



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

INTEGRATED LETTER REPORT AND PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

**FEDERAL PARTICIPATION IN NORTHERN PIKE SUPPRESSION
IN WASHINGTON AND IDAHO THROUGH THE AQUATIC PLANT
CONTROL PROGRAM**

**APPENDIX B, BIOLOGICAL ASSESSMENT PREPARED FOR THE
U.S. FISH AND WILDLIFE SERVICE**

**Streamlined Consultation Guidance for Restoration/Recovery Projects (RRP):
Format for the Biological Evaluation/Assessment**

The attached biological evaluation/assessment (BE/BA) was developed pursuant to the Fish and Wildlife Service's (USFWS) *Streamlined Consultation Guidance for Restoration/Recovery Projects*. The BE/BA meets all of the criteria for an expedited consultation process set forth in that policy document.

The U.S. Army Corps of Engineers hereby requests expedited formal consultation for the *Federal Participation in Northern Pike Suppression in Washington and Idaho Through the Aquatic Plant Control Program*.

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**Biological Evaluation/Assessment
Federal Participation in Northern Pike Suppression
in Washington and Idaho Through the Aquatic
Plant Control Program**

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I. Description of the Proposed Restoration/Recovery Action [include maps, photographs,

A. Description of the Restoration/Recovery Objective(s)

The U.S. Army Corps of Engineers (USACE) proposes to implement a cost-share program (proposed action) with Tribes and Washington Department of Fish and Game (WDFW) ongoing activities that suppress northern pike (*Esox Lucius*). The Tribes include: the Confederated Tribes of the Colville Reservation (CTCR), Spokane Tribe of Indians (STOI); Kalispel Tribe, Coeur d'Alene Tribe, and the Kootenai Tribe. The proposed action is will reduce threats to bull trout (*Salvelinus confluentus*), Kootenai River white sturgeon (Kootenai sturgeon; *Acipenser transmontanus*), and other native fish species by using various suppression methods (gillnets, electrofishing, etc.) to remove non-native northern pike from the proposed action area. This assessment describes the impacts to bull trout and Kootenai river white sturgeon and conservation measures to avoid and minimize take associated with suppression activities over a five-year span (2025-2030). The proposed action will help to address a primary threat (nonnative fish) identified in the Recovery Plan for the Coterminous United States Population of Bull Trout (USFWS 2015, p. 29).

Because bull trout diets overlap with northern pike, they compete for the same prey base. This leads to insufficient availability of food or behavioral exclusion from foraging habitat due to competition can result in decreased growth and survival of bull trout. Additionally, Northern pike can prey directly on smaller bull trout. Once established, northern pike populations can often colonize connected watersheds and can be difficult to eradicate. Eliminating these negative effects from past introductions and preventing new introductions into bull trout habitat is important for recovery of bull trout, and is a critical issue in certain recovery units (USFWS 2015 p. 29).

An additional objective of this proposed action as it pertains to Kootenai Sturgeon is to enhance food availability and thereby maintain the native fish community in the Kootenai River (USFWS 2019 p. 14) by removing northern pike upon discovery. In addition, the proposed action will provide a conservation benefit for westslope cutthroat trout and other native fishes, which are an important prey base for bull trout. This action will contribute to bull trout recovery and delisting.

Northern pike removal efforts are currently being executed in the upper regions of Lake Roosevelt, Kettle River, and Coeur d'Alene Lake. The proposed action is part of an ongoing effort that started in 2018, and has been funded annually by Bonneville Power Association. Gillnetting is an effective means of controlling invasive northern pike populations (Sepulveda et al. 2013, Baxter and Neufeld 2015, Bean 2014, Walrath et al. 2015). Suppression gillnetting efforts generally incorporate three seasonal phases, the northern pike pre-spawn and spawning period (February-May), the post-spawning period (June-August), and juvenile rearing (September – November). Benefits of the proposed action are expected to accrue with every northern pike removed as it is one less predator on listed species and their prey base. The objective of the proposed action is to provide cost-share assistance for suppressing the population of northern pike in the areas they currently inhabit and prevent their further migration downstream in the Columbia River system.

B. Define the Action Area

The action area (Figure 1) is waters within the orange shaded areas of Figure 1 which includes waters above Grand Coulee dam to the Idaho-Montana boarder, Columbia River below Grand Coulee to Wells Dam, and the Okanogan River watershed.

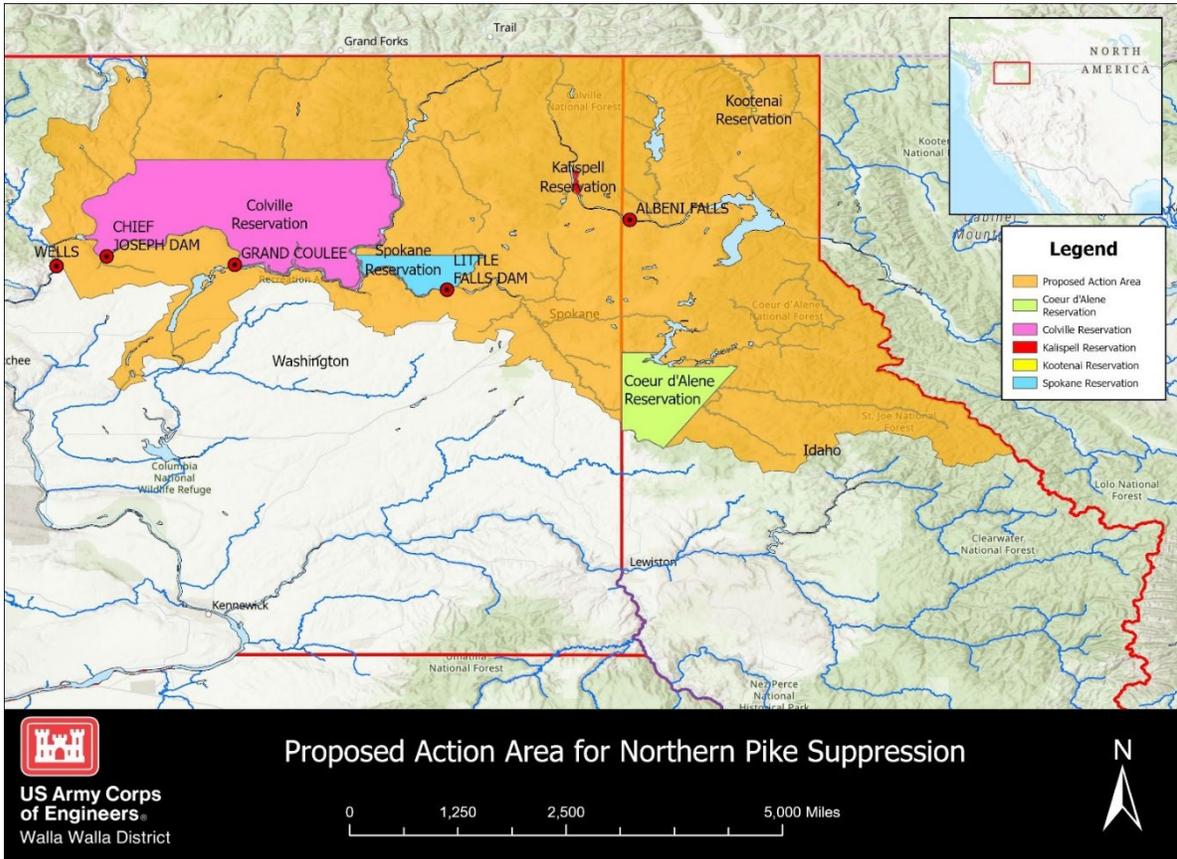


Figure 1. Proposed Action Area for Northern Pike Suppression.

C. Description of How the Project Will Be Implemented.

The proposed action consists of USACE providing co-funding annually to Tribes and state agencies for northern pike suppression as funding is available. There are no restrictions on the numbers of northern pike removed. Specific northern pike control activities implemented each year will be determined at a local level by participating states and Tribes and described in detail in their annual work plans, which will be attached and submitted to USACE. Actions eligible for cost-sharing by USACE include monitoring, suppression, eradication, drawdown, public outreach, and reward program. Additionally, annual reports and presentations have been shared with partners and the public routinely on the tribe and states webpages on the northern pike program such as: <https://ucut.org/fish/northwest-regional-northern-pike-coordination-forum>.

Monitoring efforts include water testing for Deoxyribose Nucleic Acid in water samples or eDNA is monitoring for presence or absence of northern pike. Telemetry of tagged northern pike allows for monitoring of movements. Suppression actions of northern pike

consist of five (5) methods: gillnetting, beach seining, fyke netting, electrofishing, hook & line. Eradication of northern pike will be by rotenone only in areas with no ESA listed aquatic species. Reservoir drawdowns are conducted independently for operational purposes not related to surveys. Drawdown surveys are opportunist surveys that for stranded pike in exposed areas that were previously under water. Public outreach actions include posting northern pike informational signs at boat launches and fishing locations, as well as sharing northern pike information through brochures, emails, articles, podcasts, and booths at events. The reward program includes public fishing competitions and reward-based initiatives to motivate and involve anglers in northern pike removal efforts, leveraging community participation for enhanced ecological impact. For the cost-share program, only activities that are related to setting up or organizing these reward programs or events are eligible. Due to USACE regulations, we cannot cost -share prizes or cash bounties. Coordination efforts include meetings or calls at forums for regional management coordination and partnership. Reporting includes tribe and state agencies analyzing collected data and reporting results annually.

The portion of the proposed action activities that removes northern pike may cause non-target bycatch and may unintentionally kill or wound bull trout and Kootenai sturgeon as well as their prey species.

D. Conservation Measures

USACE proposes the following conservation measures (CM) as part of the proposed action in order to avoid or minimize potential adverse effects related to implementation of the proposed action.

The following CMs will be implemented by USACE and the implementing Tribes and WDFW participating in the cost share program, in relevant part:

CM-1. Northern Pike Work Plan Annual Notification Form (ANF): For each project in each year, an ANF will be provided for review and approval by USACE (Appendix A). The annual ANF will include all actions to be implemented, locations of all actions identified on a map, a schedule of all actions for the year, identification of weekly bycatch thresholds, applicable CMs to be followed, USFWS ESA-listed species/Critical Habitat present in the Action Area, and applicable Terms and Conditions from the biological opinion issued.

CM-2. USACE Review and Electronic Submission of Annual Notification Form to USFWS: For each project proposed to be carried-out under this proposed action, USACE will review the proposed project to determine whether it meets criteria below and is therefore appropriately considered to be covered by the biological opinion issued by USFWS for the proposed action.

- a. Covered Activity: The proposed project falls within the description of an activity in the proposed action.
- b. Applicable CMs: The proposed project meets all applicable CMs.
- c. Within Evaluated Effects: The proposed project will not cause an effect to the listed species or critical habitat that was not considered in the biological opinions.
- d. Incidental Take Statement Conformance: The proposed project conforms to all applicable Terms and Conditions (T&Cs) in the Incidental Take Statement (ITS) of the biological opinions.
- e. Minor Project Modifications: USACE may propose minor project modifications (e.g., work timing, etc.) on a case-by-case basis and as part of the electronic submission, with USFWS's verification that

the resulting environmental and biological effects of the modification fit within the provisions of the biological opinions issued.

- g. Electronic Submission: Once USACE determines that a project satisfies all of the above criteria, USACE will submit a copy of the ANF to USFWS and NMFS

CM-3. Superseding Process for Review and Inclusion of Projects, Methods, Materials, or Locations that are Substantially Similar or having Substantially Similar Effects: Instances may arise where a project's extent, methodology, or equipment type does not exactly fit in the scope or scale of work defined by the BE/BA. There may be cases where the methods or CMs require modification to operate as intended. If the activities would result in effects substantially similar to other activities, USACE will have the ability to engage in the superseding process with USFWS and the National Marine Fisheries Service (NMFS).

In these instances, USACE may propose to use new methods, materials, or locations not considered in this BE/BA, or propose a project that may deviate from methods or CMs in a minor fashion. USACE must first determine that the modification will have effects on ESA-listed species or designated critical habitat that are substantially similar to the effects considered in this BE/BA, and submit its determination to USFWS and NMFS. If USACE makes that preliminary determination, it must provide that rationale to USFWS and NMFS in writing via email and request permission to rely on the most recent consultation to satisfy its ESA Section 7 consultation obligations. If USFWS/NMFS determines that the effect of implementing the new/modified activity is substantially similar to the effects discussed in the BE/BA, then USFWS/NMFS may approve the new/modified activity, on that case-specific basis alone.

CM-4. Site access: USACE will retain right of access to sites authorized using this document in order to monitor the use and effectiveness of permit conditions. The USFWS and NMFS will be allowed access to project sites as requested.

CM-5. Salvage notice: If a sick, injured, or dead specimen of a listed species is found, USACE will notify the USFWS Office of Law Enforcement (208-378-5333) and NMFS. The finder must take care in handling of sick or injured specimens to ensure effective treatment, and in handling dead specimens to preserve biological material in the best possible condition for later analysis of cause of death. The finder also has the responsibility for carrying out instructions provided by the respective Office of Law Enforcement to ensure that evidence intrinsic to the specimen is not disturbed unnecessarily.

CM-6. Annual Review and Report: USACE, NMFS, and USFWS will conduct an annual review of Program implementation. This review will evaluate, among other things, whether the scope of the activities is consistent with the description of the proposed activities; whether the nature and scale of the effects predicted continue to be valid; whether the CMs are being complied with and continue to be appropriate; and whether the project-specific consultation procedures are being complied with and are effective. To assist in this review, USACE or their designated representative will submit annual reports to USFWS and NMFS no later than May 1 each year describing activities implemented including coordinates, dates, and a map(s) and shapefile showing the location and type of each field-related action carried out; number of northern pike and bycatch captured; a summary of the extent of take indicators; and any other relevant data or analyses.

CM-7. Full Implementation of CMs Required: USACE will ensure execution of all applicable CMs for any projects implemented under the Program as described in this BA. Failure to comply with all applicable CMs may invalidate protective coverage of ESA section 7(o)(2) regarding "take" of listed species, and may lead USFWS or NMFS to a different conclusion regarding the effects of a specific project.

CM-8. Failure to Report May Trigger Reinitiation: USFWS or NMFS may recommend reinitiation of this consultation if USACE, or their designated representative (if applicable) fails to provide all applicable notification, completion, or annual program reports, or conduct annual coordination through an existing program or ad-hoc.

CM-9. Weekly Bycatch Thresholds: Implementing Tribes and state agencies shall adhere to weekly bycatch thresholds established annually by the Co-managers and these thresholds will be identified in the Annual Northern Pike Work Plan Notification Form (Appendix A). Table 1-4 is an example of bycatch limits.

Table 1-4. Example Weekly Bycatch Thresholds of the Confederated Tribes of the Colville Reservation

Fish Species	Weekly Threshold
White Sturgeon (wild) – <i>Acipenser transmontanus</i>	1
White Sturgeon (hatchery; wild larvae origin 2010-2016)	10
White Sturgeon (hatchery; direct gamete take 2001-2009)	No limit
Bull Trout <i>Salvelinus confluentus</i> (US Fish and Wildlife is notified)	1
Kokanee <i>Onchorhynchus nerka</i>	10
Mountain Whitefish <i>Prosopium williamsoni</i>	15
Hatchery Rainbow Trout <i>Oncorhynchus mykiss</i>	50
Burbot <i>Lota lota</i>	50
Sucker species <i>Catostomus</i> spp.	50
Walleye <i>Sander vitreus</i>	100
Smallmouth Bass <i>Micropterus dolomieu</i>	100
All other non-native Fish Species	No limit

If a weekly bycatch threshold is reached in a particular area, gillnetting will cease in that area and will be relocated elsewhere for the rest of the week as detailed in McLellan et al. (2018). Gillnet relocation areas are dependent on whether a weekly bycatch threshold is reached before or after June 15th. If a weekly bycatch threshold is reached during a week prior to June 15th in a high priority area, the crews will move to another high priority area for the remainder of the week. If a weekly bycatch threshold is reached during a week after June 15th, the crew will move either upstream or downstream of their current location for the remainder of the week.

CM-10. Action Timing: Overall work windows are identified in Table 1. Site specific conditions would dictate duration and frequency of actions within the overall work window.

Table 1. Work Windows for Monitoring, Suppression, Drawdown, Public Outreach, and Coordination Actions by Month (From McLellan et al. 2018)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monitoring	x	x	x	x	x	x	x	x	x	x	x	x
Population Status			x								x	

eDNA					x				x			
Microchemistry					x	x	x	x	x			
Operations	x	x	x	x	x	x	x	x	x		x	x
Suppression	x	x	x	x	x	x	x	x	x	x	x	x
Gillnetting		x	x	x	x	x	x	x	x	x	x	
Seining		x	x	x	x	x	x	x	x	x	x	
Fyke Nets		x	x	x	x	x	x	x	x	x	x	
Electrofishing								x	x	x	x	
Drawdown Survey		x	x	x	x							
Public Outreach	x	x	x	x	x	x	x	x	x	x	x	x
Coordination	x	x	x	x	x	x	x	x	x	x	x	x

CM-11 eDNA Collection Protocols: Samples will be *collected* from the stream margin, thalweg, or, in larger streams, from a decontaminated boat following acceptable standard protocols (e.g., <https://s3.wp.wsu.edu/uploads/sites/686/2017/01/WSU-eDNA-sampling-protocol-Jan2017.pdf>).

CM-12. Gill Net Deployment:

- a. Standard deployment methodologies described in Monitoring Resources Protocol No. 3354 and in Hubert (1996) will be followed. The Tribes and states will each provide a trained, specialized gillnetting vessel and crew.
- b. Gill net sites will be adaptively selected and will be fished no longer than 36 hours (typically 23 hours) to minimize capture of non-target fish species (i.e., bycatch).
- c. All bycatch will be identified, enumerated, and (with exception of listed species that will be handled according to CM-5) released back into the water near the capture site.

CM-13. Gill Net Type and Specifications: The following six net types with several specification options (Table 2) may be used:

- (1) Fall Walleye Index Net (FWIN): An experimental monofilament sinking net with eight panels comprised of different mesh sizes. This is the standard net for state-wide FWIN surveys conducted annually.
- (2) Spring Pike Index Net (SPIN): An experimental monofilament sinking net with five panels.
- (3) CCT Predator Net: An experimental monofilament sinking net with six panels.
- (4) CCT Kokanee Net: A monofilament sinking net that consists of a single mesh size.
- (5) Multi-filament (1): A multi-filament (twisted nylon) sinking net that consists of a single mesh size.
- (6) Multi-filament (2): An experimental multi-filament (twisted nylon) sinking net that consists of five panels, identical to SPIN net panels.

Table 2. Gillnet Specification Options for Suppression Surveys

Panel Mesh Size in. (mm)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0	6.0
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	(25)	(38)	(51)	(64)	(76)	(89)	(102)	(127)	(152)
	Panel Number								
FWIN (60.96 x 1.82); mesh panels equal in length	1	2	3	4	5		6	7	8
SPIN (45.72 x 1.82); mesh panels equal in length			1	2	3	4	5		
CCT Predator (60.96 x 1.82); 64 mm panel = 22.86 m long; all other panels 7.62 m long.			1	2	3		4	5	6
CCT Kokanee (45.72 x 1.82); all one mesh size			1						
Multi-filament (1) (60.96 x 1.82); all one mesh size			1						
Multi-filament (2) (60.96 x 1.82); mesh panels equal in length			1	2	3	4	5		

CM-14. Beach Seine Deployment:

- a. Standard methods described in Monitoring Resources Protocol No. 3355 and in Hayes et al. (1996) will be followed.
- b. Two seine nets will be used depending on the habitat selected for the survey. Seine #1 will be used in large bays (≥ 183 m wide) and seine #2 will be used in smaller bays (≤ 183 m).

CM-15. Active Participation in Collaborative Forums: Annually engage in forums, task forces, working groups, and meetings. These platforms will focus on identifying, prioritizing, and developing best management practices. They will also concentrate on innovative techniques for suppressing or eradicating non-native species, identifying new focal areas, and enhancing native fish populations. Proposals and work elements consistent with the scope of this project will be formulated through these collaborative efforts.

CM-16. Involvement in Coordination Meetings: Participate in various coordination meetings, forums, and events that specifically address invasive species management. These engagements will occur at both local and regional levels, underlining the importance of collaborative approaches in tackling this environmental challenge.

CM-17. Rotenone treatments only in water bodies without ESA-listed aquatic species. Whole water body applications permitted. The Permittee must comply with all the requirements on the Product Label. Permit requirements do not reduce the requirements on the Product Label. Treatments must be performed by or under the supervision of a licensed applicator. All pesticide applicators must have current training in the use of equipment necessary to apply rotenone formulations correctly. ESA-listed fish species must not be present at the time of treatment. Follow the product label restrictions and 2018 AFS Rotenone SOP Manual.

CM-18. Reward Program Rules. These are the current rules for the established reward program, any future programs will adapt the same rules in spirit. Anglers participating in the Northern Pike Reward Program must adhere to the following rules:

1. Adhere to all applicable state/tribal fishing regulations for the area in which you fish. Contact your local state or tribal fishery agency for license requirements and current fishing regulations.

2. Provide true and accurate information to authorized program representatives regarding the taking, possession, delivery, transportation, or any other use of fish caught while participating in the Northern Pike Reward Program.
3. Comply with the directions of authorized program personnel related to the collection of sampling data and angler participation in the Northern Pike Reward Program.
4. Anglers must completely fill out the Pike Head tag information at the designated drop off area. Fish heads must be placed in a freezer bag, with the head label and dropped into the freezer. Or brought to a CCT Fish and Wildlife Office.
5. Fish must have been caught in the mainstem Columbia River from Wells Dam upstream to the Canadian border, the Spokane River upstream to Little Falls, the Kettle River, or the Okanogan River. A random number of heads will be selected for microchemistry analysis to confirm the fish's origin.
6. There are no size restrictions on northern pike that are eligible for the reward.
7. 7. Participants may receive \$10 for every northern pike head deposited into the designated location, up to an individual maximum of \$590 per calendar year.
8. All participants must be 17 years or older to receive the reward.
9. All fish to be redeemed for the reward must have been personally caught solely by the angler submitting them for the reward.
10. Fish head must be in good condition and clearly identifiable. Unidentifiable heads will not be accepted or awarded.
11. Violations of any of the above rules may result in participant disqualification from the Northern Pike Reward Program.
12. The Northern Pike Reward Program can be suspended or terminated at any time at the discretion of the Colville Tribes Fish and Wildlife program.

USACE can cost share expenses to run, set-up, organize, and plan such efforts but cannot cost share cash prizes, physical prizes, or pay out/price per fish (bounties included) due to the rules in multiple federal laws prohibiting such actions.

E. Monitoring and Reporting Plan

As detailed in CM-6, monitoring and reporting the progress of the proposed action would be done annually by the tribes and WDFW to USACE in the form of an annual report. Success criteria would be showing an overall decrease in northern pike caught over the life of the program. This would demonstrate "success" which is the suppression in the population of northern pike.

II. **Status of the Species and Critical Habitat in the Action Area- Environmental**

Baseline

Table 1. Endangered Species Act Proposed, Threatened, and Endangered Species listed in the action area.

SPECIES	LISTING STATUS	Critical Habitat	Species Determination	Critical Habitat Determination
Canada Lynx	T	Designated	No Effect	No Effect
Gray Wolf	E	Designated	No Effect	No Effect
Grizzly Bear	T	Proposed	No Effect	No Effect
Monarch Butterfly	Proposed T	Proposed	No Effect	No Effect
North American Wolverine	T	N/A	No Effect	No Effect
Pygmy Rabbit	E	N/A	No Effect	No Effect
Southern Mountain Caribou DPS	E	Designated	No Effect	No Effect
Mt. Rainier White-tailed Ptarmigan	T	N/A	No Effect	No Effect
Yellow-billed Cuckoo	T	Designated	No Effect	No Effect
Bull Trout	T	Designated	May Affect, Likely to Adversely Affect	May Affect, Not Likely to Adversely Affect
Kootenai River White Sturgeon	E	Designated	May Affect, Likely to Adversely Affect	May Affect, Not Likely to Adversely Affect
Spalding's Catchfly	T	Proposed	No Effect	No Effect
Ute Ladies'-tresses	T	N/A	No Effect	No Effect
Whitebark Pine	T	N/A	No Effect	No Effect

A. Bull Trout

Primary threats to bull trout are categorized by habitat-based (e.g. agriculture practices, residential development, and regulated rivers), demographic (actions or conditions that impair connectivity or cause direct loss of individuals, potentially resulting in unacceptably small population size, which can lead to genetic or demographic bottlenecks), and nonnative species threats. The proposed action will reduce nonnative species threats.

The action area includes portions of the Mid-Columbia and Columbia Headwaters recovery units, containing in total five core areas, one (1) research needs area, and 39 local bull trout populations. The action area includes bull trout spawning and rearing (SR) habitat and foraging, migration, and overwintering (FMO) habitat. Spawning and early rearing habitat is typically found in headwater areas (often road-less and on U.S. Forest Service lands) while main stem rivers provide FMO habitat.

Based on the most recent status reviews (USFWS 2015a), historical habitat loss and fragmentation, interaction with nonnative species, and fish passage issues are widely

regarded as the most significant primary threat factors affecting bull trout. The order of those threats and their potential synergistic effects vary greatly by core area and among local populations and is described in greater detail in the recovery unit implementation plans for each of the two recovery units in the action area: Mid-Columbia (USFWS 2015) and Columbia Headwaters (USFWS 2015). This proposed action will address the primary threat of nonnative species to bull trout at the multi-recovery unit scale.

B. Bull Trout Critical Habitat

The action area includes streams and lakes/reservoirs designated as critical habitat in northern Idaho and northeastern Washington. Much of the critical habitat occurs on Federal lands managed by the U.S. Forest Service or the Bureau of Land Management. Across the action area, streams may provide spawning and rearing (SR) critical habitat or foraging, migration, and overwintering (FMO) critical habitat, depending on site specific stream characteristics and local bull trout population life history expressions. The action area encompasses a large area across northern Idaho and northeastern. See for detailed descriptions of each critical habitat unit, justification for designation as critical habitat, and documentation of occupancy by bull trout.

The proposed action will improve the physical and biological features (PFS) of bull trout critical habitat. Specifically it will improve PBF3 and PBF9 (75 FR 63898).

The PBF3 of critical habitat is an abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish. Removing northern pike will increase the food base as pike also eat forage fish.

The PBF9 of critical habitat is sufficiently low levels of occurrence of nonnative predatory (e.g., lake trout, walleye, northern pike, smallmouth bass); interbreeding (e.g., brook trout); or competing (e.g., brown trout) species that, if present, are adequately temporally and spatially isolated from bull trout. Removing the nonnative predatory fish that is northern pike will directly benefit the habitat of bull trout.

C. Kootenai Sturgeon

The Kootenai sturgeon is one of several land-locked populations of white sturgeon found in the Pacific Northwest. The extent of the Kootenai sturgeon range is from Kootenai Falls, Montana, 31 river miles (RM) (49.9 river kilometers (RKM)) below Libby Dam, Montana, downstream throughout Kootenay Lake, north to Duncan Dam and west to Corra Linn Dam, located downstream of the outflow from Kootenay Lake in British Columbia. Approximately half of the population's range is located in British Columbia. The primary threats to Kootenai sturgeon stem from the presence and operations of Libby Dam, and fall into three main categories: (1) reductions in peak spring flows; (2) alterations to the annual thermal regime in the Kootenai River; and (3) reductions to/losses of nutrients and fundamental ecosystem processes (e.g., food web, floodplain interaction, riparian function). By removing nonnative northern pike, predation pressure on native fish species such as Kootenai sturgeon is reduced, allowing these populations to recover and reestablish their natural roles within the Kootenai River's food web.

D. Kootenai Sturgeon Critical Habitat

In total, 18.3 river miles (RM) (29.5 river kilometers (RKM)) of the Kootenai River are designated as critical habitat within Boundary County, Idaho. The critical habitat features that provide for breeding and rearing of offspring through the free-swimming larvae stage include: water temperatures, depths, and flows sufficient to trigger sturgeon breeding, and water volumes and substrates sufficient to provide cover and shelter to incubating eggs and yolk sac larvae (73 FR 39506 39523). This habitat provides forage, spawning, and rearing for this species. Removing northern pike will improve the critical habitat of Kootenai sturgeon as they will compete for forage fish and shelter where rearing offspring would be found.

III. Effects of the Action and Cumulative Effects

A. Bull Trout

Adverse impacts to individual bull trout are likely to occur through the suppression actions within the proposed action. The proposed action is not likely to cause adverse population-level effect to bull trout or cause permanent loss of habitat or habitat function because the impacts are likely to be small in magnitude, temporary (daily net checking by gear removal), short-term (CM-9), and geographically local. Therefore, the proposed project will not jeopardize the recovery and conservation of bull trout. Bycatch and mortality of bull trout from ongoing efforts are range from zero (some areas) to 22 in Coeur d'Alene Lake (13 released, 9 mortalities) from 2018-2022, or approximately 2 mortalities a year with 60% live releases. Beneficial impacts will be achieved for five or more years. Northern pike suppression began in the action area in 2018. USACE is optimistic that bull trout will increase in population size as more northern pike are removed. The proposed action is not likely to cause adverse population-level effects to bull trout or cause permanent loss of habitat or habitat function. Therefore, the proposed project will not jeopardize the recovery and conservation of bull trout.

B. Bull Trout Critical Habitat

The proposed action is not likely to cause significant impacts to physical and biological features (PBFs). The impacts are likely to be small in magnitude, temporary (daily net checking by gear removal), and short term (CM-9), and geographically local. Only small amounts of sediment will infrequently and inadvertently be introduced to the water during netting activities. The impacts are unlikely to result in permanent loss of habitat, degrade conservation functions, cause a loss of habitat functions, loss of critical habitat, or a loss in functional value of critical habitat. The effects to designated critical habitat would be insignificant. The proposed action to remove northern pike may have a beneficial effect to bull trout by decreasing the competition for food resources. The proposed action is not likely to result in destruction or adverse modification of designated critical habitat.

C. Kootenai Sturgeon

Adverse impacts to individual Kootenai sturgeon are likely to occur through the suppression actions within proposed action. The proposed action is not likely to cause adverse population-

level effect to Kootenai sturgeon or cause permanent loss of habitat or habitat function because The impacts are likely to be small in magnitude, temporary (daily net checking by gear removal), short-term (CM-9), and geographically local. Therefore, the proposed project will not jeopardize the recovery and conservation of Kootenai sturgeon. Bycatch and mortality is estimated by looking at the white sturgeon bycatch in Lake Roosevelt as surrogate. Ongoing efforts range from zero caught at some areas to 374 (333 released 41 mortalities) total from 2018-2022, or approximately 8 mortalities a year with 90% percent live releases. Beneficial impacts will be achieved for five or more years. Northern pike suppression has not begun in the Kootenai river. USACE is optimistic that Kootenai sturgeon (and their prey base) predation rates will decrease as more northern pike are removed, current Kootenai sturgeon stocking efforts are not expected to be impacted by the proposed action. The proposed action is not likely to cause adverse population-level effects to Kootenai sturgeon or cause permanent loss of habitat or habitat function. Therefore, the proposed project will not jeopardize the recovery and conservation of Kootenai sturgeon.

D. Kootenai Sturgeon Critical Habitat

The proposed action is not likely to cause significant impacts to PBFs. The impacts are likely to be small in magnitude, temporary (daily net checking by gear removal), and short term (CM-9), and geographically local. Only small amounts of sediment will infrequently and inadvertently be introduced to the water during netting activities. The impacts are unlikely to result in permanent loss of habitat, degrade conservation function, cause a loss of habitat functions, loss of critical habitat, or a loss in functional value of critical habitat. The effects to designated critical habitat would be insignificant. The proposed action to remove northern pike may have a beneficial effect to Kootenai sturgeon by decreasing the competition for food resources. The proposed action is not likely to result in destruction or adverse modification of designated critical habitat.

E. Cumulative Effects

Cumulative effects are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area and are not subject to ESA consultation (50 Code of Federal Regulations [CFR] 402.02).

The action area is already impacted from year-round recreation activities (fishing, hunting, boating, bird watching, swimming, etc.), commercial navigation, railroad, and highway transportation, shoreline private and commercial land use and business operations, and flood risk management structures and activities.

No known cumulative effects to bull trout or Kootenai sturgeon resulting from non-federal actions are expected in the action area.

IV. Conclusion-Determination of Effect

The proposed action may affect and is like to adversely affect bull trout and Kootenai sturgeon through the unintendedly bycatch of suppression activities to remove northern pike. The proposed action has the potential to unintendedly capture, wound, or kill bull trout and Kootenai sturgeon. Bycatch and mortality of bull trout from ongoing efforts are lowest of zero caught a year at some areas and highest in Coeur d'Alene Lake totaling 22 (13 released,

9 mortalities) total from 2018-2022 which is around 2 mortalities a year with 60% released alive. Bycatch and mortality is estimated by looking at the white sturgeon bycatch (as a surrogate) in Lake Roosevelt from ongoing efforts are lowest of zero caught historically at some areas and highest Lake Roosevelt totaling 374 total (333 released 41 mortalities) from 2018-2022 which is around 8 mortalities a year or 90% percent released alive.

The proposed action may affect, but is not likely to adversely affect bull trout and Kootenai sturgeon designated critical habitat. The effect to designated critical habitat would be insignificant. The proposed action to remove northern pike may have an overall beneficial effect to bull trout and Kootenai sturgeon by: (1) reducing predation on juveniles and (2) decreasing competition for food resources.

V. List of References and Personal Communications

Baxter, J. T. A. and M. Neufeld. 2015. Lower Columbia River invasive Northern Pike suppression and stomach analysis – 2014. Prepared for Teck Trail Operations, Trail, British Columbia, Canada.

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McLellan, H. J., S. Wolvert, Jones, B., E. C. Kittel, A. O. Silver, C. D. Lee., Parsons, T., Baker, B. 2018. Lake Roosevelt Northern Pike Suppression and Monitoring Plan, 2018-2022. Bonneville Power Administration Project # 1994-043-00.

Sepulveda, A. J., Rutz, D. S., Ivey, S. S., Dunker, K. J., and Gross, J. A. 2013. Introduced northern pike predation on salmonids in southcentral Alaska. *Ecology of Freshwater Fish*, 22(2), 268-279.

Walrath, J. D., Quist, M. C., and Firehammer, J. A. 2015. Trophic Ecology of Nonnative Northern Pike and their Effect on Conservation of Native Westslope Cutthroat Trout. *North American Journal of Fisheries Management*, 35(1), 158-177.

U.S. Fish and Wildlife Service. 2015. Recovery plan for the coterminous United States population of bull trout (*Salvelinus confluentus*). Portland, Oregon. xii + 179 pages.

U.S. Fish and Wildlife Service. 2019. Revised Recovery Plan for the Kootenai River Distinct Population Segment of the White Sturgeon. U.S. Fish and Wildlife Service, Portland, Oregon. vi + 35 pp.

U.S. Fish and Wildlife Service. 2024. Species Status Assessment for the Coterminous Distinct Population Segment of Bull Trout (*Salvelinus confluentus*). Version 1.1, September 3, 2024. Boise, Idaho. 182 pp.

VI. List of Appendices

VII.

Appendix A - Annual Northern Pike Work Plan Notification Form

**Northern Pike Programmatic
Annual Work Plan Notification Form**

Submit this completed annual action notification form with the following information to USACE.

USACE Review and Approval. All actions must be individually reviewed and approved by USACE as consistent with USFWS opinions before that action is authorized. USACE will notify within 7-14 calendar days if the action is approved or disqualified.

DATE OF REQUEST: _____ **USFWS & NMFS Tracking #:** _____

Statutory Authority: ESA ONLY EFH ONLY ESA & EFH INTEGRATED

Lead Action Agency: USACE

Action Agency Contact: _____

Applicant: _____

Action Title: _____

6th Field HUC & Name: _____

Latitude & Longitude (including degrees, minutes, and seconds) _____

Proposed Project: *Start Date:* _____ *End Date:* _____

Action Description:

Include all actions needed (Monitoring, Supression, Drawdown Surveying, Public Outreach, Coordination, Reporting) either here or in an attached annual work plan.

Identify actions on a map.

Report a schedule of actions for the year.

Identify weekly bycatch thresholds

Applicable conservation measures

ESA-listed Species/Critical Habitat Present in Action Area:

Identify the species found in the action area:

Species:

- Bull Trout
- Kootenai White Sturgeon
- Upper Columbia River Spring Chinook
- Upper Columbia River Steelhead

Terms and Conditions:

Check the Terms and Conditions from the biological opinion that will be included as conditions on the permit issued for this proposed action. Please attach the appropriate plan(s) for this proposed action.

