



Russell Bar Nez Perce Tribe Fall Chinook Salmon Acclimation Facility

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Environmental Assessment

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CHAPTER 1. INTRODUCTION

The Bureau of Land Management (BLM) is evaluating a right-of-way application (IDID-106793327) and proposal for the Nez Perce Tribe (NPT) in conjunction with the U.S. Fish and Wildlife Service Lower Snake River Compensation Plan (LSRCP) program to construct and operate a fall Chinook salmon acclimation facility at Russell Bar. Russell Bar is located adjacent to the Salmon River, approximately six air-miles south of the community of White Bird, Idaho, Idaho County (Appendix A, Maps 1, 2, 3, and 4). Snake River fall Chinook salmon are listed as a threatened species in accordance with the Endangered Species Act (ESA)¹. Supplementing existing fall Chinook salmon production in the Lower Salmon River would support recovery efforts for an ESA-listed fish species.

The BLM has prepared this Environmental Assessment (EA) to disclose and analyze the environmental consequences of granting a right of-way for the construction and operation of the fall Chinook salmon acclimation facility as proposed by the NPT. Fish acclimation is the gradual process of helping subyearling fall Chinook salmon adapt to their new aquatic environment in temporary rearing tanks prior to release. Proper acclimation of fish has several benefits. It allows fish to adjust to changes in temperature, water chemistry, and other factors at a controlled pace. Acclimation allows fish to recover from the stressful event of transport, improving their overall health and survival. Fall Chinook salmon allowed short-term rearing in acclimation tanks will also likely begin a physiological change (smoltification) and imprint on the acclimation location ensuring adult returns have fidelity to the area. The operation of the acclimation facility and release of 650,000 subyearling fall Chinook salmon annually would result in improved health, survival of more fish, and return of adult salmon to the area of the Salmon River to spawn naturally boosting abundance of the population.

1.1. Background

The BLM was contacted by NPT Fisheries Department, regarding a proposal to move a fall Chinook salmon acclimation facility from Pittsburg Landing, Snake River to a site located adjacent to the lower Salmon River. The NPT fisheries staff requested that the Pittsburg Landing acclimation facility be moved to the Salmon River to increase the spatial structure and diversity of the Snake River fall Chinook population by increasing abundance of adult spawners in the Salmon River. Additionally, in the Snake River Fall Chinook Recovery Plan (2017) NOAA Fisheries proposed creating Natural Production Emphasis Areas (NPEAs) — i.e., major spawning areas that produce a substantial level of natural-origin adult spawners with a low proportion of hatchery origin spawners in the Snake River from Hells Canyon Dam downstream to the mouth of the Salmon River. Pittsburg Landing acclimation facility is the middle of this Hells Canyon reach area of the Snake River. Ongoing monitoring of spawning activity and natural production would continue in the Snake River for further validation.

¹ Snake River fall Chinook were listed as threatened under the Endangered Species Act on [April 22, 1992 \(57 FR 14653\)](#), reaffirmed on [June 28, 2005 \(70 FR 37159\)](#) and [April 14, 2014 \(79 FR 20802\)](#), with a 2022 review concluding they remain threatened. The Evolutionary Significant Unit includes naturally spawned fish in the mainstem Snake River below Hells Canyon Dam, as well as in the Tucannon, Grande Ronde, Imnaha, Salmon, and Clearwater rivers. Hatchery programs that are included in the listing are Fall Chinook Acclimation Ponds, Lyons Ferry Hatchery, Nez Perce Tribal Hatchery, and Idaho Power.

During the summer of 2023 site visits by the BLM and NPT fisheries staff were conducted and a suitable site for the acclimation facility was located on BLM lands at Russell Bar (River Mile 62.2). The proposed action would include the construction, installation, and operation of the acclimation facility. The BLM would authorize the proposed action with a right-of-way. The U.S. Fish and Wildlife Service (USFWS), Lower Snake River Compensation Plan (LSRCP), as a funding agency for the project is a cooperating agency with the BLM for the preparation of the EA for the project. The LSRCP administers the Fall Chinook Acclimation Program, which is operated by the NPT.

Construction and operation of the acclimation facility would include: (1) road improvements for providing access to the site; (2) providing electrical power and backup power (generator) for the facility; (3) sixteen-acclimation tanks; (4) water supply for the facility (Salmon River withdrawal); (5) staff quarters for operating the facility; and (6) installation of a vault toilet at the day use parking area; and 7) annual acclimation and release of approximately 650,000 subyearling fall Chinook salmon. Construction would potentially start during 2027 or 2028. After construction is completed, the first group of 650,000 subyearling fall Chinook salmon could be acclimated starting in the spring of 2027 and released into the Salmon River. The operation of the acclimation facility would be long term (e.g., 20+ years) and authorized with a BLM right-of-way.

1.2. Purpose and Need

The NPT, in conjunction with the LSRCP, has requested that the BLM authorize the installation and operation of a fall Chinook salmon acclimation facility on BLM lands adjacent to the Salmon River at Russell Bar. The NPT currently operates an acclimation facility for fall Chinook located on U.S. Forest Service lands at Pittsburg Landing adjacent to the Snake River (Hells Canyon). The NPT and the LSRCP have requested that the acclimation facility at Pittsburg Landing be relocated to the Salmon River. This relocation is expected to increase abundance and improve spatial structure and diversity of the Snake River fall Chinook population by utilizing empty habitat in the Salmon River. It will also allow a section of the Snake River, between Hells Canyon Dam and the mouth of the Salmon River, to be evaluated as a Natural Production Emphasis Area for fall Chinook salmon. Monitoring of spawning activity and natural production would be conducted for further validation. Supplementing existing production of fall Chinook salmon in the Lower Salmon River would support recovery efforts for an ESA-listed species (NMFS 2017).

In May 2025, National Marine Fisheries Service (NMFS) completed their consultation on the Snake River fall Chinook hatchery program (NMFS 2025), which included moving releases of Snake River fall Chinook from Pittsburg Landing on the Snake River to Russell Bar on the Salmon River. ESA section 10(a)(1)(A) permits, numbers 16607–3R and 16615–3R for the Snake River Fall-run Chinook Salmon Hatchery Programs include the annual release of about 650,000 Snake River fall Chinook juveniles at Russell Bar. Section 10 permits are valid through December 31, 2038.

NOAA is concurrently revising their permitting, through Section 10 of the Endangered Species Act, for the release of Snake River fall Chinook at Russell Bar. These updated Section 10

permits will provide ESA coverage for the annual release of about 650,000 subyearlings at Russell Bar for the life of those Section 10 permits (typically up to 10 years).

The BLM must consider all requests for rights-of-way (BLM 2009). Authorizing this proposed request for a Russell Bar acclimation facility would be beneficial to the Nez Perce Tribe, support recovery of an ESA-listed species, and provide improved treaty and recreational (non-treaty) fishing opportunities. The BLM recognizes tribal treaty rights and trust responsibilities regarding management actions that affect aquatic species and their habitats and authorizing the acclimation facility would support these responsibilities.

1.2.1. Decision to be Made

The BLM's decision to be made includes the granting of a land use permit and right-of-way to the NPT to construct and operate a fall Chinook salmon acclimation facility adjacent to the Salmon River at Russell Bar. The land use permit and right-of-way would include design features for construction, maintenance, and operation of the acclimation facility. Implementation of the proposed project would be conducted in cooperation with the NPT, USFWS (LSRCP), and BLM.

USFWS, through the LSRCP, will decide whether to provide funding to the NPT for this project. Prior to making a funding decision, USFWS is required under the National Environmental Policy Act (NEPA) to assess the potential environmental effects related to USFWS's funding of the project. If, based on the analysis in this EA, USFWS determines that these impacts are not significant and adopts the EA, USFWS would issue a Finding of No Significant Impact (FONSI). If, however, USFWS determines that any of these potential impacts are significant, USFWS would proceed with preparation of an Environmental Impact Statement (EIS) for the proposal. At the conclusion of the NEPA process – either issuance of a FONSI or completion of the EIS process – USFWS will make its decision on whether to provide the requested funding and at what level.

1.3. Scoping

Internal scoping for the project initially started during the spring and summer of 2023 with several coordination meetings and site visits conducted with the NPT fisheries program and BLM. External scoping for preparation of this EA included the posting of project information and requesting input from interested parties on the BLM NEPA website (ePlanning.blm.gov) on April 29, 2025, with public input comments were due June 4, 2025. In addition to posting of the proposed project on the BLM NEPA website, emails that included a brief description of the project and a link to the BLM NEPA website were sent to interested agencies, organizations, and the public requesting comments. A total of five comment submissions were received and a summary of the main issues identified are listed below.

- The proposed project is adjacent to the Salmon River (Slate Creek to Rice Creek) assessment unit (AU) and designated beneficial uses include cold water aquatic life, contact recreation, and domestic water supply. Project construction and operation should have design measures to avoid impacts and not impair these designated beneficial uses.

- This AU (Salmon River – Slate Creek to Rice Creek) is listed in Category 5 as impaired by mercury and temperature in Idaho’s 2022 Integrated Report. Category 5 means the water body does not meet applicable water quality standards for one or more beneficial uses due to one or more pollutants and is on the Environmental Protection Agency’s 303 (d) impaired and threatened waters list. Evaluation of the proposed project should address these pollutants to ensure that operation and objectives of the fall Chinook salmon acclimation facility is not at risk from these pollutants.
- Ensure that all state, federal, and local permits have been obtained, regulations met, and reviews are completed for the construction and operation of the proposed fall Chinook salmon acclimation facility.
- If possible, include pollinator species in seed and planting mixes.
- Support actions for the recovery of salmon species.

The BLM coordinated with and consulted on this project with the Nez Perce Tribe, National Marine Fisheries, U.S. Fish and Wildlife Service (USFWS), and Idaho State Historic Preservation Office. Comments and input from internal and external scoping and consultations identified above were considered in the development of the proposed action, and identification of issues for analysis. USFWS (LSRCP), participated in the review and preparation of the EA as a cooperating agency.

1.4 Issues Identified for Analysis

Following is a summary of internal and external (public scoping) scoping key issues that would be analyzed in detail for this EA.

Through the internal and external scoping process and the initial 30-day comment period, the public and other agencies raised concerns in response to the Proposed Action. Identification of issues included review of written and verbal public comments, review of comments from State, County, and other federal agencies, input from BLM staff, and review of BLM identified Resource Management Plan (BLM 2019). Internal and external scoping identified specific areas of concern and issues that would be addressed by project design criteria and would require in-depth analysis and disclosure. Issues requiring in-depth analysis and disclosure are presented for each resource, as applicable. Refer to Table 1 for a summary of key issues analyzed in detail for this EA in Chapter 3, Affected Environment and Environmental Consequences.

Table 1. Issues Analyzed in Detail

Resource	Issue Statement	Impact Indicator
Water Quality	How would construction, operation, and associated soil and vegetation disturbance and water use associated with the fall Chinook salmon acclimation facility affect Salmon River water quality?	Erosion, sediment, turbidity, water withdrawal, and stream channel and floodplain stability.
Water Quality	This AU (Salmon River – Slate Creek to Rice Creek) is listed in Category 5 as impaired by mercury and temperature in Idaho’s 2022 Integrated Report.	Project construction soil and vegetation disturbance. Fall Chinook Salmon life stages and operation of acclimation facility and risks for impacts from impaired water quality parameters.
Soils	How would building and operating the fall Chinook salmon acclimation facility, along with related soil and vegetation disturbance, impact soil erosion and sedimentation?	Disturbance area, erosion, and sediment.
Vegetation	How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance affect Salmon River riparian and Russell Bar upland vegetation?	Invasive plant composition, desired plant species composition, and stream channel and floodplain stability. Area disturbed and/or rehabilitated.
Special Status Fish and Aquatic Habitats	How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance and water use affect Salmon River native fish, special status fish species, and aquatic habitats?	Aquatic habitat quality and diversity, turbidity, deposited sediment, and water withdrawal (river flows). Native fish species and special status species impacted in the short term and long-term.
Special Status Wildlife and Habitats	How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance affect wildlife, special status species, and wildlife habitats.	Amount (area) of terrestrial and riparian habitat disturbed. Impacts to aquatic, riparian and terrestrial dependent wildlife

Resource	Issue Statement	Impact Indicator
		species impacted in short-term and long-term.
Recreation	How would construction and operation of the fall Chinook salmon acclimation facility affect recreation use and Visual Resource Management (VRM) associated with the Salmon River and at Russell Bar?	Existing recreation uses and opportunities associated with Salmon River and Russell Bar. Potential short-term and long-term impacts to recreation use and opportunities from construction and operation of acclimation facility.
Visual Resource Management	Would construction and operation of the fall Chinook salmon acclimation facility meet Visual Resource Management Class II objectives identified for the project and analysis area?	Potential short-term and long-term impacts to VRM Class II objectives from construction and operation of acclimation facility. Evaluate changes that would occur from project implementation to the casual observer and predominant natural features of the characteristic landscape.
Cultural and Historical Resources	Would construction and operation of the fall Chinook salmon acclimation facility affect cultural resources.	Disturbance area, erosion, and sediment. Subsurface excavation may have significant impacts to the integrity of a significant archeological site. Archeological excavation in areas where subsurface disturbance may happen could mitigate short-term and long-term effects.

Resource	Issue Statement	Impact Indicator
Special Designations	How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance and water use affect special designation areas and important resource values associated with these areas. Special designation areas include: (1) Upper Salmon River Area of Critical Environmental Concern; and (2) Recommendation to Congress to include 59 miles of the Salmon River for inclusion in the NWSRS as Recreation (59 miles Long Tom Bar to Hammer Creek).	Potential short-term and long-term impacts to Upper Salmon River ACEC high resource values from construction and operation of acclimation facility. Potential impacts to outstanding remarkable resource values (ORVs) identified for inclusion in the NWSRS from the construction and operation of acclimation facility.

1.5 Conformance

As described and analyzed in this EA, the proposed action is consistent with the following decisions from Cottonwood RMP (BLM 2009).

Water Resources

Goal WA-1 – Manage water resources to protect beneficial uses and to meet or exceed state and federal water quality standards. Maintain or improve the chemical, physical, and biological integrity of water resources.

Objective WA-1.1 – Comply with all state and federal requirements to protect water quality.

Action WA-1.1.1 – Implement all applicable BMPs (Appendix A [of the RMP], Best Management Practices) to limit nonpoint source pollution and minimize degradation of water quality.

Vegetation – Riparian and Wetlands

Goal VR-1 – Maintain or improve riparian and wetland areas to achieve proper functioning condition (PFC). Manage riparian plant community types appropriate for the site.

Aquatic Resources, Fish, and Special Status Fish

Goal AF-1 – Manage habitat to contribute to the conservation of special status and native fish species.

Objective AF-1.1 – Provide for diverse and healthy aquatic habitats that contribute to the recovery of listed fish species and conservation of BLM sensitive fish species.

Action AF-1.1.1 – Ensure that all ongoing and new BLM management actions support or do not retard or preclude recovery for federally listed fish (Endangered Species Act), designated critical habitat, and important aquatic habitats (supporting spawning, incubation, larval development, rearing, migration corridors, and aquatic habitats for forage species) (see Appendix F [of the RMP] Federally Listed and Candidate Species Management, Conservation, and Restoration Measures).

Objective AF-1.3 – Manage aquatic, riparian, and wetland habitats to provide diverse and healthy conditions for aquatic species.

Action AF-1.3.7 – The BLM recognizes Idaho Department of Fish and Game’s statutory mandate to preserve, protect, perpetuate, and manage all wildlife and fish within the state of Idaho. The BLM recognizes Tribal treaty rights and trust responsibilities regarding management actions that affect aquatic species and their habitats. As needed, the BLM will coordinate, confer, and consult with Idaho Department of Fish and Game, tribes, NMFS, USFWS, and other, state and federal agencies, and partners in management actions that may affect aquatic species and habitats.

Wildlife and Special Status Wildlife

Goal WS-1 – Manage habitat to contribute to the conservation of special status species habits and to maintain biological diversity of wildlife.

Objective WS-1.5 – Manage BLM sensitive species habitats so actions do not contribute to species decline or contribute to federal listing.

Action WS-1.5.4 – Manage wildlife habitats using established BMPs and guides for BLM sensitive species. Use a species habitat guild approach (e.g., riparian, old growth, canyon grasslands, etc.) for identification of desired conditions, conducting analysis, and developing project and activity design measures. Development of project design measures should include conservation and restoration measures for BLM sensitive species, while striving for appropriate habitat diversity and achievement of project objectives.

Objective WS-1.7 – Maintain, restore, or enhance riparian and wetland areas so they provide habitat diversity and health riparian and aquatic conditions for riparian and wetland dependent species and other wildlife species.

Action WS-1.7.3 – Avoid or minimize the adverse impacts from projects that encroach or degrade riparian areas or stream channels and curtail attainment of riparian management objectives. See *Vegetation – Riparian and Wetlands* Appendix D, Aquatic and Riparian Management Strategy.

Visual Resources

Goal VR-1 – Manage activities to maintain scenic quality.

Objective VR-1.1 – Manage activities to protect scenic quality in accordance with VRM class guidelines.

Recreation

Goal RC-1 – Manage public lands and waters to provide a broad spectrum of recreation experiences and benefits. Emphasize resource-based river recreation. Ensure that developed facilities and sites are appropriate for the resource setting, well maintained, safe, secure, and assessable. Provide high value recreation opportunities and receive a fair return for commercial and specialized recreation uses.

Objective RC-1.4 – Manage existing and develop new recreation facilities to attain recreation and other resource goals.

Action RC-1.4.2 – Maintain all recreation facilities and recreation use areas for public safety and aesthetics.

Special Designations

Goal AR-1 – Maintain or enhance relevant resource values of more than local importance, or protect life and promote safety where natural hazards exist.

Objective AR-1.9 – Protect and conserve scenic values, cultural resources, special status species, important wildlife habitats, and other ecological resources by designating Upper Salmon River ACEC.

Goal WR-1 – Fulfill the BLM's obligations under Section 5(d)(1) of the WSR Act for the life of this RMP.

Objective WR-1.1 – Manage the Salmon River from Long Tom Bar to the Snake River (112 miles) to protect its identified outstandingly remarkable values and free-flowing condition until redirected by Congress.

Action WR-1.1.4 – The 112-mile segment of the Lower Salmon River, Long Tom Bar to the confluence of the Snake River was recommended to Congress for inclusion in the NWSRS as Recreation (59 miles Long Tom Bar to Hammer Creek) and Scenic (53 miles Hammer Creek to the Snake River Confluence) ([RMP] Map 16, Wild & Scenic River Segments and Wilderness & Wilderness Study Areas). BLM management actions will not alter free flowing nature, measurably diminish outstandingly remarkable values, or modify the setting or level of development that will change its identified Scenic or Recreation classification.

Objective LR-1.3 – Consider all request for Rights-of-Way, Land Use Permits, and Leases.

Action LR-1.2.3 – Areas where realty authorizations should be avoided, or where specific requirements and special mitigation measures must be met, include ACECs, RNAs, wild and

scenic rivers (either designated or proposed), SRMAs, administrative sites, and areas with special or sensitive resource values.

Key Laws, Regulations, and Policies

- Federal Land Policy and Management Act of 1976 (FLPMA) – enables the BLM to consider the granting of land use permits.
- The Endangered Species Act (ESA) of 1973 as amended.
- The National Historic Preservation Act of 1966 as amended
- Executive Orders 11988 and 11990, providing for protection and management of floodplains and wetlands.
- Clean Water Act – CWA (Federal Water Pollution Control Act Amendments) of 1972 as amended.
 - CWA § 401. The CWA provides states and authorized Tribes the authority to grant, deny, or waive certification of proposed federal licenses or permits that may discharge into Waters of the United States (WOTUS). CWA § 401 is an important tool for states and authorized Tribes to help protect the water quality of federally regulated waters within their borders, in collaboration with federal agencies. In developing the NEPA document, the EPA recommends early coordination with all potential certification authorities regarding CWA § 401 for the purposes of streamlining regulatory processes.
 - CWA § 402. EPA has delegated authority to issue National Pollutant Discharge Elimination System (NPDES) permits to the Idaho Department of Environmental Quality. In the NEPA analysis, identify any discharges to WOTUS that are known, or are likely, to occur during construction and operation of the project and how these discharges would be managed and minimized. Identify the NPDES permits that will be obtained for the construction phase, new or modifications to existing permits for operations, and how any previous permit exceedances could be prevented by incorporating pollution prevention measures into the project.
- National Environmental Policy Act (NEPA) 1969
- Stream Channel Protect Act (Title 42, Chapter 38, Idaho Code) – Idaho Department of Water Resources and U.S. Army Corps of Engineers Stream Alteration Permits.

CHAPTER 2. ALTERNATIVES

This chapter describes the alternatives that would be analyzed in Chapter 3, as well as the alternatives that the BLM considered and eliminated from detailed analysis.

2.1. Alternative A – No Action Alternative

The BLM would not grant the NPT a land use permit and right-of-way for the construction and operation of a fall Chinook salmon acclimation facility at Russell Bar.

2.2. Alternative B – Proposed Action

The proposed BLM action is to grant the NPT a right-of-way to construct and operate a fall Chinook salmon acclimation facility at Russell Bar (T. 27 N., R. 1 E., Section 23: Lots 2 and 3). USFWS, LSRCP, is a funding agency for the project. The USFWS is also a cooperating agency with BLM for the preparation of the EA for the project.

Construction and operation of the acclimation facility would include: (1) road improvements for providing access to the site; (2) providing electrical power and backup power (generator) for the facility; (3) sixteen-acclimation tanks; (4) water supply (Salmon River) for the facility; (5) staff quarters for operating the facility; and (6) installation of vault toilet at the day use – kiosk area; and annual acclimation and release of approximately 650,000 subyearling fall Chinook salmon (see Appendix A, Maps 3 and 4).

Construction activity for the Russell Bar Fall Chinook Salmon Acclimation Facility may potentially start in 2026, pending acquisition of all required BLM, federal, state, and county required permits and authorizations. Construction activity is dependent on funding, logistics, and available work force and would occur in phases during 2026 and/or 2027. Earliest potential release for fall Chinook salmon subyearlings would be during the spring of 2027.

Initial work would be for improvement of access roads and pads for placement of tanks, trailers, and equipment. Work for installation of power supply and power poles to the facility would also occur simultaneously. Potential work (i.e., placement of rip rap) below Salmon River mean high water levels would occur during low water periods during winter, early spring, summer, and fall periods. It is expected that riprap placement below the river mean high water level would occur in the "dry", or minimal work in river (<5-10%). Except for riprap placement, construction activity would occur above mean high water level. During operation the water intake pipes and water/fish discharge pipe(s) (from fish tanks) would occur below mean high and in the Salmon River. The water intake pipes and water/fish discharge pipe would be moved periodically and would be dependent on river flows.

Construction could start in 2026 or 2027. After construction is completed, the first group of 650,000 subyearling fall Chinook salmon could be acclimated starting in the spring of 2027 and released into the Salmon River (late May/early June). Subject to available funding, the operation of the acclimation facility would be long term (e.g., 20+ years) and authorized with a BLM rights-of-way. Specifics of the project are summarized below.

Facility Set up/Construction:

- Before equipment comes to the site it must be inspected by a qualified inspector for weeds.
- All 3-inch minus and ¾-inch minus gravel and road rock must be weed free and inspected for weeds prior to use on the site.

- Access road from the BLM gate area and day use area to the location of the staging area and acclimation tanks: (1) On the primary access road (700± feet) going west and southwest from the day use area add 3-inch minus base gravel and add topcoat of ¾-inch minus gravel over geotextile; and (2) On the secondary access road (745± feet) going south from the day use area and paralleling the water pipeline to the fish tanks and staging area add 3-inch minus base gravel and add a topcoat of ¾-inch minus gravel over geotextile. These roads are located above mean high water level and provide access for staff, equipment, materials, staff camp trailer, fish tanks, and fish trucks.
- The road (1,480± feet) from Rodeo Drive to the existing buck and pole fence day parking area will require a layer of 3-inch minus base gravel, topcoat of ¾-inch gravel, over geotextile.
- A short segment of road (approximately 150-feet in length) occurring under the bridge is narrow and would require widening of the road to facilitate access for acclimation facility materials, equipment, and fishtank truck. Such widening may require placement of riprap on the downslope side and/or placement of a gabion on the upslope side of road. Potential riprap placement may result in approximately 125 cubic yards below mean high water level. Riprap placement below mean high flow level would occur during lower water periods during the winter, early spring, summer or fall and it is expected that all or most would be placed in the “dry” or very small amount in water (up to 15%). The majority of riprap would be placed on top of existing riprap material and as needed some movement of existing rock or excavation to key riprap into bank would occur and removal of few small trees or shrubs. Placement of 3-inch minus rock/gravel (or other suitable size) material may be required on top of riprap to provide suitable road base and graveling with ¾-inch minus material on road surface (similar to existing access road).
- Installation and construction of a vault toilet located at the Russell Bar kiosk and day use parking area. The vault toilet would be available for use by the public and NPT staff. In addition, the NPT would also be responsible for obtaining a porta-toilet located near acclimation tanks and camp trailer for use by staff. The BLM would be responsible for any future maintenance and pumping of the vault toilet.
- Install gate in buck and pole fence to provide access for vehicles and trucks to access the facility area to install tanks, bring in equipment and materials, camp trailer access, gravel, fish trucks, and provide staff access to the site. Access through the gate would be for NPT staff and administrative purposes. This gate would be locked when not in use and would not be available for public access.
- Prior to placing fish tanks at the site, the soil surface would have 3-inch minus base gravel and ¾-inch minus gravel placed on top of geotextile and the staging area and camp trailer site would also have the same gravel placement. Fish tank area and staging area totals 0.67 ± acre in size. Base timbers would be placed on top of surface gravels and would provide support for tanks.

- The sixteen acclimation tanks are currently located at Pittsburg Landing and would be hauled by truck to the Russell Bar acclimation site for installation along with any other facility equipment and materials.
- Power supply: upgrade existing power to three-phase, conducted by Idaho County Light and Power. Single phase overhead power to be delivered approximately 650 feet downriver to camp trailer and fish tanks. The three-phase power supply would be used for water pumps, and a portable generator would be placed near electrical boxes for backup power supply in the event of overhead power failure. The portable generator would have a double walled belly tank and fuel storage in the tank would be less than 250 gallons. The generator would be located on level ground. The portable generator would be parked in a spill containment berm that would provide for a minimum 125 percent of tank volume.
- At the day use parking area two interpretive signs for the fall Chinook salmon acclimation facility would be installed to highlight the value of the facility, importance of salmon to the NPT, and actions to support recovery for ESA-listed salmon. Other opportunities for interpretive value that can be addressed include tribal cultural importance of the Salmon River and Russell Bar area.
- Remove fence paralleling the Salmon River and the downriver borderline fence separating BLM lands and private lands would not be disturbed. The end of the fence near the parking area will need modification to prevent vehicle traffic from going around it. If livestock drift into the area, then a barbed wire fence could be reinstalled.
- Once tanks are installed, and depending on the need, plant drought tolerant or site adapted shrubs, trees, grasses, and forbs between tanks and edge of high bank and upper bank for visual resource screening. Preference for native species and other desirable species which may be suitable for the site. As needed, watering would be conducted during the first several years after planting. This vegetation would provide partial visual cover in the long term for Highway 95 travelers, river boaters, and other publics utilizing the general area.
- Acclimation tanks and associated water supply: The facility would have a 40 hp pump with a 10-inch supply pipe. This provides approximately 2,500 gallons per minute (gpm) so that each tank receives about 150 gpm of water. This equates to about 5.5 cubic feet per second (cfs) of water. Operation of the acclimation facility occurs from mid-April to early June (fish in tanks), essentially during the spring run-off period. Fish would first be delivered to the facility approximately mid-April. Fish delivery may occur in one truck or two trucks. The subyearling fall Chinook salmon would be acclimatized in the fish tanks with Salmon River water for approximately three weeks prior to release. Pumping would occur 24-hours a day and seven days a week during acclimation when fish are in the tanks.

Water would be pumped from the Salmon River at the location immediately downriver from the Highway 95 bridge which is located upriver of the fish tanks. Water would be

pumped from a river alcove area and up to 4 screened pipes would be used for water withdrawal from the river. Water would be pumped from the river down to the tanks and then returned through pipes back to the river. One water outflow discharge pipe serving 16 fish tanks would return water to the river, or two outflow discharge pipes serving 8 fish tanks each would return water to the river. It is a non-consumptive use of water. These same water outflow discharge pipes would also be utilized for fish return to the river with draining of fish tank after acclimation period reached. The water intake pipes and water/fish outflow pipe(s) distance from pump extending into the river would be dependent on river flows and velocity.

- Water intake screens (ESA compliant) would be placed in the river and two 10-inch pumps located near the three-phase power pole (existing power pole), in the same location as a previous pumping station operated by the BLM.
- The screened water intake pipes would be power backwashed, as needed, to prevent debris and sediment from plugging the screen and prevent excessive sediment delivery to the fish tanks.
- Sixteen 20-foot diameter acclimation tanks would be located on Russell Bar terrace located above Salmon River mean high water level located near the southwest corner of BLM lands. The tanks would sit in a straight line on a gravel bed supported by 6-inch x 6-inch timbers 20-feet in length. The tanks would be located above mean high water level and any treated tank base timbers would not be in contact with any flowing water.
- Two eight-feet x eight-feet x twelve-feet water distribution boxes would be located directly upstream of the acclimation tanks for gravity flow water delivery to circular tanks.
- Pumped water would be delivered to the acclimation tanks via distribution boxes via eight-inch pipeline running above ground occurring on the high bank edge of the landform.
- Discharge piping (from tanks to river) would lay above ground, parallel to tanks and a 45-degree angle would outfall water (and fish after acclimation period) into the river through one or two outflow discharge pipes.
- The acclimation tanks outflow would have a manifold design (like Big Canyon acclimation facility) to reduce outflow velocity and reduce potential for adverse riverbank erosion. The manifold design incorporates outflow piping paralleling the tanks and then discharges through one or two outflow pipes extending to the river. No discharge of water over the riverbanks would occur with the outflow pipe(s) extending to the river.

- An elevated gravel ramp would be constructed parallel to tanks for offloading fish from transport vehicles. The ramp would be approximately 3-feet high and 80-feet in length.
- Staff quarters for operating the facility: Living quarters (camp trailer) would be parked near the two water distribution boxes will be parked. Being near the rearing fish tanks is a necessity to respond to low water alarms and daily activities associated with fish culture. Water storage tanks (100-250 gallons) would be located on site to provide domestic water for staff. Porta-toilets would be located on site and would not be available for public use and would only be used by NPT staff. The single-phase overhead power is needed at the living quarters for the water alarm system and communication system.
- Facility Set Up/Construction Timing: Pending approval of funding agency (USFWS, LSRCP), permitting, and environmental review process, as well as co-manager support, the initial construction process could start in the summer of 2026. After construction is completed, the first group of 650,000 subyearling fall Chinook could be acclimated starting in the spring of 2027.
- Between the bridge and the buck and pole fence some recreation users transport their boats to the river. Ensure that area remains open for river access.

Facility Operations:

- Regular activities and operations would start at the facility site in March with the setting up and testing of pumps, alarms, and backup systems. The facility would be staffed 24/7 from March until the final release of fish in late May/early June. The disassembly, storage, and winterization of the facility would occur at about the end of June each year. Distribution boxes, pumps, etc. would be stored for the remainder of the year. It is proposed to leave the tanks and associated piping in place year-round. However, the pipe used to cycle the water back to the river and ultimately used to release the fish from the tanks to the river is temporary in nature and will be removed in the off season.
- Staff would consist of one person on site 24-hours a day for rotating eight-day shifts (Wednesday to Wednesday).
- Fish health of hatchery subyearling fall Chinook salmon is administered and monitored by a veterinarian fish pathologist. Fish health protocols are described in the Hatchery Genetic Management Plan (HGMP) and ESA consultation. Prior to transfer from the rearing hatchery (Lyons Ferry Hatchery) to the acclimation facility, fish receive what's termed a pre-release sample. A sample of juvenile fish is inspected by a fish health professional for the presence of any diseases or parasites. The risk of any fish health pathogens being detected is very low as the water used for rearing fall Chinook juveniles

is disease free well/ground water. Water quality testing is also conducted at hatcheries rearing fall Chinook juveniles. This fish health information is provided as part of a fish transport permit that is done between Washington and Idaho state to establish the pathogen free status of fish prior to moving to the acclimation facility.

- During acclimation, staff perform daily scheduled fish culture duties that include checking and recording dissolved oxygen levels and water temperature in the rearing units three times each day, feeding the rearing units three times each day, and picking fish mortality twice each day. All trash and fish mortality will be disposed of. Staff also observe fish behavior for abnormalities and assist in fish health checks and the fish-marking program.
- Other staff that may be at the site (in addition to operators) associated with fish acclimation are fish health professionals checking on well-being of fish and taking pre-release samples; fish monitoring and evaluation biologists checking on size of fish and quality assurance on marks and tags.
- Equipment located at the site: sixteen twenty-foot diameter aluminum circular tanks; two twelve-foot high aluminum distribution boxes; four river intake screens; ring lock flexible hose: 4-inch = 1,260-feet, six-inch = 1,780 ft, eight-inch = 3,110-feet; camlock flexible hose: six-inch = 2,080-feet; portable generator with double walled belly tank for fuel (less than 250 gallons); containment berm sized to contain 125% of fuel stored (e.g., portable generator); one – 20-foot storage container; one 30-foot camp trailer/living quarters; two alarm systems; sixteen emergency oxygen systems - hoses, micro diffusers and regulators (one per tank); a trailer mounted 4,000 watt generator light plant; one utility storage trailer; sixteen camouflage nets; miscellaneous bolts, seals, camlock fittings, etc.

2.2.1. Design Features

1. All construction activity would be in accord with state and federal permits and authorizations (U.S. Army Corps of Engineers, Idaho Department of Water Resources, and Idaho Department of Environmental Quality). Additional state and federal permitting may be required for this project including the Idaho Pollutant Discharge Elimination System Program (IPDES), storm water Construction General Permit (CGP), and Concentrated Aquatic Animal Production (CAAP).
2. All authorized actions would be in accord with Federal, State, and County laws, and authorized uses and restrictions.
3. Water withdrawals from Salmon River would be properly screened and screen openings would not exceed 3/32-inch and approach velocity would not exceed 0.33 feet per second. NOAA fish screen criteria (NMFS 2022) would be utilized for all water pumping activities from Salmon River.

4. Water rights would be obtained from Idaho Department of Water Resources for Salmon River water withdrawals.
5. All piping below the ordinary high-water mark will be temporary and removed during the off-season.
6. All fuel storage (i.e., portable generator) would have containment basin for a minimum of 125% of fuel volume being stored. Primary fuel storage on site is associated with the portable generator and has a double walled belly tank (less than 250 gallons capacity) and would be in a containment basin. All fuel storage sites would occur in areas that are level and would minimize or avoid potential for overland flow reaching water bodies. All fueling or maintenance sites would occur in areas that would minimize or avoid potential for any spill reaching water bodies. Fuel storage would occur in an area 75 – 100 feet from mean high water level. An emergency spill kit would be located on site during construction and project operation periods, at fuel storage site, and at fueling sites. All hazardous materials spills (e.g., fuel, oils, hydraulic fluid, etc.) would be reported immediately to BLM.
7. All rock and gravel used for road surfacing must be free of noxious weed seeds. Borrow pits and stockpiles would not be used if it is determined they are infested with undesirable invasive plants. All equipment will be inspected for weeds prior to use on site.
8. Any trees greater than eight-inch DBH and within the clearing limits for the road and acclimation facility would be felled, limbed, cut to appropriate lengths and decked to be hauled soon after felling. Any trees or vegetation less than eight-inch DBH and within the clearing limits for the road and acclimation facility would be cut and slashed.
9. All slashed vegetation material generated can be piled, chipped, or removed from site. Piles can be created by hand or machine and must not be placed on the road or the acclimation facility site and must be placed outside the dripline of remaining trees. Slash piles shall be compact and relatively free of dirt and decomposed duff. Piles should be 6 to 10 feet high and 6 to 10 feet in diameter and should not be made of just large diameter material. Layered stacking of material is preferred with fine fuels mixed with heavier fuels within the pile to aid in combustion. All material extending more than 6 feet beyond the outside perimeter of a pile shall be broken or trimmed off and returned to the pile. If slash is treated with a chipper, the chips can be dispersed on site.
10. If logistically feasible recommend that cutting of trees could be avoided from April 1 – July 15 to avoid impacts to nesting birds. May not be feasible if spring construction is initiated for access and construction.
11. Trees would be cut to ground surface level. A stump grinder could be used to grind the stump to surface level. This will avoid potential impacts from excavating stumps out of the ground. As needed, soil/gravel can be placed over cut stumps to provide good smooth base for acclimation facility or access road.

12. After initial construction activity, the project area would be evaluated to determine needed site-specific areas that may require re-vegetation/stabilization (e.g., seeding, straw wattles, straw bales, mulching). As needed, all disturbed soil and vegetation areas would be seeded and mulched as needed to minimize any potential for adverse erosion and sediment and to provide establishment of desired vegetation and ground cover. All straw mulch would be certified weed free. The following mix is recommended (Table 2):

Table 2. Rehabilitation Seed Mixture

Species	Percentage	Pounds per Acre
Streambank Wheatgrass	50%	8 lbs.
Sand dropseed	19%	3 lbs.
Sheep Fescue	19%	3 lbs.
Annual Ryegrass	12%	2 lbs.
TOTAL	100%	16 lbs.

Once tanks are installed, and depending on the need, plant drought tolerant or site adapted shrubs, trees, grasses, and forbs between tanks and edge of high bank and upper bank for visual resource screening.

13. Any project related noxious weed control would be in accord with the BLM multi-year noxious weed control program (USDI-BLM 2011) and corresponding Section 7 (ESA) consultation and Biological Opinions or adhere to any updates or new Environmental Analysis and Section 7 (ESA) consultations for weed control.
14. In areas of surface disturbance, archeological site monitors will monitor such activities. Currently identified areas are power pole installation, vault toilet installation, road construction, gate post placement, or other sites recommended by the archeologist.
15. The acclimation facility occurs in a 50- to 100-year floodplain. River peak flow/high flow elevation would be monitored and evaluated when river flows approach 90,000 cfs (White Bird Gage). Depending on risk from extreme high flow events, mobile facility items (e.g., camp trailer, generator, fuel tank, equipment, etc.) would be moved to higher elevation areas on adjacent BLM lands adjacent out of the floodplain for temporary storage. The temporary storage areas would be approved by BLM and would involve no construction activity or subsurface disturbance. USFWS and the NPT will develop an emergency evacuation plan to remove mobile equipment, fuel, trailer, pump, generator, etc. in case of potential flooding to reduce damage to the facilities.

16. To mitigate for the effects to cultural resources and to achieve a no adverse effect finding, an interpretive panel will be installed describing the cultural importance of this area.
17. A camp trailer will be placed on-site near the tanks so pumps and water flow can be monitored. A portable restroom (porta pottie) will be situated near the camp trailer. Greywater from the camp trailer will be captured and properly disposed of. It cannot drain on the ground. Gravel, 3-inch minus topped with ¾-inch minus gravel will be placed on geotextile before the camp trailer and porta-pottie are installed.
18. The barbed wire fence will be removed along the bank. This may open the eastern end of the area, and a fence or other material may be needed to block vehicle traffic from going around the buck and pole fence and accessing the facility.
19. Some recreationists access the river with small boats outside east side of the buck and pole fence. This access needs to remain open.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

This chapter defines the scope of analysis contained in this EA, describes the existing conditions relevant to the issues presented in Table 1 in Section 1.3, and discloses the potential impacts of the proposed action and alternatives.

3.1. Scope of Analysis

The environmental assessment documents and Section 7 (a) (1) (2) (Endangered Species Act) consultation included in this document would be separate from the NPT ESA Section 10 permit process for the Snake River Fall Chinook Acclimation Project (FCAP). Section 7 (ESA) consultation requires Federal agencies to consult on actions they fund or authorize which may affect ESA-listed species.

The Endangered Species Act (ESA) Section 10 permit is required when non-federal entities, such as private landowners, corporations, tribes, or state or local governments, wish to engage in activities that may result in the "take" of endangered or threatened species.

National Marine Fisheries Service (NMFS) describes a hatchery program as a group of fish that have a separate purpose and that may have independent spawning, rearing, marking, and release strategies (NMFS 2008a). The operation and management of every hatchery program is unique in time, and specific to an identifiable stock and its native habitat (Flagg et al. 2004). NMFS defines integrated hatchery programs as those that are reproductively connected or "integrated" with a natural population, promote natural selection over artificial selection in the hatchery, and contain genetic resources that represent the ecological and genetic diversity of a species.

The Hatchery and Genetic Management Plans (HGMPs) completed in 2011 formed the basis for the original section 7 consultations and associated section 10 Permits. Since 2011, modifications to the programs have been captured in the project descriptions of the subsequent Biological Opinions and section 10 Permits.

The environmental compliance documents and permits associated with locating a facility along the Salmon River on BLM lands at Russell Bar would be separate from the original HGMPs Section 7 consultations and associated Section 10 Permits and subsequent Biological Opinions. The operational impacts from a proposed facility on the Salmon River would be the same as the operational impacts of Pittsburg Landing on the Snake River and the other acclimation facilities, regarding water withdrawal or discharge from what is identified in the respective HGMPs, or as amended by subsequent ESA compliance documents, and all the appropriate permits are in place.

3.2. Soils and Water Quality

Issue 1: How would construction, operation, and associated soil and vegetation disturbance and water use associated with the fall Chinook salmon acclimation facility affect soil resources regarding erosion and sediment and Salmon River water quality?

3.2.1. Affected Environment

Soils

The project area is located at Russell Bar which is a gentle sloped river terrace area adjacent to the Salmon River. The soils are classified as a Chard Variant loamy fine sand, 2 to 7 percent slopes (Barker et al. 1982). This gently sloping soil is on a river terrace and is deep over stratified gravel and cobbles is somewhat excessively drained. Typically, the upper part of the surface layer is dark grayish brown and grayish brown loamy fine sand about 8 inches thick, and the lower part is grayish brown silt loam about 4 inches thick.

This soil is typically used for non-irrigated pasture. It is also used for range and irrigated hay crops, pasture lands or fruit orchards. The Russell Bar Ponderosa Pine Seed Orchard was initially established in 1974 to provide superior ponderosa pine seed for the BLM, Coeur d'Alene District and other members of the Inland Empire Tree Improvement Cooperative. Several attempts were made to establish ponderosa pine trees and included plowing the area and planting seedlings. Plans for the ponderosa pine seed orchard were to collect cones/seeds for propagation of seedlings in nursery areas and planting seedlings in suitable areas by the BLM and partners where needed.

Project area elevation is 1,500 feet and slopes range from 0 – 2 percent on the river terrace adjacent to the Salmon River. Runoff is slow, and the hazard of erosion is slight or moderate. Currently no adverse erosion or sediment is occurring in the project area adjacent to the Salmon River. The slope from high bank to areas below mean-high are steeper slopes (approximately 25%) and the high terrace upper bank is approximately 30-feet to the Salmon River mean-high river level and 60-feet to low-water level. Refer to Figure 1 for a photo of Russel Bar project area located adjacent to Salmon River.



Figure 1. View of Russell Bar and proposed site of fall Chinook salmon acclimation facility which would be located adjacent to Salmon River on river bar/terrace area.

Water Quality

The project area (Russell Bar) primarily occurs on a river terrace adjacent to the Salmon River and includes adjacent riparian area and the Salmon River. The Lower Salmon River Subbasin Hydrologic Unit Code (HUC) Number is 17060209. The subbasin occurs in west central Idaho and includes the Salmon River from its mouth to French Creek (river mile 104.8). The project area occurs within a Salmon River face drainage and occurs in the Salmon River – McKinzie Creek 6th order HUC (170602090501). This reach of the Salmon River is characterized as a steep rocky canyon where the channel alternates between large pools and boulder dominated rapids, with interspersed runs and riffles. The river reach gradient is 0.23%.

The project and analysis area includes the Lower Salmon River and face drainage subwatershed. River flows typically range from 4,000 to 65,000 cubic feet per second (cfs) with peak flows occurring mid-May through mid-June. The project area occurs within the Salmon River 50- to 100-year flood zone area. A low swale area in the tree orchard has standing water during high flow periods (approx. 50,000 cfs and above). Proposed project access roads and acclimation facility occur at higher river terrace elevations and are not inundated with water during mean high flow periods.

The location of the proposed fall Chinook salmon acclimation facility is in assessment unit (AU) ID17060209SL008_07 (Salmon River - Slate Creek to Rice Creek). IDAPA 58.01.02.130 identifies that this AU is designated for cold water aquatic life, contact recreation, and domestic

water supply. This AU is listed in Category 5 as impaired by mercury and temperature in Idaho's 2022 Integrated Report. Category 5 means the water body does not meet applicable water quality standards for one or more beneficial uses due to one or more pollutants and is on the Environmental Protection Agency's 303 (d) impaired and threatened waters list.

Mercury was listed in DEQ's 2008 Integrated Report and resampled in 2016. Sampling occurred on the lower Salmon River, between Slate Creek and Rice Creek, to evaluate mercury concentrations in Smallmouth Bass. The goal was to evaluate mercury concentrations in regard to human health risks. The report stated Smallmouth Bass tissue exceeded the EPA methylmercury criterion of 0.3 mg/kg on average (2017 Idaho Department of Environmental Quality, Lower Salmon River Mercury Fish Tissue Sampling Project Report). Salmon River fish flesh sampling was conducted on smallmouth bass, a resident fish species which would be substantially more prone to bioaccumulation of methylmercury in fish flesh than a migratory anadromous fish species such as fall Chinook salmon who spend substantially less time in this reach of the Salmon River.

In Idaho, mercury in the environment may derive from natural or anthropogenic sources. Natural sources of mercury include ore deposits and geothermal features within Idaho and distant natural sources such as emissions from volcanoes and mercury volatilization from the oceans (IDEQ 2005; Driscoll et al. 2013). Anthropogenic sources of mercury may include use of mercury in gold mining processes and air emissions from coal-fired power plants and other industries in the Pacific Northwest and beyond (IDEQ 2005, 2013; Driscoll et al. 2013; UNEP 2013).

Cinnabar ore deposits are a primary geologic source of mercury. Cinnabar generally occurs as a vein-filling mineral associated with recent volcanic activity and alkaline hot springs and are a concern within the Salmon River basin. Cinnabar deposits and mercury mines are located within the Salmon River basin upstream of the study area, including a cinnabar mining district near Yellow Pine, Idaho (Larsen and Livingston 1920). The degree to which historic or current mining activities within the lower Salmon River watershed affect fish mercury concentrations observed in the lower Salmon River is not known (IDEQ 2017).

BLM has a water right for irrigation of the ponderosa pine seed orchard, and no irrigation is currently occurring and has not occurred for over 20-years and the existing irrigation system is not functional. The irrigation system was installed in 1991. The irrigation system had a water right for 36-acre feet per annum (approximately 11.7 million gallons).

The Idaho Department of Environmental Quality (DEQ) identified temperature as an additional impairment in the Salmon River during the 2022 assessment cycle, reflecting ongoing concerns over the river's ability to support designated beneficial uses such as cold-water aquatic life. Elevated water temperatures, particularly during summer months, may stress aquatic species and reduce overall habitat suitability. Continued monitoring and adaptive management strategies are recommended to address these challenges and promote long-term water quality improvements.

In general, the overall water quality of the Salmon River is good. However, suspended sediment concentrations and turbidity in the river can become high enough that visibility in the water column is very low or a few inches. These conditions most often occur early in the spring from

low elevation rains and snowmelt and later in the runoff from higher flows resulting primarily from snowmelt. Such occurrences can last several weeks. Events of high sediment concentration also occur because of severe rainstorms that result in landslides and debris torrents and may last over a week in duration.

A combination of erodible soils, fire history and periodic intense climatic events results in substantial natural erosion and delivery of sediment to the Salmon River. Sediment moves during spring runoff and in response to summer convective storms. These can result in flash floods and debris torrents which can deliver thousands of cubic yards of material to the river in minutes. Because of these events turbidity increases dramatically in the Salmon River and can last for days. This may have varying levels of impact on salmonids depending on the duration and severity of these events. The coarse material is generally deposited in alluvial fans which are gradually eroded by the river during high flow events over a period of years.

The river has tremendous capability to transport sediment ranging in size from sand to large cobbles. Sediment deposition is most common on beaches in backwater areas, which are often eddies during high flows. These beaches are formed with high flow events during the peak runoff, when river sediment loads are the highest. However, drought conditions can result in low peak flow events, and with less sediment deposition the beaches do not become replenished (i.e., transport exceeds deposition).

Observations of the riverbed indicate that deposition of fine sediment is not significant or limiting fish production. The riverbed appears to be largely composed of cobble and boulder material which would seem to offer abundant cover for salmonids. Although interstitial deposition of fines is evident, certain habitats such as pool tail-outs appear to be relatively free of fine sediment deposition. During 1993, the BLM monitored cobble embeddedness in the Salmon River at river mile 65.7, and embeddedness was 26.3% and surface fines were 4.4%, which indicates low-moderate impacts to rearing habitat. Recent reconnaissance evaluation (2024) of Salmon River deposited sediment appears similar to historic monitoring results.

Suspended sediment data for the Salmon River is limited. USGS data collected 6 to 12 times per year from 1971 to 1991, indicate that in most years suspended sediment concentration range from 2 mg/l to 65 mg/l, except in May when suspended sediment concentrations range from 6 mg/ to 503 mg/l (USGS-1976-91).

A suspended sediment concentration of 25 mg/l was suggested as a standard which would provide high protection to aquatic organisms (Thurston et al., 1979). Most of the time the Salmon River would meet this standard, however during spring run-off, rain on snow events or intense summer rainstorms suspended sediment concentration can significantly exceed this amount. Whether or not this is adversely affecting salmonids in the Salmon River is unclear. Salmonids which have evolved in high sediment load conditions have probably developed ways to cope with temporally high suspended sediment concentrations. Chronic exposure to high concentrations of suspended sediment would undoubtedly adversely affect salmonids. During summer periods the Lower Salmon River also experiences periods of elevated water temperature and can exceed 20°C. Temperature data collected by the USGS periodically from the Salmon River near White Bird Creek during mid-July through August had temperatures between

20 - 24°C and high temperatures of 28°C have been documented. Water temperatures in the analysis area are rated as sub-optimal during the summer periods for salmonids.

3.2.1.1. *Foreseeable Trends and Planned Actions*

The primary effects to soil resources and water quality have occurred from the following past, present, and foreseeable planned actions: tree planting; agriculture; livestock grazing; road maintenance, and use; prescribed pile burning; restoration activities; and recreation. Natural events, which include wildfires, flood events, and landslides have also impacted aquatic habitats and special status fish species to varying levels. Overall, current conditions and trends for soil resources and water quality would be expected to continue.

3.2.2. Environmental Impacts

3.2.2.1. *Impacts of the Alternative A – No Action Alternative*

No construction or operation of a fall Chinook salmon acclimation facility would occur, consequently, no soil or Salmon River water quality impacts would occur. Within the project and analysis area current conditions and trends for soil resources and Salmon River water quality would be expected to continue.

3.2.2.2. *Impacts of the Alternative B – Proposed Action*

The primary project related activities affecting soil resources and water quality would include soil and vegetation disturbance activities from the construction and operation of the fall Chinook salmon acclimation facility. Primary actions include: (1) staging area for 16-acclimation tanks; (2) adjacent staging area for staff camp trailer, porta-potty, parking area, generator, fuel, and miscellaneous equipment; (3) installation of up to six power poles; (4) above ground Salmon River water source pipeline and Salmon River water pump; (5) road improvement actions on existing road from county road to recreation day use parking area (0.27 mile); (6) access roads from locked gate/parking area to staging area for fish tanks, staff camp trailer and miscellaneous equipment (0.27 mile); and (7) installation of a vault toilet at the day use - kiosk area. The staging area for acclimation fish tanks, camp trailer, and other miscellaneous facilities/equipment would encompass approximately 0.67 acre (approximately 100 feet x 410 feet). The access road from the day-use parking area that goes through the tree orchard is 700 feet in length and the riverbank access road is 745 feet in length and totals 0.27-mile (1,445 feet) and road related disturbed area is 0.53 acre (1,445 feet x 16 feet). New project related soil and vegetation disturbance that would occur west of the day-use area totals 1.2 acres. It is estimated that a total of 35 ponderosa pine trees would be cut and harvested from construction activities.

Widening of the road under the bridge may be expected to require placement of riprap material below mean high water level (e.g., 125 cubic yards). This area already has existing riprap material along this segment and placement of additional riprap material would not result in adverse scouring or velocity. Majority of riprap would be placed on top of existing riprap material and as needed removal of few small trees or shrubs and some movement of existing rock or excavation to key riprap into bank would occur. Potential road widening and localized riprap placement along 150-feet would have negligible impacts to river channel encroachment and discountable impacts to riparian vegetation because of existing impacts from existing riprap placement and small amount of area impacted and disturbed.

All new soil/vegetation disturbance would occur within the Salmon River Riparian Area Conservation Area (RCA) (300-feet from Salmon River).

During initial construction of acclimation facility and road improvements occurring adjacent to Salmon River the following erosion/sediment control measures would be implemented: (1) placement of straw mulch, straw bales, or wattles to prevent adverse erosion/sediment from reaching Salmon River; (2) seeding/mulching disturbed areas to prevent adverse erosion and support establishment of desired ground cover and species; and (3) monitoring project area in the long term and as needed implementing erosion control measures to minimize or avoid adverse impacts to soils or water quality.

Fuel storage would occur in a containment basin that would have a minimum capacity of 125% percent of fuel volume being stored. The portable generator on wheel would have a double walled belly fuel tank and capacity would be less than 250 gallons and would be parked in the containment basin. An emergency spill kit would be located on site during construction and project operation periods, at fuel storage site, and at fueling sites. All hazardous materials spills (e.g., fuel, oils, hydraulic fluid, etc.) would be reported immediately to BLM. Project design measures that would be implemented would minimize or avoid potential for adverse hazardous spill and impacts to Salmon River water quality.

Construction and operation of the proposed acclimation facility would not adversely impact designated beneficial uses for cold water aquatic life, contact recreation, and domestic water supply. Minimal new vegetation and soil disturbance would occur (1.2 acres) and project design measures would avoid or minimize any adverse water quality impacts from erosion, sedimentation, and hazardous materials.

Operation of the acclimation facility would not be expected to contribute to increased risks of mercury concentrations in any resident fish such as smallmouth bass or human health risks. No major excavation or soil disturbance of legacy mining areas would occur from project construction resulting in increased human health risks for release of mercury into the Salmon River. Fall Chinook salmon an anadromous migratory species, spends substantially less time in this reach of the Salmon River compared to smallmouth bass, a resident species. Consequently, no exceedance of methylmercury criterion is expected to occur from operation of the acclimation facility and to fall Chinook salmon various life stages that would utilize the Salmon River.

As described in details of the proposed action, the Salmon River water withdrawal of 5.5 cfs would comprise approximately of .05 percent (April) to 0.01 percent (June) of the mean average monthly flows (April through June). This is a non-consumptive use of the flows and would be returned to the river approximately 1,000 feet downriver from the water pumping site after flowing through the acclimation tanks. The water withdrawal would not result in any expected adverse Salmon River water quality, hydrologic, or river channel impacts.

The 1.2 acres where acclimation facility and associated housing and equipment would occur and access road would have increased compaction, however, no adverse run-off or erosion would occur in this small, localized area. Road improvements consisting of graveling access roads, widening of the road in one location near the bridge, along with appropriate erosion control measures would be expected to have negligible potential for adverse erosion and sediment

contribution to Salmon River. Overall, negligible impacts would occur in a localized area to soils from actions that disturb soils and vegetation (1.2 acre) and erosion control measures and graveling access roads and acclimation staging areas would avoid or result in discountable potential for adverse impacts to soils and Salmon River water quality.

The project area occurs within the Salmon River 50 to 100-year flood zone. Overall, the proposed facility is “temporary” in nature. A project design measure identifies the preparation of a flood stage response plan and monitoring of predicted flood stage river flows. When predicted high flood stage may put the facility at risk, such would require the movement of equipment and mobile facility items (e.g., generator, camp trailer, misc. equipment) to designated higher elevation areas. Items less mobile such as fish tanks and water pipelines would not be moved and occur on high terrace adjacent to the river and flood stage overbank flows would spread out over the floodplain. If needed, a release of fish from the tanks to the river may occur to minimize potential for adverse mortality if fish safety cannot be ensured in the tanks.

No permanent housing would occur in the floodplain and construction, and operation of the facility would not significantly alter the function and beneficial values of the floodplain. Implementation of the flood stage response plan and project design measures the risks from high flow flood stages would be reduced or avoided. Overall, project design measures would reduce the risk of flood loss, and minimize the impacts of floods on human safety, health, and welfare. The natural and beneficial values of a floodplain would still be provided for with flood stage high flows “spreading out” over the Russell Bar terrace area.

3.3 Riparian and Upland Vegetation

Issue 2: How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance affect Salmon River riparian and Russell Bar upland vegetation?

3.3.1. Affected Environment

The project area and analysis area include the access road from the county road that goes past the White Bird rodeo grounds and under the Highway 95 bridge to the day use parking area and along the Russell Bar terrace area bordering the Salmon River. The primary project area includes the Russell Bar landform adjacent to the Salmon River and adjacent riverbank and riparian area. A vegetation and special status plant survey was conducted during 2024 of the project area and no Endangered Species Act (ESA) listed plants or other BLM special status plants (BLM Idaho sensitive plants) were observed.

Upland Russell Bar Landform

The Russell Bar landform, adjacent to the Salmon River, is level and slopes range from 0 – 2 percent. The Russell Bar Ponderosa Pine Seed Orchard established in 1974 is located on the landform. The landform has been plowed and was planted with ponderosa pine (*Pinus ponderosa*) seedlings. The trees are approximately 60-feet in height and dbh (diameter at breast height) ranges from 15 to 18 inches.

The Russell Bar seed orchard was intended to produce cone crops for seed collection however following a visit from a specialist, it was determined the Russell Bar Seed Orchard would be withdrawn as consideration as a Pine Seed Orchard in 1981. The specialist's report revealed that due to an infestation of cone insects, very little viable seed remained for harvest. To this day, the stand continues to suffer from an infestation of Sequoia Pitch Moth, causing the demise of individual trees showing single tree mortality throughout.

Common understory vegetation is comprised primarily with grasses and scattered forbs, and include Idaho fescue (*Festuca idahohensis*), sand dropseed (*Sporobolus cryptandrus*), red three-awn (*Aristida longiseta*), cheatgrass (*Bromus tectorum*), witchgrass (*Panicum capillare*), tall tumbled mustard (*Sisymbrium altissimum*), flannel mullein (*Verbascum thapsus*), and yellow salsify (*Tragopogon dubius*).

Riparian Habitats

The entire project area occurs within a Riparian Conservation Area (RCA) and includes areas 300-feet from the Salmon River (BLM 2009). Riparian vegetation includes the riverbank from the high bank to the Salmon River. The majority of Salmon River riparian habitat is associated with areas below mean high water level and riverbank vegetation also includes upland species above mean high. Common riparian and riverbank vegetation includes coyote willow (*Salix exigua*), Himalayan blackberry (*Rubus armaniacus*), cudweed sagewort (*Artemisia ludoviciana*), common burdock (*Arctium minus*), netleaf hackberry (*Celtis reticulata*), and red three-awn. The dominant riparian shrub species is coyote willow (see Figure 2 below).



Figure 2. Salmon River riparian vegetation adjacent to Russell Bar project area. The dominant riparian shrub species is coyote willow which also provides important high-flow rearing habitat for young-of-the year fall Chinook salmon.

3.3.1.1 *Reasonably Foreseeable Trends and Planned Actions*

The primary effects to riparian and upland vegetation have occurred from the following past, present, and foreseeable planned actions: tree planting; agriculture; livestock grazing; road maintenance, and use; prescribed pile burning; restoration activities; and recreation. Natural events, which include wildfires, flood events, and landslides have also impacted aquatic habitats and special status fish species to varying levels. Overall, current conditions and trends for riparian and upland vegetation and water quality would be expected to continue.

3.3.2. Environmental Impacts

3.3.2.1 *Impacts of the Alternative A – No Action Alternative*

No construction or operation of a fall Chinook salmon acclimation facility would occur, consequently, no soil or vegetation disturbance impacts to upland or riparian vegetation would occur. Within the project and analysis area current conditions and trends for upland and riparian plant communities occurring at Russell Bar and adjacent to Salmon River would be expected to continue.

3.3.2.2 *Impacts of the Alternative B – Proposed Action*

An existing road (1,480 feet – 0.28 mile) from Rodeo Drive would provide access to the day use parking area. New access roads from the day use area would provide access to the fish tanks, camp trailer site, and equipment storage site. These new access roads total 1,445 feet in length and vegetation disturbance associated with these access roads is approximately 0.53 acre and vegetation disturbance from construction of the acclimation tanks, camp trailer site, and equipment storage site total approximately 0.67 acre.

No ESA-listed or other BLM special status plants occur within the project area and no impacts would occur to these species. Construction of the acclimation facility and access roads would result in new soil and vegetation disturbance of 1.2 acres of upland vegetation within the Russell Bar ponderosa pine seed orchard. It is estimated that 35 ponderosa pine trees would be cut for the project. As needed, areas resulting in soil disturbance would be seeded to prevent adverse erosion and encroachment of undesirable invasive species.

Discountable disturbances of riparian habitats would occur from project construction and operation and would be associated with the road widening area under the bridge, water withdrawal sites, and acclimation tanks water/fish discharge pipes. Minor localized negligible disturbance (less than 0.05 acre) of Salmon River riparian habitats would occur at the site of proposed road widening, water withdrawal site, and where water is returned to Salmon River from the fish tanks.

3.4. Fisheries, Special Status Species, and Aquatic Habitats

Issue 3: How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance and water use affect Salmon River fisheries, special status species, and aquatic habitats?

3.4.1 **Affected Environment**

The proposed project area (river mile 62.2) occurs within a Lower Salmon River face drainage and is located approximately 16.5 air-miles downriver from Riggins. The analysis area for the project includes the Salmon River and Russell Bar where the proposed construction and operation of the acclimation facility would occur. The project area occurs within the Salmon River Riparian Conservation Area (RCA), which includes areas within 300-feet of mean high-water level of the Salmon River (BLM 2009).

Endangered Species Act-Listed Fish

The Lower Salmon River provides designated critical habitat for Endangered Species Act (ESA) listed sockeye salmon, fall Chinook salmon, spring/summer Chinook salmon, steelhead trout, and bull trout.

The ESA-listing of the above species requires the BLM to ensure that all actions authorized or funded by the agency are not likely to jeopardize the continued existence of the species or result in the destruction or adverse modification of designated or proposed critical habitat of listed species [ESA Section 7 (a)(2) and (4)].

Pursuant to section 305(b)(2) of the Magnuson-Stevens Act, Federal agencies must consult with NOAA Fisheries (NMFS) regarding any of their actions authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect Essential Fish Habitat (EFH). The Magnuson-Stevens Act, section 3, defines EFH as “those waters and substrate necessary for fish for spawning, breeding, feeding, or growth to maturity.”

The river reach adjacent to Russell Bar is a riffle/run habitat and provides designated critical habitat for ESA-listed fish (see Table 3 below). The river has tremendous capability to transport sediment ranging in size from sand to large cobbles. Observations of the riverbed indicate that deposition of fine sediment is not significant or limiting fish production. The riverbed appears to be largely composed of cobble and boulder material which would seem to offer abundant cover for salmonids. Although interstitial deposition of fines is evident, certain habitats such as pool tailouts appear to be relatively free of fine sediment deposition. During 1993, the BLM monitored cobble embeddedness in the Salmon River at river mile 65.7, and embeddedness was 26.3% and surface fines was 4.4%, which indicates low-moderate impacts to rearing habitat. Recent evaluations (2024) of deposited sediment appear similar to past monitoring results within the project area river reach.

The following Table 3 identifies the time of year when each fish species/life-stage is present within the general project/analysis area (Lower Salmon River and tributaries).

Table 3: Occurrence of ESA-Listed Fish Species Lifestages

Lifestage	Sockeye Salmon	Sp/Summer Chinook Salmon	Fall Chinook Salmon	Steelhead Trout	Bull Trout
Adult Migration	MAY-JUL Salmon River	APR-JUL Salmon River	SEP-OCT Salmon River	AUG-APR Salmon River	JUN-AUG Salmon River
Adult Spawning	SEP-OCT N/A Headwaters Salmon River	AUG-SEP Trib. Streams	OCT-DEC Salmon River	MAR-JUN Trib. Streams	Late AUG-SEP Trib. Streams
Adult Overwintering	N/A	N/A	N/A	NOV-MAR Salmon River	NOV-MAR Salmon River
Adult/Sub-adult Rearing	N/A	N/A	N/A	N/A	YEARLONG Salmon R. & Trib. Streams
Incubation & Emergence	OCT-MAY N/A Headwaters Salmon River	SEP-MAY Trib. Streams	NOV-MAY Salmon River	MAR-JUN Trib. Streams	SEP-MAY Trib. Streams
Juvenile Rearing	2 Years N/A Headwaters Salmon River	1 Year Tributary Streams	2-5 Months Salmon River	1-3 Years Trib. Streams	1 - 4 Years Trib. Streams
Smolt Emigration	APR-AUG Salmon River	APR-JUL Salmon River	JUN-AUG Salmon River	APR-JUL Salmon River	N/A

Sockeye Salmon, Spring/Summer Chinook Salmon, Fall Chinook Salmon, and Steelhead Trout
 Sockeye salmon, spring/summer Chinook salmon, fall Chinook salmon, and steelhead trout use the main stem Lower Salmon River as an adult and juvenile migration corridor. The sockeye salmon utilizes the main stem Salmon River as an upstream and downstream passage corridor. Fall Chinook salmon also uses the main stem Salmon River for spawning and rearing. Spring/summer Chinook salmon and steelhead trout will also use the main stem Salmon River to a limited extent for rearing habitat. Salmon River tributary drainages with accessible and suitable habitat provides spawning and rearing habitat for spring/summer Chinook salmon, steelhead trout, and bull trout.

Fall Chinook salmon spawning occurs in the Lower Salmon River primarily in October and November. The NPT annually monitors Fall Chinook salmon redd counts and the BLM has cooperated in the past by providing partial funding. Aerial fall Chinook salmon redd surveys are conducted from the mouth of the Salmon River to French Creek (River Mile 104.8). During the period of 1992 through 2024, fall Chinook salmon redd counts for the Lower Salmon River ranged from 0 to 845 per year (see Table 4 below).

Table 4. Salmon River Fall Chinook Salmon Redd Survey Summary 1992 – 2024¹

Year	Redds	Year	Redds	Year	Redds
1992	1	2003	18	2014	42
1993	3	2004	21	2015	142
1994	1	2005	27	2016	35
1995	2	2006	9	2017	10
1996	1	2007	18	2018	14
1997	1	2008	14	2019	17
1998	3	2009	34	2020	394
1999	0	2010	8	2021	247
2000	0	2011	60	2022	576
2001	22	2012	34	2023	845
2002	31	2013	31	2024	200

¹Redd surveys conducted from mouth of Salmon River (RM 0.0) to French Creek (RM 104.8).

Spawning habitat used by fall Chinook salmon was studied in the mainstem Snake River by Groves and Chandler (1999). Enhanced survey capabilities using remote underwater videography allowed researchers to accurately describe spawning habitat used by fall Chinook salmon in the Snake River, below Hells Canyon Dam which has a stable flow regime (Groves and Chandler 1999). Depth measured at 205 fall Chinook salmon redds ranged from 0.2 – 6.5 m. Mean water column velocity at 145 redds ranged from 0.4 – 2.1 meters/second, and substrate water velocity at 164 redds ranged from 0.1 – 2.0 meters/second. Substrate size classification from 112 redds indicated that areas having particle sizes from 2.5 – 15.0 cm, and that are relatively homogenous, are used by spawning fall Chinook salmon. Spawning generally began as water temperature dropped below 16.0° C, and concluded as temperatures approached 5.0° C.

The Salmon River adjacent to Russell Bar has been utilized by fall Chinook salmon for spawning activity in the past. Refer to Figure 3 for an aerial view of fall Chinook salmon redds that were documented adjacent to the project area.



Figure 3. Aerial photo of fall Chinook salmon redds downriver from Twin Bridges and adjacent to Russell Bar. A total of 36 redds were counted at this location on October 29, 2020, fall Chinook salmon like to spawn near each other. (Nez Perce Tribe photo).

The potential for deep-water spawning of fall Chinook salmon has been recognized for many years (e.g., Chapman 1943; Burner 1951). However, most data of fall Chinook salmon redds came from observation in small rivers and streams, and deepwater redd attributes were only inferred (Smith 1973; Raleigh et al. 1986; Healey 1991). Groves and Chandler (1999) used remote video searches of habitat too deep to be surveyed from the air confirmed that deep water spawning is common within the Snake River, accounting for 20 – 50% of spawning and can influence the limits and distribution of habitat-use criteria. Groves and Chandler (1999) support the findings of Chapman et al. (1986) and Swan (1989), who indicated that as much as 80% of spawning within the Columbia River may occur at depths too deep to be viewed by typical above-water techniques.

After emergence, fry concentrate in shallow, slow water near riverbanks that provide cover. These areas are often associated with a narrow band of riparian vegetation (i.e., coyote willow) along the margins of the mainstem river.

Dam construction eliminated passage to the core spawning area of Snake River fall Chinook salmon in vicinity of Marsing, Idaho. Most of the contemporary spawning areas are cooler than this historical core area, thus most contemporary fall Chinook salmon juveniles grow to smolt size and move seaward later than their historical forebearers from the historical core area

(Connor et al. 2002). The Salmon River has no dam influence on water temperatures. In cooler contemporary spawning areas, many young fall Chinook salmon do not meet the growth and size criteria to become smolts as subyearlings (Connor et al. 2002). These fish winter in Lower Granite Reservoir (and other downstream reservoirs) and then resume seaward movement the following spring as yearlings (i.e., a reservoir-type life history; Connor et al. 2005). Summer flow augmentation provides the highest level of protection for the later migrating fall Chinook salmon juveniles that are most likely to exhibit the reservoir-type juvenile life history (Connor et al. 2003), which cannot be used on the Salmon River. Given the lack of thermal refuge in the contemporary rearing areas during summer, mortality of these later migrating fish would be high without summer flow augmentation (Connor et al. 2003). Therefore, Connor et al. (2005) proposed that the reservoir-type juvenile life history is a successful response to large-scale changes in historical habitat that has been enabled or at least enhanced by summer flow augmentation.

Bull Trout

Two distinct life-history forms, migratory and resident, occur throughout the range of bull trout (Pratt 1992, Rieman and McIntyre 1993). The migratory form is found in the Salmon River, migratory forms rear in natal tributaries before moving to larger rivers (fluvial form) to mature. A bull trout study was conducted in the Rapid River drainage from 1992 to 1995, monitoring of radio tagged fish provided data on populations and movements of fluvial bull trout in Rapid River, Little Salmon River, and Salmon River (Schill et. al. 1994, Elle et. al. 1994, and Elle 1995). Radio monitored overwintering bull trout from Rapid River showed a strong site fidelity after entering the main Salmon River. Individuals typically remained within a single habitat unit during the entire 6-month monitoring period and overwintering fish used pool and run habitats (Schill et. al. 1994). Upon exiting Rapid River, tagged fish did not use the Little Salmon River for any appreciable amount of time. Most of the tagged fish quickly distributed themselves in a 65-kilometer segment of the Salmon River between Whitebird and Riggins (Schill et. al. 1994). A few fish moved long distances, and a radio tagged fish was located near the mouth of the Salmon River. The project area is adjacent to a habitat unit consisting of a shallow run which merges with upriver and downriver riffle habitats. The length of the run habitat unit is approximately 0.5 mile. The habitat units provide suitable overwintering/foraging habitats for fluvial bull trout in the Salmon River.

BLM Sensitive Fish Species

The Salmon River provides aquatic habitat for the following BLM Idaho designated sensitive fish species: westslope cutthroat trout, redband trout, and Pacific lamprey.

3.4.1.1. Reasonably Foreseeable Trends and Planned Actions

The primary effects to fisheries, special status fish, and aquatic habitats have occurred from the following past, present, and foreseeable planned actions: tree planting; agriculture; livestock grazing; road maintenance, and use; prescribed pile burning; restoration activities; and recreation. Natural events, which include wildfires, flood events, and landslides have also impacted aquatic habitats and special status fish species to varying levels. Overall, current conditions and trends for fisheries, special status fish, and aquatic habitats would be expected to

continue. Annual release of 650,000 subyearling fall Chinook salmon would support an upward trend for natural spawning with the return of adults.

3.4.2. Environmental Impacts

3.4.2.1. *Impacts of the Alternative A – No Action Alternative*

No construction or operation of a fall Chinook salmon acclimation facility would occur, consequently, no soil or vegetation disturbance impacts to upland, riparian vegetation, water quality, or aquatic habitats would occur. Within the project and analysis area current conditions and trends for Salmon River aquatic habitats would be expected to continue.

3.4.2.2. *Impacts of the Alternative B – Proposed Action*

Erosion – Sediment: The acclimation facility and adjacent camp trailer site and equipment storage area occur within 40 – 125 feet of Salmon River mean high flow level and soil vegetation disturbance would encompass approximately 0.72 acre. Approximately 1.16 acre of soil and vegetation disturbance would occur within 40 – 300 feet of the Salmon River (mean high water level). New soil and vegetation disturbance areas associated with acclimation facility and access roads occur on a moderate to level slope area (0% -2%) and implementation of erosion control measures and graveling acclimation facility pads and roads would avoid or result in none to discountable potential for adverse erosion and sediment reaching Salmon River. As needed, all disturbed soil and vegetation areas will be seeded and mulched as needed to minimize any potential for adverse erosion and sediment and to provide establishment of desired vegetation and ground cover.

Based on the supporting rationale discussed above it is concluded that using state of the art monitoring that no adverse impacts attributed to deposited sediment (i.e., cobble embeddedness, surface fines, and spawning gravels) would occur to Salmon River ESA-listed fish species designated critical habitat. No adverse impacts attributed to project related turbidity and impacts to ESA-listed fish is expected to occur with implementation of project design measures.

Hazardous Materials: As discussed in Section 2.2.1. Design Features and in Section 3.2.2.2. Soils and Water Quality, Impacts of Alternative B, potential impacts to water quality would be avoided or minimized. These same measures would avoid or minimize potential adverse impact to aquatic habitats for ESA-listed fish and BLM designated sensitive fish species.

Mercury was listed in DEQ's 2002 Integrated Report and resampled in 2016 (IDEQ 2017). The goal of the sampling effort was to evaluate mercury concentrations regarding human health risks. The report stated Smallmouth Bass tissue exceeded the EPA methylmercury criterion of 0.3 mg/kg on average. The short duration adult fall Chinook salmon would occur in the Salmon River project area (e.g., spawning, migration, and incubation) and rearing of subyearlings in acclimation tanks would not be expected to result in any exceedance of EPA methylmercury criterion of 0.3 mg/kg for fall Chinook salmon

The NPT Water Resources Division or BLM have not conducted any site-specific water quality or mercury monitoring in that area, and no supplemental data is available for the proposed acclimation facility river reach is available beyond what IDEQ has already published.

From a technical standpoint, and based on the available information, the initial assessment is that the documented mercury impairment, based on fish tissue concentrations in resident species, is unlikely to result in meaningful impacts attributed to acclimation facility operations or to fall Chinook salmon risks for methylmercury bioaccumulation. Risks to fall Chinook salmon are discountable, given the species' life history, short duration of exposure during acclimation, and rapid outmigration.

No adverse impacts to human health or fall Chinook salmon fish health and associated methylmercury bioaccumulation risks to resident fish species such as smallmouth bass would occur from construction and operation of the acclimation facility.

Fuel storage would occur in a containment basin that would have a minimum capacity of 125% percent of fuel volume being stored. The portable generator on wheel would have a double walled belly fuel tank and capacity would be less than 250 gallons and would be parked in the containment basin. Project design measures that would be implemented would minimize or avoid potential for adverse hazardous spill and impacts to Salmon River water quality.

Water Withdrawal: Water for the fish tanks would be pumped from the Salmon River at the location immediately downriver from the bridge which is located upriver of the fish tanks. Water would be pumped from the river down to the tanks and then with fish in the tanks returned through pipes back to the river. It is a non-consumptive use of water. Operation of the acclimation facility with fish in the tanks occurs from mid-April to early June, essentially during the spring run-off period. Pumping would occur 24-hours a day and seven days a week during acclimation when fish are in the tanks. This provides approximately 2,500 gallons per minute (gpm) so that each tank receives about 150 gpm of water. This equates to about 5.5 cubic feet per second (cfs) of water.

Water withdrawals described in Section 2.2.1. Design Features, coupled with non-consumptive use of water and screening intake in accord with NMFS criteria (NMFS 2022) would avoid or have discountable potential for adverse impacts to ESA-listed fish and critical habitats and BLM designated sensitive fish species.

Proposed water withdrawals and design measures would avoid or have discountable potential for adverse impacts to ESA-listed fish and designated critical habitat.

ESA-Listed Fish Species: Operation of the fall Chinook salmon acclimation facility would result in the release of 650,000 subyearling fall Chinook salmon annually. Fish would first be delivered to the facility approximately mid-April. Fish delivery may occur in one truck or two trucks. The subyearling fall Chinook salmon would be acclimatized in the fish tanks with Salmon River water for eight weeks prior to release.

As discussed above, project design measures would minimize or avoid adverse impacts for erosion/sediment, hazardous materials, and water withdrawals. Potential adverse impacts to designated critical habitat for ESA-listed fish would be avoided or negligible. It is acknowledged that during spring periods high turbidity levels may occur in the fish tanks from

natural high flow run-off or other events which would affect Salmon River water quality. These high turbidity events have also occurred at other acclimation facilities and would be expected during this period.

A critical component of an effective fish culture program is to provide time for the fish to recover after transport and acclimate to a new environment (Rosenberger et al. 2013). Acclimation is a strategy commonly used to allow hatchery juvenile anadromous salmonids *Oncorhynchus* spp. to recover from transport and imprint to release water, thus facilitating their return to that location as adults (Dittman et al. 2010).

Fish acclimation is the gradual process of helping fish adapt to their new aquatic environment. The process is vital because sudden changes in water conditions can shock and stress the fish causing health issues and sometimes death. Proper acclimation mitigates these risks by allowing fish to adjust to changes in temperature, water chemistry, and other factors at a controlled pace. The operation of the acclimation facility and release of subyearling fall Chinook salmon would result in improved health of fish when released and survival.

A three-year study (2008 – 2010) was conducted to determine if acclimation enhanced the post release performance of hatchery fall Chinook salmon and reduced the potential for interaction with natural fall Chinook salmon subyearlings (Rosenberger et al. 2013). The study sites included Captain John Rapids fall Chinook salmon acclimation facility which is located on the Lower Snake River (river mile 164) between the mouth of the Grande Ronde River and Asotin, Washington. The Couse Creek boat launch site located downriver approximately 5.6 miles from the Captain John Rapids acclimation facility was the direct release site because it was accessible for a tanker truck. For the study a beach seine was used to capture natural subyearlings at sites in the river between Hells Canyon Dam and the upper end of Lower Granite Reservoir. Subyearlings were Pit-tagged for calculations of downstream fish passage rate, dam-passage timings, and survival. Lower Monumental Dam (river mile 70.3) was selected as the point of calculations of downstream passage rate, dam passage timing, and survival.

Following are some of the key findings of these studies (Rosenberger et al. 2013). In comparison with hatchery subyearlings that were released directly into the lower Snake River just downstream of the acclimation facility, acclimated hatchery subyearlings (1) passed downstream to Lower Monumental Dam (the third dam encountered during seaward migration) faster, (2) passed the dam earlier, and (3) survived from release to the dam tailrace at higher rates. The differences in downstream passage rate and dam passage timing were also much greater between acclimated hatchery subyearlings and natural subyearlings than between directly released hatchery subyearlings and natural subyearlings.

The study emphasizes that acclimation facilities improve the performance of fall Chinook salmon (Rosenberger et al. 2013). Acclimation also provided a survival advantage to the hatchery fish while reducing the potential for aggressive and nonaggressive social interactions with natural fish while in transit through the reservoirs associated with Lower Granite, Little Goose, and Lower Monumental dams.

Released fall Chinook salmon subyearlings would return as adults to the Salmon River in 2 – 3 years to naturally spawn in the Salmon River. Over time it is expected that natural production for fall Chinook salmon would increase in the Lower Salmon River, which would be beneficial for recovery of an ESA-listed species.

The BLM consulted with NMFS and USFWS (Sec. 7, ESA) on the construction and operation of the proposed project and the effects to ESA-listed fish and Salmon River designated critical habitats for these species. A final Biological Assessment (BLM 2026) on the project was completed (dated January 28, 2026) and submitted to NMFS and USFWS requesting a letter of concurrence on the proposed project, analysis of effects, and affect determinations concluded for ESA-listed fish and designated critical habitats. A letter of concurrence on the BA and proposed action was received from NMFS (February 18, 2026) and USFWS (March 3, 2026).

The following Table 5 summarizes effects concluded analysis and supporting rationale contained in the BA (BLM 2026).

Table 5. Effects Determination for the Russell Bar Nez Perce Tribe Fall Chinook Salmon Acclimation Facility

Species	Status	Species Determination	Critical Habitat Determination
FISH			
Sockeye Salmon	Endangered	MA-NLAA	MA-NLAA
Fall Chinook Salmon	Threatened	MA-NLAA	MA-NLAA
Spring/Summer Chinook Salmon	Threatened	MA-NLAA	MA-NLAA
Steelhead Trout	Threatened	MA-NLAA	MA-NLAA
Bull Trout	Threatened	MA-NLAA	MA-NLAA
Essential Fish Habitat Magnuson-Stevens Act	MA-NLAA		

ESA-Listed: NE=No Effect; MA-NLAA=May Affect, Not Likely to Adversely Affect; MA-LAA=May Affect, Likely to Adversely Affect; N/A=Not Applicable

Primary effects and supporting rationale for the “*may affect – not likely to adversely affect*” for ESA-listed fish and designated critical habitat and Essential Fish Habitat is attributed to riprap placement below mean high water level for road widening (150-segment under the bridge), new soil and vegetation disturbance all occurring within the Salmon River RCA and close proximity to high water level; and Salmon River water withdrawal and outflow back into the river. Minor localized channel encroachment would occur from the road widening and negligible short-term erosion/sediment would occur. All project related soil and vegetation disturbance (1.2 acres) would occur near the Salmon River, and within Salmon River RCA, majority would occur within 200-feet of mean high flow level. Project design measures would avoid or minimize potential for adverse erosion and sediment and impact to aquatic habitats and fish. Water withdrawal for fish tanks is a non-consumptive use and would be returned to the Salmon River and would have negligible effect on Salmon River hydrograph. Overall, the above effects are discountable or negligible.

The Salmon River provides aquatic habitat for the following BLM Idaho designated sensitive fish species: westslope cutthroat trout, redband trout, and Pacific lamprey. Potential impacts to

these species would be similar to ESA-listed fish and project design measures would avoid or minimize potential for adverse impacts. It has been concluded from the above analysis that implementation of the proposed action and effects to BLM sensitive fish species “*may impact individuals or habitat but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population*”.

3.5 Wildlife, Special Status Species, and Habitats

Issue 4: How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance affect wildlife, special status species, and wildlife habitats?

3.5.1 Affected Environment

The project area includes Russell Bar and upriver and downriver reaches of Salmon River adjacent to project area. The project area is a ponderosa pine seed orchard, and trees are approximately 40-years old. The general analysis area occurs in the Salmon River canyon and general habitats primarily associated with the project area include ponderosa pine seed orchard, riparian, canyon grasslands, and hackberry/annual grasses. The Salmon River canyon provides yearlong and seasonal habitat for a large variety of big game, upland game, non-game wildlife, amphibians, and reptiles.

Migratory Bird Species

The project area includes Russell Bar Ponderosa Pine Seed Orchard and adjacent associated Salmon River riparian/aquatic habitats and adjacent uplands. The wildlife habitats most likely to be impacted by the proposed action include riparian/aquatic habitats and ponderosa pine seed orchard.

All migratory birds are protected under the 1918 Migratory Bird Treaty Act (16 USC 703), as well as the Neotropical Migratory Bird Conservation Act (16 USC Chapter 80). Migratory birds occur within the project area and analysis area. Idaho Partners in Flight (IPIF) has identified 243 species of birds that breed in the State of Idaho. Of these species, 119 are considered Neotropical migrants.

Neotropical migrant birds utilize coniferous forest habitats of the U.S. during the spring and summer breeding seasons but migrate to southern latitudes to spend winters as far south as Mexico and South America.

Idaho Partners in Flight (2000) identified four high-priority habitats in Idaho that are also important habitats for migratory birds and include riparian, low-elevation mixed conifer, grasslands, and ponderosa pine. Riparian habitats are specific to the project area and are identified as a high-priority habitat for migratory birds.

Analysis will focus on project specific riparian, aquatic, and adjacent upland habitats. The Bald Eagle and Willow Flycatcher will serve to represent the riparian habitat, and this species is a BLM Idaho sensitive species. For additional information and analysis regarding the Bald Eagle and Willow Flycatcher refer to BLM Sensitive Species section which follows.

Special Status Species

The project area does not provide suitable or preferred habitats for ESA-listed wildlife species occurring within the Cottonwood Field Office management area and no species occurrences have been documented within the project area. Consequently a “*no effect*” determination is concluded for ESA-listed Canada lynx, Northern Idaho ground squirrel, Grizzly Bear, North American and North American Wolverine. No further discussion regarding these species will occur in this document.

The project area does not provide preferred habitat for monarch butterfly and Suckley’s cuckoo bumble bee which are proposed for ESA-listing. Project areas (1.2 acres) that would be disturbed do not contain a diverse large number of flowering shrubs/forbs and vegetation surveys have not documented occurrence of native milkweeds. Monarch butterfly reproduction is dependent on the presence of milkweed, the sole food source for larvae. No documented occurrences exist for these proposed species in the project area. A “*no effect*” determination has been concluded for monarch butterfly and Suckley’s butterfly and no further discussion or analysis for these species will occur in this document.

An evaluation of all BLM sensitive species which occur or potentially may occur within the BLM Cottonwood Field Office management area was made and a total of 4 species may have potential to be impacted and 47 species were determined to have discountable or no potential to be impacted by implementation of the proposed action. BLM sensitive species which may potentially occur in the general project and may be potentially impacted are listed in Table 6 below.

Table 6. BLM Sensitive Species Summary and Determinations

Species	POTENTIAL OCCURRENCE IN PROJECT AREA				
	Potentially Present?		Potentially Affected?		Determination ¹
	Species	Habitat	Species	Habitat	
Birds					
Bald Eagle <i>Haliaeetus leucocephalus</i>	Yes	Yes	Yes	Yes	MI
Willow Flycatcher <i>Empidonax trailii</i>	Yes	Yes	Yes	Yes	MI
Amphibians					
Western/Boreal Toad <i>Anaxyrus boreas</i>	Yes	Yes	Yes	Yes	MI
Invertebrates					
Columbia River Tiger Beetle <i>Cicindela columbica</i>	Yes	Yes	Yes	Yes	MI

¹BLM Sensitive Species Determination: NI=“No Impact”; MI=“May impact individuals or habitat but not likely to cause trend toward federal listing or reduce viability for the population or species”.

BLM sensitive species and/or preferred habitats which may potentially be impacted by the proposed project are identified in Table 7 below.

Table 7: BLM Sensitive Species and Preferred Habitats

Species Name	Habitat
Bald Eagle <i>Haliaeetus leucocephalus</i>	Winter habitat for the bald eagle is primarily associated with the larger rivers and corridors, such as the Snake, Salmon, Clearwater River, South Fork Clearwater Rivers; and Dworshak Reservoir. Bald eagles will also utilize lower elevation uplands and prairie areas during winter periods, particularly if carrion is available. Winter habitat for bald eagles is a function of perch and roost site availability, as well as access to fish, waterfowl, and ungulate carrion as forage/prey. Nest sites have been documented adjacent to the Salmon River. Known recent Salmon River nest sites total 4, and the closest nest site occurs approximately 1.5 air-mile south of Russell Bar. The bald eagle was delisted as an ESA-listed species in 2007.
Willow Flycatcher <i>Empidonax traillii</i>	Migratory. Riparian areas, swamps, willow thickets, open woodlands. Builds cup shape nest in shrub or deciduous tree. Insectivorous.
Western/Boreal Toad <i>Anaxyrus boreas</i> and Eastern/Boreal Toad <i>Anaxyrus boreas</i>	Streams, springs, grasslands, woodlands, mountain meadows. Usually in and/or near ponds, lakes, reservoirs, rivers, streams. Insectivorous.
Columbia River Tiger Beetle <i>Cicindela columbica</i>	Sandy beaches/riparian areas along the Salmon River.

3.5.1.1 *Reasonably Foreseeable Trends and Planned Actions*

The primary effects to wildlife, special status species, and habitats have occurred from the following past, present, and foreseeable planned actions: tree planting; agriculture; livestock grazing; road maintenance, and use; prescribed pile burning; restoration activities; and recreation. Natural events, which include wildfires, flood events, and landslides have also impacted aquatic habitats and special status fish species to varying levels. Overall, current conditions and trends to wildlife, special status species, and habitats would be expected to continue.

3.5.2 Environmental Impacts

3.5.2.1 *Impacts of the Alternative A – No Action Alternative*

No construction or operation of a fall Chinook salmon acclimation facility would occur, consequently, no soil or vegetation disturbance impacts to upland habitats, riparian habitats, water quality, or aquatic habitats would occur. Consequently, no impacts would occur to wildlife species and habitats. Within the project and analysis area current conditions and trends for Salmon River aquatic habitats, riparian habitats, terrestrial habitats, and wildlife species would be expected to continue.

3.5.2.2 *Impacts of the Alternative B – Proposed Action*

A total of 1.2 acres of new soil and vegetation disturbance would occur from the construction of the acclimation facility which would result in small localized direct impacts to wildlife habitats adjacent to the Salmon River from the alteration of suitable habitats. Use and operation of the facility would occur from March through early June. Increased human use and operation of the facility would have the potential to disturb and displace wildlife species utilizing the project area upland and riparian habitats within a small, localized area adjacent to the Salmon River.

Migratory Birds

The Russell Bar ponderosa pine seed orchard and adjacent riparian habitat provides suitable habitats for a variety of migratory birds that utilize riparian and conifer/ponderosa pine habitats. A small area of soil and vegetation disturbance (1.2 acres) and associated migratory bird habitat would be adversely impacted from construction and operation of the acclimation facility. Adjacent areas would also be impacted by construction and operation of the facility and potentially would result in disturbance and displacement of migratory birds utilizing Russell Bar upland and riparian habitats. Harvest of approximately 35 ponderosa pine trees would occur during project construction. Tree harvest during nesting periods could result in injury or mortality to nesting birds during this period (April 1 – July 15). If tree harvest occurs August 1 – March 15, potential impacts to nesting birds would be minimized or avoided. Operation of the facility would occur from March through early June, and a portion of this period overlaps with nesting periods for migratory birds resulting in potential disturbance or displacement. Adjacent areas with no disturbance activities would be available for use by migratory birds within the analysis area.

BLM Sensitive Species

Bald Eagle

Bald Eagles utilize habitats adjacent to the Salmon River year-long, with the highest use occurring during winter periods November through March. Bald Eagle nesting occurs March thru June and most young have fledged by late June. The acclimation facility would occur within a ponderosa pine seed orchard which has the potential to provide roost sites. No known nesting has occurred at Russell Bar. Use and operation of the facility would have the potential to disturb or displace Bald Eagle utilizing suitable habitat adjacent to the Salmon River during periods of operation. Cutting of ponderosa pine adjacent to the Salmon River would result in a loss of trees providing suitable roost sites and potential nest sites. Upriver and downriver roost sites or potential nest sites would still be available for Bald Eagle use within the analysis area for Bald Eagles. The acclimation facility would occur approximately 1.5 air-miles from nearest nesting sight and would be within a foraging range of the nest site. Long term increased return of fall Chinook salmon to the Lower Salmon River would be beneficial to Bald Eagles from increased food sources.

Small, negligible localized impacts would occur to suitable bald eagle habitats adjacent to the Salmon River and operation and construction of the acclimation facility would result in potential disturbance and displacement of bald eagles utilizing suitable habitats. Because of short term disturbance or displacement, and small localized impacts to preferred habitats a “*may impact individuals or habitat but will not likely lead to a trend toward federal listing or cause a loss of viability of the population or species*” was concluded for Bald Eagle.

Willow Flycatcher

The project area occurs adjacent to the Salmon River, and the riparian habitats and adjacent areas provide suitable habitats for Willow Flycatcher, a migratory species. Use and operation of the facility would have the potential to disturb or displace willow flycatchers utilizing suitable habitats associated with the project area. Construction activities would have discountable potential to adversely impact riparian habitats along the Salmon River. Primary impacts would

occur to potential nesting birds utilizing Salmon River riparian habitats during nesting periods (May 1 – July 15th). Operation of the acclimatization facility would occur March through early June and birds utilizing suitable habitats May thru June could be disturbed or displaced during this period within a small, localized area adjacent to the Salmon River. Upriver and downriver suitable habitats would be available for displaced birds to use.

Because of short term disturbance or displacement, and negligible localized impacts to preferred habitats a “*may impact individuals or habitat but will not likely lead to a trend toward federal listing or cause a loss of viability of the population or species*” was concluded for Willow Flycatcher.

Western Toad

The western toad potentially could occur in the area and preferred habitats include riparian habitats. The western toad also utilizes adjacent upland habitats adjacent to riparian areas and the Salmon River. Less mobile species, such as the western toad would be most likely to be injured or killed from construction and operation activities. Potential for impacts to the species is expected to be negligible because of the small size of the project area that would be disturbed. Overall, potential impacts to preferred riparian habitats are discountable and such disturbance would be at the water withdrawal site and acclimation tank discharge pipes through riparian habitats to the Salmon River.

Because of short term disturbance or displacement, injury or mortality, and negligible localized impacts to preferred habitats a “*may impact individuals or habitat but will not likely lead to a trend toward federal listing or cause a loss of viability of the population or species*” was concluded for western toad.

Columbia River Tiger Beetle

The Columbia River Tiger Beetle potentially could occur in the area and preferred habitats include riparian habitats and sandy beaches. A 2024 survey of the project area adjacent to Salmon River did not detect Columbia River Tiger Beetle occurrence and the area lacks sandy beaches. However, potential for occurrence does exist. Potential for impacts to the species is expected to be negligible because of the small size of the project area that would be disturbed. Potential impacts to preferred riparian habitats are discountable and such disturbance would be at the water withdrawal site and acclimation tank discharge area through riparian habitats to the Salmon River.

Because of negligible localized impacts to riparian habitats and the project occurring adjacent to the Salmon River a “*may impact individuals or habitat but will not likely lead to a trend toward federal listing or cause a loss of viability of the population or species*” was concluded for Columbia River Tiger Beetle.

3.6 Recreation and Visual Resource Management (VRM)

Issue 5: How would construction and operation of the fall Chinook salmon acclimation facility affect recreation use opportunities and VRM associated with the Salmon River and at Russell Bar?

3.6.1 Affected Environment

The Russell Bar project and analysis area occurs adjacent to the Salmon River in the vicinity of “Twin Bridges” and Russell Bar. The project area also has a BLM day use area which provides anglers access to the Salmon River. The day-use area includes a parking area and information kiosk. The access road to project area goes by the Riggins Rodeo grounds and facility located on BLM lands, which includes rodeo grounds/facility, stands, and parking area. The access road goes under Highway 95 bridge to a BLM kiosk and day use parking area (see Figure 4 below). The project area is visible from Highway 95 in the vicinity of “Twin Bridges”, and specifically the north bridge. The project area is also visible by Salmon River power and float boaters utilizing the river reach adjacent to Russell Bar.



Figure 4. Russell Bar kiosk and day use parking area. This day use area is primarily used by the public for access to the Salmon River for fishing during the fall, winter, and spring.

The Lower Salmon River in the vicinity of Russell Bar is fast moving with little to no rapids adjacent to the project area and gets used by both private float and power boaters and commercial float outfitters for recreational uses. The proposed project area is located within the

6,700-acre BLM Salmon River Recreational Special Recreation Management Area (SRMA), which is managed as a community recreation-tourism market. The recreation management for this area includes general water-based river recreation, including swimming, fishing, whitewater float boating (summer) and motorized /non-motorized anadromous fishing (spring/fall) experiences in a scenic, accessible, and developed river canyon. This section of river adjacent to the proposed project area sees approximately 8,500 river users from the river and thousands more people driving by on Highway 95 and crossing north bridge ("Twin Bridges") and the graveled road located across from Russell Bar.

BLM is required to manage public lands to protect their scenic values. To consistently evaluate its lands within their regional context, BLM developed the Visual Resource Management (VRM) system (Handbook H-8410-1; BLM, 1986). Visual values are identified through VRM inventory and are considered with other resource values in the Resource Management Planning process. Visual management objectives are established in conformance with the land use allocations. These area specific objectives provide the standards for planning, designing, and evaluating future management projects. BLM uses the VRM process to manage the scenic quality of the landscape and to reduce the impact of development on the scenery.

The BLM Cottonwood RMP designated the landscape in and around the project areas as Visual Resource Management (VRM) Class II. Based on the study the project area encompasses Visual Resource Management (VRM) Class II. Portions of the project area are visible in the background.

The Class II objective is to retain the existing character of the landscape while allowing for some alteration. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

A VRM Inventory study was conducted of the project area with 3 key observation points (KOPs). The KOPs include Highway 95-North Bridge, road across the river, and recreation site.

3.6.1.1.1 *Reasonably Foreseeable Trends and Planned Actions*

The primary effects to visual resources and scenic quality have occurred from the following past, present, and foreseeable planned actions: tree planting; agriculture; livestock grazing; road maintenance, and use; prescribed pile burning; restoration activities; and recreation. Natural events, which include wildfires, flood events, and landslides have also impacted to varying degrees. The project would result in a small minor insignificant contribution to present and reasonably foreseeable future actions which would impact visual resources within the analysis area.

3.6.2 Environmental Impacts

3.6.2.1 *Impacts of the Alternative A – No Action Alternative*

No construction or operation of a fall Chinook salmon acclimation facility would occur, consequently, no impacts to recreational opportunities or VRM would occur. Within the project and analysis area current conditions and trends for recreation and VRM would be expected to continue.

3.6.2.2 *Impacts of the Alternative B – Proposed Action*

Recreation: Primary public use of Russell Bar and the day use parking area and kiosk site is for fishermen access during the fall, winter, and spring. Primary fall and winter use is by steelhead fishermen and spring recreation use is for salmon fishermen. Private and commercial float boating and powerboating also occurs in the adjacent Salmon River. The acclimation facility would be in operation from March through early June; however, the facility would still occupy the area during the remainder of the year. Nez Perce tribal staff would be on site 7-days a week when in operation. Public access would still be provided for fishermen at Russell Bar with the operation of the facility and existing Salmon River and commercial and private boater use would continue and not be restricted. Public aesthetic use of the area (Russell Bar and Salmon River) would be impaired somewhat with the construction and use of the acclimation facility. Increased fall Chinook salmon populations due to the acclimation facility can lead to improved fishing opportunities. Recreational anglers may be drawn to the area for better catch rates, which would enhance fishing and boost local economies. The facility may provide new educational programs related to fish conservation, fostering community involvement and generating interest in recreational activities that promote stewardship of natural resources.

While the construction and operation of the fall Chinook salmon acclimation facility at Russell Bar may temporarily affect recreational activities in the immediate area, the long-term benefits of enhanced salmon populations are expected to significantly outweigh these impacts. The facility supports the local economy through recreational fishing, benefiting both current and future generations of outdoor enthusiasts. Construction of a vault toilet at the day use parking area would provide long-term benefits for the public using the area for recreational purposes.

Visual Resource Management: Most individuals driving on Highway 95 and crossing the north bridge at speeds between 60 - 65 miles per hour would not notice a change in scenery due to the length of time the project area is in view (less than 2 seconds) and the angle of observation. Vehicle travel on Highway 95 would primarily be viewing straight ahead and causal views east and west of Highway 95. Generally, the main focal point when traveling through, individuals would be focused on highway conditions, traffic, and Lower Salmon River vistas as they travel through the project area. Also viewing the project from the Lower Salmon River floating by at approximately 3-5 miles per hour average would be seen by river users for a short period of their trip during the float boating season (approx. 10 minutes) and shorter periods of time for motorized boats (e.g., less than 2-3-minutes).

Overall, the Lower Salmon River segment between Riggins and White Bird is developed and common developments along this river segment and Highway 95 includes: recreation sites, boat ramps, residences, roads/highways, bridges, livestock facilities, hay pastures, and cattle feedlots.

The construction and operation of the fall Chinook salmon acclimation facility would have impacts on visual resources and the VRM associated with the Salmon River and Russell Bar. Short-term visual disturbances related to construction may temporarily detract from scenic quality, while long-term impacts would largely depend on design and integration decisions regarding the facility.

After the construction of the acclimation facility is completed, the planting of drought tolerant or site adapted shrubs, trees, grasses, and forbs between tanks and edge of upper bank would provide partial visual resource screening of the facility in the long term. This action would provide some reduction of impacts to visual resources.

To align with VRM Class II objectives, a focus on preserving the natural landscape while permitting suitable modifications would be crucial. By prioritizing thoughtful design, and monitoring of visual impacts, the project can support ecological recovery while maintaining or enhancing the visual integrity of the landscape for recreational users and the public.

With careful planning, design, and management, the construction and operation of the fall Chinook salmon acclimation facility can meet the Visual Resource Management Class II objectives identified for the project and analysis area. Key factors such as appropriate design strategies and integration with the natural landscape would play crucial roles in ensuring the facility's compatibility with VRM Class II goals. Ongoing monitoring and adjustments would help address any emerging visual concerns throughout the construction and operational phases.

3.7 Cultural and Historical Resources

Issue 6: How would construction and operation of the fall Chinook salmon acclimation facility affect cultural resources and values at Russell Bar?

3.7.1 Affected Environment

The project is located within the previously recorded precontact archaeological site 10IH58. There are also known Nez Perce cemeteries, legend sites, and traditional trails nearby. The Congressionally designated Nez Perce (Nee-Me-Poo) National Historic Trail route is in this area. The Poyner structures (10IH4360) were removed years ago. It is located along the road entering the tree orchard.

Site 10IH58 is precontact and contact site with buried archeological material. Pit houses were recorded in 1958. Shovel testing archeological excavations were conducted by the NPT Cultural Resource Department across 10IH58. Results showed artifacts were located across the project area. The top 30 centimeters (12 inches) of the surface is disturbed from past plowing for agricultural use in the 1950s as well as planting the ponderosa tree orchard.

Artifacts were generally found from the surface to 60 centimeters (24 inches). However, in some place's artifacts were found deeper. Material includes lithic artifacts, mussel shell, faunal specimens, and some historic artifacts. This site is eligible to the National Register of Historic Places.

No actions are proposed for the location of the old Poyner house.

3.7.1.1 Reasonably Foreseeable Trends and Planned Actions

The primary effects to cultural resources have occurred from the following past, present, and foreseeable planned actions: tree planting; agriculture; livestock grazing; road maintenance, and use; prescribed pile burning; restoration activities; and recreation. Natural events, which include wildfires, flood events, and landslides have also impacted to varying degrees. The project would result in a small minor insignificant contribution to present and reasonably foreseeable future actions which would impact cultural resources.

3.7.2 Environmental Impacts

3.7.2.1 *Impacts of the Alternative A – No Action Alternative*

Cultural material would continue to be exposed from natural erosion. Although it has been relatively minor.

3.7.2.2 *Impacts of the Alternative B – Proposed Action*

The laying of gravel, placement of the holding tanks, and moving an staff camp trailer on site will have minimal disturbance. Digging holes for gate posts, vault toilet, and power poles can affect historic property 10IH58. The Nez Perce (Nee-Me-Poo) National Historic Trail route would not be impacted. Nez Perce Tribal archeologists will be used in those areas where surface disturbance will occur to watch the project excavation. An interpretive sign will be installed to describe the historic use and significance of the area. This sign will assist in a determination of no adverse effect by sharing the information from the historic property.

Fall Chinook salmon plays an important role in Nez Perce tribal traditions, land use, and history. The importance of fall Chinook salmon includes subsistence as well as the act of cooperative fishing and processing fish sustains cultural traditions. The reduced numbers of fish or a loss of this resource could affect internal cultural relationships including family as well as external relations with other groups. Fall Chinook salmon also has spiritual importance to the Nez Perce people. These cultural and social connections are found at the family level as well as across the Tribe. Increasing the fish population is a benefit to tribal culture and subsistence.

3.8 Special Designation Areas

Issue 7: How would construction and operation of the fall Chinook salmon acclimation facility, and associated soil and vegetation disturbance and water use affect special designation areas Upper Salmon River ACEC and inclusion into the National Wild and Scenic River System (NWSRS) and important resource values associated with these areas special designation areas.

3.8.1 Affected Environment

The general analysis area for the proposed project includes BLM lands within the Upper Salmon River Area of Critical Environmental Concern (ACEC) and includes the Salmon River corridor from White Bird Creek to French Creek (BLM 2009). The ACEC area includes all BLM lands that are adjacent to the Salmon River. The objectives for the ACEC are to protect and conserve scenic values, cultural resources, federally listed and BLM sensitive fish, wildlife, and plants (BLM 2009).

The 112-mile segment of the Lower Salmon River, Long Tom Bar to the confluence of the Snake River was recommended to Congress for inclusion in the National Wild and Scenic River System (NWSRS). The project area occurs within the 0.25-mile river corridor that was recommended for Recreational designation and includes the 59-mile Salmon River segment from Long Tom Bar to Hammer Creek. The outstanding remarkable values (ORVs) identified for the Salmon River for inclusion in the NWSRS include fisheries and wildlife; archeology and historical; and outstanding recreation area in a scenic mountainous canyon.

Past and current land uses which had varying levels of impacts on ACEC high resource values and ORVs for inclusion into the NWSRS include mining, livestock grazing, roads, residences, rural development, recreation sites, and dispersed recreation.

For additional information regarding affected environment and high resource values for Upper Salmon River ACEC or ORVs for NWSRS inclusion, see previous sections 3.2. Soils and Water Quality; 3.3. Riparian and Upland Vegetation; 3.4. Fisheries, Special Status Species, and Aquatic Habitats; 3.5. Wildlife, Special Status Species, and Habitats; 3.6. Recreation and Visual Resource Management; and 3.7 Cultural and Historical Resources.

3.8.1.1 *Reasonably Foreseeable Trends and Planned Actions*

The effects analysis area would include the Lower Salmon River, Salmon River face drainage and project area the acclimation facility would occur in. Within the effects analysis area, the primary effects to aquatic habitats, terrestrial habitats, special status fish, wildlife, and plants, scenic values, and cultural resources have occurred from the past, present, and foreseeable planned actions occurring on federal lands (BLM and Forest Service), State lands, and private lands. These land uses that have had varying levels of impacts on special designation areas include the following: timber harvest; fuel treatments; agriculture; livestock grazing; road construction, maintenance, and use; rural development; prescribed burning; restoration activities; developed and dispersed recreation site; and recreation. Natural events which include wildfires, flood events, and landslides have also impacted aquatic habitats and special status fish species to varying levels within the Lower Salmon River sub-basin and specific sub-watersheds.

3.8.2 Environmental Impacts

3.8.2.1 *Impacts of the Alternative A – No Action Alternative*

No construction or operation of a fall Chinook salmon acclimation facility would occur, consequently, no soil or vegetation disturbance impacts to upland, riparian vegetation, water quality, or aquatic habitats would occur. No impacts would occur to the high resource values identified for the Upper Salmon River ACEC. Within the project and analysis area current conditions and trends for Upper Salmon River ACEC associated scenic values, cultural resources, federally listed and BLM sensitive fish, wildlife, and plants would be expected to continue.

No impacts would occur to the ORVs identified for the Salmon River for inclusion in the NWSRS and include fisheries and wildlife; archeology and historical; and outstanding recreation area in a scenic mountainous canyon. Within the project and analysis area current conditions and trends for these ORVs would be expected to continue.

3.8.2.2 *Impacts of the Alternative B – Proposed Action*

Construction and operation of the fall Chinook salmon acclimation facility occur adjacent to the Salmon River at Russell Bar. Total soil and vegetation disturbance associated with new access road and staging area for acclimation facility, staff camp trailer, and associated equipment would encompass 1.2 acres. After construction is completed, primary operation of the facility would occur from March through end of June. Project design measures would avoid or minimize potential for adverse impacts to ACEC high resource values and NNWSRS ORVs.

Refer to previous sections (Impacts of Alternative B – Proposed Action) 3.2.2.2., 3.3.2.2., 3.4.2.2., 3.5.2.2., 3.6.2.2., and 3.7.2.2. for additional assessment of impacts from the proposed action on ACEC resources values and NNWSRS ORVs. None or small localized, and minor impacts to Upper Salmon River ACEC high resource values and NWSRS ORVs are expected from construction and operation of the fall Chinook salmon acclimation facility. The ACEC values the NWSRS ORVs would continue to be conserved. Overall, current conditions and trends for ACEC high resource values and ORVs for inclusion into the NWSRS would be expected to continue.

CHAPTER 4. PUBLIC INVOLVEMENT, CONSULTATION AND COORDINATION

4.1 Public Involvement

A project scoping package and proposed action was posted on BLM ePlanning website on April 29, 2025. A scoping email was also sent to interested parties and federal, state, and county agencies describing the proposed project and a link to the BLM ePlanning website regarding proposed project, project information, and maps. The email also notified interested parties of the due date for submitting comments. The comment period opened April 29, 2025, and closed June 29, 2025. Comments could be submitted through ePlanning, email, or submitted by mail. See Section 1.3 Scoping, above for a summary of public comments received.

In addition to interested public, the following federal, state, and county agencies, and NPT were contacted by email regarding the proposed action and notified of the posting of proposed project,

scoping package, and project information on BLM ePlanning website and the due date for submitting comments.

Nez Perce Tribe (project partner)

Bonneville Power Administration

National Marine Fisheries Service

U.S. Fish and Wildlife Service

U.S. Forest Service, Wallowa Whitman National Forest

U.S. Army Corps of Engineers

Idaho State Historic Preservation Office

Idaho Department of Water Resources

Idaho Department of Environmental Quality

Idaho Department of Fish and Game

Idaho County Commissioners

Idaho Transportation Department

Idaho Power

Government to government consultation was conducted with the NPT.

Consultation pursuant to Section 7 of the ESA was conducted and completed with NMFS and USFWS (see below).

Consultation pursuant to Section 106 of the National Historic Preservation Act has been completed (Idaho State Historic Preservation Office). Cultural consultation has been completed with NPT.

4.2 Consultation and Coordination

Nez Perce Tribe – Initial coordination with the Nez Perce Tribe Fisheries Department Staff started in 2023 with the evaluation of potential fall Chinook salmon acclimation sites located on BLM lands adjacent to the Lower Salmon River. Subsequent coordination has been conducted with the tribe regarding selection of a proposed location and development of a proposed action during 2024, 2025, and 2026.

U.S. Fish and Wildlife Service Lower Snake River Compensation Plan - On July 15, 2024, The BLM received a letter from USFWS, LSRCP, staff requesting cooperating agency status for the preparation of the project Environmental Assessment. The USFWS, LSRCP, as a funding agency for the project is a cooperating agency with the BLM for the preparation of the Environmental Assessment (EA) for the project. During 2025 and 2026 the USFWS, LSRCP, staff reviewed, commented, and provided edits on proposed action and draft EA.

National Marine Fisheries Service and U.S. Fish and Wildlife Service – BLM and NPT Production Division staff introduced the proposed Russell Bar Nez Perce Tribe Fall Chinook Salmon Acclimation Facility project to joint Level 1 Team (BLM, Forest Service, NMFS, and USFWS) on April 1, 2024. A project description and maps were provided to team members. During 2025 a draft Biological Assessment (BA) was prepared and submitted to USFWS and NMFS for review and consultation was initiated. This consultation resulted in updated draft BAs and BLM submitting a final BA on February 5, 2026, to NMFS and USFWS. A letter of concurrence was received from NMFS (February 18, 2026) and USFWS (March 3, 2026) regarding proposed project, analysis, and determinations contained in the BA.

Idaho State Historic Preservation Office – Consultation and coordination was completed pursuant to section 106 of the National Historic Preservation Act.

CHAPTER 5. LIST OF PREPARERS

Table 8. List of Preparers

Name	Title	Area of Responsibility
Craig Johnson (Retired)	Project Lead BLM Fisheries/Wildlife Biologist	EA Coordination, Soils/Water Quality, Vegetation, Fisheries, Wildlife, and Special Designation Areas
Cary Hugo	BLM Planning and Environmental Coordinator	EA Review and Coordination
David Sisson	BLM Archeologist	Cultural
Ryan Turner	BLM Recreation Planner	Recreation and Visual Resource Management
Curt Otto	BLM Realty Specialist	Realty Actions
Hailey Danly	BLM Forester	Russell Bar – Tree Harvest
Becky Johnson	NPT Production Division Director	Proposed Action and EA Review and Coordination
Greg Burak	USFWS Lower Snake River Compensation Plan/Permit Coordinator	Cooperating Agency - Proposed Action and EA Review and Coordination

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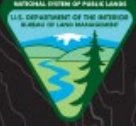
APPENDIX A

MAP 1 – Vicinity Map

MAP 2 – Project Area Map

MAP 3 – Acclimation Facility Map

MAP 4 – Acclimation Facility (Close-Up) Map

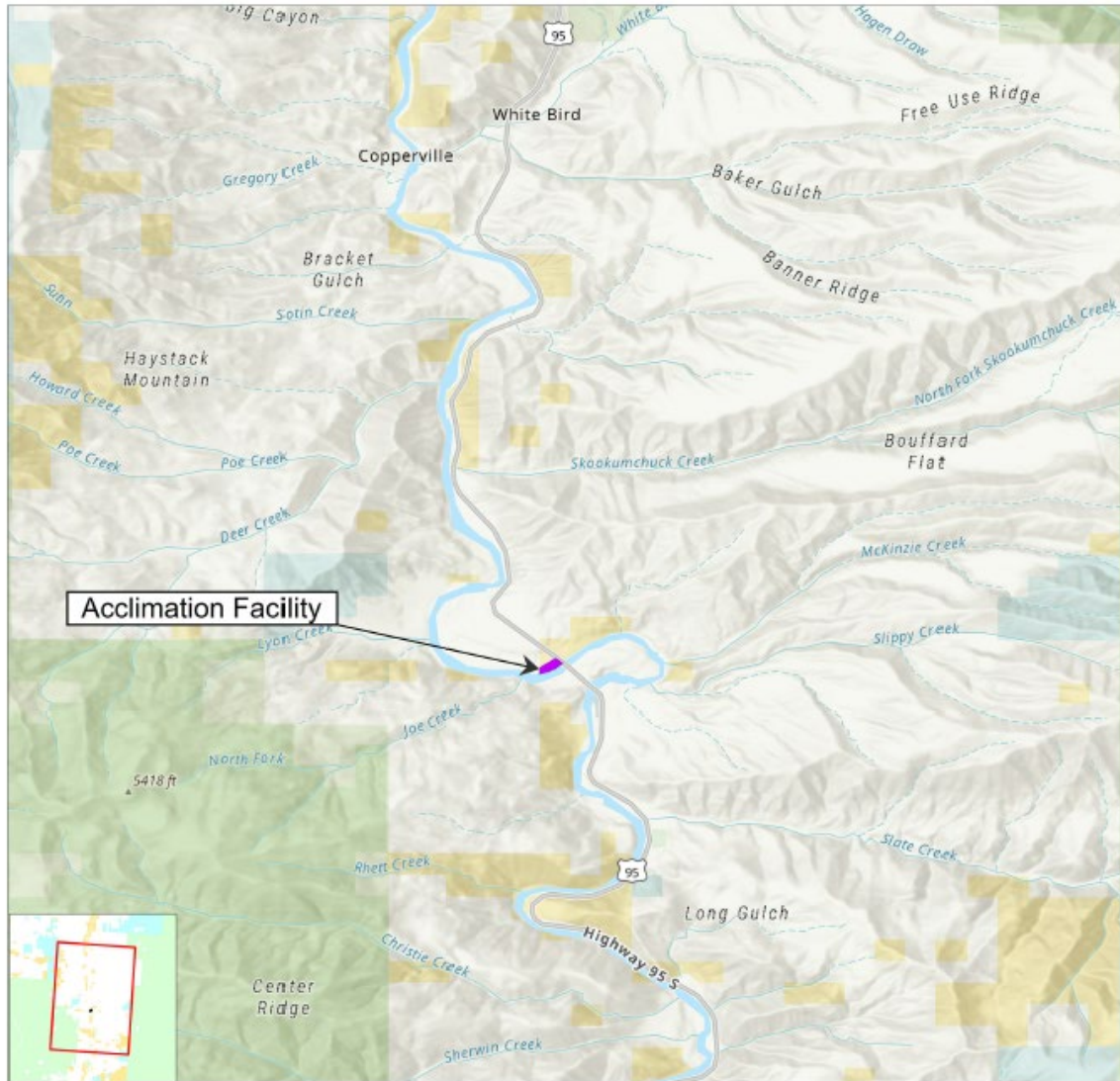


Map 1 Vicinity Map - Russell Bar Nez Perce Tribe Fall Chinook Salmon Acclimation Facility

Bureau of Land Management
Cottonwood Field Office
2 Butte Drive
Cottonwood, Idaho 83522
(208) 962-3245



4/8/2025



- Yellow: Bureau of Land Management (BLM)
- Green: US Forest Service (USFS)
- Light Blue: State
- Dark Blue: State Dept. Fish and Game, Parks and Rec. / Other Private / Other



0 4 Miles

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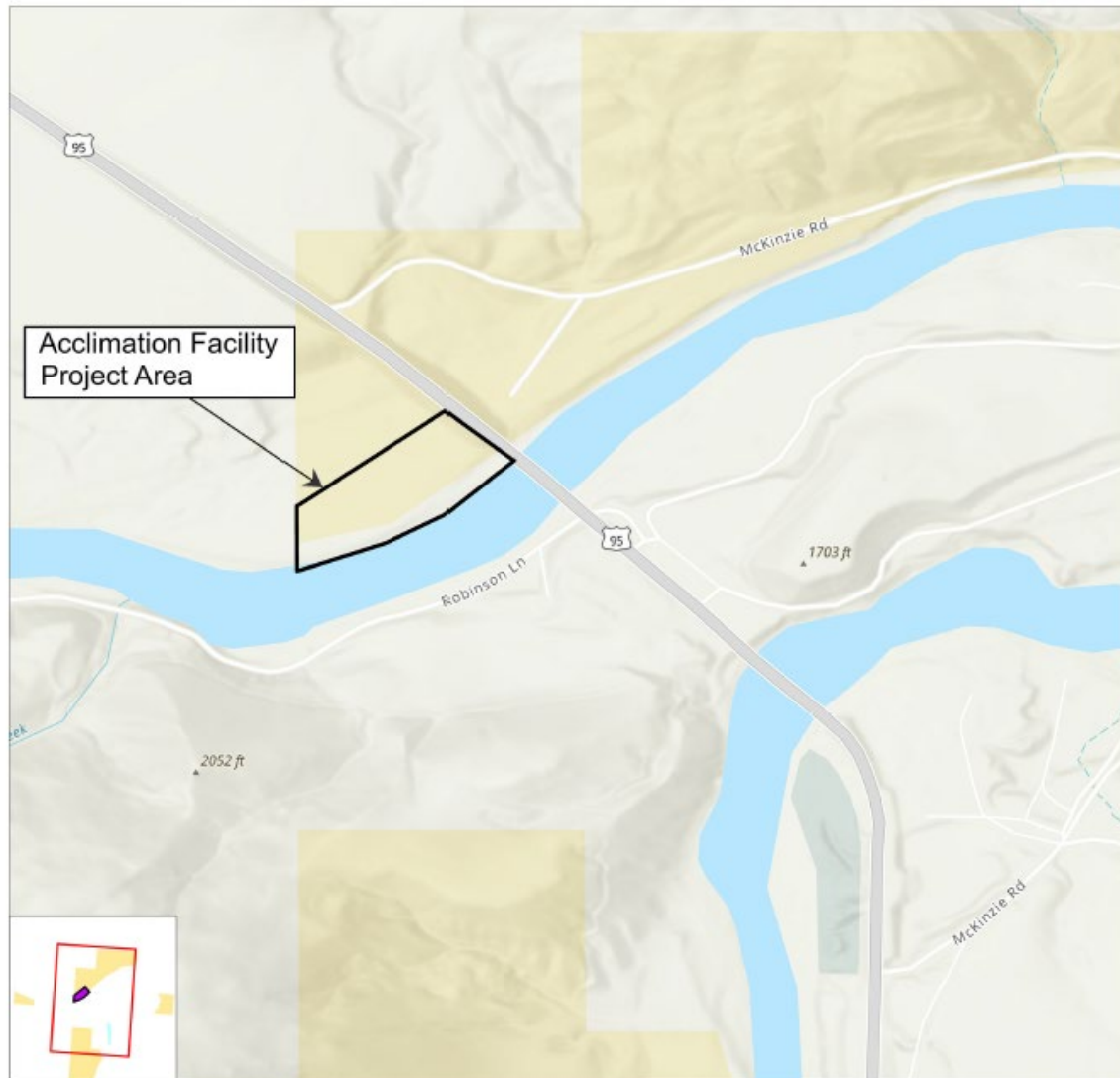


Map 2 Project Map - Russell Bar Nez Perce Tribe Fall Chinook Salmon Acclimation Facility

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- Bureau of Land Management (BLM)
- US Forest Service (USFS)
- State
- State Dept. Fish and Game, Parks and Rec. / Other
- Private / Other



0 0.2 0.4 Miles

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Map 3 Russell Bar Fall Chinook Salmon Acclimation Facility (Conceptual)

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0 0.02 0.04 0.06 0.08

Miles

Scale: 1:2,800



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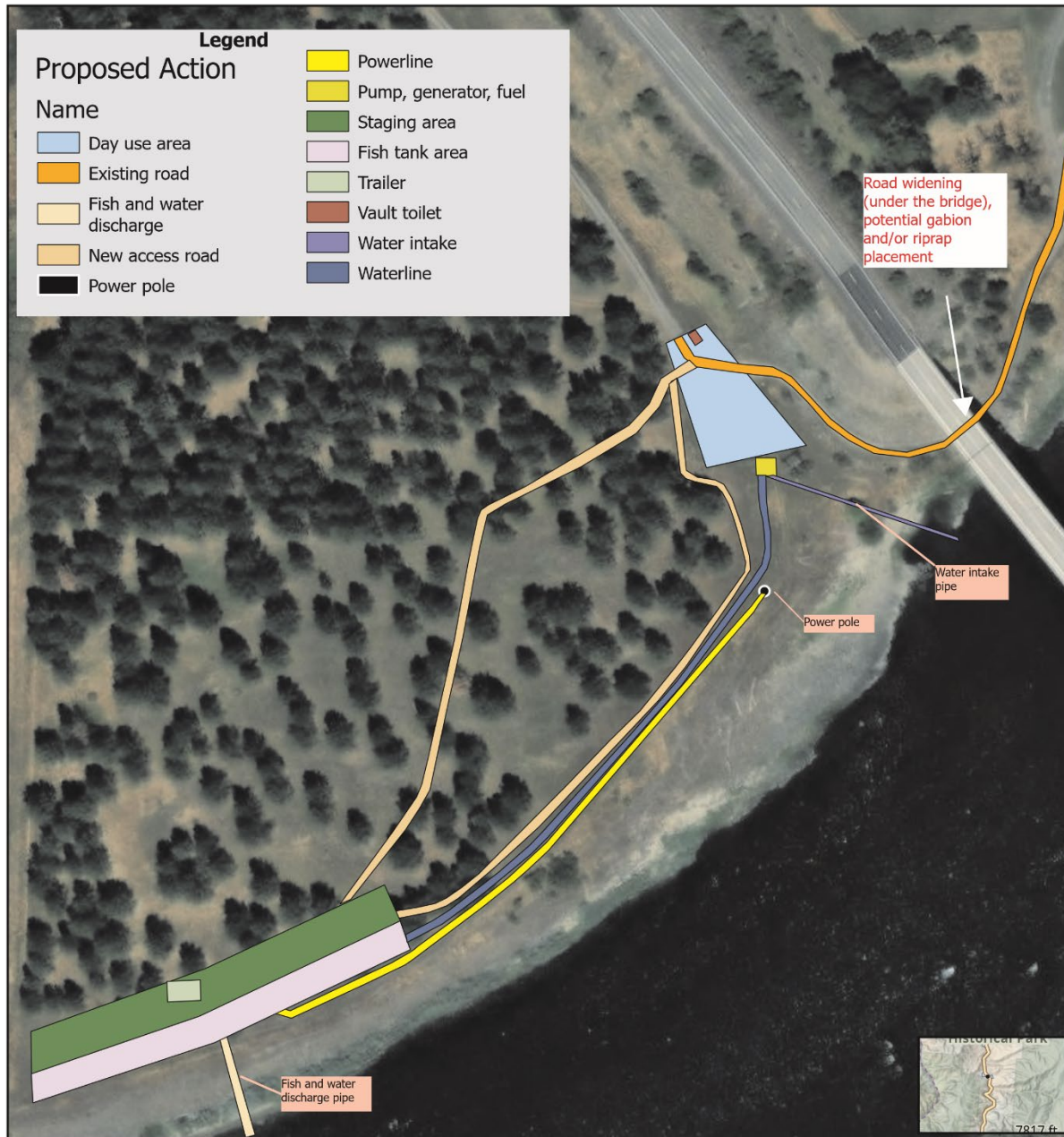


Map 4 (Close-up view) Russell Bar Fall Chinook Salmon Acclimation Facility (Conceptual)

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00.00 0.01 0.02 0.03 0.04
Miles

Scale: 1:1,700



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