted species list or request an extension;

4) Continue informal consultation discussions with the Service during preparation of your final assessment;

5) Develop, through informal discussions with the Service, alternative procedures for Section 7 consultations involving emergency flood fighting that are consistent with the requirements of Sections 7(a)-(d) of the Act;

6) Do not proceed with your proposed action until consultation on listed species is complete.

Your assessment discussed potential impacts of continued development on lands adjacent to the levee system for the bald eagle and whooping crane. We believe your discussion on this matter to be inadequate and therefore have provided the following definitions to clarify this aspect of your evaluation.

The "effects of the action", as defined by the 50 CFR, Part 402, include the direct and indirect effects of the action that is subject to consultation. The "indirect effects" are those that are caused by the action and are manifested later in time but are still reasonably certain to occur. They include the effects on listed species or critical habitat of future activities that are induced by the action subject to consultation and that occur after the action is completed. In National Wildlife Federation v. Coleman, 529 F.2d 359 (5th Cir. 1976), the Court of Appeals for the Fifth Circuit found that "indirect effects" which can be expected to result must be considered under Section 7 of the Act. In that case, the court enjoined completion of a highway project because the Department of Transportation failed to consider

the effects to the endangered sandhill crane from future private development that would result from construction of the highway.

Effects of the action also include direct and indirect effects that are interrelated or interdependent with the proposal under consideration. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification; interdependent actions are those that have no significant independent utility apart from the action that is under consideration. 9-14

The term "cumulative effects", as defined by the 50 CFR, Part 402, are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.

The term "action area", as defined by the 50 CFR, Part 402, means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

Your responsibility for Section 7 consultation compliance under emergency circumstances (Federal Register/Vol.51, No. 106/June 3, 1986, page 19958, Section 402.05) should also be clarified. Where emergency circumstances mandate the need to consult in an expedited manner, consultation may be conducted informally through alternative procedures that the Service determines to be consistent with the requirements of Sections 7(a)-(d) of the ESA. Formal consultation shall be initiated as soon as practicable after the emergency is under control. The Federal agency shall submit information on the nature of the emergency action(s), the justification for the expedited consultation, and the impacts to listed species and their habitats. The Service will evaluate such information and issue a biological opinion including the information and recommendations given during the emergency consultation. 9-15

I would remind you that Section 7(d) of the ESA requires that Federal agencies shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives until consultation on listed species is completed. We request that this office be notified and kept informed on a routine basis as you implement your preferred alternative so that my appropriate staff may be kept abreast of developments and/or problems as they occur. 9-16

In addition to procedural inconsistencies with the ESA, the assessment did not contain sufficient biological information on which to base our concurrence. One purpose of an assessment is to document how you arrived at a "no effect/may affect" determination. We recommend you give careful consideration to the comments we provided under the specific comment section. Furthermore, to meet your Section 7(a)(1) responsibilities under the ESA, the Corps should give consideration to developing and adopting a long-range environmental planning effort for the maintenance of the ecological values within this project area. The flood fighting and levee maintenance efforts along the Snake river will continue to have significant long term adverse impacts to fish and wildlife resources. 9-17 9-18

However, our immediate threatened and endangered species concern is the potential adverse impacts to bald eagles, specifically nesting birds. During your assessment discussion on the effects on nesting bald eagles, you stated there would be little difference among alternatives, therefore little difference in effect among alternatives. The existing situation is poor to begin with. As a Federal agency you have a mandated responsibility to assist in the recovery of listed species. The environmental baseline for bald eagles may already be at its saturation point in this area. An environmental impact statement has been prepared on this project rather than an environmental assessment. Therefore, the Corps must have determined the action alternative was considered a major Federal action significantly effecting the quality of the human environment as referred to in the National Environmental Policy Act of 1969, as amended (P.L. 91-190, 42 U.S.C. 4321 et seq.) Therefore, in light of your proposed major Federal action and responsibilities to listed species under the ESA, we recommend you adopt the mitigation measures identified in the Service's Coordination Act Report, develop nest site management plans in all bald eagle nesting territories located within the action area, and until your site specific nest site management plans are completed, utilize the interim guidelines for bald eagle nest site management (GYE bald Eagle Working Team 1983) to avoid potential adverse impacts to nesting bald eagles. 9-19

Enclosed you will find the Federal Regulations governing the Section 7 consultation process, a procedural flow chart for completing assessments, draft outline on what the Service would encourage Federal agencies to include in their assessments, interim guidelines for bald eagle nest site management, and guidelines for developing a nest site management plan. We would encourage the Corps to informally consult with the Service when conducting activities near eagle nests or in other environmentally sensitive areas.

Our review and comments were only for the proposed action and associated activities discussed in the assessment. If there are activities that may occur related to your proposed action that were not addressed in the assessment, these proposed actions should be evaluated to meet their Section 7(a)(2) requirements. If you have additional questions, please contact myself or David Horning of my staff at (307) 772-2374 or (FTS 328-2374). Your cooperation and assistance in meeting our joint responsibilities under the Endangered Species Act are appreciated.

Sincerely,

Ronald G. Starkey
State Supervisor
Wyoming State Office

Enclosures (5)

cc: ARD, FWE, Denver, CO (FWE-60120)
Field Supervisor, MT/WY, FWE, Helena, MT (FWE-61125)

Director, WGFD, Cheyenne,WY
Nongame Coordinator, WGFD, Lander, WY

"Take Pride In America"

Literature Cited

GYE Bald Eagle Working Team 1983. A Bald Eagle Management Plan for the Greater Yellowstone Ecosystem. Wyoming Game and Fish Dept. 84pp.

9

IN REPLY REFER TO

United States Department of the Interior
NATIONAL PARK SERVICE
GRAND TETON NATIONAL PARK
P.O DRAWER 170
MOOSE, WYOMING 83012

10

January 30, 1990

POSITION STATEMENT ON COE LEVEE MAINTENANCE EIS

We have reviewed the Jackson Hole, Wyoming Flood Protection Draft O&M Decision Document and EIS and have a concern that impacts to Grand Teton National Park are not specifically addressed. This is particularly true of the issue of access to the Right Bank Federal Levee situated within the Park on the Snake River and impacts to Park resources due to O&M and emergency activities. 10-1

The EIS indicates that access to the Right Bank Levee is not by the most direct and expeditious route and that in the event of a flood fight access is not available from the upstream side. We believe that this lack of adequate access is a problem that should be dealt within the EIS at this time. In the event of a flood fight on this levee an "emergency situation" could be declared and access created across Park lands without adequate consideration for Park resources. By addressing the problem in the current EIS, due consideration can be given to these resources through timely coordination and NEPA compliance.

We believe that the EIS should specifically state the impacts to the Park caused by O&M and emergency activities and that a commitment be made that the COE will closely coordinate these activities with the Park where Park lands are involved. 10-2

Prepared by Dick Bauman, Grand Teton National Park

Approved: Jack F Stark
Jack E. Stark
Superintendent
Grand Teton National Park

1/30/90
Date

11

United States Department of the Interior

OFFICE OF THE SECRETARY
OFFICE OF ENVIRONMENTAL AFFAIRS
DENVER FEDERAL CENTER, BUILDING 56, ROOM 1018
P.O. BOX 25007 (D-108)
DENVER, COLORADO 80225-0007

February 16, 1990

ER 89/1059

Lieutenant Colonel James A. Walter
District Engineer
U.S. Army Corps of Engineers
Walla, Washington 99362-9265

Dear Colonel Walter:

The Department of the Interior has reviewed the draft environmental impact statement (DEIS) for the Jackson Hole Flood Protection Project, Teton County, Wyoming, and has the following comments.

General Comments

The description of impacts covered by the DEIS is so general and unquantified that it is not possible to judge their magnitude. Moreover, the DEIS covers only one of three parts of the overall flood control project. Cumulative impacts of the overall project are not addressed. Such "segmentation" could result in failure to adequately evaluate cumulative impacts. We recommend that the final EIS (FEIS) fully analyze the cumulative impacts from all potential future projects plus the proposed action. This analysis should specifically address past, present and future residential, recreational and commercial development within the floodplain (i.e., 500-year) of the project area. 11-1 11-2

These comments are restricted to the levee maintenance action. Further comments will be provided when planning and National Environmental Policy Act (NEPA) documentation are completed for the remainder of the flood control project, road construction, and quarry development.

Threatened and Endangered Species

The DEIS indicates that bald eagle nest sites are now and would continue to be subject to disturbance from maintenance activities. These impacts should be coordinated closely with the Service in order to minimize maintenance-related effects on nesting eagles and to prevent nest "takes." 11-3

The DEIS further states that "consultation with the Service regarding emergency repairs of levees within bald eagle buffer zones has been identified as a continuing concern --and response timing requirements for emergency repairs does not offer a ready solution to this problem." We are encouraged that the Corps is willing to explore options for improving coordination with the Service and recommend that this be done as part of the Endangered Species Act consultation. 11-4

11

Furthermore, the Service strongly encourages the Corps to develop site-specific bald eagle nest management plans. Habitat alterations have increased over historic levels and this trend will undoubtedly continue, reducing the availability of suitable habitat for eagles in the Jackson Hole area and in Wyoming. Even though the bald eagle population appears to be increasing in Wyoming, the long-term carrying capacity for the species may actually be decreasing. In order to achieve recovery of the species in Wyoming, positive steps will have to be taken to secure bald eagle habitat. Federal and State resource agencies have developed bald eagle management objectives and guidelines for both occupied and potential nesting, wintering, and migration habitat to facilitate management and protection of bald eagles. We recommend that your agency incorporate, where applicable, these guidelines into the levee maintenance program in order to protect and preserve this important wildlife resource of National significance and document this action in the FEIS. 11-5

The draft biological assessment (assessment), completed by the Corps to fulfill their Section 7(c) obligations under the Endangered Species Act of 1973 (Act), is currently under review. A preliminary review revealed some procedural inconsistencies pertaining to legal requirements under the Act. In addition, the assessment lacks biological data to support certain stated conclusions. We will be requesting that the Corps continue to work closely with the Service through informal consultation in the preparation of subsequent draft/final assessments. 11-6

Fish and Wildlife Resources

The DEIS premise (page iv, Summary) that the maintenance of the levee system will "have only minor physical influence on channel morphology and water quality and disturbance or nuisance effects related to wildlife, recreation, and aesthetics" is inaccurate and misleading. The continued maintenance of the levee system either by the local sponsor or the Corps of Engineers (Corps) will continue to have significant effects on these resources, especially fish and wildlife.

As indicated in the Draft Fish and Wildlife Coordination Act Report (CAR), dated May 26, 1989, for the project, the long-term maintenance of the levee system would accelerate the ongoing deterioration of riparian, wetland, spring creek, and main channel habitat. The riparian zone behind the levees would become more xeric; and as cottonwood stands mature, they will be replaced by spruce or, in drier areas, by sage/grass. The ecological effects nearer to the levee will be more subtle, but the progression toward a less diverse and productive riparian ecosystem appears inevitable. The cumulative effect of this progression to a xeric vegetative community will have significant effects on area wildlife, especially those dependent on riparian zones like moose, passerine birds, great blue herons, bald eagles, and other raptors. 11-7

The erosion of forested islands and cottonwood stands within the levees will continue, possibly at a more accelerated rate. Because these vegetative types are not being replaced due to erosion from constant channel changes, the result of this habitat loss will be a major reduction in the diversity of

the Snake River floodplain ecosystem. This loss would be very significant to in-channel habitat for cutthroat trout, riverine habitat diversity for bald eagles, and essential habitat for furbearers like otter, mink, and beaver. Additional impacts would occur to cutthroat trout populations if abundance of woody debris in the main channel showed a new decrease from present conditions. With the elimination of major channel movement outside of the levee system, wetlands will not be replenished and many of the oxbow and side channel wetlands will eventually be lost due to siltation and eutrophication. This will have an overall negative effect on area waterfowl and furbearers.

Areas below the levee sections and stretches of the river within the project area that are not significantly controlled by levees; e.g., the South Park area and in the vicinity of the Gros Ventre River, will continue to be impacted as the river dissipates its energy and drops its bed load within these reaches. The perpetuation of unstable conditions that exist in these less restrictive levee reaches will significantly affect some of the most important fish and wildlife habitat within the Jackson Hole Valley, especially habitat for nesting bald eagles and geese, spawning cutthroat trout, and wintering big game. The lost capacity for flood flows to flush sediments from spawning grounds in spring creeks will continue to cause a steady decline in the suitability of spawning areas for cutthroat trout as well as the reduced capability of fish to reach these areas. Critical spawning habitat for these fishes would eventually be lost or have to be artificially maintained in order to sustain a natural spawning population of Snake River cutthroat trout. With the continuation of flood control, there is likely to be a corresponding increase in residential, commercial, and recreational development of the floodplain behind the levees. This has, and will continue to have, a significant cumulative impact to fish and wildlife, especially in the areas near spring creek tributaries. 11-7

Under both of the alternatives proposed, there would be substantial Federal funds expended (emergency or operational) to maintain these levee systems. If these Federal funds were not available, maintenance of many of the levees would be cost prohibitive and have to be abandoned by the local sponsor. Therefore, we believe that there is a strong obligation by the Federal Government to mitigate at least ongoing and future long-term impacts of the levee system on fish and wildlife resources. The Corps proposal to forego mitigation of these impacts as part of this action and to defer the question to the general investigation study (page v, Summary) is inappropriate. Although we are encouraged that the Corps is continuing to work to resolve these concerns, adequate mitigation will require a strong commitment by all parties involved. We recommend instead that the Corps commit, as part of their action assuming operation and maintenance of the levee system, to mitigate at least ongoing and future impacts (refer to draft CAR), and that past impacts be pursued through the environmental provisions of the 1986 Water Resource Bill. We would not object, however, to the funding of the entire mitigation package through these provisions if there is assurance that project's overall impacts will be mitigated. 11-8

National Park Resources

Potential impacts to Grand Teton National Park (Park) should be specifically described in the FEIS. This applies particularly to access to the Right Bank Federal Levee on the Snake River within the Park and to impacts on Park resources due to operation, maintenance, and emergency activities. 11-9

Approximately 11,600 feet of levee are within the Park boundary along the Snake River. Alternatives involving partial levee removal and reestablishment or natural functioning floodplains should be developed and evaluated in the FEIS. 11-10

The DEIS indicates that access to the Right Bank Levee is not by the most direct and expeditious route and that, in the event of a flood, flood control access is not available from the upstream side. We believe that this lack of adequate access is an issue that needs to be evaluated in the FEIS. In the event of direct flood control on this levee, an "emergency situation" could be declared and access created across Park lands without adequate consideration of Park resources. By addressing the problem in the FEIS, due consideration can be given to Park resources through timely coordination and NEPA compliance. 11-11

Fulfilling the Corps' request to construct a new road to access upstream points of the Right Bank Levee may not be consistent with NPS Floodplain Guidelines in that feasible alternatives, including the no action alternative, exist. The likelihood that the proposed road would be used is very low, given the rare occurrences of potential levee-damaging floods, and the fact that the levees are designed to withstand most floods. The proposed road would degrade the biological and beneficial values of the Snake River floodplain. Furthermore, it is our understanding that there are few, if any, developments in need of flood protection in that portion of the Park.

The FEIS should specifically state the impacts to the Park caused by operation, maintenance, and emergency activities and should reveal a commitment by the Corps to closely coordinate these activities with Park officials when Park lands are involved. 11-12

Specific Comments

Page specific comments are enclosed.

Sincerely,

Robert F. Stewart

Robert F. Stewart
Regional Environmental Officer

Enclosure

Specific Comments

2.2.2.2. Maintenance Activities. The timing of the maintenance activities should also consider wildlife protection needs; i.e., nesting bald eagles and wintering big game. This should be indicated in the FEIS. 11-13

2.2.2.2. Maintenance Activities, Item #5. The DEIS indicates that there is a possibility under Alternative B of a proactive program to reconstruct levee segments to standard specifications. It is our understanding, from past correspondence and public meetings, that under the Federal Maintenance Alternative, the levee system would be maintained only to the level of protection presently afforded. If this is not the case and upgrading of the levee system is proposed, an indepth analysis of this action should be conducted in accordance with NEPA, Fish and Wildlife Coordination Act, and Endangered Species Act requirements. 11-14

2.4. POSSIBLE FUTURE ACTIONS. Two of the four potential quarry sites under consideration for development as a source of riprap are located adjacent to the National Elk Refuge, administered by the U.S. Fish and Wildlife Service (Service). As indicated in Refuge Manager John Wilbrecht's letter, dated June 12, 1989, to your agency, there are major wildlife and human safety concerns involving the development of these quarry sites. Since access to these sites would be across the National Elk Refuge and could affect wintering wildlife, we highly recommend that other sites be considered instead. 11-15

2.5. COMPARISON OF ALTERNATIVES, page 2-17, paragraph 1. As indicated in the DEIS, the existing levee system has had significant effects on channel morphology and fish and wildlife resources. These impacts are ongoing and will continue to be perpetuated by levee maintenance, possible upgrading of the levee system, and construction of blocks to stop channel avulsions (sudden channel shifts). The continuing impacts from these actions are the fundamental rationale for the need of fish and wildlife mitigation. Therefore, we maintain that ongoing and future impacts resulting from the maintenance of this levee system should be analyzed and mitigated as part of the proposed Federal action. 11-16

2.5. COMPARISON OF ALTERNATIVES, page 2-17, last paragraph. The DEIS indicates that the magnitude and extent of these long-term effects "have not been heavily studied and are not known", and "will be addressed in the Upper Snake River in Wyoming General Investigation study." We are in agreement that further studies are needed to fully define the magnitude and extent of the long-term levee effects on fish and wildlife resources; however, with the study commitment, there should also be a strong commitment by the Corps in the FEIS to mitigate at least ongoing and future impacts of levee maintenance. 11-17

TABLE 2-2, Channel Morphology. We disagree that there will be no change from present channel morphology evolution. The FEIS should recognize that past and proposed levee maintenance activities have and will continue to have significant effects on channel morphology. This will be especially true if the existing maintenance practice to preventing channel avulsions by constructing channel blocks is continued as proposed. 11-18

TABLE 2-2, Wildlife. The FEIS should discuss and analyze the point that the long-term protection of the cottonwood/willow riparian community from flooding by levees will eventually cause the demise of this important wildlife habitat type. It should also reveal that secondary residential and recreational growth encouraged by the protection of the levee system will continue to impose significant impacts on fish and wildlife resources and result in losses to important riparian and wetland habitats. 11-19

TABLE 2-2, Threatened and Endangered Species. The potential disturbance of nesting bald eagles due to spring levee maintenance activities is of great concern. Every measure possible should be taken to eliminate maintenance related disturbance and a possible nest "take." Conservation measures can be developed, as part of the Section 7 consultation process, to protect nesting eagles and their habitat. 11-20

TABLE 2-2, Land Use. It should be noted and analyzed in the FEIS that secondary residential and recreational growth within the floodplain protected by levees is likely to continue, and possibly increase in the future. 11-21

3.2.3.1. Mammals-Elk, Mule Deer, and Moose. These sections should note that the Flat Creek and Curtis Canyon Quarry sites are located within crucial winter ranges for these species. The implications of this should be analyzed in the FEIS. 11-22

3.2.3.2. Trumpeter Swans. The DEIS indicates that the tri-state trumpeter swan population is increasing. This population had a significant reduction in numbers on the Henrys Fork of the Snake River last winter. The population decline was primarily due to reduction of foraging habitat from ice cover that formed during extremely low river flows. This decline prompted the Idaho Wildlife Society to petition the Service to list the species under the Endangered Species Act. The Service is presently evaluating the need for such action. This information should be included in the FEIS. 11-23

The section should also be revised to reflect the importance of the project area for trumpeters. The project area contains crucial wintering habitat for swans. The Wyoming Game and Fish Department estimates that the project area provides approximately 35 percent of the swan winter use within the Jackson Hole area. For more details, please reference the 1989 Coordination Act Report prepared for the project.

3.2.4.2. Peregrine Falcon. The FEIS should acknowledge that the entire project area provides foraging habitat for peregrine falcons, not just the area south of the Wilson Bridge. 11-24

3.2.4.3. Whooping Crane. Whooping cranes have also been sighted along the Snake River and adjacent spring creeks. In 1987, a yearling whooping crane summered in the project area near the headwaters of Spring Creek south of the Wilson Bridge. The following year, a whooper summered along the Snake River, north of Moose. This information should be presented in the FEIS. 11-25

4.1.2. Channel Morphology. Jackson and Van Haverson's (1984) definition of what a properly designed floodplain should consist of may meet the requirements for flood control, but it does not necessarily hold true for fish and wildlife habitat. For the latter, the dissipation of flood flow energy through a series of secondary and multiple channels can be desirable and could greatly increase the diversity of habitat for fish and wildlife. This would also encourage the development of riparian vegetation and expand its real extent within the floodplain. The FEIS should include a discussion of these positive factors. 11-26

4.1.2.2. Effects of Maintenance Activities. As noted in the introduction and in our comments pertaining to Section 2.5 and Table 2-2, we believe the effects on channel morphology due to maintenance activities will be more significant than what is presented in the DEIS. The FEIS should address these possible impacts. 11-27

4.2.1.1. Fine Spotted Cutthroat Trout. The statement that the levees have not been a major cause of spawning habitat loss is inaccurate and should be eliminated from the FEIS. Prior to the construction of the levees, area spring creeks and side channels provided cutthroat trout with an abundance of spawning habitat. High flows from the Snake River, through high flow channels, maintained the integrity of these spawning areas by flushing and recharging these areas with new gravel. After construction of the levee system, most side channel spawning areas were blocked and spawning habitats of spring creeks began to gradually deteriorate. This deterioration was primarily due to the lack of high flows necessary to flush agriculture and residential sediments from these creeks. This prompted Wyoming Game and Fish Department to enter into a spawning habitat improvement program to maintain these important trout fisheries. The FEIS should analyze the impact of spawning habitat loss. 11-28

4.2.2. Vegetation. The tree species list should include Engelmann Spruce, which is the principal spruce tree of the area. The FEIS should also note that many of the mature cottonwood communities, especially in the South Park area, are being replaced by open park communities of sage/grass. In addition, the results of the ongoing floodplain mapping and analysis should be summerized in the Final EIS. 11-29

The statement that levee maintenance activities would have minimal effects on existing vegetation is not accurate. The existing levee has and will continue to have significant effects on riparian regeneration and maintenance. The erosion of forested islands within the more restrictive levee reaches will continue and the majority of this habitat will not be replaced due to the constant channel changes characteristic of these reaches. Riparian vegetation below the Federal levee will continue to be impacted as the river dissipates with energy and drops its bed load within these less restrictive levee reaches. With efforts proposed to prevent channel 11-30

avulsions, channel movement outside of the narrow levee corridor will be inhibited. Consequently, the conditions essential for cottonwood/willow regeneration is eliminated (exposed alluvial sediments with high water table) and this important wildlife habitat will be eventually lost or significantly reduced/degraded. The FEIS should fully describe and analyze these impacts. 11-30

4.2.3.1. Mammals. Winter forage for large mammals is a major limiting factor for big game in the Jackson Hole area, and any loss of it would have a significant effect on big game that are not artificially fed, especially mule deer and moose. It should be noted in the FEIS that the riparian habitat within the project area contains crucial wintering habitat for these species as well as elk. 11-31

4.2.3.1. Birds. The continued maintenance of the levee and the prevention of major channel movement will prevent the formation of oxbows and side channel wetlands. The majority of the existing wetlands of this type will eventually be lost due to siltation, eutrophication, and development. Since these wetlands are not being replaced, their loss will have significant effects on waterfowl and other wetland dependent wildlife; the resulting impacts should be addressed in the FEIS. 11-32

4.2.3.2. Mammals. The winter area mentioned extends downstream to Flat Creek, not Fish Creek. 11-33

4.3.4.1. Disturbance - Bald Eagles. We are not as optimistic as the Corps that the continued maintenance of the levee systems would have little incremental effect on the rate of residential and recreational development near eagle nests. The mere presence of levees and the maintenance thereof could give many people "false" security that they will be protected from flooding and encourage them to proceed with unwise development. Since 1987, at least three instances have been documented where bald eagles have relocated their nests in an apparent response to the construction of houses within the project area. In addition, one nest location was permanently abandoned due to the development of the Solitude Subdivision in 1981. This information should be added to the FEIS. 11-34

4.2.4.2. Habitat Alteration - Bald Eagles. Nest structure availability is not the only factor governing the number of eagle pairs within the project area. According to recent bald eagle studies in the Greater Yellowstone ecosystem by Al Harmata (1989), river, or habitat, diversity was an important factor in the selection of nest sites, as was low human disturbance. With the continued degradation of riverine and riparian habitat and expanded development within the project area, it is probable, unless adequate conservation measures are implemented, that bald eagle territories will be abandoned. Appropriate discussions and analysis should be included in the FEIS. 11-35

4.4. Mitigation. Please refer to our previous comments regarding mitigation of project effects. 11-36

12

US Department of Transportation
Federal Highway Administration
Region Eight

Wyoming Division Office
P.O. Box 1127
Cheyenne, Wyoming 82003

February 2, 1990

U.S. Corps of Engineers Flood Protection Project Draft O&M Decision Document & EIS
Jackson Hole, Wyoming
Snake-Gros Ventre Rivers Levee Maintenance Project

File: 410.1

Mr. James A. Walter
Lt. Colonel, Corps of Engineers
District Engineer
Department of the Army
Walla District
Corps of Engineers
Walla Walla, Washington

Dear Sir:

12-1 We have reviewed the Environmental Impact Statement for the captioned project and find that there are no significant adverse impacts on any Federal-Aid highways beyond the "wear and tear" associated with materials hauling on the highways. The costs have been delineated in the document.

12-2 Our comments are being provided in accordance with Section 1503.02 of the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. The documents are considered satisfactory and we offer no objections to the proposed improvements.

Sincerely yours,

Frederick A. Behrens

FREDERICK A. BEHRENS, P.E.
Division Administrator

cc:
HPP-08, Region

13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

Ref: 8WM-EA

Lt. Col. James A. Walter, District Engineer
Corps of Engineers
Walla Walla District
Walla Walla, Washington
99362-9265

FEB 6 5 1990

Re: EPA review of the Jackson Hole, Wyoming Flood Protection Project. A rating of LO has been assigned.

Dear Col. Walter:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Region VIII office of the Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (DEIS) on the Jackson Hole, Wyoming Flood Protection Project.

Based on the procedures EPA uses to evaluate the adequacy of the information in the DEIS the DEIS will be listed in the Federal Register in category LO. This means that the EPA has a lack of objections and has not identified any potential environmental impacts requiring changes to the proposal. A description of the EPA rating criteria is attached. 13-1

The EPA appreciates the opportunity to review this DEIS, and all the effort which went into its preparation. If you have any questions concerning our comments, please contact either me, or Sandra Silva of my staff, at FTS 330-1693, or commercial (303) 293-1693.

Sincerely,

Robert R. DeSpain

Robert R. DeSpain, Chief
Environmental Assessment Branch
Water Management Division

13

SUMMARY OF RATING DEFINITIONS

Environmental Impact of the Action

LO--Lack of Objections
The 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
The 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 the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must 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.

EC--Environmentally Unsatisfactory
The 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 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 or 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 NEPA 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.

14

THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

WYOMING CENTENNIAL 1890-1990 A LASTING LEGACY

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration	Air Quality Division	Land Quality Division	Solid Waste Management Program	Water Quality Division
(307) 777-7937	(307) 777-7391	(307) 777-7756 FAX (307) 634-0799	(307) 777-7752	(307) 777-7781

January 10, 1990

Mr. James A. Walter
Lt. Col., Corps of Engineers, Planning Division
District Engineer
Department of the Army
Walla Walla District, Corps of Engineers
Walla Walla, WA 99362-9265

JAN 16 1990

RE: DEIS - Snake - Gros Ventre Levees

Dear Lieutenant Colonel Walter,

In response to your "Interested Party" letter of December 8, 1989, I want to inform you of the following items:

1. If you acknowledge, in the Decision Document and EIS, the fact that the State of Wyoming regulates mining and reclamation of any of the material sites pertinent to this project, future review and correspondence will be minimized when the supplemental EIS mentioned on page 18 is brought out. 14-1

2. It would seem that potential objections would be minimized with the assurance of the EIS that mining and reclamation are subject to the State's Environmental Quality Act. 14-2

3. Please keep us informed on this project, particularly regarding mining permitting and wetlands developments.

Sincerely,

Dennis Hemmer
Director
Department of Environmental Quality

DH:FF:jh
cc: Daniel Perdue, State Planning Coordinator's Office
John Erickson, Lander - LQD
Tom Collins, LQD
Rick Engelmann, LQD

TO: Planning

15

THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

1890-1990 WYOMING CENTENNIAL

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration	Air Quality Division	Land Quality Division	Solid Waste Management Program	Water Quality Division
(307) 777-7937	(307) 777-7391	(307) 777-7756	(307) 777-7752	(307) 777-7781

JAN 29 1990

January 19, 1990

William F. MacDonald
U.S. Army Corps of Engineers
Walla Walla District
Walla Walla, Washington 99362-9265

RE: Jackson Hole Flood Protection Project, Draft EIS

Dear Mr. MacDonald:

Bill DiBlenzo of the Water Quality Division reviewed the above referenced document and provided the following comments.

The river within the project area has been described in the document as a trout fishery of national importance. It has also been classified by the Department of Environmental Quality as a Class I surface water for that portion upstream of the U.S. Highway 22 bridge (Wilson Bridge). This classification offers the state's highest level of protection and special consideration should be given to water quality protection during the implementation of the various flood control projects. 15-1

We would like to review the supplemental EIS documents which are to be prepared for selection of the borrow sites and the proposed access road on the right bank. Gravel mining and washing activities frequently require NPDES permits for the discharge of the process water. Our regulations do not allow permits to be issued for new discharges into Class I waters. Therefore, any borrow site alternative which would result in a point source discharge into the Snake River above the Wilson bridge should not be considered. 15-2

All detention/sedimentation ponds used to control sediment during any phase of construction must also be permitted by the Water Quality Division. Information on those permits can be obtained from Steve Gerber in our Lander field office. Steve can be contacted by writing to Water Quality Division, Dept. of Environmental Quality, 210 Lincoln St., Lander, WY 82520 or by calling (307) 332-3144. 15-3

15

Thank you for the opportunity to comment.

Sincerely,

Dennis Hemmer
Director
Department of Environmental Quality

DH/jt

16

THE STATE OF WYOMING

Wyoming Emergency Management Agency

307-777-7566

P.O. BOX 1709
5400 BISHOP BLVD

CHEYENNE WYOMING
82003

December 29, 1989

William Smith
EIS Environmental Coordinator
U.S. Army Corps of Engineer's
Walla Walla District
City-County Airport
Walla Walla, Washington 99362

Dear Mr. Smith,

Thank you for sending us a copy of the Draft Environmental Impact Statement (DEIS) for the Jackson Hole, Wyoming, Snake-Gros Ventre Rivers Levee Maintenance Project. After a cursory review, our agency does not have any comments to make regarding the proposed actions. Our agency does not have the expertise to make an in-depth review into the DEIS. 16-1

Thank you again for allowing us to review your information.

Sincerely,

Grant

Grant R. Sorensen
Hazard Mitigation Officer

17

WYOMING
GAME AND FISH DEPARTMENT

Mike Sullivan, Governor — Francis Petery, Director

January 3, 1990

Department Of The Army
Walla Walla District
Corps of Engineers
Walla Walla, Washington 99362-9265

Dear Sirs

I have received the latest Snag and Drag ...Snake River Levee EIS and would like to request a change of address for future correspondence.

John Kiefling, Fisheries Biologist
Wyoming Game and Fish Department
P. O. Box 67
Jackson, Wyoming 83001

Thank you for your kind attention.

Sincerely

John Kiefling

John Kiefling
Fisheries Biologist

Headquarters: 5400 Bishop Boulevard, Cheyenne, Wyoming 82006

THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

Game and Fish Department

BILL MORRIS
DIRECTOR

JANUARY 30, 1990

Mr. Dale R. Smelcer
US Army Corps of Engineers
Bldg. 603
Walla Walla, WA 99362-9265

Mr. Smelcer

Enclosed is a copy of the projected values of the lower Blue Crane-Spring Creek Complex as requested and in reference to your conversation with Robert Gill (Porter Estate) at the levee EIS workshop on 1/30/90. 18-1

I believe the methodology and calculations are pretty straight forward with the exception of the Willing-To-Pay value derivation. This reference is contained in the following material which you will have to request from our Cheyenne office:

Binns, N. Allen 1972. An Inventory And Evaluation Of The Game And Fish Resources Of The Upper Green River In Relation To Current And Proposed Water Development Programs. Completion report presented to Office of Water Resources Research and Wyoming Game and Fish Commission. Contract #14-01-001-1568, Project #B-002-Wyo., 196 pp.

The Willing-To-Pay value is the amount fishermen would be willing to pay if an entrance fee were charged to fish the Green River in 1970-72. In this case we must assume the Snake River is at least comparable to the Green River fishery...and realistically, it is probably a lot more (Willing-To-Pay value). In addition, the average Wyoming fisherman expenditure per day can be updated from the 1988 Wyoming Game and Fish Department Annual Report to $39.16 per day. If anything the calculated valuation of the fishery is conservative.

I hope the enclosure answers your questions pertaining to the determination of these figures.

Sincerely

John Fielding

John Fielding, Fisheries Biologist
Wyoming Game and Fish Department
P. O. Box 67
Jackson, Wyoming 83001

/Robert Gill, file

PROJECTED VALUES OF THE LOWER

BLUE CRANE - SPRING CREEK COMPLEX

Average Wyoming fisherman expenditure per day for 1987 (1988 Annual Report - Wyoming Game and Fish Department) is $37.73.
* $39.16

Estimated number of fishermen days on the Snake River, 1985 was placed at 29,295.

Estimated harvest of cutthroat trout from the Snake River, in 1985 was 15,000.

To get the total 1985 expenditure for the Snake River the estimated number of fishermen days (29,295) was multiplied by the 1985 fishermen expenditure per day ($37.73) and equaled $1,105,300.35 or $13,816.25 per mile (80 miles).
* $1,147,192.20 $14,339.90

To get a willing to pay value, the 80 mile section of the Snake River was multiplied by a 1972 willing to pay value of $6,080 for a mile of the Green River and equaled $486,400.

The majority of the cutthroat trout harvested from the Snake River are 8+ inches. To get the value of an 8+ inch cutthroat the total 1985 expenditure ($1,105,300.35) was divided by the 1985 cutthroat harvest (15,000) and equaled $73.69. If the willing to pay value ($486,400) is considered as an additional value, then the expenditure total could be increased and would equal $106.11 per fish.
* $108.91

BLUE CRANE - SPRING CREEK VALUES

Blue Crane Creek (lower 2.0 miles)

Present values are based upon an average number of spawning cutthroat trout between 1975 and 1988 being 23 pairs. One female produces 25, 8+ inch trout for the Snake River....

25 x 12 = 300 8+inch trout
300 x $73.64 = $22,107.00 per year
+ x $76.48 = $22,944.00

Potential values represent the scope of present management efforts to duplicate known historical spawning runs which were present in 1945 at which time there were 426 females trapped for egg taking purposes....

25 x 426 = 10,650 8+ inch trout

10,650 x $73.64 = $784,798.50 per year
* $76.48 = $814,512.00

Spring Creek (lower 2.0 miles)

Present values are based upon an average number of spawning cutthroat trout between 1975 and 1988 being 100 pairs. One female produces 25, 8+ inch trout for the Snake River....

25 x 50 = 1,250 8+ inch trout
1,250 x $73.64 = $92,112.50 per year
* $76.48 = $95,600.00

Game and Fish Department Expenditures

Blue Crane - Spring Creek Complex habitat rehabilitation conducted in 1985 and 1986 was approximately $34,000 (heavy equipment rental, man days, etc.). This does not include the cost of building the Blue Crane fish ladder nor maintenance of same.

SUMMARY OF VALUES

PRESENT VALUE OF BOTH FISHERIES = $184,219.50 *$118,544.00
or: $28,544.88/mile $ 29,636.00
$5.41/linear foot $5.61

PAST REHABILITATION EXPENDITURES FOR THE COMPLEX = $38,000

POTENTIAL VALUE OF BLUE CRANE CREEK = $784,798.50 * $814,512.00
OR: $392,399.25/mile $ 407,256.00
$74.32/linear foot $ 77.15

POTENTIAL GAME AND FISH DEPARTMENT EXPENDITURES IN THE NEXT 10 YEARS
$40,000

STATE OF WYOMING
OFFICE OF THE GOVERNOR
CHEYENNE 82002

MIKE SULLIVAN
GOVERNOR

February 5, 1990

Mr. James A. Walter
District Engineer
Walla Walla District
U.S. Army Corps of Engineers
Walla Walla, WA 99362-9265

Dear Mr. Walter:

The Draft Environmental Impact Statement for the Snake-Gros Ventre Rivers Levee Maintenance Project has been circulated for review by agencies of the State of Wyoming. Enclosed for your consideration and use are comments resulting from that review. The State of Wyoming appreciates this opportunity to provide input. Please route supplementary documentation through this office for similar review.

Sincerely,

Rod S. Miller
Federal Lands Planning Coordinator

RSM:sj

Enclosures

Letters 20-23 accompanied Letter 19

WYOMING CENTENNIAL

GAME AND FISH DEPARTMENT

FEB 5 1990

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February 5, 1990

EIS 5225
U.S. Army Corps of Engineers
Draft Environmental Impact Statement (DEIS)
Jackson Hole Flood Protection Project
SIN: 89-098
Teton County

Rod Miller
State Planning Coordinator's Office
Herschler Building, 4th Flood East
Cheyenne, WY 82002

Dear Mr. Miller

The staff of the Wyoming Game and Fish Department has reviewed the draft Environmental Impact Statement project for Jackson Hole Flood Protection in Teton County. We offer the following comments for your consideration.

Terrestrial Considerations:

A review of the documents provided indicate this project will occur in the Fall Creek Elk and Moose Herd Units, Sublette Mule Deer, Jackson Elk, Moose and Bighorn Sheep Herd Units.

General Comments

Realistic alternatives do not appear to us to have been evaluated. The two alternatives presented are basically the same and only differ as to which entity is conducting the activity. Evaluations on environmental impacts and cost/benefit ratios are inadequate and incomplete without the completion of the referenced "General Investigations Report" and selection of a quarry site. 20-1 20-2

The model used to predict the extent of levee maintenance was not developed for the Snake River system. Key components of the system (i.e. heavy deposition of sediment loads and debris) is undoubtedly not included in the model. Therefore, the model grossly underestimates the extent of levee maintenance that will be required to contain the river in the long 20-3

20

term (50-100 years). Past maintenance effort and costs are also unlikely to predict the future as the rate and severity of problems will accelerate over time with sediment and debris accumulation. 20-3

Increased maintenance activities in bald eagle nesting habitat during early March through mid June could cause severe disturbances to nesting success. The U.S. Forest Service (USFS) and Fish and Wildlife Service (USFWS) have jointly proposed guidelines to protect eagle nests, perches, foraging and wintering areas. Adherence to these guidelines are strongly recommended to reduce disturbances to bald eagles. Both of the alternatives proposed, including no action, could lead to disturbances of nesting bald eagles at all five nest sites in the project area. 20-4

The selection of the primary quarry site is very important to this agency and the wildlife resource of Wyoming. The document identified four sites which are being considered at this time. Additional geologic, economic, and environmental analysis of all these potential sites will be required before a final site can be selected. This analysis will also address the feasibility of future use of the existing quarries at the Walton and Hansen Quarries. 20-5

We cannot concur with the selection of either the Curtis Canyon and Flat Creek sites because of crucial winter range and the high wildlife values involved. The Teton Pass and Phillips Ridge sites have less potential wildlife impact. Consequently, they are better locations for a quarry. The Walton Quarry appears to still be usable and could continue to provide levee material if landscaping and visual screening techniques are employed. We recommend these locations be considered over the Flat Creek and Curtis Canyon locations.

The document recognizes the need of periodic flooding to maintain willow/cottonwood habitat types but offers no solutions. We stress the importance of these habitat types for bald eagles and the need to perpetuate these types over time. 20-6

We would like an opportunity to review the referenced model and the 1976 report (Special Flood Hazard Information Study for Wilson, Wyoming and vicinity). 20-7

Specific Comments

DEIS Pages 3-18. Second Paragraph, last sentence.

This sentence is incorrect in that these elk are wintering in the project area below the Wyoming Highway 22 bridge not near Moose, Wyoming, as stated. 20-8

Pages 3-19. Bighorn Sheep, second paragraph, last sentence. 20-9

20

This sentence is incorrect. The Flat Creek-Lower Slide Lake area is crucial winter range for more than 100 bighorn sheep. The actual number of bighorn sheep wintering on the quarry site location ranges between 40-50. This location is the only steep face canyon wall in the immediate area with southerly exposures these sheep can utilize. 20-9

Page 415. Mammals, third paragraph.

The adverse effects of disturbance to bighorn sheep at these two quarry locations should be discussed. 20-10

Appendix A. Biological Assessment, A-10, 4-4, second paragraph.

These peregrine falcon hack site locations should be checked. Also, no reference is made in this section to the Phillips Canyon or National Elk Refuge hack site locations which are closer to the project area than stated. 20-11

Aquatic Considerations:

1. Technical review reveals that the fisheries descriptions in this document are satisfactory for the proposed action. If a Snake River General Investigations Study or other action is initiated, some details should be corrected. 20-12

2. The Corps has been very successful in explaining the difference in the funding for emergency and maintenance operations. This difference is significant enough to mandate an EIS be compiled. Since the change in funding is sufficient to support preparation of an EIS, we believe it is then sufficient to support appropriate mitigation. 20-13

3. We recommend that the mitigation recommendations detailed in the May 1989 Fish and Wildlife Coordination Act Report be implemented.

4. The EIS fails to provide sufficient information on overall long-term project adequacy; it appears maintaining existing levees is not the ultimate solution. Several aspects of project adequacy regarding impacts to biological resources were not addressed, yet are vital to the development of reasonable alternatives and selection of a preferred alternative. 20-14

5. The project appears to have been partitioned to avoid mitigation. The EIS failed to consider long-term and indirect impacts of maintenance activities. 20-15

6. We are concerned with statements about upgrading levees to standard specifications. We do not understand what is meant by standard specifications and would be extremely concerned about any designs which would change the existing situation. 20-16

20

7. Potential funding delays for levee O & M and agency complications associated with including mitigation as part of the proposed action were discussed by Corps representatives at the recent workshop and hearing in Jackson. It is not our intent to delay O & M activities on existing levees; however, mitigation is an equally legitimate issue. 20-17

8. We recommend that the Corps explicitly commit at this time to mitigate at least current and future impacts associated with the existing levees. There may be some provisions to secure mitigation funding from portions of the 1986 Water Resource Bill although mitigation would certainly be applicable under NEPA alone.

Thank you for the opportunity to comment.

Sincerely,

Francis Petera

FRANCIS PETERA
DIRECTOR

FP:SCT:as
cc: Game Div.
Fish Div.
HATS Div.
USACE-Cheyenne.
USF&WS-Cheyenne.

21

...ECTOR AND
...ATE GEOLOGIST
GARY B. GLASS

Serving Wyoming Since 1933

THE GEOLOGICAL SURVEY OF WYOMING
BOX 3008, UNIVERSITY STATION
LARAMIE, WYOMING 82071
(307) 766-2286

January 10, 1990

-- M E M O R A N D U M --

TO: Rod Miller, State Planning Coordinator's Office

FROM: Gary B. Glass, State Geologist

SUBJECT: Draft Environmental Impact Statement for Jackson Hole Flood Protection Project (State Identifier # 89-98)

We have reviewed the draft statement on the Army Corps of Engineer's Jackson Hole Flood Protection Project and submit the following comments:

On page 3-2, the report is discussing the availability of rock suitable for use as riprap. We were wondering if the Corps had looked at the inactive granite quarry in Teton Canyon (T.44N., R.117W.) about 20 yards northeast of the parking area at the end of the road. The U & I quarry is another possible source of riprap (T.42N., R.118W.). The Corps may contact our Industrial Minerals and Uranium Division for additional information on these localities. 21-1

It appears to us that the statement does not adequately address the potential for seismic activity in the area. For example, we do not see any mention of the effect that a Magnitude 7.5 earthquake might have on the project. Since this sized earthquake is possible in the area, would the levees stand up to it? Also what would happen if portions of the valley dropped 10-12 feet as predicted? Finally, it might be useful for the Corps to contact Dr. Bob Smith at the University of Utah because we share his concerns about floods and flood paths after a major earthquake. 21-2

GBG:sb

22

THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

Public Service Commission

700 W 21ST STREET (307) 777-7427 FAX (307) 777-5700 CHEYENNE, WYOMING 82002

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CHAIRMAN
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DEPUTY CHAIRMAN
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COMMISSIONER

ALEX J. ELIOPULOS
CHIEF COUNSEL AND
COMMISSION SECRETARY
STEPHEN G. OXLEY
ADMINISTRATOR

M E M O R A N D U M

TO: MR. ROD MILLER
FEDERAL LANDS COORDINATOR
STATE PLANNING COORDINATOR'S OFFICE

FROM: JON JACQUOT
CHIEF ENGINEER
PUBLIC SERVICE COMMISSION

DATE: JANUARY 24, 1990

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT - JACKSON HOLE FLOOD PROTECTION PROJECT, U.S. ARMY CORP OF ENGINEERS STATE IDENTIFIER NO. 89-098

Thank you for the opportunity to comment on this matter. This is to request that no unreasonable restrictions be placed on the provision of utility service and/or the construction of utility and pipeline facilities as a result of the Flood Protection Project. 22-1

We further request that the Corp of Engineers and its contractors coordinate their physical activities, including excavation, with the utilities in the area to avoid damage to utility facilities. The Corp of Engineers should contact Lower Valley Power and Light, Inc. and Mountain States Telephone and Telegraph Company, dba U S West Communications regarding the location of their facilities. 22-2

We are especially concerned about underground utility facilities which generally cost more to construct, operate and maintain than do comparable overhead facilities and are less reliable. The Commission believes that those who cause these costs should pay for them. If the costs causer does not pay for them then the general rate-payer of the utility must absorb the costs. 22-3

If you should have any questions regarding these comments, please let me know.

mj

22

23

Wyoming State Archives, Museums & Historical Department

DAVID KATHKA PH.D
DIRECTOR

BARRETT STATE OFFICE BUILDING · CHEYENNE, WY 82002 · (307) 777-7519

January 4, 1990

Mr. Dan Perdue
State Planning Coordinator
Herschler Building
Cheyenne, Wyoming 82002

RE: Jackson Hole Levee Maintenance Project, Draft O & M Decision Document and EIS, SPC #89-098, SHPO #1289RLB055

Dear Mr. Perdue:

Richard Bryant of our staff has received information concerning the aforementioned project. Thank you for giving us the opportunity to comment.

Continuation of the current O & M procedures using rip rap from the existing quarry will not have any effect on prehistoric or historic resources. Development of new quarry sources and access roads and construction of new levees may have an adverse effect on historic or prehistoric resources. Effects of the proposed project should be addressed in the supplemental EIS and General Investigation Report. 23-1

Please refer to SHPO project control number #1289RLB055 on any future correspondence dealing with this project. If you have any questions contact Mr. Bryant at 777-6292.

Sincerely,

Thomas E. Marceau
Deputy SHPO

FOR:
Dave Kathka, Ph.D.
State Historic Preservation Officer

TEM:RLB:klm
cc: Lt. Col. James Walter
U.S. Corps of Engineers
P.O. Box 9265
Walla Walla, WA 99362-9265

...Commissioners

BLAND HOKE Jr. Chairman
EVE THOMAS Vice Chairman
WELL H CLARK Commissioner

State of Wyoming
Teton County
P.O. Box 1727 Jackson, Wyoming 83001 (307) 733-4430

February 6, 1990

Mr. William F. McDonald
Environmental Coordination
US Army Corps of Engineers
Walla Walla, WA 99362-9265

Re: Jackson Hole Flood Protection Project EIS

Dear Mr. McDonald:

The Teton County Board of Commissioners wishes to comment on the Draft O&M Decision Document and EIS for the Jackson Hole Flood Protection Project. We are very much in support of the preferred alternative which recommends maintenance of the entire levee system in Teton County. However, there are a few items that we wish to address. 24-1

1) In looking at the non federal levees south of the Wilson Bridge, we feel that both sides of the system should be considered at the same time. In your analysis of the federal system on the north side of the Wilson Bridge you stated that one side is dependent on the other. We feel this same logic is appropriate on the non-federal levees south of the Wilson Bridge. 24-2

2) We feel that all the levees that existed prior to the 1986 flood system should be brought back to the standards that existed at that time. More specifically this would include levees south of the Wilson Bridge that were not repaired after the 1986 flood because of funding considerations. 24-3

3) We feel that any future operations of the system should include mitigation measures. We realize that this EIS Document is not specifically designed to deal with mitigation issues, but we bring this issue up as it is one of great concern to our constituencies. 24-4

4) We feel that the federal government should complete the levee project to the South Park Bridge. With the incomplete system we are unduly jeopardizing land owners at the terminus of the non-federal levees. 24-5

24

5) Attached you will find Exhibit "A" which are the comments from our road and levee department dealing with your cost analysis of various elements of roads and bridges. 24-6

Thank you for the opportunity to comment and we appreciate your holding the workshop and public hearing in Jackson.

Sincerely,

G. Bland Hoke, Jr.
Chairman
Teton County Board of Commissioners

BH/rh

Teton County

P.O. Box ... Jackson, Wyoming ...

M-E-M-O

TO: Board of County Commissioners

FROM: Road & Levee Department

DATE: January 16, 1990

SUBJECT: Draft O & M Decision Document (E.S. Levees)

Page 23 Item 3 Roads, Highways & Bridges:
"Road damages were, computed at $25,000/mile for gravel roads and $50,000/mile for paved roads." The EIS goes on to say "damage to bridges and approaches ranged from approximatley $300,000 for Cattleman's Bridge to about $1 million to the State Highway 22 Jackson-Wilson Bridge".

Teton County has had three bridge contract since 1980. 1980 contract was the Flat Creek Bridge on the High School Road 22-12 at a cost of $51.00 per square foot. The 1986 contract was the Teton Creek Bridge on Alta South Road 22-32 at a cost of $61.00 per square foot. The 1989 contract is the Fish Creek Bridge on Wilson North Road 22-3 at a cost of $72.00 per square foot. All of these contracts were complete replacement contracts which could be needed in regard to the two Cattlemen's Bridge Structures #DEI and #DEK. Structure #DEI spans 70' and crosses the Spring Creeks South of the Gros Ventre River. Structure #DEK spans 255' and crosses the Gros Ventre River. Using the 1989 contract price it would cost approximately $176,400 to replace structure #DEI and cost approximately $642,600 to replace structure #DEK. These costs of course do not include whatever costs the COE used for clean up and debris removal.

County Commissioners
LEVELL H. CLARK Chairman
... Vice Chairman
STEVE THOMAS Commissioner
Treasurer
DEANN BUTTON Assessor
BARBARA DARLEY Clerk of Court
Sheriff
County Attorney
Road Supervisor
PAUL SCHEPPEL County Surveyor
JOHN BRADLEY
PETER JORGENSEN Engineer

Road ... somewhat ... different ... for road damage to both gravel ... paved roadways.

The first ... would be flooding from water with little no current and damage would be minor to the base material. The major damage would be to the road surface "Type I".

The second situation would be damage to full road cross section (base, crushed base, and road surface/or base and crushed surface on gravel roadway) due to erosion from flood water with strong currents. "Type II". "Type II" also would require rebuilding roadway back on original alignment thus not requiring cost for new right-of-way.

"Type III" is the same situation as "Type II" except this situation would require moving roadway to a new location thus requiring cost for new right-of-way. This type would only be necessary if the levees protecting the roadway would be abandonded.

There is a limited amount of information available in our files pertaining to full cross section construction both gravel surface and paved roadways. To establish more accurate cost figures in addition to past contracts I have gathered engineer estimates from Jorgensen Engineering, Federal Highway Administration, and local contractors.

The following scenarios used a 4.4 mile section of road in relatively flat terrain as the basis for these computations.

Case I
An existing road is washed out. The existing subgrade is in reasonable condition and can be salvaged, but requires reshaping and recompaction. The top surface of the road will be rebuilt with a 4" base course and 2" asphalt layer. The finish asphalt width will be thirty feet (30') wide with 4:1 sideslopes. The approximate cost to reconstruct the road as described above is $26.40 per lineal foot, or $139,400 per mile.

Case IIA
An existing road is totally washed out, and must be entirely rebuilt. The structural section will consist of 24" of pit run, 6" of base course and 2" of asphalt. The finish asphalt width will be thirty feet (30') wide with 4:1 sideslopes. The approximate cost for this scenario is $77.00 per lineal foot, or $406,600 per mile.

Case IIB
This is similar to Case IIA except thst the pit run depth is 12" instead of 24". The approximate cost for Case IIB is $52.40 per lineal foot, or $276,700 per mile.

Case IIIA
A new road will be constructed in a new location. The design parameters are the same as in Case IIA. Purchase of new right-of-way will be required at an assumed cost of $25,000 per acre. The approximate cost for Case IIIA is $121.90 per lineal foot, or $643,600 per mile.

Case IIIB
This is similar to Case IIIA except that the pit run depth is 12" instead of 24". The approximate cost for Case IIIB is $96.10 per lineal foot, or $507,400 per mile.

The following is additional information from the F.H.A. estimate on the north portion of Fall Creek Road (Mosquito Creek to Wilson). This section consists of major construction with considerable earth work. The finish asphalt width will be thirty feet (30') wide with 4:1 side slopes. The estimated cost for this 4.4 mile section is 3.7 million dollars or $159.26 per lineal foot, or $840,909.09 per mile.

We have records on the last two paved road contracts; one being the High School Road 22-12 project and the other the Gregory Lane Road 22-37 project. Both of these projects are very short mileage thus driving the construction cost up.

The High School Road was designed with a thirty-[illegible] asphalt surface, with 3:1 sideslopes. The construction costs of this road project in 1979 was $129.82 per lineal [illegible] or $685,431.61 per mile.

The Gregory Lane Road was designed with twenty four foot (24') average asphalt surface with variable sideslopes. The length of this project was .70 miles and require basically no [illegible]. The construction costs of this road project in 1985 was [illegible] per lineal foot or $357,142.86 per mile.

The other road type considered has the same cross section excluding the asphalt layer and prime coat leaving a typical gravel surfaced roadway. Those cost estimates are as follows:

Case I
An existing road is washed out. The existing subgrade is in reasonable condition and can be salvaged, but requires reshaping and recompaction. The top surface of the road will be rebuilt with a 4" base course. The finish gravel width will be thirty feet (30') wide with 4:1 sideslopes. The approximately cost to reconstruct the road as described above is $10.10 per lineal foot, or $53,340.91 per mile.

Case IIA
An existing road is totally washed out, and must be entirely rebuilt. The structural section will consist of 24" of pit run, 6" of base course. The finish gravel width will be thirty feet (30') wide with 4:1 sideslopes. The approximate cost for this scenario is $60.67 per lineal foot, or $320,318.18 per mile.

Case IIB
This is similar to Case IIA except that the pit run depth is 12" instead of 24". The approximate cost for Case IIB is $36.05 per lineal foot, or $190,363.64 per mile.

Case IIIA
A new road will be constructed in a new location. The design parameters are the same as the Case IIA. Purchase of new right-of-way will be required at an assumed cost of $25,000 per acre. The approximate cost for Case IIIA is $105.54 per lineal foot, or $557,431.82 per mile.

[illegible]rd of County [illegible]ssioners
[illegible]ary 1[illegible]
Pa[illegible]

Case IIIB
This is similar [illegible] Case IIIA except that the pit run depth [illegible] 12" instead of 24". The approximate cost for Case IIIB is [illegible] per lineal foot, or $421,[illegible].82 per mile.

One additional gravel project we have record of is the Lower Fall Creek Road project in 1978 from Mosquito Creek to Red Top Meadows.

The Fall Creek Road finish gravel width was twenty-six feet (26') with variable sideslopes. The cost of this project was $10.11 per lineal foot or $53,360 per mile.

Page 108 & 109 Rock Quarry site ranking by the U.S. Fish & Wildlife Service. Teton Pass Site #8 is the preferred site. It would appear The Fish and Wildlife Service failed to consider the high visual impact as well as the other disadvantages of this site in making their selection. Please find attached pages A-8-1 & A-8-2 from the April 1989 Jackson Hole, Wyoming Geological Reconnaissance and Quarry Investigation Report prepared by The Corps of Engineers. Of the disadvantages listed on page A-8-2, I feel the most crucial ones are the high visual impact and the damage potential to State Highway 22 caused by the close proximity of the site location. 24-7

Thank you for your consideration.

Attachments: 7 pages

SITE NO. 8 - TETON PASS

1. Location. SW¼ Sec. [illegible], T. 41 N., R. 11[illegible] W. This site is located approximately 5.5 miles from the Snake River (at Wilson Bridge) in the vicinity [illegible] Teton Pa[illegible] approximately [illegible] miles west of [illegible] Ranch [illegible] old [illegible] Pass [illegible] (see Map A-8). This site is also located approximately 200 yards downslope from the new Teton Pass Highway (State Route 22).

2. Access.

a. General. Access to this site is made on the old Teton Pass Road which is now maintained by the U.S.F.S. This road climbs 1,400 feet in less than 2 miles. The road is paved, but is washed out in several places.

b. Seasonal Restrictions. The old Teton Pass Road is very steep and contains many switchbacks. Snow and/or ice conditions would tend to make access difficult during the colder months.

c. Improvements. Major improvements would be necessary in those areas where the asphalt pavement has broken away due to the unchecked erosion of the road's foundation. Those areas where improvements are necessary tend to be very rugged and steep. Road improvements in rugged terrain such as this would tend to be very costly.

3. Ownership. The United States of America under jurisdiction of the Department of Agriculture, U.S.F.S.

4. Terrain and Relief.

a. General. The quarry site is located where the mountainside was blasted to make the cut for the old road (see Photo 17). Where the rock of interest is exposed, the slopes are very steep above and below. Very little level ground is available near the site.

b. [illegible] The possibility of visual impact at this site is high. A quarry operation at this site would be visible from the valley and from State Route 22.

5. Site Geology.

a. General. The site geology is similar to that of Site No. 1 in that the rock of interest is pre-Cambrian granite, layered granite gneiss, and Cambrian-aged Flathead sandstone. All three rock types are exposed in the roadcut.

b. Rock Size Range. Rock quality and size are excellent. The size of the granite, gneiss, and sandstone boulders which were blasted out and used to build up the roadbed are 1 to 4 feet in diameter and blocky in shape.

6. Advantages and Disadvantages.

a. Advantages.
- Short haul distance to levees.
- Rock is of good size and quality.
- Only a small amount of overburden is present.
- Land is publicly owned.

b. [redacted]
- Very steep grade to access the site.
- Access road is partially washed out in places and would require costly upgrade.
- Very little working room at the site.
- [redacted]
- Close proximity to Wyoming State Route [redacted] would produce [redacted] from the potential effects [redacted] quarry operation (especially blasting) might have on the highway.

Greater Yellowstone Coalition

February 6, 1990

James A. Walter
Lt.Colonel, Corps of Engineers
District Engineer
Department of the Army
Walla Walla District, Corps of Engineers
Walla Walla, WA 99362-9265

Dear Sir:

Attached are the comments of the Greater Yellowstone Coalition on the Draft Environmental Impact Statement and Decision Document for the Jackson Hole, Wyoming, Snake-Gros Ventre Rivers Levee Maintenance Project. We appreciate this opportunity to present our formal comments.

As discussed with Bill McDonald of your office, further comments from GYC members will be forwarded to you up until February 19. Mr. McDonald graciously allowed us that extension of time in order for the membership to become involved. Thank you.

Sincerely,

Michael B. Whitfield
Greater Yellowstone Coalition

P.O. Box 1874 • Bozeman, Montana 59771 • (406) 586-1593 • FAX (406) 586-0851

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COMMENTS OF THE GREATER YELLOWSTONE COALITION

We appreciate this opportunity to respond to the Draft Environmental Impact Statement (DEIS) for maintenance and operations of levees associated with the Jackson Hole, Wyoming, Flood Protection Project. We applaud the beginnings of comprehensive planning for levee management. We support the Corps' assumption of maintenance and operation responsibility for the levee system. However, we find this DEIS to be deficient in two very significant ways:

1. the major questions for comprehensive planning of river control in this area are deferred; and 25-1

2. the perspective, the scope of review, is far too narrow. The bigger picture, the Snake River and associated wetlands, must be the focus of river control planning. 25-2

We would like to establish a context for the concerns of the Greater Yellowstone Coalition. First, we regard the Snake River and its cottonwood riparian communities to be one of the gems of the Greater Yellowstone Ecosystem. The biological diversity found in this system is not surpassed by any other in Greater Yellowstone. Conservation of this biodiversity is a must, not only for Jackson Hole, but for the entire region.

Secondly, we must stress the value we place upon the National Environmental Policy Act (NEPA) process for analysis of resource management actions. We jealously guard our mandated right to be involved in decisions which affect public resources, particularly resources of such high value as the Snake River. We are alarmed by a NEPA decision document which defers many of the major decisions to unspecified future times. We will act to protect public involvement in the substantive decisions, which affect a resource important to all who visit or reside in the Jackson area. 25-3

With these concerns as our context, please consider the following points:

1. Mitigation of the Snake River levee system's impacts should be addressed now, in the EIS. The Corps should adopt a program to restore and maintain the long-term productivity of this Snake River ecosystem to the greatest extent possible. The Snake River in its wild, dynamic (pre-levee) state supported diverse plant and animal communities in a broad flood plain. The river in this reach is also a blue ribbon trout fishery. Levee construction, maintenance, and operation have and will continue to have very significant effects upon this flood plain and the river. Mitigations of these impacts, impacts that have occurred over the entire life of the levee system, at the core of 25-4

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comprehensive planning for levee system maintenance. Mitigation must include comprehensive study of levee effects upon Snake River ecology and hydrology, followed by implementation of identified mitigation measures. The Fish and Wildlife Service Coordination Act Report is a good starting point for mitigation planning. The Water Resources Development Act of 1986 (Water Bill) provides the vehicle to implement mitigations. Several mitigation measures stand out for us:

a) Study of river hydrology and ecology to fully identify the impact of the levees.

b) Acquisition of conservation easements to protect flood-plain habitats from further development. 25-

c) Enhancement and maintenance of instream habitats and riparian areas, including islands and river banks.

d) Improvement and maintenance of spring creek spawning habitat.

e) Maintenance of floodplain cottonwood-willow communities.

f) Location of borrow areas, where gravel for levees will be excavated, in areas which avoid important fish and wildlife habitat.

2. The decisions made in this planning effort should be made within the context of the long-term objectives for levee system management.

Levees have developed in the past as spontaneous reactions to high water events. That mode of doing business is no longer appropriate. Now, as the Corps plans for operation and maintenance of the system, is the time to define what the system is. To what standard will the levees be monitored? Are new levees or channel plugs planned? We urge you to provide for public involvement in determining the long-term river control objectives. 25-

3. We encourage the Corps to consider alternatives to levee construction wherever other management techniques would limit losses to the natural system. Among these techniques might be river training structures, flood easements, and set-back levees. 25-4

4. Potential gravel borrow sites and associated roads which will determine future use patterns, must be addressed and evaluated now. The projected amount and locations of future borrow materials link directly to levee management objectives. 25-7

Spontaneous decisions at the time of flood fights are no longer appropriate.

5. Deferral of major management decisions to later documents can only result in poor planning at this stage in the process. The DEIS is deficient in its lack of comprehensive objectives for levee system management and mitigation. This deficiency impacts the resources. It also effectively hamstrings the public's opportunity to be involved in the substantive decisions. 25-8

The comprehensive planning the Corps suggests will appear later in the General Investigation Report must precede decision operation and maintenance of the system. The cart seems to be pulling the horse. Again, comprehensive planning decisions must be made in the NEPA process with full public involvement.

6. We support the concept of a task force of landowners natural resource groups, and governmental agencies to assist the Corps in development and implementation of a comprehensive management plan for the Snake River in Jackson Hole. Should such a task force be formed, GYC would like to participate. 25-9

JACKSON HOLE ALLIANCE FOR RESPONSIBLE PLANNING
Box 2728 Jackson, Wyoming 83001 (307) 733-9417

February 5, 1990

James A Walter
Lieutenant Colonel, Corps of Engineers
District Engineer
Walla Walla District, Corps of Engineers
Walla Walla, Washington 99362-9265

Dear Lt Col Walter

The Jackson Hole Alliance for Responsible Planning is a non-profit organization with over one-thousand members working to promote comprehensive, long-range planning and wise use of Jackson Hole's world renowned resources. The Alliance is the largest membership organization in Jackson Hole with a long record of involvement in planning and land-use issues. This opportunity to comment for the record on the Draft Environmental Impact Statement and Record of Decision regarding federal operation and maintenance of the Snake River Levee System is appreciated

The Corps has considered two alternatives, including no action, for levee maintenance on the Snake and Gros Ventre Rives. Adopting alternative A would mean the Corps would take no action to maintain the levees in Jackson Hole, although it would continue to provide emergency assistance in flood fights. Although the Corps would take no action, it is assumed that

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local interests would continue to maintain the levee system. Alternative B, the tentatively selected alternative, would involve the Corps taking over the responsibility of annual maintenance of all levees on the system. This would include all Federal and non-Federal levees on the Snake River from Grand Teton National Park to the South Park Bridge, plus three non-Federal levees located on the lower reach of the Gros Ventre River. The draft decision does not address mitigation for existing on-going impacts which are the result of the original project. Impacts associated with new quarry activities and new access roads are to be addressed in a supplement to the Final Environmental Impact Statement.

The document purports to evaluate the physical, economic and environmental factors associated with the decision to assume federal operation and maintenance of the levee system. The Alliance agrees with the decision itself: that operation of the federal and non-federal levees shall be a federal responsibility. However the document falls far short of credibly evaluating the environmental factors associated with that decision. Most importantly, it avoids the responsibility and existing authority to mitigate environmental damages resulting from its past, present, and future role in flood management in Jackson Hole.

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It is commendable that the Corps saw fit to include in the document the Draft Fish and Wildlife Coordination Act Report (CAR) prepared by the U.S. Fish and Wildlife Service. That report reinforces what is commonly understood about the environmental impacts of the levee system. Levee construction, repair and maintenance, development of quarries for levee material, periodic debris removal from the river channels, and possible raising and extending levee segments all have environmental impacts on fish and wildlife resources.

The Corps' response to the mitigation issue, to adopt the CAR mitigation recommendations only for maintenance activities associated with clearing and snagging (Section 16 a, b, and c) whenever "feasible and

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practicable," and for levee access and borrow material areas (in a supplement to the FEIS) is wholly inadequate. The decision to address all remaining mitigation recommendations associated with the function and operation of the original project in the General Investigation Report to be completed in FY 1990 is inconsistent with the spirit and letter of national environmental law and policy.

26-3

Regulations published by the Council on Environmental Quality require that environmental impact statements prepared to comply with the National Environmental Policy Act anticipate a cumulatively significant impact on the environment from Federal action. Cumulative impacts are defined as:

> "...the impact on the environment which results from the incremental impact of the action when added to the other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 C.F.R. Sect. 1508.7)."

The above definition is an excellent description of the situation we face in Jackson Hole as a result of ill-planned and ad hoc levee construction by Federal, state, and local interests. The Alliance strongly believes the time has come for the Corps to face up to its responsibility to plan for the long-term of environmental consequences of its construction activities which have significant cumulative impacts as defined by the Council on Environmental Quality.

26-4

The elimination of major channel movement outside the levees caused by the original federal levee construction will continue to cause the deterioration and destabilization of riparian and main channel aquatic habitats. The lost capacity for flood flows to flush sediments from spawning grounds in spring creeks has contributed to a steady decline in

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suitability of spawning areas and a reduced capability of fish to reach spawning and rearing habitats. Critical habitat for cutthroat trout will eventually be lost or will have to be artificially maintained to sustain a natural spawning population of Snake River cutthroat trout.

The mitigation that has taken place to compensate for these damages has been borne by sportsmen funded trout spawning bed rehabilitation projects conducted by the Wyoming Game and Fish Department or by private landowners. The fact that some levee segments serve to protect spawning sites and habitat improvements is recognized as beneficial. However the reason specified spawning sites now benefit from the presence of selected levees is a consequence of the overall destabilization of the aquatic ecosystem resulting from original levee contruction and their continued operation.

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More subtle ecological effects resulting from the operation and maintenance of the levees are changes in vegetation behind the levees which will gradually result in loss of diverse habitats for riparian wildlife species like moose, passerine birds, great blue herons, eagles and other raptors. With the elimination of major channel movement outside the levees, wetlands are not being replenished and many of the oxbows and side channel wetlands are being lost due to siltation and eutrophication and probable interception of ground water by the toe of the levee.

What has always been missing from the Corps' flood control efforts is a responsible long-range planning effort for the Snake River which faces up to the agency's responsibility for environmental protection in connection with flood control activities. There is no evidence in this document of a commitment to do what is necessary to quantify cumulative environmental impacts and to mitigate them as required by national environmental policy. The Corps appears to be trying to avoid this responsibility by shifting the focus of mitigation to future "General Investigation" reports or to piece-meal mitigation activities like the "Snag and Drag' debris removal program

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To conclude, as the draft decision does, that that there are no anticipated additional environmental impacts associated with maintenance of the levees by the Corps levees, since the operation would not differ significantly from the present on-going operation, is unrealistic.

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Anticipated project impacts include on-going environmental degradation and induced ecological succession to more xeric species as described in the CAR report. There will be additional project impacts depending on the standard to which non-federal levees will be maintained, the extent to which currently "substandard" levees will have to be rebuilt, and the number and location of "channel plugs" which the document explains (p. 26) might be required during flood flights to prevent avulsion damage. The plugs are anticipated for the unprotected reaches between levees to "block minor historic channels to prevent avulsion into areas behind levees" (p. 26).

26-7

The blocking of historic river channels will have a definite environmental impact which needs to be specifically addressed. The document states that channel blocks, which would be built by the local sponsor during flood fights, would be "evaluated on an engineering, economic, and environmental basis for removal, or retention after a flood flight" (p. 12). Table 2 which depicts the benefit-cost comparison of the non-federal levees anticipates some or all of a $60,090 average annual expenditure for channels plugs and other flood fighting costs. Will the Corps assume operation and maintenance of these levee elements once they are in place if they are evaluated favorably for retention?

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Since there is little practical difference between channel plugs and levee extensions whether they are built during flood fights by the Corps or by the local sponsor, the document seems to institutionalize the continuation of a process which has ill-served Jackson Hole in the past. ad

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hoc levee building on an emergency basis without recognition of and mitigation for cumulative environmental impacts. 26-9

To conclude that assuming maintenance of the levees is environmentally inconsequential because they would continue to be maintained by some other party is inconsistent with the logic which the document uses to justify project benefits (p. 19). The benefits evaluation examines the benefits associated with maintaining the existing levee system by comparing flood damages assuming the levees do not exist. If it is fair to assume that the levees would disappear in the near future without Federal maintenance for the purpose of economic justification, then it is fair to use the same assumption to determine that environmental mitigation is justified as part of the project's annual cost. 26-10

To deny that building and maintaining levees on the Snake River has had and will continue to have major environmental consequences is to ignore reality. The Alliance believes the Corps should demonstrate its commitment to fulfilling its responsibilities to environmental quality by adopting the mitigation recommendations made by the Fish and Wildlife Service. It is a first and long-overdue step in giving the nationally significant natural resources of the Snake River the ecological consideration they deserve. 26-11

Under Section 1135 of the Water Resources Development Act of 1986, the Corps is authorized to review operation of existing water resources projects to determine the need for modifications to improve the quality of the environment in the public interest. Under Section 906 (b) and (e) mitigation features for previously authorized projects ("retrofit mitigation") and fish and wildlife ennancement are authorized. All of these authorities should be pursued immediately to mitigate the extensive impacts from past levee construction and operation. Historic direct and indirect influences on the river channel, wildlife habitat, and flood-plain development should be addressed under these authorities.

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For existing on-going and anticipated future impacts associated with the operation and maintenance of the levee system, mitigation features should be specifically included as part of the Final Record of Decision and Environmental Impact Statement on the operation and maintenance of the levee system. Many of the mitigation recommendations contained in the Coordination Act Report by the U.S. Fish and Wildlife Service can and should move forward as part of annual project activities. 26-11

The Alliance is looking forward to working with the Corps to modify the Draft Environmental Impact Statement to address the legitimate needs identified above. We and the Snake River are here for the long-term; just as this document represents an historic shift in operation and maintenance, so must it break new ground in recognizing and accepting responsibility for historic, current and future environmental mitigation.

Sincerely,

Leonard Carlman

Leonard Carlman
Executive Director

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Comments on the Snake River Levee O&M Draft EIS
February 2, 1990

From

Jackson Hole Chapter Trout Unlimited

P.O. Box 4069
Jackson, Wyoming 83001

Thomas M. Campbell III
President

First, we would like to thank the Army Corps of Engineers for the opportunity to comment on the Snake River Levee O&M Draft EIS and would like to commend the Corps on taking the initiative to prepare this much needed document. Although it has some shortcomings, it is a step in the right direction.

The issue of whether the Corps was going to accept its responsibilities to operate and maintain the Jackson Hole Snake River Levee Project as designated by the 1986 Water Resource Development Act (PL 99-662) - Water Bill has been an emotionally charged and controversial issue in Jackson Hole for several years. We are pleased that the preferred alternative of the Draft EIS is Federal Operation and Maintenance of the entire Snake River levee system. Accepting this responsibility now leads to the next step of correcting and reducing some of the negative impacts caused by and associated with the Snake River Levee System. 27-1

The Draft EIS identifies a number of environmental problems associated with the levees. Of primary concern to us are those effects on the Snake River cutthroat trout fishery. The levees have been acknowledged as negatively affecting natural cutthroat spawning streams, rearing habitat, and critical bank habitat, and levee O&M will perpetuate these negative affects. In addition, certain other components of trout habitat such as fallen trees in the river channel will be subject to removal during annual O&M. Even though these negative effects have been identified in the EIS, measures to mitigate them were largely ignored and the general conclusion was that they are "existing problems" and that the Corps "does not propose to include mitigation for the past long-term effects of the Snake-Gros Ventre Rivers levee system as part of the levee maintenance project." We find this conclusion arbitrary and totally unacceptable. The fact that some negative effects have been present for over 25 years and have never been mitigated for does not mean they should be accepted as existing problems and therefore excluded from the Levee O&M Project. They are inextricably tied to the Snake River Levee System and the bottom line is that these problems would not exist if the levees were not present. 27-2

Reference was made in the EIS to the Draft Coordination Act Report prepared by the US Fish and Wildlife Service. This document is attached to the EIS as Appendix B and details problems and mitigation recommendations for the Snake River Levee Project. We strongly agree with the conclusions reached by the Fish and Wildlife Service that the existing levee project in Jackson Hole has resulted in considerable habitat losses to fish and wildlife resources and that the O & M project must incorporate a mitigation program to maintain and restore the productivity of this system.

The Water Bill provides several important provisions to help accomplish this. Specifically, Sections 906(b), 906(e), and 1135. As you know, Section 906(b) authorizes mitigation measures to fish and wildlife from water projects under the Secretary of Army's jurisdiction whether completed, under construction, or to be constructed, and includes retrofit mitigation for previously authorized projects such as the Snake River Levee Project. Section 906(e) provides for 100% Federal funding of the above. And Section 1135 (recently extended) authorizes the review of projects constructed before enactment of the Water Bill to assess the need to modify structures and operations of water resource projects for the purpose of improving the quality of the environment. 27-3

We are fully aware that the Corps intends to supposedly review the long-term effects of the Snake River Levee Project and overall mitigation of these effects in the Upper Snake River General Investigation Study and perhaps recommend that a 906 study be completed. This fact, however, appears to be the classic strategy of divide and conquer. Our discussions with Corps personnel at previous public meetings leads us to believe that the Corps is really not very interested in the whole mitigation issue due to its inherent costs and difficulties and it is unclear whether this issue will be adequately addressed in this study. Further, we have been unable to get assurances that if mitigation is left to the General Investigation, concerned parties will have the opportunity to review and comment on the results of this study. 27-4

These are the reasons why we feel mitigation for the Snake River Levee Project should be addressed in the Draft EIS. With regard to actual mitigation steps, we again refer to the Draft Coordination Report prepared by the Fish and Wildlife Service. In it, they list a variety of measures which we believe would go far towards correcting many of the identified problems. From a fishery perspective, efforts should center on: 27-5

1) Improving spawning creeks by cleaning or replacing spawning gravels, creating escape cover, and providing better fish access to creeks from the Snake River.

2) Provide more fish habitat in the Snake River by placing large boulders in the river channels at the ends of levees and intentionally spilling levee building materials into the river channel away from the levees.

3) Protect existing stream banks and islands from erosion by armoring.

4) Conduct intensive fishery studies and evaluations of mitigation measures. 27-5

5) Replace fish habitat removed during snag and drag operations.

We recommend that a cooperative task force under the leadership of the Corps and consisting of all the interested parties be created to deal with successful mitigation of the problems associated with the Snake River Levee Project.

In closing, let us repeat how important the issue of mitigation is to us, the Snake River fishery, and Jackson Hole. Perhaps the best alternative from an environmental perspective is the complete removal of all levees along the Snake River. However, this is no longer possible since they protect millions of dollars worth of private property. Accepting this fact, the remaining alternatives involve living with the dikes along the banks of the Snake and taking the necessary steps to reduce or eliminate the negative effects of these structures. All we ask is that the Army Corps of Engineers develop an attitude of responsibility and accountability for the problems they created and continue to perpetuate, and take advantage of existing legislation and authorities and apparently funding to correct these errors. Currently, the burden of mitigating the Levee Project's negative effects on fisheries is being shouldered by sportsmen, Trout Unlimited, and the Wyoming Game and Fish Department in the form of spawning creek improvements when its the actual responsibility of the Corps and the Federal Government to do this. 27-6 27-7

We request a reinterpretation of Section 840 of the Water Bill to include mitigation for the Snake River Levee Project as part of Operation and Maintenance of that project. This is appropriate because Alternative B which is Federal Operation and Maintenance of the Snake River Levees is a completely new project and therefore subject to immediate mitigation of negative impacts. If the Corps refuses to make this interpretation, the Draft EIS should at the very least formally recommend that mitigation be dealt with in a Section 906 study completely separate from the General Investigation Study and that this study embrace critical public review. The public review we request is identical to that required under NEPA whereby a formal opportunity is provided to concerned parties. 27-8

Specific comments on the Draft EIS follow:

1) Page 13, O & M Decision Document, Item 5d(1): We disagree with the conclusion that Federal O&M constitutes the original project. In fact, the change of responsibility constitutes a new project and therefore mitigation should be a part of it. 27-9

The use of the terms "feasible" and "practicable" regarding implementing snag and drag mitigation recommendations from the CAR mean very little. A stronger commitment to this form of mitigation necessary. 27-10

The Corps stated policy of dealing with mitigation for completed projects only when required by Congress or other legal requirements is unacceptable. We ask the Corps to adopt a more responsible attitude towards mitigating negative environmental impacts of their projects. 27-11

The statement that the mitigation issue will be dealt with in the General Investigation is, based on conversations with Corps representatives at the recent workshop, misleading. In actuality, the GI will determine whether or not to study and pursue actual mitigation some time in the future. This same statement is made in several other locations throughout the document and should be clarified. 27-12

2) Page 22, O & M Decision Document, Item 6d(2): Flooding does not always damage the spring creeks and spawning areas adjacent to the levees as stated in the EIS. Flooding has been linked to positive impacts on spawning areas by recharging and cleaning spawning gravels. 27-13

3) Page iv, Draft EIS, 1st sentence: Corps taking over responsibility of the annual maintenance for all levees implies this has not been the case in the past and therefore constitutes a "new" project. 27-14

4) Page 3-13, Draft EIS, Item 3.2.1.1, first paragraph: Some quantitative data are available from Wyoming Game and Fish concerning the importance of snags to Snake River cutthroat trout. These data are not included in this document and should be. 27-15

5) Page 4-7, Draft EIS, Item 4.2.1.1: Negative impacts to Snake River cutthroat trout identified in this section should be addressed in terms of mitigation in this document. 27-16

6) Page 4-9, Draft EIS, Item 4.2.1.1, first paragraph: The discussion of negative impacts to trout related to development should include agricultural use increasing in association with the levees and its contribution to sedimentation of spawning creeks. 27-17

7) Page 4-9, Draft EIS, Item 4.2.1.1, third paragraph: Same comment as item #4 above. 27-18

8) Page 4-27, Draft EIS, Item 4.4, fourth and fifth paragraph: Same comment as #1 above. 27-19

P.O Box 4038
Jackson, WY 83001

WYOMING COUNCIL

1/30/90

Statement Before the U.S. Army Corps of Engineers
Public Hearing on the Snake River Levee O & M Draft EIS
Wyoming Council of Trout Unlimited

On behalf of the Wyoming Council of Trout Unlimited, I would like to thank the Army Corps of Engineers for scheduling this public hearing. This hearing provides us the opportunity to formally participate in the NEPA process pertaining to the Operation and Maintenance of the Snake River Flood Protection Project.

Trout Unlimited supports the Corps' Preferred Alternative, that being the Corps' assumption of the Operation and Maintenance of all levees in the Jackson Hole Area - with the addition of adequate and appropriate mitigation for habitat loss incurred by ongoing and future environmental impacts. 28-1

In 1946, with the enactment of the Fish & Wildlife Coordination Act, Congress directed federal agencies involved in water projects and development to consider fish & wildlife resources and to strongly pursue the mitigation of environmental impacts as a result of agency actions.

During the Carter Administration, the Wetland Protection Executive Order #11990 directed all federal agencies to pursue the preservation of wetlands. This is further acknowledged by President Bush's current commitment for zero net loss of wetlands.

The Water Resources Development Act of 1986, also known as Public Law 99-662, enacted by Congress provides the direction and authorization to the U.S. Army Corps of Engineers to develop mitigation plans for each and every new project, and in addition, establishes authority to mitigate environmental impacts and losses as a result of past project impacts. This Water Resources Development Act is the same act that authorizes the Corps to assume Operation and Maintenance responsibilities of the Snake River levees.

It is apparent from these past Congressional and Executive mandates that federal agencies, including the Army Corps of Engineers, insure that resources of national significance, of which the Snake River system is a part, be protected and maintained. 28-2

The transfer of authority regarding the Operation and Maintenance of the levee system from Teton County to the Army Corps of Engineers constitutes a new project for the Corps as authorized by PL 99-662, Section 840. And therefore, incorporates the responsibility for ongoing and future mitigation to the Corps as part of the O & M of the Snake River levee system.

The Wyoming Council of Trout Unlimited encourages the Army Corps of Engineers to act in a responsible manner and assume the mitigation process as part of the Operation & Maintenance of the Snake River Levee System.

Thank you.

Susanne P. Van Gytenbeek
Executive Director - Wyo. T.U.

UNIVERSITY OF WYOMING

Department of Geography and Recreation
P.O. Box 3371
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(307) 766-3311

February 5, 1990

James A. Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

Dear Lieutenant Colonel Walter:

I am writing in reference to the Draft EIS for operation and maintenance of the levee systems along the Snake River from Grand Teton National Park to South Park below Jackson. I am in the middle of a three-year research project which could shed some light on the channel response to levees along the Snake River. My project is funded by the University of Wyoming-National Park Service Research Center and seeks to determine the effects of Jackson Lake Dam on the Snake River channel and associated floodplain vegetation. Preliminary analyses indicate that operation of Jackson Dam, especially with changes after the opening of Palisades Reservoir, has influenced the degree of braiding and channel encroachment by vegetation. These trends bear directly on the environmental analysis of the levee system further downstream. It is not a simple manner of isolating the effects of the levees from upstream activities.

I concur with the recommendations of the Greater Yellowstone Coalition that a thorough analysis of the levees should include development of a comprehensive plan. Such a plan should feature a wide range of alternatives to include comprehensive consideration of Snake River ecology. The plan should address a full range of mitigation measures, including: 29-1

a) a study of the river hydrology, geomorphology, and ecology, including the types of analyses I am pursuing in Grand Teton National Park on the Snake River;

b) acquisition of conservation easements to protect floodplain habitats from further development;

c) enhancement and maintenance of instream habitats, including islands and river banks;

d) maintenance of floodplain cottonwood-willow communities;

29-2

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e) location of borrow areas, where gravel for levees will be excavated, in areas which avoid important fish and wildlife habitat. 29-2

I regret that I cannot attend the public hearing on the Draft EIS. However, I would like to invite a representative from the Corps of Engineers to attend a talk on my Snake River research sponsored by the Wyoming Water Research Center here in Laramie on April 6 (a notice is attached). I anticipate that my research will be pertinent to your decision-making regarding the levees. 29-3

Sincerely,

Richard A. Marston
Associate Professor

Wyoming Wildlife Federation
P.O. Box 106, Cheyenne, WY 82003
307-637-5433

30

February 6, 1990

Lt. Col. James A. Walter
U.S. Army Corps of Engineers
Walla Walla District, Planning Division
Walla Walla, Washington 99362-9265

RE: Jackson Hole Flood Protection Project Draft O&M decision Document and EIS

Dear Lt. Col. Walter:

We are writing on behalf of the Wyoming Wildlife Federation's 13,000-plus membership to express our concerns about the Corps' approach to managing the federal Snake River levee system in Teton County, Wyoming. The impacts of the levee system upon the ecology of the upper Snake River are both profound and ongoing, and we are not convinced that the Corps is assuming its full responsibility for addressing these impacts.

No comprehensive study on the environmental impacts of the levee system has been performed and, sadly, none has been proposed in the DEIS. While there are many arguments made in the DEIS which minimize the impacts of operation and maintenance, it is clear that much uncertainty exists because there is no hard data upon which to rely. To continue to act on unsupported assumptions and suppositions constitutes a neglect of responsibility imposed by numerous federal laws and regulations. 30-1

The Snake River's riparian zone continues to grow more arid. Wetlands dependent upon annual flood recharge are drying up. These changes can be directly traced to forcing the river into a single channel. This is unnatural to the river's hydrologic behavior in the area. The natural ability of the river's wetlands to absorb flood flows is being lost as riparian communities are replaced through succession or conversion. Habitats associated with the historic braided channel ecosystem will continue to degrade from their beneficial status as forage areas for big game, nesting habitat for raptors and songbirds, spawning and rearing areas for trout and wetlands which once supported many varieties of waterfowl. Riparian zones provide the greatest opportunity for biological diversity in the western United States. To adversely affect those zones is to significantly reduce their ability to support that diversity. 30-2

30

Since O&M and future construction of levees will continue to adversely affect the Snake River ecosystem in Teton County, it is incumbent upon the Corps of Engineers to commit themselves to a comprehensive mitigation study and plan in the FEIS. To ignore such a necessity is to ignore congressional mandate and President Bush's commitment to "no net loss of wetlands". 30-2

The determination of the Corps to commit only to those operations which are economically justifiable is good. The focus on perpetuating the wrongs of the federal levee system is not. We feel that the Corps is obligated through both the Water Resources Development Act of 1986 and the Clean Water Act (as amended) to seek innovative solutions to federal levee impacts. Wetlands and riparian areas are being lost due to Corps' actions. The Corps should be incorporating the flood control benefits of these wetland areas while divorcing the obsession with massive structural designs.

A case in point is the Charles River above Boston, where the Corps of Engineers bought wetlands to accomplish what flood control structures alone could not. The Corps found that losing wetlands significantly increased the expected costs of flood damage. After acquiring some 8,115 acres of wetlands along the Charles River, the Corps was in the admirable position of managing a flood control project with annual costs of $617,000 and annual benefits of $2.1 million. While the concept of breaching levees to renew dying wetlands along the Snake might seem outlandish, it may be the only practical and ecologically sensitive long-term solution. 30-3

We urge the Corps to drop the current short-sighted approach to managing the federal levee system as contemplated in the draft O&M decision and EIS, and embrace the responsibility required of the agency. The final document should include the mitigation efforts needed to address the ecological concerns of the Snake River. We think this approach will create many opportunities to creatively manage flood flows while operating in cooperation with the dynamic qualities of the Snake River system. Thank you for the opportunity to comment.

Sincerely,

Eric Hafferman
WWF Water Resources Chair

John ZelAzny
Conservation Programs Director

EH:JZ:jt

c: Governor Mike Sullivan
Arthur Anderson, USFWS
Vern Helbig, EPA

29

UNIVERSITY OF WYOMING

Department of Geography and Recreation
P.O. Box 3371
Room 207, Arts & Sciences Building
Laramie, Wyoming 82071-3371
(307) 766-3311

February 5, 1990

James A. Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

Dear Lieutenant Colonel Walter:

I am writing in reference to the Draft EIS for operation and maintenance of the levee systems along the Snake River from Grand Teton National Park to South Park below Jackson. I am in the middle of a three-year research project which could shed some light on the channel response to levees along the Snake River. My project is funded by the University of Wyoming-National Park Service Research Center and seeks to determine the effects of Jackson Lake Dam on the Snake River channel and associated floodplain vegetation. Preliminary analyses indicate that operation of Jackson Dam, especially with changes after the opening of Palisades Reservoir, has influenced the degree of braiding and channel encroachment by vegetation. These trends bear directly on the environmental analysis of the levee system further downstream. It is not a simple manner of isolating the effects of the levees from upstream activities.

I concur with the recommendations of the Greater Yellowstone Coalition that a thorough analysis of the levees should include development of a comprehensive plan. Such a plan should feature a wide range of alternatives to include comprehensive consideration of Snake River ecology. The plan should address a full range of mitigation measures, including: 29-1

a) a study of the river hydrology, geomorphology, and ecology, including the types of analyses I am pursuing in Grand Teton National Park on the Snake River;

b) acquisition of conservation easements to protect floodplain habitats from further development; 29-2

c) enhancement and maintenance of instream habitats, including islands and river banks;

d) maintenance of floodplain cottonwood-willow communities;

29

e) location of borrow areas, where gravel for levees will be excavated, in areas which avoid important fish and wildlife habitat. 29-2

I regret that I cannot attend the public hearing on the Draft EIS. However, I would like to invite a representative from the Corps of Engineers to attend a talk on my Snake River research sponsored by the Wyoming Water Research Center here in Laramie on April 6 (a notice is attached). I anticipate that my research will be pertinent to your decision-making regarding the levees. 29-3

Sincerely,

Richard A. Marston
Associate Professor

30

Wyoming Wildlife Federation
P.O. Box 106, Cheyenne, WY 82003
307-637-5433

February 6, 1990

Lt. Col. James A. Walter
U.S. Army Corps of Engineers
Walla Walla District, Planning Division
Walla Walla, Washington 99362-9265

RE: Jackson Hole Flood Protection Project Draft O&M decision Document and EIS

Dear Lt. Col. Walter:

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No comprehensive study on the environmental impacts of the levee system has been performed and, sadly, none has been proposed in the DEIS. While there are many arguments made in the DEIS which minimize the impacts of operation and maintenance, it is clear that much uncertainty exists because there is no hard data upon which to rely. To continue to act on unsupported assumptions and suppositions constitutes a neglect of responsibility imposed by numerous federal laws and regulations. 30-1

The Snake River's riparian zone continues to grow more arid. Wetlands dependent upon annual flood recharge are drying up. These changes can be directly traced to forcing the river into a single channel. This is unnatural to the river's hydrologic behavior in the area. The natural ability of the river's wetlands to absorb flood flows is being lost as riparian communities are replaced through succession or conversion. Habitats associated with the historic braided channel ecosystem will continue to degrade from their beneficial status as forage areas for big game, nesting habitat for raptors and songbirds, spawning and rearing areas for trout and wetlands which once supported many varieties of waterfowl. Riparian zones provide the greatest opportunity for biological diversity in the western United States. To adversely affect those zones is to significantly reduce their ability to support that diversity. 30-2

30

Since O&M and future construction of levees will continue to adversely affect the Snake River ecosystem in Teton County, it is incumbent upon the Corps of Engineers to commit themselves to a comprehensive mitigation study and plan in the FEIS. To ignore such a necessity is to ignore congressional mandate and President Bush's commitment to "no net loss of wetlands". 30-2

The determination of the Corps to commit only to those operations which are economically justifiable is good. The focus on perpetuating the wrongs of the federal levee system is not. We feel that the Corps is obligated through both the Water Resources Development Act of 1986 and the Clean Water Act (as amended) to seek innovative solutions to federal levee impacts. Wetlands and riparian areas are being lost due to Corps' actions. The Corps should be incorporating the flood control benefits of these wetland areas while divorcing the obsession with massive structural designs.

A case in point is the Charles River above Boston, where the Corps of Engineers bought wetlands to accomplish what flood control structures alone could not. The Corps found that losing wetlands significantly increased the expected costs of flood damage. After acquiring some 8,115 acres of wetlands along the Charles River, the Corps was in the admirable position of managing a flood control project with annual costs of $617,000 and annual benefits of $2.1 million. While the concept of breaching levees to renew dying wetlands along the Snake might seem outlandish, it may be the only practical and ecologically sensitive long-term solution. 30-3

We urge the Corps to drop the current short-sighted approach to managing the federal levee system as contemplated in the draft O&M decision and EIS, and embrace the responsibility required of the agency. The final document should include the mitigation efforts needed to address the ecological concerns of the Snake River. We think this approach will create many opportunities to creatively manage flood flows while operating in cooperation with the dynamic qualities of the Snake River system. Thank you for the opportunity to comment.

Sincerely,

Eric Hafferman
WWF Water Resources Chair

John Zelazny
Conservation Programs Director

EH;JZ;jt

c: Governor Mike Sullivan
Arthur Anderson, USFWS
Vern Helbig, EPA

NPS Form 12 (Rev) Previous edition obsolete

Terry Beaver

Box 262
Cohoctah, Mi.
48816

2-10-90

James A. Walter
Army Corps of Engineers

Dear Lt. Col. Walter,

I am writing to you concerning the draft E.I.S. regarding the Snake River bottomlands. Please include the following in that plan affecting the Snake River floodplain:

1. Do a complete ecological and hydrological study to find the potential impact of any levees on the riparian habitat. 34-1
2. Make sure that species of 34-2

special concern/or endangered species, are not affected. (eagles, trumpeter swans, cutthroat trout, ducks).

3. Protect the floodplain habitats by adding/purchasing conservation easements.
4. Do not let the cottonwood-willow communities be destroyed, as they support much wildlife 34-2
5. Protect spring creek spawning habitat.
6. Do not remove gravel for levees from sensitive fish or wildlife areas.
7. Protect river islands & banks
8. Discouragement of residential development in floodplain wildlife habitats.
9. Provide for a full range of mitigations to the greatest extent possible.

Sincerely, Mrs. T. Beaver

Date From

WALLA WALLA DISTRICT ROUTING SLIP

35

CAMENZIND PRODUCTIONS

Franz J. Camenzind, Ph. D.

Lt. Col. James Walter
U.S. Army Corps of Engineers
Walla Walla, WA
99362

February 11, 1990

Dear Sir,

I was pleased to hear that the Army Corps of Engineers was taking over the maintenance and operation of the Snake River levy system in Teton Co., Wyoming. With this task the Corps now has a unique opportunity to enhance the overall environmental quality of the Snake River by mitigating past losses.

The Snake River in Teton County is not just a channel by which to expedite the removal of excess water from the valley, instead it is a very important living part of the valley and one which many of Northwestern Wyoming's unique wildlife populations depend upon for their very survival. The construction and past maintenance of the levy system has completely blocked off many natural fish spawning streams and rearing sites as well as having reduced natural stream bank diversity and instream habitat snags. All of these factors have greatly reduced the carrying capacity of the Snake River system and have lead to a loss of riparian habitat and associated species diversity. This conclusion requires no further study- it was made by the U.S. Fish and Wildlife Service- and it is obvious to any person who travels in the river's way.

It is important that the Corps now mitigate these past negative impacts (in accordance with the 1986 Water Resource Development Act) as part of the future levy maintenance operations. However, if the Corps does insist that further study is necessary, then public comments must be considered and the public must be allowed to review and respond to the findings and recommendations. But most of all, the Snake River must no longer be managed as a walled gutter by which water is expeditiously carried out of Jackson Hole- instead, the Snake River must be treated as the system through which much of the life of Jackson Hole flows and from which many species gain sustenance and find shelter. These factors must be given at least as much consideration in the levy management program as does the need to control flooding.

35-1

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Sincerely,

Franz J. Camenzind, Ph.D.

36

James A. Walter
Lt. Colonel, Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

Dear Sir

Feb. 15, 1990

This is a response to the DEIS on the Snake River levees. I am concerned about potential undue disturbance to the endangered bald eagles if mitigation is not done. The Coordination Act indicates that habitat could be improved for fish and wildlife with mitigation.

36-1

Flood control is of great concern. A long range plan could evaluate where flooding could and should be permitted.

36-2

The Snake River is still a natural jewel that should be preserved at all costs. Please make mitigation a part of this planning and action process.

Sincerely,

Stephanie Crockett

Stephanie Crockett
P.O. Box 353
Teton Village, WY
83025

Camas Rental Management Ltd.
Westwind at Vail

February 5, 1990

James A Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, Wa 99362 9265

Bland Hoke, Lew Clark
Steve Thomas
County Commissioners
Jackson, Wy 83001

Dear Sirs:

I understand that the ArmyCorps of Engineers is releasing a draft EIS for operation and maintenance of the levee systems along the Snake River from Grand Teton to South Park.

I spend a considerable amount of time in the Jackson Valley, and the Snake River is yearly being degraded. The river is in serious need of maintenance and restoration. I am urging you to develope a comprehensive plan that will include alternatives for the ecology of the river identifying the impact of the levees with regard to fish, water fowl, birds and game. Developement of the flood plain seems to be unrestricted at this time. 37-1

Unfortunately, as the river leaves the Jackson area, matters seem to get even worse. Last year I visited the Snake River Birds of Prey area, and it was a joke. I saw no birds of prey, but a lot of land use and farming. It's high time we take our rivers more seriously and stop taking these beautiful life lines for granted.

Thank you for considering my viewpoint, and I hope the Snake River is the winner.

Sincerely,

P. Deniswen

Paula Deniswen

P.O. Box 43
Moran, WY 83013

15 February 90

Lt. Col. James Walter
Corps of Engineers
Department of the Army
Walla Walla, WA 99362-9265

Dear Lt. Col. Walter:

I am writing to you to express my concern about the flood control levees along the Snake River in Teton County, Wyoming. These levees interfere with the natural processes that should occur along the Snake River. Flood plains are supposed to be flooded periodically and should not be altered for selfish short-term gain. Human activities and structures that cannot tolerate flooding do not belong in flood plains.

The existing levees have been constructed with virtually no regard for wildlife. Since most Wyoming politicians are devoid of any knowledge of ecology and are concerned only with immediate economic gains, it is unlikely that reason will prevail and the levees will be removed. So it is your responsibility to effect mitigation of the damage to wildlife caused by these unnecessary levees. Past damage to wildlife populations must be rectified to the maximum extent possible. Future maintenance of the levees must include measures to lessen the impacts to all riparian wildlife, especially native waterfowl, mammals and fish. There must be long-range plans to restore wildlife populations to what they were prior to the construction of the levees. Future plans for the Snake River must not include construction of more levees. 38-1 38-2

I hope I can count on your support for Amererica's wildlife.

Sincerely,

Katherine E. Duffy

39

WYOMING FLY CASTERS
P.O. BOX 2881
CASPER, WYOMING 82602

February 14, 1990

Lt. Col. James A. Walter
U.S. Army Corps of Engineers, Planning
Walla Walla District
Walla Walla, Wa. 99362-9265

Subject: 615 - Jackson Hole Flood Protection Project

Dear Colonel Walter:

As a fisherman who loves and uses the Snake River, I am very concerned with the future of that scenic and valuable fishery resource. Therefore, in your Final Environmental Impact Statement, I urge you to include the mitigation plan called for by the U.S. Fish and Wildlife Service. 39-1

Thank you for considering my input.

Sincerely,
Ronald E. Dalton, V.P.

cc: Senator Malcom Wallop
Senator Alan Simpson
Craig Thomas, M.C.

40

Dear Col Walter, 15 February 90
Thursday

I support the Wyoming Wildlife Federation and Jackson Hole Alliance's position regarding the Snake River levee system in Jackson Hole.

The final document should include the mitigation efforts needed to address the ecological concerns of the Snake River.

The final record of decision should recognize and accept responsibility for historic, current and future environmental mitigation. Many of the mitigation recommendations contained in the Coordination Act Report by the U.S. F&W should become normal project features. 40-1

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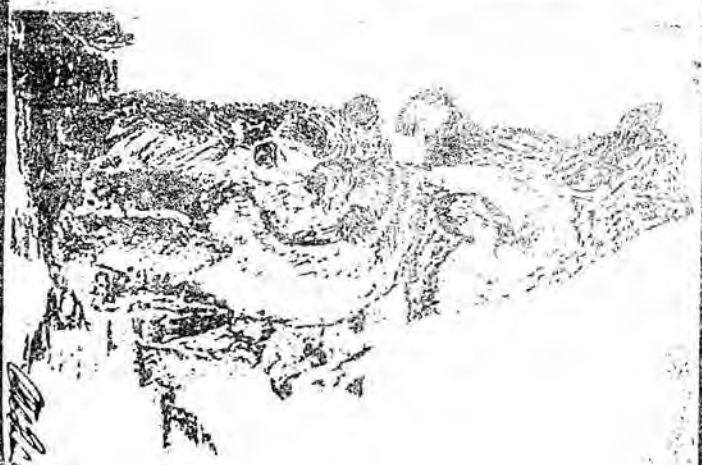
Thank you for providing an opportunity to comment. I have hunted and fished above Jackson and hope the lower portions again become productive habitat for fish and mammals alike.

Sincerely,

Skip Chapman



41

Mr. James A. Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

13 February, 1990

Dear Mr. Walter,

I am writing to you as a past and future resident of Teton County who is concerned with the Draft Environmental Impact Statement of the Army Corps of Engineers for the Snake River. I would like to urge you to include these concerns within the final EIS:

1) Inclusion in the EIS of a broad range of alternatives which consider the diverse ecosystem of the Snake River. 41-1

2) Implementation of a program to enhance and maintain wildlife habitats including, riverbanks, spawning habitat, and floodplain cottonwood and willow communities. 41-2

3) Consideration of levee impacts on populations of bald eagles, trumpeter swans, nesting waterfowl, moose, trout, invertebrate communities and aquatic vegetation, with proposals for mitigation of impacts.

4) Protection of wildlife habitats through acquisition of conservation easements.

5) Designation of borrow areas in locations which minimize wildlife habitat impact.

Thank you for considering these issues.

Sincerely,

Nancy FitzSimmons

Nancy FitzSimmons
Zoology Dept
Univ. of Wyoming
Laramie, WY 82071

42

20 Vinal Ave
Edison, NJ 08817
Feb. 9, 1990

...es A. Walter
...Colonel
...ps of Engineers
...t. of the Army
...alla Walla District
...lla Walla, WA 99362-9265

Dear Sir:

I have witnessed the ecological devastation that occures when a free-flowing river is levied for flood control purposes. My experience was with the lower Rio Grande in New Mexico, where I lived for a number of years. Rivers cannot continue to be regarded as simple conduits for the draining of runoff from the landscape as quickly as possible. This myopic view fails to take into account the vast scientific evidence which shows that rivers are tied to their floodplains, and vice versa, in intimate ways, both hydrologically and ecologically. The DEIS for the Snake River from the Grand Teton Nat'l Park, downriver for approx. 32 miles, and the 2.5 miles of the Gros Ventre R. upstream of it's confluence w/ the Snake, is woefully inadequate because it fails to consider these hydrological and ecological ties. Damages already incurred must be mitigated, and the full range of ecological effects of levees must be considered, including impacts to cutthroat trout, waterfowl, eagles, and the riparian/floodplain cottonwood-willow communities. Floodplain, wetland, fish & wildlife, and endangered species assessments should be conducted by an outside agency. The Corps must adopt a program of restoration

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42

and maintenance of the long-term productivity of this nationally significant ecosystem! Central to the proper resolution of this issue is acquisition of conservation easements and prevention of any further development of these areas.

42-4

Sincerely,
Joseph Tarpey Gebler
Environmental Scientist

cc: Bland Hoke, Lew Cheek, Steve Thomas
County Commissioners Teton County-WY

February 5, 1990

Mr. Dale R. Smelcer
U.S. Army Corps of Engineers
Bldg. 603
Walla Walla, WA 99362-9265

re: Jackson Hole, Wyoming
Flood Protection Project

Dear Mr. Smelcer:

Our comments on the draft Operations and Maintenance Decision Document and EIS for the Jackson Hole, Wyoming Flood Protection Project will address three (3) specific areas. We would have addressed others if we had been given an extension of time to comment, similar to that of the U.S. Fish and Wildlife Service.

The first item we would like to comment on is the issue of separability.

43-1 The methods of defining the separable elements is obviously flawed. While this may not affect the maintenance decision it will definitely affect and in fact, makes the non-completion of the levee system a foregone conclusion. We believe all of the Levees (Federal and Non-Federal) must be constructed to give the same level of flood protection. If your cost benefit study is done properly we feel the benefits will clearly dictate that protection of all lands from the 100 year flood plain is economically justified. The EIS, on page 21, starts off by saying "all of the Federal levees are considered one element because of the common flood plain on the right bank and the induced damages that would be caused to the left bank by construction of the right bank levees." We agree with this statement and believe that the Non-Federal Levees should be considered under the same logic. The Federal and Non-Federal Levees protect a common floodplain on the right bank of the river therefore the Federal and Non-Federal must not be seperate elements. It makes absolutely no sense to separate the Federal Levees (below the Wilson bridge) for the purpose of this study. This error must be corrected and the cost benefit ratio changed in the final EIS to reflect this non-separability.

The second item we would like to comment on is the valuation of land used in the EIS. The EIS is in error in its calculation of land values for both agriculture and in terms of the loss created from avulsion. While it is difficult to determine the damage

43-2 that would occur to the agriculture value if the levees are not completed and the 3 to 4 feet of freeboard added where it is needed we are certain that we would incur greater damage than the $75.00 to $210.00 an acre that is used in the EIS. When dealing with the Internal Revenue Service they do not look at grazing values and hay meadows, they look at "highest and best use" to establish value for estate and gift taxes and appraise each estate accordingly.

The real value of the land, and the damage that would result due to the failure of the Army Corps. of Engineers to maintain and or complete the entire levee system is an issue. One that we have continually raised. The $13,500.00 an acre value you have assigned is much too low. We know of large parcels of land that have sold in the

February 5, 1990
page 2

$30,000.00 - $40,000.00 an acre range. We are also aware of smaller parcels that have sold for $100,000.00 an acre. The acreage sales table on page D-2 does not include any of these sales as they are quite recent. A new appraisal of these lands needs

43-2 to be done as your data is out of date and in some cases inaccurate. We think a closer look by the Corps, with not only real estate people but with landowners would be appropriate for establishing values.

It is unfortunate that you have not taken the time nor effort to value the specific properties protected by the Non-Federal Levees. If you had, you would find the properties are much more valuable due to the spring fed creeks with the pines and cottonwoods. The properties you have compared ours against do not have many of these amenities.

43-3 We also feel that the area that you have designated as subject to avulsion is much too small. We think that the acreage should be doubled and perhaps tripled.

We feel that the acreage not in the avulsion area would be damaged to a greater extent than the value alloted for the agricultural damage. This land is suitable for development and has value for that purpose. The Teton County Comprehensive Plan allows development on that property and the failure of the Corp. to maintain and or complete the levee system would damage that value. The Corp. has failed to address this at all in the EIS. The reason for this omission as stated by the Corp. is that the Corp. cannot create value through their actions. We believe the Corp. will not create any additional value by maintaining and completing the levees, but simply protect the value that already exists. The Corp. should not degrade values by leaving

43-4 the "non-federal" levees incomplete. If the Corp. does nothing a degradation will occur and we do not think this was the intent of the Congressional action that caused the levees to be built in the first place. We have state earlier that we believe that the Federal Levee system has pushed the flooding problem, starting in Teton National Park down to South Park. With the Snake River not being allowed to dissipate its energy it has funneled the energy down and multiplied our flooding potential many times over what it would be if the levee system did not exist at all. The completition of the levee system is the only logical solution to eliminate any continued degradation. This degradation of land value must be incorporated as a cost in the analysis of whether to finish the levee system. We are concerned if this does not appear in the EIS that it will also be omitted from the general investigation study the the Corp. plans to finish later this year.

The final concern we have is the Spring Creeks. These streams are recognized by the Wyoming Game and Fish Department as critical spawning habitat. Quoting from the operation and maintenance EIS Benefit Evaluation, page 22, Damage Analysis, paragraph 2, it states "willingness to pay, value per fish, was derived from a study of the Upper Green River in Wyoming, updated to the current price level ($24.10 per fish caught). We believe the comparision to the Upper Green River is wrongful comparision.

43-5 According to John Kiefling, Fisheries Biologist, Wyoming Game and Fish Department, He believes that the Snake River has far more willing-to-pay value than that of the Upper Green River. He states the willingness-to-pay value at $108.01 per fish caught. It was also stated in an earlier cost analysis that the per lineal foot value averaged $1.27 per lineal foot. The Wyoming Game and Fish Dept. determined the value to be $5.61 per lineal foot with the potential to grow to $24.32 per lineal foot. We have worked very closely with the Wyoming Game and Fish Department, namely John Kiefling and Jon Erickson. We hold them as the utmost experts on the valuation of these streams. They have stated many times that these spring creeks are a priceless resource. Once they are lost you cannot replace them. You cannot go out and buy a native cutthroat trout.

February 5, 1990
Page 3

We will be pleased to see the Corp. accept the responsibility of all the levees they have built on the Snake and Gros Ventre River and hope they can justify the feasibility of increasing the rip-rap and freeboard to a point where all the levees will be treated as one.

Sincerely,

Robert Gill

Kelly Lockhart

Elizabeth Lockhart

JOHN M. GOOD

Col. James Walter
District Engineer
U.S. Army Corps of Engineers
Walla Walla, WA 99362

15 Feb., 1990

Dear Col. Walter:

I am sorry to have missed your public meeting on the Snake River Levee draft EIS held recently here in Jackson.

It is heartening to see the Corps accept responsibility for maintenance of the levee system here, but I don't believe your EIS should omit the necessity for fish and wildlife mitigation in the project. We have serious problems here, particularly regarding trout fisheries. I confess to being a fisherman, but the context extends far beyond my personal desires to the economic welfare of the Jackson community. Improvement of the fishery is a top priority for local businessmen because we are a tourist-based economy. 44-1

I am confident the Corps has the professional knowledge to conduct a solid assessment of mitigation needs and to carry them out. I hope you will agree to do so.

Sincerely yours,

John M. Good
Box 167
Moose, WY 83012

45

Clifford P. Hansen
PO BOX 448 • JACKSON WYOMING 83001

February 5, 1990

U.S. Army Corps of Engineers
Walla Walla District
Attention: Jim Wood
Building 602, City/County Airport
Walla Walla, Washington 99362

Re: Jackson Hole Flood Protection Project

This letter is in response to your invitation for public comment on the maintenance - modification proposed for dikes in Teton County, Wyoming.

Some overall observations: Land valuations in Jackson Hole have risen very sharply; much building has taken place, including some very expensive structures. Specific figures can be gathered from the county and various realtors. 45-1

With the exception of the east bank of the Snake River for a mile or so downstream from its confluence with the Gros Ventre, wherever one side of the river has levee protection, the other side should be given levee protection also. This is vital on the east side of the Snake south of the levee terminus near Parthenia Stinnett's property. Any extension on this east side should continue down near the mouth of the Gros Ventre. A critical small spotted Snake River cutthroat spawning and rearing area could be destroyed by the encroachment of Snake River water into this important springs area. 45-2 45-3

By the same token, the dike on the north bank of the Gros Ventre, immediately west of the Spring Gulch bridge should be extended. By extending this dike downstream nearly to the mouth of the Gros Ventre not only will the small spotted Snake River cutthroat spawning and rearing areas be preserved but very valuable real estate and buildings will not be longer threatened. 45-4

The Park Service has expressed an interest in using the lower reaches of the Gros Ventre as a source of gravel. Accordingly, this dike extension on the north side should contemplate gravel extraction on a continuing basis. At the present time the riverbed area upstream from the mouth of the Gros Ventre is building up with gravel deposits. 45-5

Proposals to acquire rip-rap at other locations should be weighed against the cost effectiveness of the state quarry. Centrally located, with easy access up and down the river, this site assures much lower cost per yard than could be achieved any other place. Logic demands continued use of this state-owned quarry. 45-6

Respectfully submitted,

Clifford P. Hansen by mm

Clifford P. Hansen

4

Box 976
Wilson, WY 83014
February 14, 1990

James A. Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

Dear Lieutenant Colonel Walter:

I am writing to express my concerns over the Corps of Engineers' recently released draft Environmental Impact Statement on Snake River Levee Operation and Maintenance. The upper Snake River in Jackson Hole has been severely modified by several decades of levee construction. The U.S. Fish and Wildlife Service has pointed out the impacts the levees have had on fish and wildlife habitat. The draft EIS acknowledges these impacts, but fails to address mitigation measures that are needed to maintain and restore the Snake River's ecological productivity. I do not agree with the Corps' proposal to address mitigation in a separate General Investigation Study. Mitigation should be an integral part of levee operation and maintenance, and I would like to see the Corps make a commitment to mitigation as a part of this EIS process. 46-1

I am also concerned about the possibility that the Corps will continue constructing levees on an ad hoc basis during flood events. I think it is important to reduce the need for more levee construction by acquiring easements to prevent future development in the flood plain. Whatever levee construction is done should be carefully planned so as to minimize impacts on the Snake River channel and tributary creeks. 46-2

The Jackson Hole Chapter of Trout Unlimited has suggested that a cooperative task force should be established to adress mitigation of the problems caused by levee construction and maintenance. I support establishment of such a task force. I also support the Greater Yellowstone Coalition's suggestion that the Corps should develop a plan that takes a comprehensive view of the Snake River ecosystem and ways to enhance its ecological value. The Corps must consider the long-term impacts of the levees on the Snake River ecosystem. Accepting responsibility for levee maintenance without considering the ecological context of these activities is irresponsible and short-sighted. Unless the Corps makes a commitment to address the damage resulting from past and present levee building and seeks full funding for mitigation, the Snake River's fish and wildlife will continue to decline. 46-3 46-4

Thank you for considering these comments.

Sincerely,

Ann Harvey

Ann Harvey

cc: Senator Malcolm Wallop
Senator Alan Simpson
Congressman Craig Thomas
Teton County Commissioners

47

February 9, 1990

Lt. Col. James Walter
District Engineer
U.S. Army Corps of Engineers
Walla Walla, Washington 99362

Dear Colonel Walter:

As a resident of Teton County very much concerned with the well being of this community and its related resources, I would urge you to pursue efforts that would include mitigation responsibilities with the preferred alternative for the operation and maintenance by the Corps of Engineers of the Snake River levee system in Jackson Hole, Wyoming. 47-1

I compliment you and your staff for your dedication to this issue and thank you for your consideration of this request.

Sincerely,

Ed Ingold

Ed Ingold

EI:dj

48

Feb 9, 1990

Dear Lt Col. James Walter:

You know if your department spent less money on studies (millions) and less money trying to avoid doing what you should do, your department would have plenty of money to do some positive projects on the Snake River in Jackson.

It doesn't take a genius to know that that river channel needs to be cleaned out. All existing gabions using some rock from the river bed would be cheaper than hauling rock for a long and would not scar the valley with another rock quarry. 48-1

I have felt for years that hauling all that rock was a waste of money. Building up many gabions makes a lot of sense. 48-2

Perhaps it is time an American Taxpayer have another Boston Tea party. I'm tired of your officials wasting our money and doing nothing.

Yours

[illegible] Johnson
Box [illegible]
Jackson Wyo.

Ventre Butte for it, so it wouldn't be sold for housing development!

The Corps really has three choices: tear down the rest of the hill; find another hill to ravage; *or* (a really obvious solution) *use the riverbed itself.* The river rock is billion-year-old quartzite (Pinyon conglomerate), the most durable building material in Jackson Hole.

Visualize these round boulders encased in a wire or cable basket, then placed at washout spots in the levees. They settle in like heavy pillows and plug the hole. Fifty years ago, the SCS built these "gabions" all over the Navajo reservation to control flooding. They worked.

Making gabions is different only in scale and materials from what a bagger does at the checkout counter — filling a sack with cans and bottles, and all of us know how the flexible ones settle in a shopping cart or car! There are probably a dozen people in Jackson with the ability to make a machine to assemble gabions of river rock; with a hook or bail on the wire basket, these rock pillows could be built in the river, then stored on the levee for use as needed. A tractor or truck with the boom could then set them in the washouts. And those who now haul the rock could be part of this process.

I challenge the Alliance to back such a *constructive* project instead of wasting their time and energy on oil leasing hysterics. There will be many nay-sayers to this proposal, but with a little ingenuity, it can be an alternative to ravaging more hillsides in the valley. Think about it.

Paul T. Walton
Walton Ranch Company
Jackson

About the Walton pit

May I make a few comments about the so-called "Walton pit?"

The state owns the rock; the county quarries it. About all that's left in the quarry now is poorly consolidated volcanic tuffs, which will crumble like sugar if in a levee when water hits it.

A small section of the hill south of the pit is welded tuffs (volcanic ash) probably suitable for levee use, but to quarry this would mean a doubling of the scar on the hill, to which I own the surface rights. What would be left after the hill is torn away? I traded land on the top of West Gros

February 5, 1990

Lt. Col. James A. Walter
U.S. Army Corp of Engineers
Walla Walla District
Walla Walla, WA 99362-9265

RE: Comments on Snake River Draft EIS

Dear Col. Walter,

There are several issues that the Draft EIS on the Snake River below Grand Teton National Park does not adequately address. There is a long history of typically bad decisions that have been made with regard to this area: decisions that ignored the ecology of the area in the hurry to make "development" possible. While it would be best if many of these could simply be undone at the very least the EIS needs to focus on and adopt a preferred alternative that prevents further damage and provides for substantial mitigation of previous disturbances. To do any less is a violation of your responsibility under the law. 49-1

1. The affects of the previous levee construction need to be fully analyzed in terms of the overall ecosystem as well as with regard to certain key species such as large mammals, seasonal water fowl and cutthroat trout. If these species are being hurt then the ecosystem is in trouble and the preferred alternative needs to address this. 49-2

2. Riparian habitat should be a prime concern for "management" of this area. Preservation and repair of past damage to streams, islands, river banks and the flood plain generally should be undertaken. 49-3

3. Further development should not be allowed, partricularly given the level of subsidy such developments require when located on a flood plain. Continued development will further disrupt the ecosystem. 49-4

49

The Water Resource Development Act of 1986 and other laws make it incumbant on the Corps to mitigate damages to wildlife resulting from its projects. As a visitor to the Yellowstone/Teton area I am very concerned about the protection of this area over the long term. Protection require mitigation. 49-5

Sincerely,

David M Johns
2747 NE 18th St
Portland, OR 97212

C: Teton County Commissioners Bland Hoke, Lew Clark, Steve Thomas

50

HIGH COUNTRY

Flies

75 E. BROADWAY
P.O. BOX 3432
JACKSON, WY 83001
(307) 733-7210

February 14, 1990

District Engineer: Lt. Col James Walter
U. S. Army Corps of Engineers,
Walla Walla, Washington 99362

Dear Sir:

I am writing about the draft EIS on the Snake River levee system proposed operation and maintenance.

I wish to go on record as supporting continuing mitigation for problems created by the construction and maintenance of the levee system to fish and wildlife habitat. Mitigation would assist in lessening the damage that has been and will continue to be created as this project continues. 50-1

I understand the U. S. Fish and Wildlife Service has recommended mitigation measures which you could include in the Decision Document and EIS for the operation and maintenance. I assume those recommendations will recieve support from your agency.

Yours truly,

James R. Jones
75 E. Broadway,
Jackson, WY 83001

HIGH COUNTRY

Flies

JAMES R. JONES
75 E. Broadway
Box 3432
Jackson, WY 83001
1 (307) 733-7210

51

15 February 1990

Lt. Col. James Walter
U.S Army Corps of Engineers
Walla Walla WA 99362

Dear Sir.

I am writing to you today concerning the levees on the Snake River in Jackson Hole, Wyoming. It has come to my attention that the Corps is ignoring the negative effects the levee system has had on ~~the~~ wildlife & fish populations in the Snake by refusing to ~~mitigate~~ correct existing problems and to restore the productivity of the area.

51-1

I strongly urge you to take responsibility for these problems and to take advantage of existing legislation, authorities & funding opportunities to correct the errors in the levee system. This should be part of the operation & maintenance of the system, as part of your willingness to undertake the project. In addition, it seems that the establishment of a task force lead by the Corps & consisting of all interested parties would be of great help in this matter. I encourage you to pursue this task immediately.

51-2

Sincerely,
Barry A. Louik
3573 Junior

52

P.O. Box 43
Moran, WY 83013

15 February 90

Lt. Col. James Walter
Corps of Engineers
Department of the Army
Walla Walla, WA 99362-9265

Dear Lt. Col. Walter:

I am writing to you to express my concern about the flood control levees along the Snake River in Teton County, Wyoming. These levees interfere with the natural processes that should occur along the Snake River. Flood plains are supposed to be flooded periodically and should not be altered for selfish short-term gain. Human activities and structures that cannot tolerate flooding do not belong in flood plains.

The existing levees have been constructed with virtually no regard for wildlife. Since most Wyoming politicians are devoid of any knowledge of ecology and are concerned only with immediate economic gains, it is unlikely that reason will prevail and the levees will be removed. It is your responsibility to effect mitigation of the damage to wildlife caused by these unnecessary levees. Past damage to wildlife populations must be rectified to the maximum extent possible. Future maintenance of the levees must include measures to lessen the impacts to all riparian wildlife, especially native waterfowl, mammals and fish. There must be long-range plans to restore wildlife populations to what they were prior to the construction of the levees. Future plans for the Snake River must not include construction of more levees.

52-1

52-2

I hope I can count on your support for America's wildlife, and not the American taxpayer.

52-3

Sincerely,
Patrick Matheny

Patrick Matheny
P. O. Box 43
Moran, WY 83013

53

EDWARD MCGARRITY
524 VERNON AVE
STATEN ISLAND, NY 10304

6 FEBRUARY, 1990

DEAR LIEUTENANT COLONEL WALTER,

I AM WRITING TO EXPRESS MY CONCERN ABOUT THE FUTURE OF THE SNAKE RIVER SEGMENT FROM GRAND TETON NATIONAL PARK TO SOUTH PARK. THE LEVEES HAVE CREATED A SITUATION RIPE FOR DEVELOPMENT WITHIN FLOODPLAIN WILDLIFE HABITATS. 53-1

I AM HOPING THE CORPS WILL ADOPT A PROGRAM TO RESTORE AND MAINTAIN THE LONG TERM PRODUCTIVITY OF THE RIVERS ECOSYSTEM TO THE GREATEST EXTENT POSSIBLE

PLEASE LEND YOUR SUPPORT. THANK YOU.

YOURS TRULY

Edward McGarrity

54

MARY MEAD
BOX 98 • JACKSON, WYOMING 83001

February 5, 1990

U.S. Army Corps of Engineers
Walla Walla District
Attention: Jim Wood
Building 602, City/County Airport
Walla Walla, Washington 99362

Dear Mr. Wood:

With the escalation of property values in Jackson Hole the protection of river bottom real estate is vital to undeveloped as well as developed areas.

Recognizing that the Snake River is a dynamic stream, those sections of the river protected by levees on one side will eventually be threatened on the opposite side. The Corps of Engineers should plan to contain the Snake River where natural barriers are not present. 54-1

The protection of spawning habitat for the Snake River spotted cutthroat is important to the economy of Jackson Hole. A very high percentage of this species located between Moose and the Wilson Bridge are spawned here. The lower reaches of the Gros Ventre river bottom warrant levee protection for the spring creeks that provide most of this habitat on both the north and south sides. This should be established as a priority. 54-2

Damage from flooding and mid-river debris build-up are surprisingly apparent near the mouth of the Gros Ventre. A heavy run-off year would threaten and probably destroy the trout habitat near the lower mile of the Gros Ventre. 54-3

Hopefully an area-wide plan will be adopted for the valuable areas that are presently jeopardized in Teton County. 54-4

Sincerely,

Mary Mead

Mary Mead

55

February 13, 1990

Mr. James A. Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, Washington 99362-9265

Dear Sir:

The purpose of this letter is to request that you insist upon a development of a comprehensive plan by the Army Corps to restore and maintain the long-term protection of the Snake River environment.

Please insure that the following are considered in the Corps program:

a. Study of river hydrology and ecology to fully identify the impact of the levees. Particular consideration should be given to cutthroat trout, nesting water fowl and bald eagle, wintering trumpeter swans and big game.

b. Acquisition of conservation easements to protect flood-plain habitats from further development.

c. Enhancement and maintenance of instream habitats and riparian areas, including islands and river banks.

d. Improvement and maintenance of spring creek spawning habitat.

e. Maintenance of flood-plain cottonwood willow communities.

f. Location of borrow areas, where gravel for levees will be excavated, in areas which avoid important fish and wildlife habitat.

55-1

Thank you for your consideration. There will only be one Snake River. Preservation of the river will require everyones concern and dedication. We must restore and maintain the long term productivity of the Snake River.

Sincerely,

David W Meyers

David W. Meyers
P. O. Box 8311
Rancho Santa Fe, CA 92067

56

February 13, 1990

Mr. James A. Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, Washington 99362-9265

Dear Sir:

The purpose of this letter is to request that you insist upon a development of a comprehensive plan by the Army Corps to restore and maintain the long-term protection of the Snake River environment.

Please insure that the following are considered in the Corps program:

a. Study of river hydrology and ecology to fully identify the impact of the levees. Particular consideration should be given to cutthroat trout, nesting water fowl and bald eagle, wintering trumpeter swans and big game.

b. Acquisition of conservation easements to protect flood-plain habitats from further development.

c. Enhancement and maintenance of instream habitats and riparian areas, including islands and river banks.

d. Improvement and maintenance of spring creek spawning habitat.

e. Maintenance of flood-plain cottonwood willow communities.

f. Location of borrow areas, where gravel for levees will be excavated, in areas which avoid important fish and wildlife habitat.

56-1

Thank you for your consideration. There will only be one Snake River. Preservation of the river will require everyones concern and dedication. We must restore and maintain the long term productivity of the Snake River.

Sincerely,

Marian L. Meyers

Marian L. Meyers
P. O. Box 8311

57

February 9, 1990

Lt. Col. James Walter
District Engineer
U.S. Army Corps of Engineers
Walla Walla, Washington 99362

Dear Colonel Walter:

I'm writing in regards to the operation and maintenance plan for the Snake River levee system in Jackson Hole, Wyoming. I would like to stress the importance of the Snake River Cutthroat Trout fishery to the economy of our community. My employment as Office Manager for the Crescent H Ranch is dependent to a great degree on this resource and it is for this reason that I urge you to pursue mitigation responsibilities as a part of the operation and maintenance plans for the Snake River levee system. 57-1

Thank you for your consideration to this request.

Sincerely,

Debe' J. Piatak

Debe' J. Piatak

58

Snake River Associates
and
Fall Creek Associates
Star Route, Box 385
Wilson, Wyoming 83014

February 5, 1990

Lieutenant Colonel James A. Walter
District Engineer
Department of the Army
Walla Walla District, Corps of Engineers
Walla Walla, Washington 99362-9265

Dear Lieutenant Walter:

Thank you for sending me a copy of the DEIS on the Jackson Hole Levee Maintenance Project (Section 840, P.L. 99-662) and for holding the public hearing in Jackson. This letter represents the comments of Snake River Associates and Fall Creek Associates and is in addition to the comments I made on their behalf at the public hearing.

Snake River Associates and Fall Creek Associates are two family partnerships owning land in Jackson Hole. We operate our land as Snake River Ranch. The ranch is all on the right bank of the Snake River, but it is in two sections. The main ranch is about five miles north of the Wilson Bridge and has over one mile of river frontage. The lower ranch is about six miles south of the bridge and has over four miles of river frontage. The northern portion is well protected by the "Federal" levees, which we appreciate greatly. The southern portion of the ranch is partially protected by the three Taylor Creek Levees and the Sewell Levee (SCS funded), which are all at least partially on our property. Unfortunately, the land between and below these levees is not protected and is eroding rapidly. This erosion has increased significantly due to levees upstream and across the river. Unless the levee system is completed, these "induced damages" will continue.

Limited Scope of Decision Document and DEIS.

On page one of the Decision Document it states that "the scope is limited to continuation of historic O&M practices ... Any additions or improvements to the Federal or non-Federal levees are not addressed in this report." Why? There is nothing in Section 840 of P.L. 99-662 that prohibits the Corps from considering additions and improvements. In fact, the original intent of this legislation was for the Corps to complete the levees in Jackson Hole. This arbitrary limitation of the scope and alternatives of an EIS is in direct conflict with NEPA. 58-1

Extensions to the Levees.

In the DEIS, in chapter 2.2, Alternatives Considered in Detail, an additional alternative must be added: 2.2.3 Alternative C - Complete the Levee System to the South Park Bridge. This would include extending and rebuilding all levees until both banks were fully protected to FEMA standards. This alternative is necessary since it is the logical completion of the project. The DEIS artificially stops at analyzing only the existing levees, most of which were built for flood fight and were never completed. This alternative must be considered in detail in order to meet the requirements of NEPA. This alternative would recognize that the whole floodplain from Grand Teton National Park to the South Park Bridge is inter-related, and that constricting the river at one point affect the rest of the floodplain. Today, with most of the river bank stabilized by levees, the energy of the river and the damage it causes have been concentrated on the few remaining unprotected sections of the bank. To avoid compounding this "induced damages" problem, the Corps must finish the levee system. Otherwise the Corps is in effect condemning the unprotected lands as sacrifice areas for the benefit of the other levees and the lands they protect.

58-2

Maintaining All Levees as Specified by P.L.99-662.

On page 2-7 of the DEIS, paragraph 2.2.2.1 Levees to be Maintained states that "Alternative B would include ... 16 nonfederal levees shown in figure 2-1 ..." Figure 2-1 shows 17 non-federal levees including the Sewell levee (SCS funded). This levee is noted as "Destroyed". This is false. Although this levee has been damaged, about half of it is still there with riprap. It is completely arbitrary to drop this levee from maintenance when other levees have also been damaged. (Table 2-1, page 2-16 lists this levee as not to be maintained; this should also be corrected. Also, throughout the Decision Document and the DEIS, the Sewell levee should be indicated and named on maps and aerial photos.)

58-3

The same is true for the end of the Middle Taylor Creek levee. The end of this levee has been washed out, re-opening a flood channel and subjecting a large area and the Fall Creek County Road to avulsion. This levee should also be fully repaired and maintained.

The repair and maintenance of the two levees mentioned above is required by P.L. 99-662 since they are "additions" to the project, just as much as any other non-federal levees. The fact that these two levees have been damaged is due to temporary lack of funding and is not relevant to this decision document. Specifically, on page one of the Decision Document, P.L.99-662 is quoted and states that "operation and maintenance of the project, and additions and modifications thereto constructed by non-federal sponsors, shall be the responsibility of the Secretary..."

58-

Separable Elements.

On page 21, the Decision Document defines the "Separable Elements". The first two are defined as follows:

> (1) All the Federal levees are considered one element, because of the common floodplain on the right bank and the induced damages that would be caused to the left bank by construction of the right bank levees. [Emphasis added.]
> (2) All of the Gros Ventre levees ... for the same reason as paragraph (1) above.

This reasoning is accurate: common floodplains must be considered as one separable element and areas of "induced damages" must also be included in the same separable element. Unfortunately the DEIS abandons this reasoning for the next three paragraphs. It lists the Middle and Lower Imenson levees separately from the Upper and Middle Taylor Creek Levees, when these levees are directly opposite each other. Also, paragraph (5) states that "Remaining individual non-Federal levees will be evaluated separately..." This breakdown of separable elements directly conflicts with the logical reasoning behind the first two separable elements. For example, the Lower Taylor Creek Levee protects a continuation of the same floodplain as the other two Taylor Creek Levees, and it is affected by the opposing Imenson levees.

58-4

To be internally consistent and to reflect the reality of a meandering stream, the FEIS should not divide one bank from the opposite bank as different separable elements. To correct this error, all of the levees below the Federal levees down to the South Park Bridge should be grouped as one separable element, since the floodplain is continuous on the left bank and the right bank suffers "induced damages". If you must split this reach of the river into two separable elements, the only reasonable point at which to divide it is at the mouth of Spring Creek, opposite Munger Mountain.

Lieutenant Walter, 2/5/90.
Page 4.

Avulsion Analysis.

It is not clear if the avulsion analysis in appendix B is meant as a typical example. Plates B-2 and B-3 show only avulsions on the left or east bank of the river. These maps appear to show only one possible avulsion scenario. Obviously, the river could cause avulsions elsewhere on this side or on the opposite side. The FEIS should explicitly state that this avulsion is only one example and that avulsions may occur elsewhere. The cost benefit analysis correctly implies that this is only an example by listing avulsion prevention benefits under various levees. 58-5

Two additional places for avulsion analysis are
1) Between the Middle and Lower Taylor Creek levees, which would flood the Fall Creek County Road, and
2) Below the Lower Taylor Creek levee which would flood two houses, a barn, and other improvements owned by Snake River Associates.

Thank you for considering our comments. We hope that the FEIS will incorporate the changes we have suggested. Although we very much want to see the Corps take over operation and maintenance of the levees and we realize that this EIS must be approved before that can happen, we would strongly oppose a decision to take over some of the levees while abandoning others that are needed to protect our property. Our recent flooding and erosion problems are directly related to opposing and upstream levees. The only solution is for the Corps to finish the system. This Decision Document must recognize that the increasing "induced damages" to the few remaining unprotected areas are a result of operation and maintenance of the levees. Therefore, the selected alternative must be to complete the levee system. 58-6

Sincerely,

W B. Re

William B. Resor
General and Managing Partner
Snake River Associates and
Fall Creek Associates

David Richerson
2417 Hillshire
Deer Park, TX 77536

Feb. 6, 1990

Dear James A. Walter:
Please send me the Draft Environmental Impact Statement for operation and maintenance of levee systems along the Snake River. I know the review period ends Feb. 13, 1990, but I would still like a copy. Would it be to difficult if I could get 2 copies. Thank you for your time and trouble.

Sincerely,
David Richerson

60

February 5, 1990

Lt.Col. James A. Walter
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

Dear Lt.Col. Walter:

I am writing to ask that the Army Corps develop a new vision for the Snake River near Jackson Hole, Wyoming. The leveed section of the Snake River still supports wildlife diversity. However, this segment of the Snake is in rapid decline. The U.S. Fish and Wildlife Service has said that considerable habitat losses to fish and wildlife resources has already occurred. 60-1

The Corps should expand its view to consider more environmentally suitable means of land and resource protection for those areas not now restricted by large levees. Alternatives include set-back levees, river training structures, and flood easements.

The Corps must adopt a program to restore and maintain the long-term productivity of this Snake River ecosystem to the greatest extent possible. 60-2

A study of river hydrology and ecology should be done to fully identify the impact of levees. Particular consideration should be given to cutthroat trout, nesting water fowl and bald eagle, wintering trumpeter swans and big game. There should be acquisition of conservation easements to protect flood plain habitats from further development. Enhancement and maintenance of instream habitats and riparian areas. Improvement and maintenance of spring creek spawning habitat. Location of borrow areas, where gravel for levees will be excavated, in areas which avoid important fish and wildlife habitat. 60-3 60-4

This area, so close to the Grand Tetons, the Gros Ventre River, and so much more should be a model to our resolve to safeguard and protect our natural heritage!

Sincerely,

Laura E. Riensche

Laura E. Riensche
2019 Altamont Road
San Leandro, CA 94578

61

Lt. Colonel Walter, I'm glad to hear that mitigation is to be proposed in the EIS on the Snake River Dike project. I'm involved in a retail fishing business and guide part time. It seems to me that the dikes on the Snake seem to channelize the Snake river more each year and they also seem to have taken out some good islands that provide bank cover for the cutthroats. It would be great if the studies and rehab work for habitat improvement would be done to correct the problems caused by the dikes. I am also president of the Jackson Fishing guides Association and I know that the guides in the Valley feel this way. 61-1

Thanks,
Scott Smith

62

James A. Walter
Lt. Colonel, Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

Dear Sir

I am responding to the Draft EIS on the Snake River Levee System. Although I am glad the Corps has agreed to maintain the levees, the DEIS is lacking two major portions.

1. Mitigation of past, present, and future environmental impacts should be addressed NOW. 62-1

2. A study of the hydrology and ecology of the Snake with an associated long range maintenance plan. 62-2

Sincerely,
David Saurman

David Saurman
Box 2909
Jackson, Wy 83001

63

Jackson, Wyoming
2-14-90

Lt. Col. James Walters:

Dear Sir:

I'm writing to you in regards to the proposed action of the U. S. Army Corps of Engineers along the Snake River levees in Jackson Hole.

I think the removal of the snags and trees from the Snake River in the levee areas would be very detrimental to wildlife, and especially fish, and it wouldn't serve any useful purpose. A channelized stream becomes a sterile area for fish, and the people of Jackson Hole are opposed to that. 63-1

Respectfully

Carl M. Scrivens

Lt Colonel James Walter
Army Corps of Engineers
Walla Walla, WA.
99362

February 14, 1990

Dear Colonel Walter,

I am writing this letter regarding your EIS on the Snake River levees in Jackson Hole, Wyoming. I am a resident of Wyoming and an avid canoeist and birdwatcher. I feel strongly that the present condition of the levees is damaging to the wildlife, most notably the fish in Jackson Hole, a community which depends heavily on tourist dollars (my job included). If the Army Corps of Engineers is to assume responsibility for the maintenance of the Snake River levees, it should do so with environmental impacts in mind, and it should address these concerns now, not next year, or the next. I believe Jackson Hole and the Army Corps of Engineers would both benefit from environmentally sound treatment of our most precious resource. Thank you for your time. 64-1

Sincerely,

Phil Shephard

64

65

February 12, 1990

James A. Walter
Lieutenant Colonel
U.S. Army Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

RE: Input on Draft Environmental Impact Statement (DEIS) for operation and maintenance of the Snake River levee systems.

Dear Lieutenant Colonel Walter:

This letter contains my comments and recommendations on the above-referenced DEIS. Please consider my input, and include this letter in the appropriate administrative record.

65-1,2,3 At the outset, I believe this DEIS is inadequate under NEPA because it only considers the narrow perspective of maintaining existing flood control structures. NEPA requires consideration of a reasonable array of alternatives; growth-inducing and cumulative impacts; and mitigation measures for unavoidable adverse impacts. With this in mind, and given the ecological changes caused by existing flood control structures, the DEIS must be supplemented to include a more comprehensive and ecologically enlightened analysis of alternatives and mitigation measures.

65-4 For example, construction of set-back levees must be considered. This approach would require less intensive levee maintenance while allowing more dynamic and natural ecological processes to occur. Flood

65-5 easements must also be considered, because these acquisitions may be less expensive overall and reduce or eliminate adverse impacts. These easements would also preclude improper floodplain developments.

65-6 For past and present adverse impacts, comprehensive mitigation measures must be designed, funded, and implemented. All impacts must be effectively mitigated before new impact-causing activities begin. Riparian (cottonwood-willow) and instream habitats must be substantially protected and restored to provide mitigation. The goal should be to emulate a natural and dynamic mosaic of different habitat types and successional stages. The effects of habitat fragmentation and isolation must be considered, with the goal to stop any further fragmentation and to provide landscape linkages for already isolated habitats.

Thank you very much for considering my input.

Sincerely,

Richard Spotts

5604 Rosedale Way
Sacramento, CA 95822

James A. Walter
Lt. Colonel, Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

Dear Sir,

I support the Corp's intention to maintain and operate the Snake river levees in Teton County. The Corp must also work to mitigate the loss of important resources due to the levees' current and future care. Mitigation of resource loss must be a part of any action plan. Future work on the area and mitigation must be carefully addressed and planned for in an overall perspective rather than as a treatment of periodic problems as in the past. 66-1 66-2

Sincerely,

Jim Springer
2680 Pizza Ln
Wilson, WY 83025

James A. Walter
Lt. Colonel, Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, WA 99362-9265

2/15/90

Dear Sir,

I am responding to the Draft EIS regarding the operation and maintenance of the Snake River Levee System. As a landowner in Teton County I support the Corps maintenance and operation plan but propose environmental mitigation be part of this plan. 67-1

This is the time to set up some long range plans for maintenance, operation, and mitigation of past, present, and future impacts. The EIS is incomplete without mitigation. The Water Bill of 1986 states mitigation will go with the project requiring mitigation. 67-2

Approving this DEIS would be approving the historical unplanned construction of levees. Please consider the long range plan for the Snake River in Jackson Hole. 67-3

Sincerely,

Kim Springer

Kim Springer
P.O. BOX 491
Teton Village, WY 83025

68

February [illegible], 1990.

Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, Washington 99362-9265

Dear Sirs,

Please accept my following Comments concerning the Snake River Levee Systems, Snake River, Grand Teton National Park to South Park Draft Environmental Impact Statement.

I recall this portion of the Snake River prior to levee construction and conclude that such area supported an incredible variety of biological features, such as: natural cottonwood-willow communities and fish-wildlife habitats of National significance

I, thus, request that such former unique and varied biological habitats be restored to the Snake River area so as to benefit Man and all life.

I oppose residential development in this floodplain as such activity destroys the river area.

and request the following:

68-1
- Complete study of Snake River ecology.
- Plan with actual Programs to protect and restore fish and wildlife in this area
- So fully preserve all flood-plain habitats.
- So protect and restore all riparian areas - habitats, including islands and banks
- So restore all [illegible] habitats.
- So restore cottonwood - willow habitats.

Sincerely,

John R. [illegible]

69

Westbank Anglers
JACKSON HOLE, WYOMING

FEBRUARY 14 1990

LT COL JAMES WALTER
DISTRICT ENGINEER
US ARMY CORPS OF ENGINEERS
WALLA WALLA, WA 99362

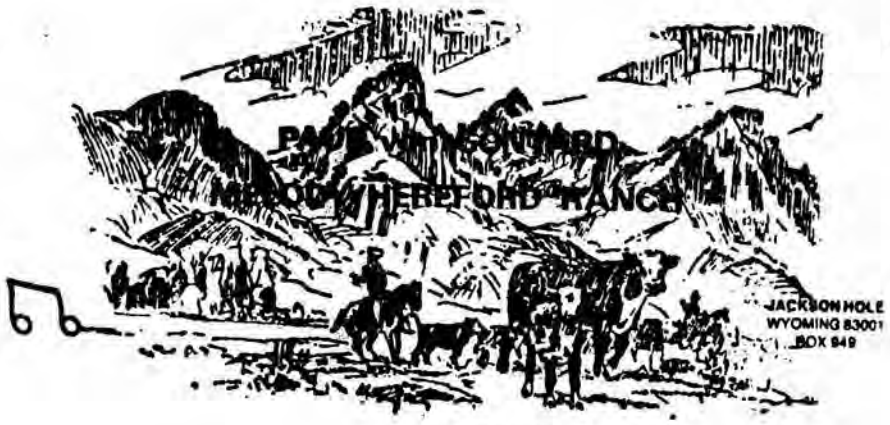
DEAR LT COL WALTER,

I AM WRITING TO YOU IN REGARD TO THE OPERATION & MAINTENANCE OF THE SNAKE RIVER LEVEE SYSTEM.

DUE TO THE ACKNOWLEDGED ENVIRONMENTAL PROBLEMS EXISTING IN RELATION TO FISH & WILDLIFE HABITAT - I URGE YOU TO UNDERTAKE IMMEDIATE MITIGATION TO COMPENSATE FOR THE LOSSES. THE ECOLOGY OF THE SNAKE RIVER ECOSYSTEM IS INVALUABLE TO OUR VALLEY IN MANY WAYS - INCLUDING ECONOMICALLY, RECREATIONALLY & ENVIRONMENTALLY. I BELIEVE IT IS THE RESPONSIBILITY OF THE CORPS TO CORRECT THE EXISTING & POTENTIAL FUTURE PROBLEMS WHICH ARE LINKED TO THE LEVEE SYSTEM, 69-1

SINCERELY, KIM VIETAS

70



February 8, 1990

Mr. Bill McDonald
Environmental Specialist
Corps of Army Engineers
Walla Walla, Washington

RE: The Draft O & M Decision Document and EIS
The Levy System on the Gros Ventre and Snake River

Dear Bill:

On the north side of the Gros Ventre, the existing Nelson Levy desperately needs repair and extension. The temporary extension was lost to flood and approximately 60 acres of riparian, spring and fish habitat are at stake. The next flood will take it out. 70-1

The extension was a joint effort of private and county, with rip rap material, coming from the pit that the Corps used for the Snake River. This structure lasted for two years before it was lost to flood.

The Snake River at the junction of Flat Creek is another property of ours which in conjunction with the highway bridge needs levy protection. 70-2

A comprehensive and complete levy system on the Gros Ventre and Snake River are mandatory to protect the lands, spring, fish and wildlife habitat. Requesting your response on the Gros Ventre / Nelson Levy. 70-3

Respectfully,

Paul

Paul VanGoutard

cc: Mary Mead
Don Barney

PVG/lg

71

February 15, 1990

Lt. Col. James Walter,
District Engineer,
Corps. of Army Engineers,
Walla Walla, Washington 99362

Re: Draft EIS on Snake River Dike O&M

Just a brief note to express my surprise at the lack of adequate consideration given in the draft for fish and wildlife habitat losses and problems that have been created by construction of the Snake River dike system.

The dike and its maintenance will continue to create negative impacts as it has in the past and I strongly support a position on the part of your agency that would include mitgiation as part of the proposed operation and maintenanceprogram both for present and future work on the dike system. 71-1

Sincerely,

John E. Wilbrecht
Box 3025,
Jackson, WY 83001

72

1069 Diamond St.
San Diego, Ca
Feb. 4, 1990

James A. Walter
Lieutenant Colonel
Corps of Engineers
Department of the Army
Walla Walla District
Walla Walla, Wash. 99362-9265

Dear Sir,

The Draft Environmental Impact Statement for the operation and maintenance of levees along the upper Snake River near Jackson, Wyoming emphasizes the role of flood control without properly addressing the long-term impact on wildlife and riparian habitat. I urge the Corps of Engineers to adopt a program which includes efforts to mitigate habitat loss and restore natural biotic communities. Proper study should be given to the role of river hydrology and ecology in assessing the impact of the levees. Specific measures should include the acquisition of conservation easements to restrict residential development, improvement of streamside habitat, and maintenance of existing cottonwood-willow communities. Please support a program to restore and maintain the long-term biodiversity of the upper Snake River.

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72-3

Sincerely yours,

John R. Mullich

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February 13 1990

Lt Col. James Walter, District Engineer
Walla Walla District
U.S. Army Corps of Engineers
Walla Walla, WA 99362

Dear Col Walter

I am a member of the Jackson Hole Alliance for Responsible Planning living in Wilson, WY. I own a home very near to the Snake River. I attended the day-long workshop and the public hearing held in Jackson on January 30 because I believe it is time that the people living here and the government agencies operating here begin learning how to live with the unpredictable flooding regime of the river and protect the incredibly rich fish and wildlife habitat which the river supports.

I'm writing to urge the Corps to include impact mitigation as part of the Record of Decision on the Operation and Maintenance of the Snake River Levee System. I believe it is a responsibility of your agency to immediately begin the process of mitigating for wetland loss and habitat alterations which are the result of federal actions on the Snake River since the 1950's. The decision to assume federal maintenance responsibilities for existing levees represents a new federal enterprise and mitigation for fish and wildlife habitat impacts is an essential component of federal projects which disrupt ecosystem processes.

73-1

Thank you very much for your consideration.

Sincerely,

Dusty Zaunbrecher

Dusty Zaunbrecher

BEFORE THE DEPARTMENT OF THE ARMY

WALLA WALLA DISTRICT

CORPS OF ENGINEERS

IN THE MATTER OF A HEARING TO RECEIVE PUBLIC COMMENT CONCERNING THE DRAFT OPERATION AND MAINTENANCE DECISION DOCUMENT AND ENVIRONMENTAL IMPACT STATEMENT OF THE JACKSON HOLE, WYOMING FLOOD PROTECTION PROJECT

TRANSCRIPT OF HEARING PROCEEDINGS

Transcript of Hearing Proceedings on the above-entitled matter held on the 30th day of January, 1989, at the hour of 7:05 p.m. at the Virginian Lodge, Jackson, Wyoming, Mr. Victor Armacost, Chief of Planning Division, presiding.

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Bland, if you could come to the microphone, please.

MR. HOKE: Looking at everybody in this room, I am sure everybody is absolutely aware of the issues involved in the thing. So I'll keep my comments fairly brief.

As has been pointed out, this is really -- what we are talking about is the culmination of an enormous amount of effort that's gone back for a number of years to get these federal levees or the levee system into the responsibility of the Corps of Engineers. Teton County from our perspective would have a very, very difficult time in maintaining these levees had it not been for the Corps of Engineers' flood fight and emergency management of these levees.

We believe that an O and M program run by the Corps of Engineers is going to be more effective for everybody concerned. And I want to emphasize that what we are talking about tonight is the O and M project. This is very, very important to this county and it's important to us as county commissioners in that it potentially removes an enormous financial burden from ourselves, from the county, from our -- from everything that we deal with.

We are, I think, going back as far as Senator

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Hansen when he was in Congress and certainly Senator Simpson, Senator Wallop, Representative Cheney when I was in as the representative has worked extremely hai to get this bill passed through in 1986 and then the process of trying to get the actual funding that we need. And this is the document that's going to cause the funding to occur.

We as a county are very supportive of it. W would like to see the mitigation and all of the other things that will come afterwards. But right now we have one thing that's important to us, and that's to, you know, get this approved, this O and M document approved, because we do believe that this is the most effective way to maintain those levees. Teton County just simply doesn't have the tax base to be able to d it. We need the Corps of Engineers to have an organized program of operation and maintenance.

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Thank you.

MR. ARMACOST: Thank you. Pam, do you have any comments you would like to make?

MS. REDFIELD: No, I don't. I am here to listen.

MR. ARMACOST: Lyn?

MS. SHANAGUY: No. Thank you. I am also here to listen. Thanks.

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MR. ARMACOST: Okay. I'll start mispronouncing names now and I am starting with a tough one. Robert D. Aldondi?

MR. ALDONDI: Aldondi.

MR. ARMACOST: Okay. Would you come up, please, Bob?

MR. ALDONDI: I just have some questions. Do you still want me to speak at the microphone?

MR. ARMACOST: You're starting me off on the wrong foot. Come up and we'll try it. We really are trying to get comments from people today, but we will start out on the wrong foot and try this anyway.

MR. ALDONDI: I guess I can turn it into a comment.

MR. ARMACOST: Okay. Great.

MR. ALDONDI: Given the fact that riprap is a major part of the maintenance program and it's critical to maintaining the levees and the whole program, I am wondering if the Corps has or will consider use of artificial riprap materials, gambion, other materials, given the fact that the four sites proposed, at least the four last sites proposed, all will likely have some environmental concerns and the fact that gravel pits and sites like that are not an easy thing to accomplish in this county.

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And the second comment I have is in relation to the selective mining of gravel materials out of the river. The Corps has probably the most amount of information on the river, its function, its cross section and details, and if they would have any recommendations, given, of course, that the removals could be done in an environmental way concerning fisheries and other aspects. And one other comment I had relates to the hydrology and the hydraulic analysis they have done. Given the fact that they use the HEC-2 program and that's known to be of some question in areas where there is abraded channels, the fact that a lot of the cross sections, especially on the lower section of the river, are further apart than was generally recommended for HEC-2 programs, I guess the question or comment I would have is, are these flood levels that are projected very valid given the kind of information they have got.

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Thanks.

MR. ARMACOST: Thank you, Bob. One other thing that I was going to ask and I will ask now is if you could limit your comments to less than five minutes.

The next person that I would like to have come up is Mr. Tom Campbell.

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energy is being forced onto a smaller and smaller area and, therefore, the river is doing major, as you call it, induced damage due to the upstream levees or opposing levees to lands -- the fewer lands that remain unprotected.

Thank you very much for your time and effort on this.

MR. ARMACOST: Thank you, Bill.

MR. RESOR: I look forward to seeing the final EIS.

MR. ARMACOST: Paul Bruun.

MR. BRUUN: Thank you, Mr. Armacost. My name is Paul Bruun, and tonight I am substituting for Scott Sanchez, who is the president of the Jackson Hole Fishing Guides' Association.

I did not have as much opportunity as Bill and everybody else to give you paragraph and chapter delineation on this EIS. First of all, as a former municipal official here, I have to support Mr. Hoke and Mr. Thomas in the fact that I think for Teton County, the selected alternative of the Corps assuming operation and maintenance is definitely something that we would like to see. But as a fishing guide and with people talking here about economic studies and everything, there are some cross purposes that I see

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and would like to reflect our small group's concerns.

When the levee project in Jackson Hole was begun, I doubt if anyone was seriously concerned about trout habitat. The trout habitat has happened along the way here. The river has not always been an area of recreation to this valley. I know in this room there are representatives with an awful lot at stake. They have a lot of property, a lot of livelihood, and when you talk about an economic study, you talk about property values, everything today hinges on those things. I think we all understand that.

That's true in Jackson Hole, that's true out in Walla Walla and it's true in Washington, D.C. where this money is probably going to end up coming from, although I think we have originated it. But I think that our small organization's thought is somewhat consistent with the Trout Unlimited statement in that we are interested in doing something not because it makes economic sense, not because it's good for this particular landowner or stockpiling is going to save money in the long term, stockpiling of gravel, but because we are doing the right thing. And I think the trout habitat here in this river, somebody should pay attention to this, not in the new 906 study, not any other.

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I was impressed with some of the delineations with the different studies that are going to come in. And I remember when Doctor Passmore first came here with his plan to remove 3,000 trees and was somewhat chagrined that people were against this. Yes, we were against it and I still am against it.

Okay. Very simply, the Snake River is separate and apart from other Corps of Engineers' projects, but to me, the Corps the Engineers still connotates terms like the Atchafalaya Basin in Louisianna, the Kissimmee River in Florida and the Garrison project up in North Dakota. And these have all been and continue to be channelization projects. And while I know that we are talking about protecting property here, in essence, what I hear and the entire thrust of this is a continued channelization project in the Snake River.

Now, in going through the Game and Fish's recent shocking survey that was conducted in October, I was quite surprised. They have moved things around. And since I know people here are not that nuts about fishing as I am, I won't bore you with all the ins and outs because they stupefied me with their findings. But the levees which I thought was totally enemy territory do provide habitat for small fish. But the

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velocity of the river because of its drop and because of its continuing velocity gain is never going to change the more we riprap this river. And one of the thoughts in this discussion is, I don't know what you call operation and maintenance in the status quo, but if you don't think you're going to raise these levees here, I think you're crazy. I really do, because those levees are going to have to keep going up because this river is just going to keep dumping a load of gravel everywhere there is a levee and the levees are going to continue to climb and that's going to mean more velocity and more speed.

76-3

Okay. My theory and our group's comment is that we would like to see, in addition to the levee activity, and this has all been levee so far, we would like to see more instream river shaping and protecting of what we have. If you think that the velocity and the river has not changed, count the islands there are below Moose at this time compared to historic photos and I guess what you might call some of the historic islands that were considered in the recent Snake River lawsuit. There was a lot more structuring with trees, shade and gradient of this river than we have now, and this program is just going to be more of the same.

76-4

So if it's possible, we would like to see

United States Department of the Interior
FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

ADDRESS ONLY THE DIRECTOR,
FISH AND WILDLIFE SERVICE

TAKE PRIDE IN AMERICA

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February 22, 1990

Lieutenant Colonel James A. Walter
District Engineer
U.S. Army Corps of Engineers
Walla Walla, Washington 99362-9265

RE: Jackson Hole Flood Protection Draft O&M Decision Document and EIS

Dear Colonel Walter:

As you are probably aware, the Walla Walla District, U.S. Army Corps of Engineers (Corps) is evaluating possible alternatives for maintenance of an existing levee system along the Snake and Gros Ventre Rivers in Jackson Hole, Wyoming. The existing levee system historically has had profound impacts on the ecology of the upper Snake River. Now that the Corps has assumed responsibility for maintenance of the system, I believe that it is absolutely critical that the Corps recognize the ongoing impacts that maintenance activities will have on the river and the opportunity that such activities present to protect this vital national resource.

In the Corps' Draft Decision Document and Environmental Impact Statement, dated December 8, 1989, the Corps has concluded that there will be no additional, anticipated environmental impacts expected with future maintenance of the existing levee system since these operations would differ little from present ongoing conditions. As a lifelong resident of Jackson Hole and one who has spent a considerable part of his personal and professional life out on the river, I concur with our professional staff who respectfully disagree with the Corps' conclusion.

The Fish and Wildlife Service's May 26, 1989, Draft Fish and Wildlife Coordination Act Report (CAR) for the project indicates that the long-term maintenance of the levee system would accelerate the ongoing deterioration of riparian, wetland, spring creek, and main channel habitat. The riparian zone behind the levees would become drier over time, and as cottonwood stands mature they will be replaced by spruce, or in drier areas, by sage/grass. The ecological effects nearer to the levee will be more subtle, but the progression toward a less diverse and productive riparian ecosystem appears inevitable. The cumulative effect of this progression to a drier vegetative community will have significant effects on area wildlife, especially those dependent on riparian zones such as moose, passerine birds, great blue herons, bald eagles and other raptors. The erosion of forested islands and cottonwood stands within the levees will continue, possibly at a more accelerated rate. Because these vegetative types are not being replaced due to erosion from constant channel changes, the result of this habitat loss will be a major reduction in the diversity of the Snake River floodplain ecosystem. This loss would be very significant to in-channel habitat for cutthroat trout, riverine habitat

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diversity for bald eagles, and essential habitat for furbearers like otter, mink, and beaver. Additional impacts would occur to cutthroat trout populations (a highly prized species of importance to local anglers and outfitters) if the abundance of woody debris in the main channel reflected a net decrease from present conditions.

With the elimination of major channel movement outside of the levee system, wetlands will not be replenished and many of the oxbow and side channel wetlands will eventually be lost due to siltation and eutrophication. This will have an overall negative effect on area waterfowl and furbearers. Areas below the levee sections and stretches of the river within the project area that are not significantly controlled by levees, e.g., the South Park area and in the vicinity of the Gros Ventre River, will continue to be impacted as the river dissipates its energy and drops its bedload within these reaches. The perpetuation of unstable conditions that exist in these less restrictive levee reaches will significantly affect some of the most important fish and wildlife habitat within the Jackson Hole Valley, especially habitat for nesting bald eagles (an endangered species in Wyoming) and geese, spawning cutthroat trout, and wintering big game. The lost capacity for flood flows to flush sediments from spawning grounds in spring creeks will continue to cause a steady decline in the suitability of spawning areas for cutthroat trout as well as the reduced capability of fish to reach these areas. Critical spawning habitat for these fishes would eventually be lost or have to be artificially maintained in order to sustain a natural spawning population of Snake River cutthroat trout. With the continuation of flood control there will be a corresponding increase in residential, commercial and recreational development of the floodplain behind the levees. This has, and will continue to have, a significant cumulative impact to fish and wildlife, especially in the areas near spring creek tributaries.

77-1

Under both of the alternatives proposed by the Corps there would be substantial Federal funds expended (emergency or operational) to maintain these levee systems. If these Federal funds were not available, maintenance of many of the levees would be cost prohibitive and have to be abandoned by the local sponsor. Therefore, we believe that there is a strong obligation by the Federal Government to mitigate at least ongoing and future short- and long-term impacts of the levee system on fish and wildlife resources. The Corps' proposal to forego mitigation of these impacts as part of this action, and to defer the question to the general investigation study, is unacceptable. We are encouraged that the Corps is continuing to work to resolve these concerns. However, we are not optimistic that meaningful mitigation will occur without a strong commitment by all parties involved.

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We recommend, therefore, that the Corps, in the Final Record of Decision, commit as part of the action assuming operation and maintenance of the levee system, to mitigate at least ongoing and future project impacts as outlined in the Service's draft CAR, and that past impacts be pursued through the environmental provisions of the 1986 Water Resource Act. We would not

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object, however, to the funding of the entire mitigation package through these provisions if there is guaranteed assurance that project impacts will be mitigated.

Under section 1135 of the 1986 Water Resource Act, the Corps is authorized to review operation of existing water resources projects to determine the need for modifications to improve the quality of the environment in the public interest. Under section 906 (b) and (e) mitigation features for previously authorized projects and fish and wildlife enhancement are authorized ("retrofit mitigation"). All of these authorities should be pursued immediately to mitigate the extensive impacts that has and will continue to occur from levee construction and its maintenance. 77-2

I urge the Department of the Army to accept full responsibility of managing this ecosystem of national importance for all of the resources affected. The Final Decision Document should include the mitigation needed to address the ecological concerns of the Snake River. I believe this approach will create various opportunities to creatively manage flood flows while operating in harmony with the natural resources of the Snake River system. I would very much appreciate your personal consideration of this request and look forward to working together to achieve our mutual goals.

Sincerely,

John F. Turner

DIRECTOR

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TROUT UNLIMITED

February 14, 1990

Lt. Col. James Walter
District Engineer
US Army Corps of Engineers
Walla Walla, WA 99362

Dear Col. Walter:

Trout Unlimited understands the Corps will take over operation and maintenance of the Snake River levee system in Jackson Hole, Wyoming. We understand further that mitigation is part of the preferred alternative for the operation and maintenance of this system and that the Corps has agreed to mitigation. 78-1

We believe the appropriate mitigation program is the one recommended by the Fish and Wildlife Service and urge you to adopt this program as your approach to mitigation. 78-2

We are delighted the Corps will proceed with mitigation as it is a strong indication of the new policy of the Corps as presented by General Hatch in his meeting with conservation organizations on November 20th, 1989, in Washington, D.C. At that time General Hatch convinced me and others that he is serious about placing more emphasis on the environment in Corps of Engineers activities. 78-3

Trout Unlimited stands ready to provide assistance to the Corps both at the local level through our State and Regional representatives, and at the national level through representation on the recently appointed Natural Resources Council of America Advisory Committee to the Chief of the Corps by Pam McClelland our Resource Department Director, members of our Board of Directors such as Ben Dysart, former scientific advisor to the Assistant Secretary of the Army for Civil Functions, and myself as Chairman of the Natural Resources Council of America. 78-4

We look forward to good results for conservation interests on the upper Snake River as a result of new Corps initiatives.

Sincerely,

Robert L. Herbst
Executive Director

cc: Ed Ingold
General Hatch
Richard Mode
Doug McClelland
Dean Swanson
Pam McClelland

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David McDonald
600 N. Hillcrest Dr.
Worland, Wyoming 82401

Lt. Col. James A. Walter
Chief,Planning Division
U.S.A. Corps of Engineers
Walla Walla, Washington 99362-9265

Dear Colonel Walter,

The final E.I.S. for the Jackson Hole flood project must include the mitigation plan proposed by the U.S. Fish & Wildlife service in order to protect the Snake River fisheries and habitate. 79-1

Sincerely

David McDonald

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1737 Broadway
Grand Junction, CO 81503
February 1st,1990

LT. Col. James Walter, District Engineer
U.S. Army Corps of Engineers
Walla Walla, WA 99362

RE: Draft Snake River E.I.S.

Dear Lt. Col. Walter:

Watershed values have always been a strong concern of mine, especially at higher elevations. I wrote to the Bridger-Teton National Forest supervisor in 1967 during heaving timbering operations taking place at that time. In part, I submit excerpts of that letter, as follows: "Heavy stand-up timber capture vast amounts of snow during winter months. This snow, hidden and protected from rising temperatures and warm winds, melts slowly in spring and summer months,time released by warm days and cool nights. It's slowly absorbed into the soil and water table. Wherever large stands of timber are found, at a lower elevation, whether it be a few hundred feet or a mile away, spring water flows from formations. Excellent, cool water all months of the year. Snow melt it excessively faster in open areas. The disturbed soil, due to the use of heavy equipment in removing timber and road construction, is tremendous. Silt loads are excessively high in actions like this and flow into live streams surrounding the action."

To this very day, Mr. Walter, one can wonder over Union Pass country, of which the Gros Ventre River heads and is a major tributary to the Snake River— Thousands of acres of timbered land contribute to the silt load of the Gros Ventre river. Snow melt and run-off each spring is tremendous. The stump lifting impact of this run-off boggles the mind. One has the tendency to recoil and shrink away from this once gentle river system. I can safely say federal actions in the past, in their effort to satisfy private industry, has added nightly to the destruction of this and other stream systems in the BTNF. Every river system that has had tracts of clear cut timber operations has suffered the impact of channelling and rilling of its stream bed, due to excessive spring run-off. The loss of natural bends to slow the flow of water, to reverse the directions of flow even for a few feet, eliminates a rapid descent or chute effec of live streams. Live streams are a very fragile entity, especially so at steep elevations.

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Col. Walter, I believe it would be a dereliction of duty by Federal agencies to neglect the needs of the upper and lower watershed of the BTNF. That I do believe the draft EIS include addressing the terrible silt load that the Snake River carrys each spring and the negative impact it has upon fisheries and all other forms of wildlife. 80-1

Sincerely yours,

Floyd Schneider

Floyd Schneider

c.c. Jackson Hole Alliance

Natural Resource Defence Council

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ROBERT KUHN, M.D.
CARDIOLOGY
AND
INTERNAL MEDICINE

HARVEY CRYSTAL, M.D., INC.
GASTROENTEROLOGY
AND
INTERNAL MEDICINE

DANIEL SILVER, M.D.
INTERNAL MEDICINE

Feb 19, 1990

Dear Colonel Walter:

I am asking you to plan your actions with the goal of preserving the Snake River floodplain, bottom lands, and riparian habitat. I believe this should be the top priority for the Corps in this critical area. 81-1

Thank you

Sincerely,

Daniel Silver, MD

Daniel Silver, MD

8733 BEVERLY BOULEVARD, SUITE 200 · LOS ANGELES, CALIFORNIA 90048