

Biological Assessment – Two Rivers Joslyn Site – Priest River, ID



Prepared for:
City of Priest River &
Idaho Department of Environmental Quality (IDEQ)

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Prepared by:
Alta Science and Engineering, Inc.
1220 Big Creek Road, Suite A
Kellogg, Idaho 83837
alta-se.com

Alta
Science & Engineering, Inc.

Idaho Department of Lands
JAN 05 2026
Pend Oreille Lake Supervisory Area
Navigable Waters

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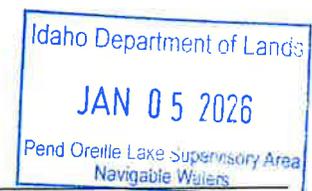


Acronyms and Abbreviations

Alta	Alta Science & Engineering, Inc.
amsl	above mean sea level
BA	Biological Assessment
BMP	Best Management Practices
BNSF	Burlington Northern Santa Fe
CFR	Code of Federal Regulations
City	The City of Priest River
EFH	Essential Fish Habitat
ESA	Endangered Species Act
FMO	foraging, migrating, and overwintering
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IPaC	Information Planning and Consultation
ITD	Idaho Transportation Department
NOAA	National Oceanic Atmospheric Administration
PBF	physical and biological feature
PSMFC	Pacific States Marine Fisheries Commission
ROW	right-of-way
SGCN	Species of Greatest Conservation Need
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WSDOT	Washington Department of Transportation

Units

dB	decibel
dBA	A-weighted decibel
cy	cubic yard
ft	feet
km ²	square kilometer
lbs	pounds
m	meter
mm	millimeter
mg/l	milligrams/liter
sf	square foot



Executive Summary

The City of Priest River (City) entered Idaho Department of Environmental Quality's (IDEQ) Brownfield program to conduct All Appropriate Inquiry in compliance with the Code of Federal Regulations (CFR), per 40 CFR Part 312 prior to acquiring the property from Joslyn Manufacturing, Inc. in 2021. The federal nexus is the Brownfields Cooperative Agreement with the U.S. Environmental Protection Agency (USEPA). The City prepared the Joslyn Park Master Plan (Welch Comer 2023) in order to develop the site into a sustainable multi-use community park. A primary objective of the Master Plan is to stabilize the site's shoreline and restore environmental quality by reducing sediment loading and loss of riparian wetland areas along the confluence of the Priest and Pend Oreille rivers and provide wide-spread recreational use of the property by the general public.

The existing shoreline is nearly vertical with bare soil and erosion observed along the entire alignment of the proposed shoreline stabilization project. The stabilization project proposes to add approximately 3350 linear feet of riprap with extensive native vegetation plantings along the shoreline of Priest and Pend Oreille Rivers to stabilize the eroding banks. The purpose is to stabilize the site's shoreline that experiences accelerated erosion due to shear forces exerted by the flow dynamics of the two converging rivers. The rivers are dam-controlled. Due to seasonal water level management for flood risk management, hydropower generation, and recreation, unnatural seasonal water level fluctuations of more than 12 feet increase the complexity of the shoreline's erosion and ability to host a typical composition of riparian vegetation. The objectives are to restore environmental quality by reducing sediment loading and loss of riparian wetland areas along the Priest and Pend Oreille rivers and provide wide-spread recreational use of the property by the general public.

The project is designed to avoid and minimize impacts to listed species and habitats. Impact minimization and avoidance measures will be employed during the project to reduce or mitigate project effects along with best management practices (BMPs).

This Biological Assessment (BA) document is written in compliance with Section 7 (a)(2) of the Endangered Species Act (ESA) of 1973 as it applies to construction activities associated with the Ponderay Lakeshore Connection (PLC) and potential impacts to ESA-listed Threatened, Endangered, Candidate species and their designated critical habitat.

Listed species within the Action Area include bull trout (*Salvelinus confluentus*), North American wolverine (*Gulo gulo luscus*), Monarch butterfly (*Danaus plexippus*), and Suckley's Cuckoo bumble bee (*Bombus suckleyi*). Only bull trout have designated critical habitat (Lake Pend Oreille) within the Action Area. Following appropriate BMPs and avoidance and minimization measures will control and minimize impacts from project actions. Therefore, our determination is that the overall proposed project will have the following effects to listed species:

- Bull trout – May affect, not likely to adversely affect
- Bull trout designated critical habitat – May affect, not likely to adversely affect
- North American wolverine – No effect
- Monarch butterfly – No Effect
- Suckley's Cuckoo bumble bee - May affect, not likely to adversely affect.



Section 1 Introduction

The City of Priest River (City) entered Idaho Department of Environmental Quality's (IDEQ) Brownfield program to conduct All Appropriate Inquiry in compliance with the Code of Federal Regulations (CFR), per 40 CFR Part 312 prior to acquiring the property from Joslyn Manufacturing, Inc. in 2021. The federal nexus is the Brownfields Cooperative Agreement with the U.S. Environmental Protection Agency (USEPA). The City prepared the Joslyn Park Master Plan (Welch Comer 2023) in order to develop the site into a sustainable multi-use community park. A primary objective of the Master Plan is to stabilize the site's shoreline and restore environmental quality by reducing sediment loading and loss of riparian wetland areas along the confluence of the Priest and Pend Oreille rivers and provide wide-spread recreational use of the property by the general public. Construction of bank stabilization measures will include installation of riprap along approximately 3350 feet of shoreline.

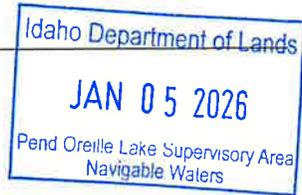
The project is designed to avoid and minimize impacts to listed species and habitats. Impact minimization and avoidance measures will be employed during the project to reduce or mitigate project effects along with best management practices (BMPs).

This Biological Assessment (BA) document is written in compliance with Section 7 (a)(2) of the Endangered Species Act (ESA) of 1973 as it applies to construction activities associated with the PLC and potential impacts to designated critical habitat and ESA-listed Threatened, Endangered, and Candidate species. This BA has been prepared to address federally listed species and designated critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS). This BA is prepared with information current as of April 15, 2025, and as provided by the design engineering firm, Alta Science & Engineering, Inc. (Alta). Changes to the proposed actions, quantities, project timelines, seasons of construction, etc., may require additional analysis and/or the preparation of a new BA.

Section 2 Project Location

The Two Rivers/Joslyn project is located at the confluence of the Priest and Pend Oreille rivers in Priest River, Idaho from the Bonner Park West Boat Ramp on the west to the Priest River Bridge to the east. The approximate center point of the study area is located at 48.175106°N, -116.897216°W. Figure 1 shows the project location.





Section 3 Project Description

3.1 General Project Description

The purpose of this project is to stabilize the site's shoreline that experiences accelerated erosion due to shear forces exerted by the flow dynamics of the two converging rivers. The rivers are dam-controlled. Due to seasonal water level management for flood risk management, hydropower generation, and recreation, unnatural seasonal water level fluctuations of more than 12 ft increase the complexity of the shoreline's erosion and ability to host a typical composition of riparian vegetation. The objectives are to restore environmental quality by reducing sediment loading and loss of riparian wetland areas along the Priest and Pend Oreille rivers and provide wide-spread recreational use of the property by the general public. The following are the goals of the Action:

- Mitigate damage to the shoreline and protect native plant communities by designing adequate stabilization.
- Preserve wetlands by protecting the shoreline around the perimeter of the site.
- Provide dedicated access points for the public; this includes access points for a potential marina that are included under a bid alternate in Zone 1 (Marina) of this project. The marina docks are not included in the scope of this project and require separate permitting.
- Stop shoreline erosion that is occurring at the existing stormwater outfall located on the west end of the site facing the Pend Oreille River.
- Protect the City's downstream drinking water intake that is located on the west end of the site and extends out onto the Pend Oreille Riverbed.

The Action is split into 6 separate zones. From west to east, they are as follows:

- Zone 1 (Base Bid): Marina – Includes riprap bank protection and the stormwater outlet.
- Zone 1 (Bid Alternate): Marina – Includes riprap bank protection, the stormwater outlet, marina access points (riprap protected "peninsulas"), and an additional public beach (sand and drain rock covered swim area to the same specifications as Zone 2)
- Zone 2 (Base Bid): Beach – Includes a sand beach, a staggered boulder breakwater, and a swim area that is stabilized with drain rock
- Zone 3 (Base Bid): Wetland – Includes vegetated riprap
- Zone 4 (Base Bid): Wetland (2) – Includes larger vegetated riprap
- Zone 5 (Base Bid): Southeast Corner – Includes riprap bank protection
- Zone 6 (Base Bid): Northeast Face – Includes vegetated riprap bank protection.

The design sheets (C1, C2, and C3) show the locations of the zones, Area of Potential Effect (APE), haul routes, riprap, and clearing and grubbing (Appendix A).

A map of the proposed actions is included in Figure 2 below. General descriptions are the proposed Actions are bulleted below:

- Installation of 3350 feet of riprap along the eroding bank of the Priest and Pend Oreille River. This amounts to approximately 1.88 acres for the footprint of the riprap.

- Construction of 12-foot wide 6500 linear feet access/haul route. The haul road above the bank (approximately 3,350 linear feet) will be covered with 6-inch-thick layer of ¾” minus crushed aggregate over non-woven geotextile to create a permanent trail.
- Construction of a public beach access area west of the wetlands. An additional public beach will be constructed just west of Zone 2 (Base Bid Beach) in Zone 1 (marina) under a bid alternate if the bid alternate is selected by the City.
- Clearing and grubbing of 3.34 acres to install temporary haul routes and place riprap.
- Removal of pilings and cribs below the ordinary high water mark (OHWM) of Pend Oreille River. Approximately 90 upright pilings and 4 crib locations will be removed from approximately 0.5 acres of shoreline.

Table 1. Best Management Practices (BMPs)

BMPs
Dust Control by sprinkling potable water with no chemicals and stabilizing surfaces.
Revegetate cleared and grubbed areas (temporary haul route alignments) with native seed mix.
Install perimeter erosion and sediment controls including fiber rolls or straw wattles, silt fence, temporary berms, and inlet protection in accordance with current IDEQ and Idaho Transportation Department (ITD) Stormwater BMPs.
Clearing and grubbing will occur prior to the local migratory bird season (April 1 through July 30); if the local migratory bird nesting season cannot be avoided, a migratory bird nesting survey will occur.
<p>For pile and crib removal, the intent is to remove these items during low water when they can be accessed during dry conditions. If construction occurs when these items are submerged, or partially submerged, the contractor will utilize a qualified biologist to direct fish exclusion protocols consistent with the USFWS Recommended Fish Exclusion, Capture, Handling, and Electrofishing Protocols and Standards (USFWS 2012). In general, the following measures apply to this project:</p> <ul style="list-style-type: none"> • A qualified biologist from the Idaho Department of Fish and Game (IDFG) or professional that possesses all necessary knowledge, training, and experience for fish exclusion, capture, handling, and, if necessary, electroshocking protocols will direct the fish exclusion protocols. • Isolate the work area with block nets (typically 9.5 millimeter (mm) stretched nylon mesh) installed perpendicular to the direction of flow. • Block nets will be anchored with bags of clean washed gravel. • With block nets in-place, any fish within the isolated work area will be removed or “herded” downstream and out of the work area. • Block nets will remain in-place until the work is complete and conditions are suitable for the reintroduction of fish.

The project is designed to avoid and minimize impacts to listed species and habitats. In addition to the BMPs listed above, impact minimization and avoidance measures are as follows:

- Limit disturbance footprint to extent possible including avoiding encroachment into wetlands to extent possible while maintaining engineering controls of proper riprap slope stability.
- Design riprap to have porosity and install at a grade that maintains hydrologic connectivity between rivers and wetlands.

- Construct haul routes outside of the wetland and waters boundaries to the extent allowable and utilize previously developed routes from prior timber management practices.

3.2 Detailed Project Description

Proposed actions described in Section 3.1 and listed in **Error! Reference source not found.** are discussed in more detail in this section. Actions are grouped by construction activities and noted which general proposed action(s) they relate to. Estimated quantities are provided for the largest possible impact and include totaled base bid and bid alternate quantities.



Two Rivers Shoreline Stabilization – Biological Assessment

Table 2. Detailed Project Actions

Proposed Action	Quantity	Equipment	Impacts Vegetation / Ground	Timeline/ Duration
Excavate and grade slopes. Excess native soils from grading will be kept onsite; most likely graded into disturbed areas at the top of the slope outside of wetland areas. Waste materials will be hauled offsite to a local waste transfer station or landfill.	Up to 11,000 CY of total cut and 1,000 CY of fill.	Excavator, backhoe, dump truck.	Area to be excavated and hauled will be cleared and grubbed first (see clearing and grubbing, below).	Winter/Spring 2026 or Fall of 2026 (during Lake Pend Oreille Winter Pool Levels) – 3 months
Clear and grub in areas of haul route alignments and riprap placement.	3.34 acres	Chainsaw, excavator, backhoe, dump truck, front-end loader.	Vegetation will be completely removed and haul routes will be reseeded with native seed mix and riprap will be replanted with shrub stakes and shrub plants above the riprap where shrubs previously occurred.	Winter/Spring 2026 or Summer of 2026 – 2 weeks
Placement of riprap along shoreline and construction of a beach area west of the wetlands. Riprap, crushed aggregate, pea gravel, sand, and topsoil will be sourced from local rock quarries (i.e., Peak Sand and Gravel). Live stakes (native plantings) for vegetated riprap areas (Zones 3 through 6) will be installed prior to or during riprap placement.	<ul style="list-style-type: none"> • 3350 linear feet and 5,300 CY of riprap • 1350 CY of aggregate base • Up to 450 CY of River Rock • Up to 1,130 CY of Beach Sand • Approximately 4,360 live stakes 	Excavator, dump trucks, small equipment for live stake installation	This action is located within the clearing and grubbing footprint. Approximately 0.09 acres of wetlands and herbaceous wetland vegetation will be removed.	Winter/Spring 2026 or Fall of 2026 (during Lake Pend Oreille Winter Pool Levels) – 2 months

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Two Rivers Shoreline Stabilization – Biological Assessment

Proposed Action	Quantity	Equipment	Impacts Vegetation / Ground	Timeline/ Duration
Construction of temporary access/haul routes	6500 linear feet of access/haul routes will be constructed with 12-foot width equating to a footprint of 1.8 acres.	Excavator, backhoe, dump truck, compactor.	This action will occur within the footprint of the clearing and grubbing.	Winter/Spring 2026 or Summer of 2026 - 1 month
Cut and remove pilings and cribs from Pend Oreille shoreline	Approximately 90 upright pilings and 4 crib locations covering approximately 0.50 acres of Pend Oreille River Shoreline	Saws, vibratory crane or excavator and chainsaw to cut pile as necessary to remove to the mud-line.	This action has potential to cause temporary increased levels of turbidity and sediment mobilizations in Pend Oreille River.	Fall of 2026 (during Lake Pend Oreille Winter Pool Levels) - 1 month
Planting and seeding all other cleared/grubbed surfaces with native seed mix (see Error! Reference source not found. for BMPs).	1.2 acres	Hydroseeder (truck or trailer mounted)	Vegetation will be replanted with this action	Early Spring 2027 - 1 month

Locations of key project actions are included in **Figure 2** below.





Priest River Railroad

Priest River

Pend Oreille River

Legend

- APE (14.76 acres)
- Temporary Haul Routes (1.8 acres; 6500 linear feet)
- Clearing and Grubbing (2.42 acres)
- Riprap Footprint (1.95 acres)
- Wetlands (3.87 acres)

1:3,600
1 in = 300 ft
0 300 Feet



PRINT DATE
PROJECT NUMBER
24076.005.001

PROJECTION
PROJECT MANAGER
PROJECT NAME
NAD83
Derek Forseth
IDEQ Two Rivers Park

CARTOGRAPHER
M. Wood

FIGURE 2
Action Locations

Idaho Department of Land Use
JAN 05 2026

Section 4 Action Area

The Action Area is defined as the area to be affected directly or indirectly by the federal action (50 CFR §402.02). The Action Area considers the effects of interrelated and interdependent activities and includes the geographic extent of the effects resulting from the proposed action. Information and analysis from the following sections is used to determine the extent of effects of the proposed action.

For this proposed action, potential effects are expected to be related to water quality, habitat loss (vegetation removal), and potential for elevated noise levels produced by construction equipment. Section 7 below describes potential effects on the listed species and designated critical habitat in greater detail.

The proposed Action Area boundary is defined as the area encompassing the farthest-reaching effects of the proposed action, based on the effects discussed in the preceding sections. The proposed action would not impact migratory corridors or fish access to habitat. Habitat loss and increased construction-related noise will occur within the construction area. Construction-related noise will be the farthest-reaching effect and is displayed as the “Terrestrial Impact Area” circle in Figure 3 and further described in Section 4.3. Effects to water quality are described in Section 4.1 and are displayed as the solid blue polygon in Figure 3 as the “Aquatic Impact Area.” The extent of the Action Area is shown below in Figure 3. Photos of the Action Area are included in Appendix B.

4.1 Water Quality

The proposed action involves construction of riprap above and below the ordinary high-water mark (OHWM), removal of pilings and debris below the OHWM of Pend Oreille River, and installation of a haul route to access the shoreline. Effects to water quality, such as minor localized increase in suspended sediment, or short-term, minor increase in turbidity may occur during riprap construction, clearing and grubbing, or installation road features.

According to Newcombe and Jensen (1996), salmonids exposed to suspended sediment concentrations of 173 milligrams/liter (mg/L) for one hour are likely to be negatively impacted as expressed by minor physiological stress, increased coughing, increased respiration, and reduced feeding rate. According to USFWS (2009) it is expected that 600 feet is the extent of significant suspended sediment/turbidity downstream of instream work that would adversely affect adult and subadult bull trout. Therefore, 600 ft was used to determine the aquatic zone of impact.

Installation of riprap along the shoreline will occur during low water periods from October through May when equipment can access the exposed shoreline and not enter the water. The only in-water work to occur will include the removal of existing pilings and cribs that occur along the water's edge during the low water periods and the placement of riprap on top of a seep that occurs in the western portion of the project footprint. Figure 3 below includes a photo of the piling and crib locations at high water levels in the summer and low water levels in the spring.

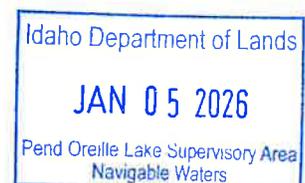


Figure 3. Pilings and Cribs to be Removed



View of pilings and cribs during high water levels facing southeast (location: 48.176613°, -116.902542° [WGS84])



View of piling and cribs during low water levels in the spring facing west (location: 48.176294°, -116.901614° [WGS84])

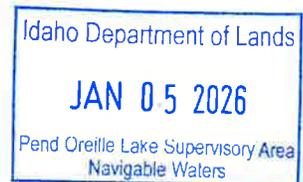
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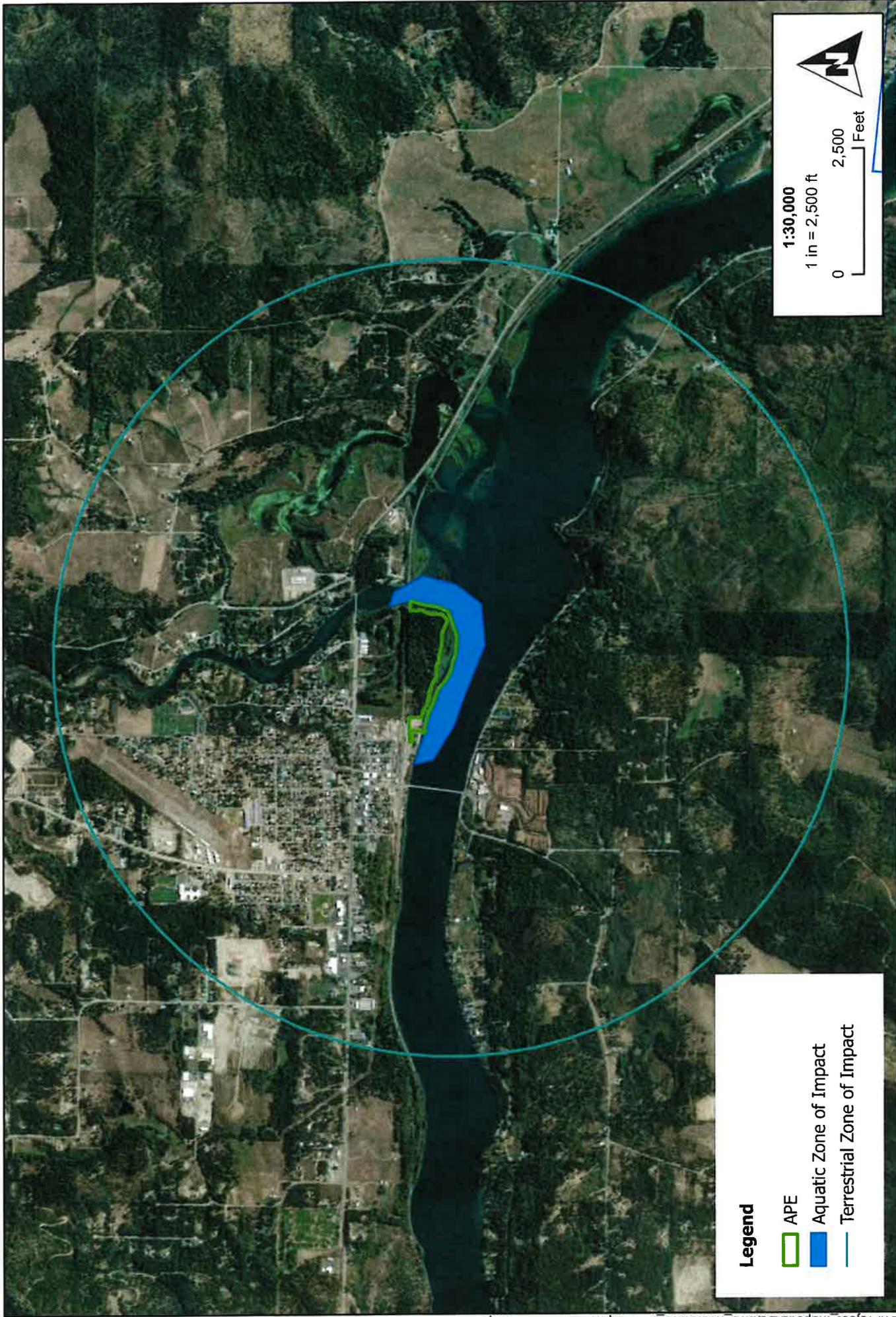
4.2 Habitat Loss

2.42 acres of forest clearing will be necessary to construct the haul routes. Clearing and grubbing activities will result in the loss of habitat in the form of mature and immature deciduous and conifer trees and understory brush along the alignments of the haul routes.

4.3 Noise and Vibration

Discussion of noise impacts and calculations are included in Appendix C. The calculation of the distance to where construction noise is attenuated to background levels equated to approximately 1.5 miles (rounded up to the nearest tenth). Therefore, 1.5 miles was used for the terrestrial zone of impact and is the farthest-reaching impact. Aquatic noise impacts are discussed in Appendix C.





Legend

- APE
- Aquatic Zone of Impact
- Terrestrial Zone of Impact

1:30,000
 1 in = 2,500 ft

0 2,500 Feet



	PRINT DATE PROJECT NUMBER 24076.005.001	PROJECTION PROJECT MANAGER NAD83 Derek Forsyth	PROJECT NAME IDEQ Two Rivers Park	STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION JAN 05 2026 Atlantic City Atlantic City Lake Supervisory Area Navigable Waters
	FIGURE 3			Action Area Map

Section 5 Species and Habitat Information

5.1 Background Research and Agency Coordination

Resources researched for this BA included the National Oceanic and Atmospheric Administration (NOAA) Essential Fish Habitat (EFH) Mapper, the NOAA Protected Resources App, the Pacific States Marine Fisheries Commission (PSMFC) StreamNet Mapper, and coordination with Idaho Fish and Game (IDFG) personnel in response to Tier 1 Species of Greatest Conservation Need (SGCN) of Idaho. Results of these resource reviews are included in the sections below and Appendix D.

5.1.1 NOAA EFH Mapper

The NOAA EFH Mapper indicates the action area outside of any EFH (NOAA 2025a).

5.1.2 NOAA Protected Resources App

The NOAA Protected Resources App displays spatial data for marine and anadromous species listed under the ESA. No ESA Critical Habitat occurs within the vicinity of the project area (NOAA 2025b).

5.1.3 PSMFC StreamNet Mapper

A review of the PSMFC StreamNet Mapper indicated no presence of anadromous fish within the vicinity of the project area. The mapper does indicate the presence of bull trout (*Salvelinus confluentus*) year-round use (PSMFC 2025).

5.1.4 IDFG Coordination

On April 14, 2025, Alta requested coordination from IDFG on the occurrence and concerns or recommendations for North American Wolverine (*Gulo gulo luscus*) and Bull trout (*Salvelinus confluentus*) within the Action Area. Merritt Horsmon, Regional Technical Assistance Manager (Panhandle Region) of IDFG responded on April 17, 2025 (IDFG 2025a). For wolverine, IDFG's response was that these species are unlikely to be found in the Action Area and no concerns or recommendations were reported. For bull trout, IDFG's response was the likelihood of bull trout presence is high, but occurrence within the work area is seasonal. IDFG's detailed response is included in Appendix D and discussed in further detail in Section 7 below.

5.2 Species and Critical Habitat Addressed in BA

Table 3 below includes federally listed species specifically identified in the USFWS Information Planning and Consultation (IPaC) tool as potentially occurring within the project vicinity (USFWS 2025). The web-generated ESA report was generated on April 15, 2025 and is provided in Appendix E.



Table 3. Species List from USFWS IPaC

Species	Status	Critical Habitat
Bull trout (<i>Salvelinus confluentus</i>)	Threatened	Final designated; Pend Oreille/Priest River
North American Wolverine (<i>Gulo gulo luscus</i>)	Threatened	None designated
Monarch butterfly (<i>Danaus plexippus</i>)	Proposed Threatened	Proposed; does not overlap with Action Area
Suckley’s Cuckoo bumble bee (<i>Bombus suckleyi</i>)	Proposed Endangered	None designated

5.3 Species and Critical Habitat

The following sections describe specific species’ life history, potential occurrence within the Action Area, and designated critical habitat within the Action Area. An Alta ecologist visited the site and observed the Action Area on April 11, 2025, to investigate potential habitat for the above-listed species.

5.3.1 Monarch Butterfly

In December 2024, the USFWS announced a proposed rule to list monarch butterflies as threatened and designate critical habitat under authority of the ESA (89 FR 100662; December 12, 2024). One of the most recognizable butterfly species in North America, millions of monarchs historically migrated each year across the United States to overwinter at just a few sites in the mountains of central Mexico and coastal California. However, over the past several decades, monarchs across North America have declined, with the western monarch decreasing by more than 95%. Threats to breeding, migration, and overwintering include habitat loss and degradation, exposure to insecticides, catastrophic events, and climate change (USFWS 2024a).

Each spring, western monarchs migrate back to sites across Arizona, California, Nevada, Oregon, Washington, Idaho, and Utah where they rely on milkweed (*Asclepias* spp.) and a few other closely related species as obligate host plants to complete their life cycle. Females use their 2 to 5-week lifespan to mate and feed on nectar of flowers, then lay their eggs on the leaves of milkweed. After the eggs hatch, the caterpillars feed on the milkweed exclusively, not leaving the host plant until they are ready to pupate. The full cycle from egg to adulthood may last 20 – 35 days depending on temperature; monarchs cannot develop in temperatures lower than 12°C (53°F) or higher than 33°C (91°F, Zalucki 1982, USFWS 2024a).

In Idaho, the most common milkweed species are showy milkweed (*Asclepias speciosa*) and narrowleaf milkweed (*Asclepias fascicularis*). Showy milkweed is adapted to a broad range of moisture conditions. It is very commonly found along canal banks and riparian sites and in sub-irrigated or occasionally flooded wetlands with sedges and rushes (Stevens 2000). Narrowleaf milkweed is more common in western Idaho and dry sunny areas of the valleys and foothills (Tilley et al. 2018).

One documented occurrence of monarch butterfly occurred within the City of Priest River on July of 2022 according to the Western Monarch and Milkweed Occurrence Database (www.monarchmilkweedmapper.org) and the same occurrence documented on www.iNaturalist.org (iNaturalist 2025). The image of this observation clearly depicts the



monarch individual utilizing a milkweed plant. Apart from this observation, the nearest milkweed observation is approximately 11 miles east of the Action Area in Wolfred, WA.

During an additional site assessment conducted on June, 2025, no milkweed species or monarchs were observed within transects covering the acreages of the Project Area. These transects provided full visual coverage of areas to be disturbed during construction during the growing season when milkweed is visible.

Proposed critical habitat for this species does not overlap the Action Area.

5.3.2 North American Wolverine

The North American Wolverine (wolverine) has been listed as Threatened (USFWS citation: 88 FR 83726) effective January 2, 2024. Currently, no critical habitat has been designated for wolverine as of April 2025.

Wolverine home ranges, which appear to be strongly related to food, are variable in size, ranging from approximately 40 square miles to 350 square miles (Hornocker and Hash 1981; Banci 1994). Research conducted in central Idaho found that wolverines in the region were not commonly located at elevations below 7,200 feet and inhabited whitebark pine (*Pinus albicaulus*) communities in the summer and Douglas fir (*Pseudotsuga menziesii*) and lodgepole pine (*Pinus contorta*) communities on the lower fringe of the subalpine zone during the winter (Copeland et al. 2007).

The wolverine is the largest species in the family Mustelidae, with males weighing 26 to 40 pounds (lbs) and females weighing 17 to 26 lbs. It has a broad head, short, rounded ears, small eyes, and a bushy tail, making it resemble a small bear. Wolverines are known as solitary animals that are difficult to study due to their secretive nature and relatively low densities (Lofroth and Krebs 2007, Banci 1994, Hornocker and Hash 1981). Their habitat is closely associated with heavy snowpack persisting into the late spring and they have adapted to denning in the deep snow (Copeland et al. 2010, Aubry et al. 2007, Banci 1994). They occupy boreal forests, tundra, and other western mountains in Alaska, Canada, Washington, Idaho, Wyoming, Montana, and Oregon. Preferred habitat is generally not proximal to areas with human infrastructure or use (Copeland et al. 2007, May et. al. 2006). Wolverines are active year-round and are primarily scavengers, but also predate on small to medium sized animals and may consume fruits and other vegetation (Banci 1994, Hornocker and Hash 1981). Reports of dens in low elevation, densely forested habitats are rare (Magoun & Copeland 1998).

The nearest documented wolverine occurrence occurred over 6 miles northeast of the Action Area in 1976 (IDFG 2025a). No critical habitat has been designated for this species.

5.3.3 Bull Trout

Bull trout are listed as Threatened by the USFWS (USFWS citation: 63 FR 31647). Designated critical habitat for bull trout includes the Pend Oreille and Priest Rivers. The *Recovery Plan for the Coterminous United States Population of Bull Trout (Salvelinus confluentus)* and the *Columbia Headwaters Recovery Unit Implementation Plan for Bull Trout (Salvelinus confluentus)* (USFWS 2015a and USFWS 2015b) provides guidance for bull trout recovery in the Columbia Basin and specifically in the Columbia Headwaters Recovery Unit which includes



Lake Pend Oreille and its connected waters (including Pend Oreille and Priest Rivers) as a Core Area¹.

Bull trout are found in both resident and migratory forms in the Columbia Basin. Preferred habitat includes stable channels in low gradient stream reaches with cold water, clean gravel for spawning and rearing, and ample diverse cover such as boulders and undercut banks (Rieman and McIntyre 1993).

A water temperature above 15 ° Celsius (C) is believed to limit bull trout distribution, which may partially explain the patchy distribution within a watershed (Fraley and Shepard 1989, Rieman and McIntyre 1995). Preferred spawning habitat consists of low gradient stream reaches with loose, clean gravel (Fraley and Shepard 1989) and low water temperatures of 5 to 9 °C (41 to 48 °F) in late summer to early fall (Goetz 1994). Spawning reaches are usually found in upper watersheds. Spawning occurs in late August to November. In Idaho, bull trout generally spawn in September and October. Fry normally emerge from early April through May depending upon water temperatures and increasing stream flows (Miller 2014). Spawning and rearing habitat parameters listed above are not present within the Action Area.

Bull trout in Lake Pend Oreille, Pend Oreille River, and Priest River are adfluvial (Downs et al. 2006; USFWS 2002). They hatch and grow in a third or fourth order tributary and migrate downstream to the lake at ages 1-5 (Downs et al. 2006). Bull trout then grow and mature in Lake Pend Oreille and return to their natal stream to spawn at ages 6-11 (Downs et al. 2006). Therefore, the drainage is considered foraging, migrating, and overwintering (FMO) habitat based on bull trout life history in the lake. FMO habitat in the drainage is likely to be utilized by adult and subadult bull trout from December through July.

The majority of bull trout spawning occurs in tributaries to Lake Pend Oreille (Dupont et al 2007). However, spawning is also known to occur in tributaries of the Priest River. Within the Priest River (downstream of Priest Lake) the only known spawning occurs in the East River watershed, which enters Priest River 34 river kilometers north from its mouth. The majority of spawning within the East River watershed occurs in the Middle Fork East River (Dupont et al 2007).

For inclusion in a critical habitat designation, habitat within the geographical area occupied by the species at the time it was listed must contain the physical and biological features (PBFs) laid out in the appropriate quantity and spatial arrangement for the conservation of the species (USFWS citation: 75 FR 2270). The PBFs determined to be impacted by the Action are described in Section 7.4.3.

5.3.4 Suckley's Cuckoo Bumble Bee

In December 2024, the USFWS announced a proposed rule to list Suckley's cuckoo bumble bee (*Bombus suckleyi*) as endangered under authority of the ESA (89 FR 102074; December 17, 2024). Historically, the species was broadly distributed across North America in prairies, grasslands, woodlands, and both urban and agricultural areas up to 3,200 m in elevation.

Suckley's cuckoo bumble bee is an obligate, semi-specialist social parasite, i.e., it depends on the survival and health of social hosts for its own survival and reproduction. In the case of Suckley's cuckoo bumble bee, the main confirmed host in the western U.S. is Western bumble bee (*Bombus occidentalis*) colonies but is confirmed to usurp nests of other subgenus *Bombus* species (Lhomme and Hines 2018). A sharp decline in the prevalence of both Suckley's cuckoo

¹ Core Area: The combination of core habitat (i.e., habitat that could supply all elements for the long-term security of bull trout) and a core population (a group of one or more local bull trout populations that exist within core habitat) constitutes a core area (USFWS 2015a).

bumble bee and many of its host species has likely reduced population connectivity relative to historical conditions. Threats include pathogens like parasites and viruses, pesticides, habitat conversion/fragmentation, livestock grazing, and climate change (USFWS 2024b).

Few studies have focused specifically on understanding Suckley's cuckoo bumble bee biological requirements. Cuckoo bumble bees are unable to carry pollen or produce worker bees so they are entirely dependent on the availability of host colonies. After emerging from hibernation, cuckoo bumble bee females take over the nest of a host colony, where they often eliminate the host queen bee and use host workers to collect pollen and care for their offspring. Because of this dependence, signs that host species are in decline are major concerns to Suckley's cuckoo bumble bee (USFWS 2024b).

The host nests for cuckoo bumble bees are primarily underground cavities that are natural or created by other animals like rodents, and the females also require hibernation sites close to the ground surface that can shelter and help with thermoregulation (Vogt 1986, Williams et al. 2014). Cuckoo bumble bees require a diversity of native flowers in both spring and fall for nutrition, reproduction, and overwinter survival.

Habitat connectivity is essential for cuckoo bumble bees because of their small, fragmented populations that depend on host colonies. Cuckoo bumble bees will produce unviable, sterile males when genetic diversity between mating pairs is low, so habitat corridors and proximity of available host colonies are necessary to dispersal and finding unrelated mates (89 FR 102074).

The USFWS is currently developing guidance for Section 7 consultations for Suckley's cuckoo bumble bee. The following quotation, dated February 20, 2025, is provided by USFWS regarding future consultations (USFWS 2025b):

"The Service will be developing consultation guidance for the Suckley's cuckoo bumble bee. We strive for consistency in our conservation approach to bumble bees. Partners can expect consultation guidance to be similar to the Rusty-patched bumble bee guidance Franklin's bumble bee guidance. As part of this guidance, we will develop mapped areas (called High Potential Zones) where Suckley's cuckoo bumble bee is most likely to occur. These zones will narrow the current range map (below) and reflect specific areas we will recommend consultations to occur."

A common host species, Western bumble bee (*Bombus occidentalis*) has been observed within the Action Area (INaturalist 2025) but no documented occurrences of Suckley's cuckoo bumble bee have occurred within the Action Area or within 10 miles of the project centroid (IDFG 2025a). No critical habitat or high potential zones have been designated for this species.

Section 6 Environmental Setting/Baseline

6.1 General Setting

Multiple land use occurs within the Action Area. The northern portion of the Action Area is primarily comprised of urban development within the limits of the City of Priest River and industrial development on the outskirts. Across the river South of the City of Priest River is the Laclede Mill, a sawmill operated by Idaho Forest Group. Logging on the forested hillsides has occurred over the past century in the southern portion of the Action Area. In the northwestern portion of the Action Area is the U.S. Army Corps of Engineers (USACE) Priest River Recreation Area and a restored wetlands site in partnership with the Valencia Wetland Trust. The Pend Oreille Valley Railroad that connects to the Burlington Northern Sante Fe (BNSF) in Sandpoint bisects the central portion of the Action Area from east to west. Historical changes that have occurred include construction of the Albeni Falls Dam completed in 1955.

Adjacent to the project footprint is approximately 32 acres of undeveloped forested area to the north, Priest River to the east, Pond Oreille River to the south, and the Bonner Park West Marina and boat launch to the east. Vegetative community types within the APE include a mosaic of mixed conifer and deciduous forest intermixed with upland and wet meadows. Dominant conifer species include ponderosa pine (*Pinus ponderosa*), grand fir (*Abies grandis*), Douglas fir (*Pseudotsuga menziesii*), lodgepole pine (*Pinus contorta*), and western hemlock (*Tsuga heterophylla*). Common deciduous species include cottonwood/balsam poplar (*Populus balsamifera*), thinleaf alder (*Alnus incana*), red alder (*Alnus rubra*), Douglas hawthorne (*Crataegus douglasii*), paper birch (*Betula papyrifera*) and various willow species (*Salix spp.*). Common shrubs throughout the APE include red osier dogwood (*Cornus sericea*), snowberry (*Symphoricarpos albus*), and rose spirea (*Spiraea douglasii*) along with sapling/shrub varieties of the deciduous tree species listed above. Dominant forbs and grasses in the wetland/meadow areas include reed canary grass (*Phalaris arundinacea*) and cattail (*Typha latifolia*). Forbs and grasses common in the forested and upland meadows include orchard grass (*Dactylis glomerata*), quackgrass (*Elymus repens*), common tansy (*Tanacetum vulgare*), clover species (*Trifolium spp.*).

Approximately 3.8 acres of palustrine emergent and scrub/shrub wetlands abut the OHWM of the Pend Oreille River within the project footprint. These wetlands primarily receive hydrology from groundwater and overbank flow during high water periods; both associated to Priest and Pend Oreille River. There is a seep located between the marina and the stormwater outfall that was flowing during the site assessment on April 11, 2025. The stormwater outfall flows during all months it is visible and not inundated by Pend Oreille River during high water levels from May to October. The streambank across the site is heavily eroded with roots of remaining conifers, deciduous shrubs and trees, and deep rooted rhizomatic grasses and forbs holding remaining soil in place. The proposed action is designed to avoid aquatic resources to the extent feasible in order to address continuing erosion. However, approximately 0.098 acres of wetland will be impacted by the placement of riprap due to engineering grading controls.

Currently, features such as side channels, pools, and undercut banks are absent from the existing shoreline of Pend Oreille and Priest Rivers along the project footprint. A variety of water depths along the shoreline within the Action Area are absent. The river bed has very little complexity and is very shallow as observed during the site assessment in April of 2025 and the photos included in Appendix B. Aquatic habitat features observed during the site visit included approximately 6 overhanging alders and hawthorn on the point of confluence between the Priest and Pend Oreille Rivers that likely provide thermal refugia during summer months when water levels are highest, relic cottonwood stumps that remain “rooted” along the shoreline south of the wetland area, the existing cribs and pilings that occur along the water’s edge during low water periods.

6.2 Environmental Baseline

Existing habitat conditions for listed species from Table 3 and evaluation of the condition of the PBFs in the Action Area are included in the following sections.

6.2.1 Terrestrial Species Habitat

6.2.1.1 Monarch Butterfly

Milkweed is the only plant that monarch caterpillars can eat, and female monarchs only lay their eggs on milkweed. Therefore, monarch habitat is strictly reliant upon the presence of this plant and in the absence of milkweed so is habitat. In Idaho, the most common milkweed species are

showy milkweed (*Asclepias speciosa*) and narrowleaf milkweed (*Asclepias fascicularis*). Showy milkweed is adapted to a broad range of moisture conditions. It is very commonly found along canal banks and riparian sites and in sub-irrigated or occasionally flooded wetlands with sedges and rushes (Stevens 2000). Narrowleaf milkweed is more common in western Idaho and dry sunny areas of the valleys and foothills (Tilley et al. 2018).

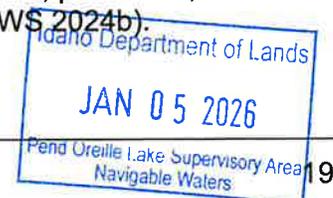
6.2.1.2 North American Wolverine

- **Foraging habitat** for wolverine may be present in the form of ungulates (whitetail deer; *Odocoileus virginianus*), lagomorphs, other small mammal prey, along with mixed vegetation.
- **Denning habitat** for wolverine is not present within or adjacent to the Action Area. Dens are typically located in areas with snow depth likely greater than 5 feet (Banci 1994, Copeland et al. 2010). Additionally, reports of dens in low elevation, densely forested habitats are rare (Magoun & Copeland 1998).
- **Prey overwintering and concentration areas** within or adjacent to the Action Area are likely not suitable to wolverine as very little habitat for prey species, particularly ungulates, is present. Very little ungulate sign was observed during the field visits on August 18 and September 8, 2023.
- **Migration corridors** for wolverine are absent within or adjacent to the Action Area due to human presence, urban development, and movement barriers including Highway 2, the Pend Oreille and Priest Rivers, and the railroad.
- **Suitable habitat** for wolverine in or adjacent to the Action Area lacks criteria such as large home range, denning sites, or travel corridors, necessary for species occupation. Wolverine home ranges, which appear to be strongly related to food, are variable in size, ranging from approximately 40 square miles to 350 square miles (Hornocker and Hash 1981; Banci 1994).
- **Occupied habitat** is unlikely to occur in the Action Area. The nearest confirmed observation of wolverine occurred greater than 6 miles northeast of the project area in 1976 (IDFG 2025a). Based on observations made during the field visit on April 11, 2025, and correspondence with IDFG, it is highly unlikely that wolverine would occupy the Action Area (IDFG 2025b).

6.2.1.3 Suckley's Cuckoo Bumble Bee

In December 2024, the USFWS announced a proposed rule to list Suckley's cuckoo bumble bee (*Bombus suckleyi*) as endangered under authority of the ESA (89 FR 102074; December 17, 2024). Historically, the species was broadly distributed across North America in prairies, grasslands, woodlands, and both urban and agricultural areas up to 3,200 m in elevation.

Suckley's cuckoo bumble bee is an obligate, semi-specialist social parasite, i.e., it depends on the survival and health of social hosts for its own survival and reproduction. In the case of Suckley's cuckoo bumble bee, the main confirmed host in the western U.S. is Western bumble bee (*Bombus occidentalis*) colonies but is confirmed to usurp nests of other subgenus *Bombus* species (Lhomme and Hines 2018). A sharp decline in the prevalence of both Suckley's cuckoo bumble bee and many of its host species has likely reduced population connectivity relative to historical conditions. Threats include pathogens like parasites and viruses, pesticides, habitat conversion/fragmentation, livestock grazing, and climate change (USFWS 2024b).



Few studies have focused specifically on understanding Suckley's cuckoo bumble bee biological requirements. Cuckoo bumble bees are unable to carry pollen or produce worker bees so they are entirely dependent on the availability of host colonies. After emerging from hibernation, cuckoo bumble bee females take over the nest of a host colony, where they often eliminate the host queen bee and use host workers to collect pollen and care for their offspring. Because of this dependence, signs that host species are in decline are major concerns to Suckley's cuckoo bumble bee (USFWS 2024b).

The host nests for cuckoo bumble bees are primarily underground cavities that are natural or created by other animals like rodents, and the females also require hibernation sites close to the ground surface that can shelter and help with thermoregulation (Vogt 1986, Williams et al. 2014). Cuckoo bumble bees require a diversity of native flowers in both spring and fall for nutrition, reproduction, and overwinter survival.

Habitat connectivity is essential for cuckoo bumble bees because of their small, fragmented populations that depend on host colonies. Cuckoo bumble bees will produce unviable, sterile males when genetic diversity between mating pairs is low, so habitat corridors and proximity of available host colonies are necessary to dispersal and finding unrelated mates (89 FR 102074).

There are no documented occurrences of Suckley's cuckoo bumble bee in the Project Area (IDFG 2025) but one documented occurrence of Western bumble bee in the town of Priest River took place in April of this year (iNaturalist 2025). No bumble bee species were observed during the April 11, 2025, site assessment but it is acknowledged that this timing is generally during later stages of dormancy or diapause.

6.2.2 Aquatic Species and Habitat

In-water work will be limited to the removal of existing piles and cribs originating from the pole yard facility that historically operated in the northwest section of the project footprint and riprap placement over a seep in the western portion of the project footprint. Riprap placement will occur during low water levels when the shoreline is accessible to equipment. The Action Area overlaps designated critical habitat (Pend Oreille and Priest Rivers) for bull trout and proposed actions will occur adjacent to this water body and contributing water resources (tributaries and wetlands mentioned above).

For inclusion in a critical habitat designation, habitat within the geographical area occupied by the species at the time it was listed must contain the PBFs laid out in the appropriate quantity and spatial arrangement for the conservation of the species (USFWS citation: 75 FR 2270). The five PBFs determined to be relevant to this project are listed below.

- Springs, seeps, groundwater sources, and subsurface water connectivity (hyporheic flows) to contribute to water quality and quantity and provide thermal refugia.
- An abundance of food, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.
- Complex shorelines with features such as large wood, side channels, pools, undercut banks, and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure.
- Water temperatures ranging from 2 to 15°C (36 to 59°F), with adequate thermal refugia available for temperatures that exceed the upper end of this range.
- Sufficient water quality and quantity to sustain normal reproduction, growth, and survival.

Analysis of each PBF pertinent to the project actions is included in Section 7.4.5 below.

Section 7 Analysis of Effect

7.1 Regulatory Basis for Determinations

Title 50, part 402, CFR establishes the procedural regulations governing interagency cooperation under Section 7 of the Act, which requires Federal agencies, in consultation with and with the assistance of the Secretaries of the Interior and Commerce (the “Secretaries”), to insure that any action authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. Per the 50 CFR Part 402, we are analyzing the effects of the action and any cumulative effects and are described below.

7.2 Effects of the Action

Effects of The Action are defined as all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur (50 CFR Part 402). Effects of the action may occur later in time and may include consequences occurring outside the immediate action area involved in the action.

The following effects are anticipated as a result of the Action:

- Removal of vegetation along the proposed haul routes will remove habitat consisting of mature coniferous and deciduous trees along with understory shrubs and herbaceous vegetation. These effects are expected to be temporary as the haul route alignments will be reseeded following completion of the action.
- Riprap will be placed along the existing wetland boundary in the central portion of the Action Area impacting 0.098 acres of wetlands. If necessary, wetlands will be mitigated by the purchase of wetland credits through a USACE accredited wetland bank (Valencia Wetland Bank).
- Increased public usage of the beach area resulting in potential increase in human disturbance activities such as swimming, fishing, and dog-use.
- Removal of trees and shrubs along the shoreline for riprap placement will remove aquatic thermal refugia until replanted vegetation matures.
- Project actions may temporarily increase potential for dust and sediment potentially increasing suspended sediment in the rivers and aquatic resources.

7.3 Cumulative Effects

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

At this time, there are no known state, tribal or private actions that are reasonably certain to occur in the action area that are unrelated to this action. Local actions may include the addition of a marina, docks, and viewing platforms constructed along the shoreline of Pend Oreille and

Priest Rivers if the proposed project is to occur. However, these are not reasonably certain to occur.

7.4 Species Specific Effects

7.4.1 *Monarch Butterfly*

Because Monarch butterfly rely on obligate milkweed species for reproduction and caterpillar forage, the effect determination is based on the presence/absence of milkweed within the area of direct disturbance of the Action. During an additional site assessment conducted on June, 2025, no milkweed species or monarchs were observed within transects covering the acreages of the Project Area. These transects provided full visual coverage of areas to be disturbed during construction during the growing season when milkweed is visible.

Because the Action Area is not within proposed designated critical habitat, no milkweed is present onsite, and only one observation of Monarch on a host milkweed plant has been observed in the Action Area, the project is expected to have **No Effect** on Monarch butterfly.

7.4.2 *North American Wolverine*

Because the existing habitat is not suitable for resident wolverine, is not part of any designated critical habitat, and wolverine have not been documented in the project vicinity, the proposed project is expected to have **No Effect** on North American Wolverine.

No critical habitat has been designated for North American Wolverine.

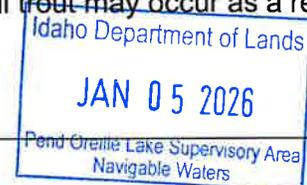
7.4.3 *Suckley's Cuckoo Bumble Bee*

Suckley's cuckoo bumble bee occurrences have not been documented within a 10-mile radius of the project centroid and only one occurrence of their surrogate host (Western bumble bee) has been documented within the Action Area. During the milkweed survey conducted on June 19, 2025, no bumble bee species (including host species) were observed onsite. While conducting vegetation surveys in June, it appears the predominant pollinator species onsite include big leaf lupine (*Lupinus polyphyllus*), orange hawkweed (*Hieracium aurantiacum*), common yarrow (*Achillea millefolium*), serviceberry (*Amelanchier alnifolia*), and self-heal (*Prunella vulgaris*). These species are low in relative abundance throughout the project footprint but will likely be impacted by the project.

Because the Action Area is not within a designated critical habitat or high potential zone but pollinator habitat may be impacted by the action, the project **May Effect, but is not likely to Adversely Effect** Suckley's cuckoo bumble bee.

7.4.4 *Bull Trout*

In-water work includes the removal of pilings and cribs that occur at the water's edge during low water periods from October through May. Due to the constraints of Albeni Falls Dam water level management, the removal is not practical during the in-water work window of July 15 to September 15 as suggested by IDFG (IDFG 2025b) when water surface levels are at their highest for summer pool elevation. This is the period when water temperatures are highest, reducing the likelihood of bull trout presence in the Action Area. Therefore, the removal of the pilings and cribs will occur during a period of cooler water temperatures when bull trout are more likely to be present in this stretch of river. Potential harm to bull trout may occur as a result of noise and temporary increases in turbidity during this action.



Additional in-water work will include the placement of riprap over the seep observed in the western portion of the project footprint. With the placement of porous rock material for the riprap in this location it is anticipated to cause insignificant effect apart from temporary increases in turbidity or suspended sediment. Temporary turbidity and sedimentation impacts to Pend Oreille River are not expected to impact water quality beyond 600 feet from the shore which is the aquatic zone of impact designated for this Action.

In-water noise and vibration will occur as a result of the Action during the removal of the pilings and cribs. Discussion of the noise impacts generated by vibratory removal of pilings and cribs is included in Appendix C. In consideration of values provided in Washington Department of Transportation (WSDOT) and anticipated sound levels generated by the in-water actions, it is likely the action will cause disturbance to fish but unlikely to cause harm or injury.

The removal of vegetation such as overhanging trees along the shoreline for the placement of riprap will remove any potential thermal refugia and potential terrestrial based macroinvertebrate food source from those locations. However, Albeni Falls Dam generally manages water levels to reach summer pool elevations between mid-June and early-July. It is not until water levels rise to approximately these elevations until aquatic species would have access to the shade this vegetation provides. Bull trout occurrences in these shallow shoreline waters during periods where water temperatures begin to increase likely decrease inversely. July 15 through September 15 is when water temperatures are highest, reducing the likelihood of bull trout as temperatures of 15.5°C are known to limit bull trout use (IDFG 2025b). Additionally, part of the Action includes replant native riparian shrubs and trees within and above the riprap zone. Therefore, any effect on bull trout from the removal of this vegetation is anticipated to be immeasurable.

Since the Action will utilize fish exclusion and work area isolation protocols consistent with USFWS guidance (USFWS 2012) during pile and crib removal, noise effects are anticipated to not cause harm or injury to fish, localized habitat is not optimal, and impact to bull trout within the Action Area is expected to be discountable, it is anticipated that no injury or take of native fish species will occur as a result of the proposed actions of this project. Therefore, the proposed project **May Effect, Not Likely to Adversely Affect** bull trout. Effects on bull trout designated critical habitat are analyzed in the following section.

7.4.5 Bull Trout Critical Habitat

Analysis of the PBFs pertinent to this project are described below.

1. ***Springs, seeps, groundwater sources, and subsurface water connectivity (hyporheic flows) to contribute to water quality and quantity and provide thermal refugia.***

One seep and one stormwater outfall occur on the eroding streambank in the western portion of the project footprint that drain into Pend Oreille River. Temporary turbidity and sediment impacts from construction may result in increased turbidity and sedimentation to the rivers during construction. However, no augmentation to water quality or quantity to the contributing water resources are anticipated to occur as a result of the Action.

2. ***An abundance of food, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.***

The removal of shoreline riparian vegetation may temporarily reduce forage available to bull trout in the form of terrestrial and aquatic macroinvertebrates. Photo 21 in Appendix B shows an example of overhanging woody vegetation. However, Albeni Falls Dam

generally manages water levels to reach summer pool elevations between mid-June and early-July. It is not until water levels rise to approximately these elevations until aquatic species would have access to the shade and terrestrial organisms this vegetation provides. Bull trout occurrences in these shallow shoreline waters during periods where water temperatures begin to increase likely decrease inversely. July 15 through September 15 is when water temperatures are highest, reducing the likelihood of bull trout as temperatures of 15.5 °C are known to limit bull trout use (IDFG 2025b). Additionally, part of the Action includes replant native riparian shrubs and trees within and above the riprap zone. Therefore, any effect on bull trout habitat from the removal of this vegetation is anticipated to be immeasurable.

3. **Complex shorelines with features such as large wood, side channels, pools, undercut banks, and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure.**

Currently, features such as side channels, pools, and undercut banks are generally absent from the existing shoreline. Along the toe of the eroding slope three small undercut banks consisting of sand and silt occur as evidence in Photo 41 in Appendix B. However, bull trout use of these undercut banks is unlikely as they are inundated during periods of warmer water temperatures when waters are at summer pool elevation. Interstitial space between riprap will provide similar cavities. A variety of water depths along the shoreline within the Action Area are absent. Evidence of large woody debris wracked along the eroding banks can be seen in Photos 6, 9, 22, 26, 35, and 37 of Appendix B. Unembedded substrates necessary for bull trout spawning is not relevant to the Action as bull trout in this Core Area are known to spawn in third and fourth order tributaries and not in Pend Oreille or Priest River lower reaches. In general, the result of riprap will augment the structure of the shoreline but not any of the features above. It is a trade-off of what little complexity exists currently for a reduction in sedimentation and turbidity caused by the continual erosion that occurs each year during dam drawdown periods and wave action from recreational boating activities.

4. **Water temperatures ranging from 2 to 15°C (36 to 59°F), with adequate thermal refugia available for temperatures that exceed the upper end of this range.**

The removal of vegetation along shoreline is the only anticipated effect on water temperatures as a result of the Action. The largest impact may occur in Zones 5 and 6 where a mature stand of coniferous trees occurs along Priest River. However, these areas will be riprapped with vegetated riprap and will be replanted with willow stakes and riparian trees and shrubs. With revegetation efforts, effects are anticipated to be temporary and overall insignificant to water temperature effects.

5. **Sufficient water quality and quantity to sustain normal reproduction, growth, and survival.**

Impacts to water quality may include temporary turbidity or sedimentation impacts from clearing and grubbing activities, riprap installation, and removal of piles and cribs. No impacts to water quantity are anticipated as a result of the Action.

BMPs that address these potential impacts to the PBFs are listed in **Error! Reference source not found.** above. These BMPs are expected to aid in reduction of sediment entering the rivers by use of erosion and sediment controls. The cleared areas will have short term effects on water temperature and food abundance by the loss of shade habitat for terrestrial organisms of riparian origin but will be revegetated reducing these effects long term when plants are established. Therefore, the proposed Action **May Affect, Not Likely to Adversely Affect** bull trout designated critical habitat.

Section 8 Conclusion and Effect Determinations

Based on analysis of the project actions, ESA-listed species that may occur in the vicinity of the project, and impacts to designated critical habitat, the species effect determinations are included in Table 4 below.

Table 4. Determination Summary for ESA Listed Species and Critical Habitat

Species	Listing Status	Effect Determination
Bull trout	Listed Threatened	May Affect, Not Likely to Adversely Affect
Bull trout (Critical Habitat)	Listed Threatened	May Affect, Not Likely to Adversely Affect
North American Wolverine	Listed Threatened	No Effect
Monarch Butterfly	Proposed Threatened	No Effect
Suckley's cuckoo bumble bee	Proposed Endangered	May Effect, Not Likely to Adversely Affect

Section 9 References

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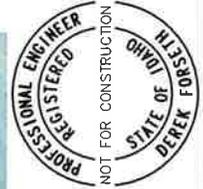
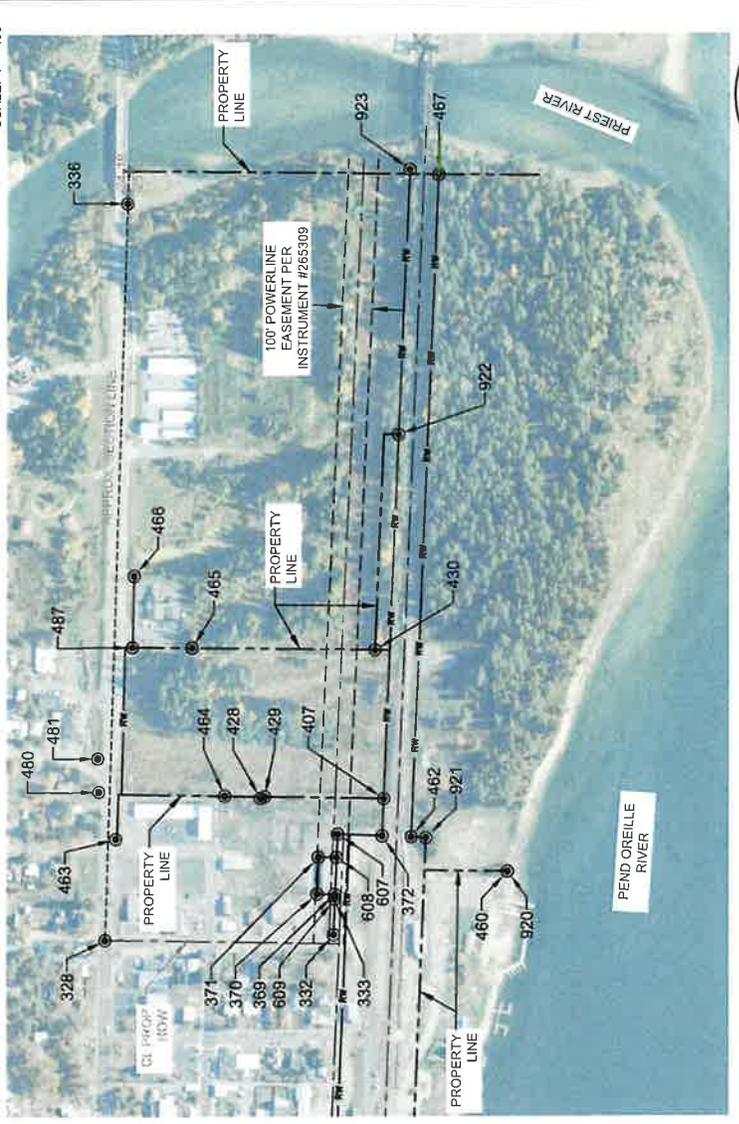
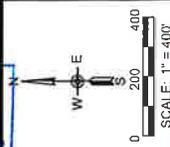
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Appendix A
Project Design Sheets





SHEET:	G3
DATE:	2/10/2025
PROJECT NO.:	XXXX-XXXX
SHEET NO.:	4 OF 19

SURVEY

TWO RIVERS PARK - SHORELINE STABILIZATION
 BONNER COUNTY, IDAHO

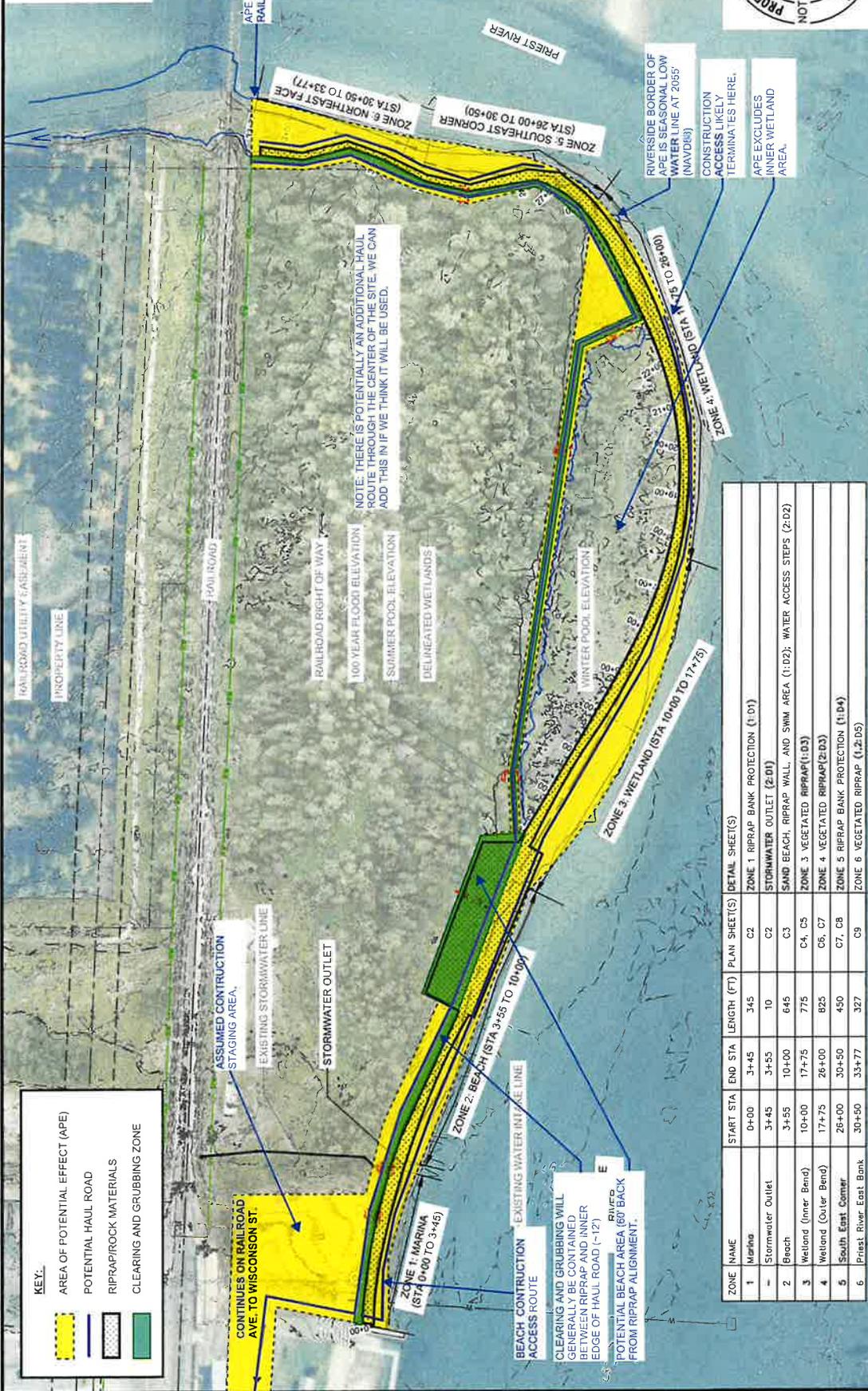
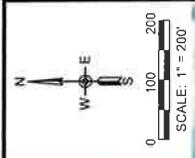


- NOTES:**
1. THE MONUMENTS SHOWN ON THIS SHEET WERE LOCATED IN ACCORDANCE WITH IDAHO STATUTE 55-1613. THIS SHEET SHOWS THE PHYSICAL EXISTENCE AND LOCATION OF THE MONUMENTS OF PROPERTY CONTROLLING CORNERS AND ACCESSORIES TO CORNERS, AS WELL AS BENCHMARKS ESTABLISHED AND POINTS SET IN CONTROL SURVEYS BY AGENCIES OF THE US GOVERNMENT OR THE STATE OF IDAHO. DETERMINED BY A FIELD SEARCH AND LOCATION SURVEY CONDUCTED BY OR UNDER THE DIRECTION OF A LICENSED PL S PRIOR TO THE TIME WHEN PROJECT CONSTRUCTION OR RELATED ACTIVITIES MAY DISTURB THEM. THERE IS NO GUARANTEE THAT ALL MONUMENTS ARE SHOWN OR THAT OTHER MONUMENTS MAY NOT BE DISCOVERED DURING CONSTRUCTION.
 2. CONTRACTOR SHALL SAVE AND PROTECT ALL MONUMENTS IN ACCORDANCE WITH C 55-1613 AND 54-1234. CONTRACTOR SHALL RE-ESTABLISH ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS AND POINTS SET IN CONTROL SURVEYS SHOWN ON THIS SHEET OR DISCOVERED DURING CONSTRUCTION THAT ARE LOST OR DISTURBED BY CONSTRUCTION. THE MONUMENTS SHALL BE RE-ESTABLISHED AND RE-MONUMENTED AT THE EXPENSE OF THE CONTRACTOR. BY ANY MONUMENT SET SHALL CONFORM TO THE PROVISIONS OF IDAHO STATUTE 54-1227 AND REQUIRE RECORDS OF SURVEY AND CORNER PERPETUATION AND FILING (CP&F) RECORDS FILED WITH THE COUNTY RECORDS OFFICE PURSUANT TO IDAHO STATUTES 55-1604 AND 55-1604 RESPECTIVELY.
 3. SURVEY DATA WAS COLLECTED BY WELCH COMER AND PROVIDED TO ALTA IN GROUND COORDINATE FORMAT. HORIZONTAL CONTROL WAS BASED ON THE IDAHO COORDINATE SYSTEM OF 1983, WEST ZONE, USING A TRANSVERSE MERCATOR PROJECTION OF THE NORTH AMERICAN DATUM OF 1983 AND A PROJECT REFERENCE FRAME BASED ON NAD83 (2011), EPOCH 2010.000 WITH GRID DISTANCES SHOWN IN U.S. FEET UNITS. ELEVATIONS WERE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVVD88) USING GEOID 18. BASE POINT 0, 0 WITH ZERO ROTATION, AND A SCALE FACTOR OF 0.999924142 FROM GROUND TO GRID.

POINT NO.	EASTING	NORTHING	ELEV	DESCRIPTION
328	2,343,102.86	2,377,097.26	2,084.17	AC 3 IN (CHECK SHOT)
332	2,343,119.12	2,376,329.76	2,082.68	REB 5 NO CAP
333	2,343,239.29	2,376,327.33	2,082.76	REB 5 NO CAP
336	2,345,577.64	2,377,021.37	2,078.71	BC 2.5
368	2,343,264.98	2,376,924.81	2,082.79	AC 1.5 N
370	2,343,296.16	2,376,884.51	2,083.11	AC 1.5 N JAS L S
371	2,343,379.94	2,376,379.50	2,081.58	AC 1.5 N
372	2,343,451.03	2,376,166.57	2,079.53	REBS BENT POE
407	2,343,576.01	2,376,161.38	2,069.06	AC 1 N ILLEGIBLE
428	2,343,578.01	2,376,573.95	2,068.80	REB 5 12318
429	2,343,583.24	2,376,568.76	2,068.31	REB 5 12318
430	2,344,076.25	2,376,191.07	2,070.79	AC 967 2.25 N
460	2,343,330.39	2,375,741.09	2,073.29	REB 5 9713
462	2,343,446.86	2,376,066.60	2,082.16	REBS YPC ILLEGIBLE
463	2,343,442.46	2,377,060.78	2,082.16	REB 5 NO CAP
464	2,343,586.67	2,376,693.61	2,071.34	P 1.2 N
465	2,344,084.09	2,376,803.21	2,071.15	AC 1.5 N 6019
466	2,344,326.83	2,376,898.15	2,075.10	AC 1.5 N ILLEGIBLE
467	2,345,672.05	2,375,976.53	2,074.85	REB 5 NO CAP
480	2,343,600.49	2,377,117.76	2,083.72	IN 1 5/8 IN
481	2,343,712.87	2,377,120.85	2,081.12	AC 967 2.25 N
487	2,344,086.79	2,377,003.52	2,076.83	REB 5 12318
607	2,343,457.16	2,376,316.36	2,081.11	REB 5 12318
608	2,343,376.86	2,376,315.59	2,082.40	REB 5 12318
609	2,343,238.96	2,376,325.28	2,082.93	REB 5 12318
920	2,343,330.42	2,375,741.09	2,073.41	REB 5 YPOS713
921	2,343,444.73	2,376,016.66	2,077.03	REB 5 YPOS713
922	2,344,768.94	2,376,111.68	2,078.17	0.5 IN PRE YPC ILLEGIBLE
923	2,345,088.16	2,376,074.54	2,076.50	AC 2.5 IN 967

NO.	DATE	REVISIONS	BY	CHK	DATE	DATE	DATE

DESIGNER:	E. HURLEY	COORDINATE SYSTEM:	NBS 11 D 50F
CHECKED:	C. MACPHERSON, K. DEZI	SCALE:	1" = 400'
APPROVED:	D. FORSTETH	DATE:	XXXXXXX



KEY.

- AREA OF POTENTIAL EFFECT (APE)
- POTENTIAL HAUL ROAD
- RIPPRAP/ROCK MATERIALS
- CLEARING AND GRUBBING ZONE

NOTE: THERE IS POTENTIALLY AN ADDITIONAL HAUL ROUTE THROUGH THE CENTER OF THE SITE. WE CAN ADD THIS IN IF WE THINK IT WILL BE USED.

ZONE	NAME	START STA	END STA	LENGTH (FT)	PLAN SHEET(S)	DETAIL SHEET(S)
1	Marina	0+00	3+45	345	C2	ZONE 1 RIPRAP BANK PROTECTION (1:01)
2	Stormwater Outlet	3+45	3+55	10	C2	STORMWATER OUTLET (2:01)
3	Beach	3+55	10+00	645	C3	SAND BEACH, RIPRAP WALL, AND SWIM AREA (1:02); WATER ACCESS STEPS (2:02)
4	Wetland (Inner Bend)	10+00	17+75	775	C4, C5	ZONE 3 VEGETATED RIPRAP(1:03)
5	Wetland (Outer Bend)	17+75	26+00	825	C6, C7	ZONE 4 VEGETATED RIPRAP(2:03)
6	South East Corner	26+00	30+50	450	C7, C8	ZONE 5 RIPRAP BANK PROTECTION (1:04)
7	Priest River East Bank	30+50	33+77	327	C9	ZONE 6 VEGETATED RIPRAP (1,2:05)



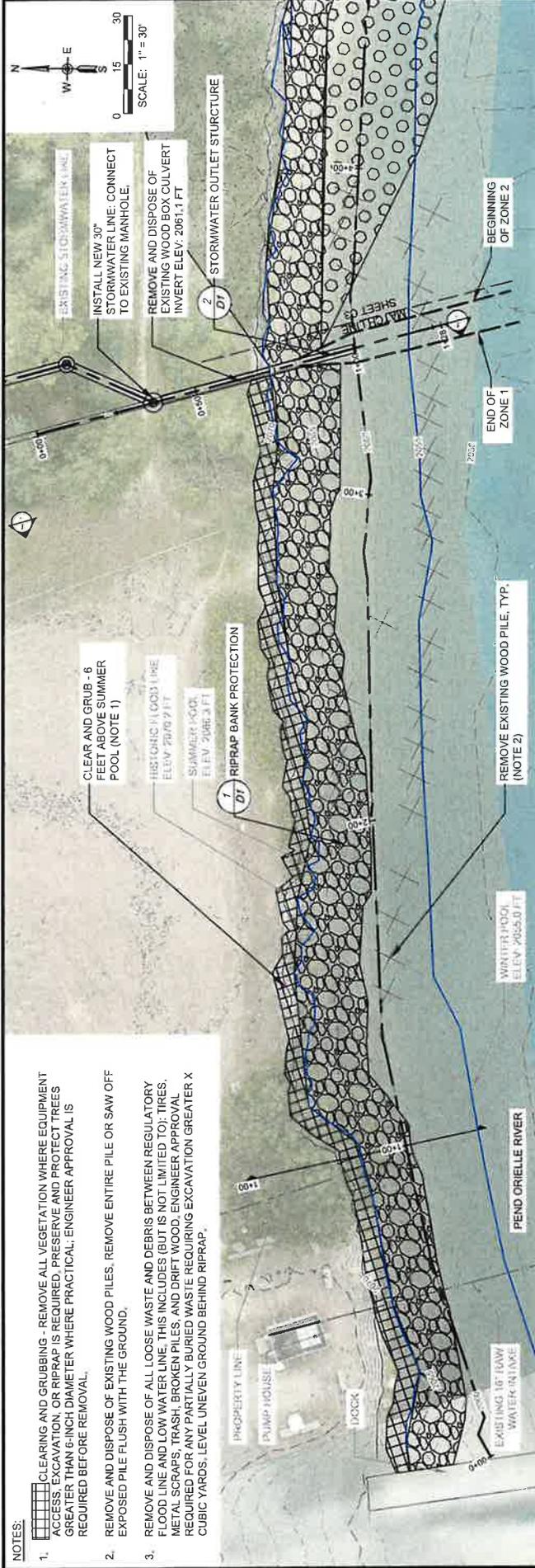
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EXISTING CONDITIONS & SHEET INDEX

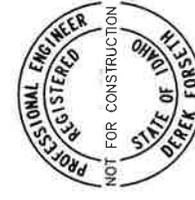
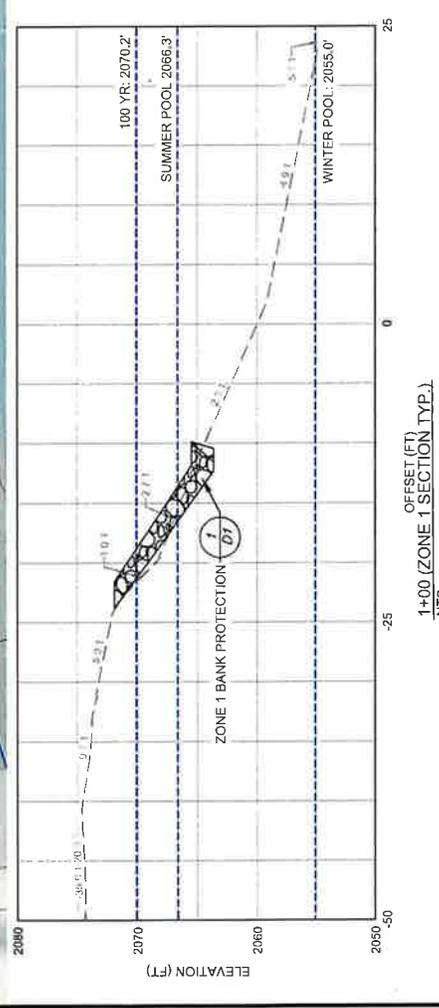
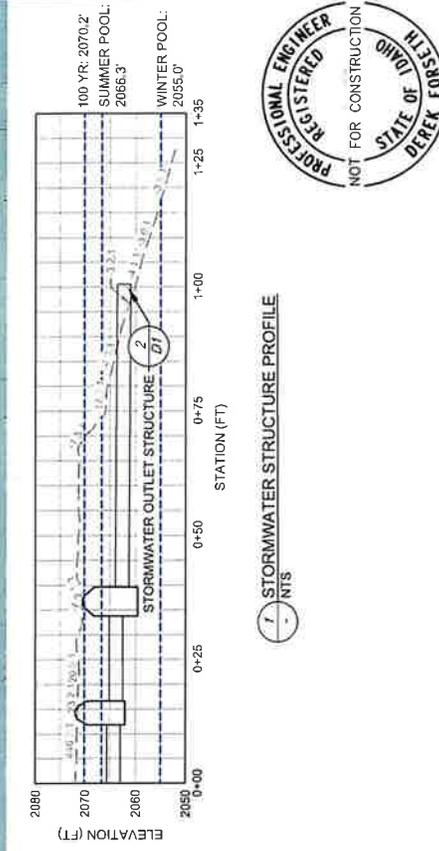
TWO RIVERS PARK - SHORELINE STABILIZATION
 BONNER COUNTY, IDAHO



NO.	DATE	REVISIONS	BY	CHK	DATE	DESIGNED	CHECKED	APPROVED	DATE



- NOTES:
- CLEARING AND GRUBBING - REMOVE ALL VEGETATION WHERE EQUIPMENT ACCESS, EXCAVATION, OR RIPRAP IS REQUIRED. PRESERVE AND PROTECT TREES GREATER THAN 6-INCH DIAMETER WHERE PRACTICAL; ENGINEER APPROVAL IS REQUIRED BEFORE REMOVAL.
 - REMOVE AND DISPOSE OF EXISTING WOOD PILES. REMOVE ENTIRE PILE OR SAW OFF EXPOSED PILE FLUSH WITH THE GROUND.
 - REMOVE AND DISPOSE OF ALL LOOSE WASTE AND DEBRIS BETWEEN REGULATORY FLOOD LINE AND LOW WATER LINE. THIS INCLUDES (BUT IS NOT LIMITED TO); TIRES, METAL SCRAP, TRASH, BROKEN PILES, AND DRIFT WOOD. ENGINEER APPROVAL REQUIRED FOR ANY PARTIALLY BURIED WASTE REQUIRING EXCAVATION GREATER X CUBIC YARDS. LEVEL UNEVEN GROUND BEHIND RIPRAP.



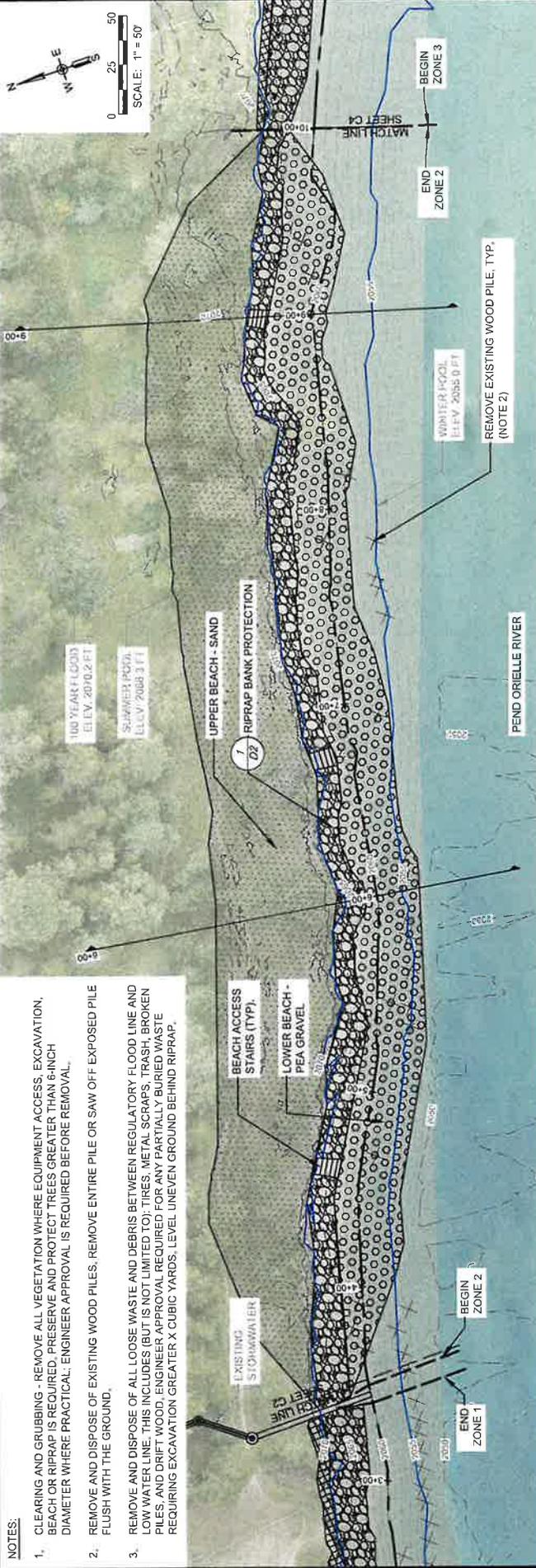
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TWO RIVERS PARK - SHORELINE STABILIZATION
 BONNER COUNTY, IDAHO

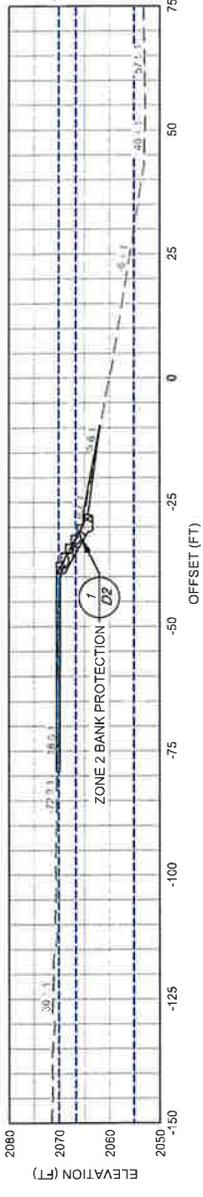
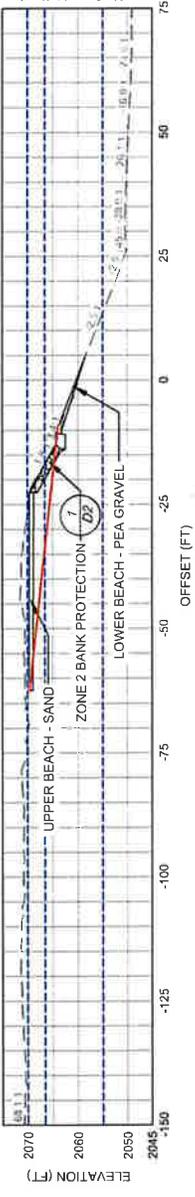


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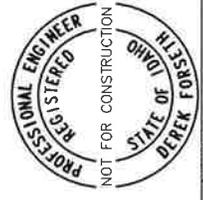


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 - REMOVE AND DISPOSE OF EXISTING WOOD PILES, REMOVE ENTIRE PILE OR SAW OFF EXPOSED PILE FLUSH WITH THE GROUND.
 - REMOVE AND DISPOSE OF ALL LOOSE WASTE AND DEBRIS BETWEEN REGULATORY FLOOD LINE AND LOW WATER LINE. THIS INCLUDES (BUT IS NOT LIMITED TO): TIRES, METAL SCRAP, TRASH, BROKEN PILES, AND DRIFT WOOD. ENGINEER APPROVAL REQUIRED FOR ANY PARTIALLY BURIED WASTE REQUIRING EXCAVATION GREATER X CUBIC YARDS. LEVEL UNEVEN GROUND BEHIND RIPRAP.



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9+00 (ZONE 2 SECTION TYP.)
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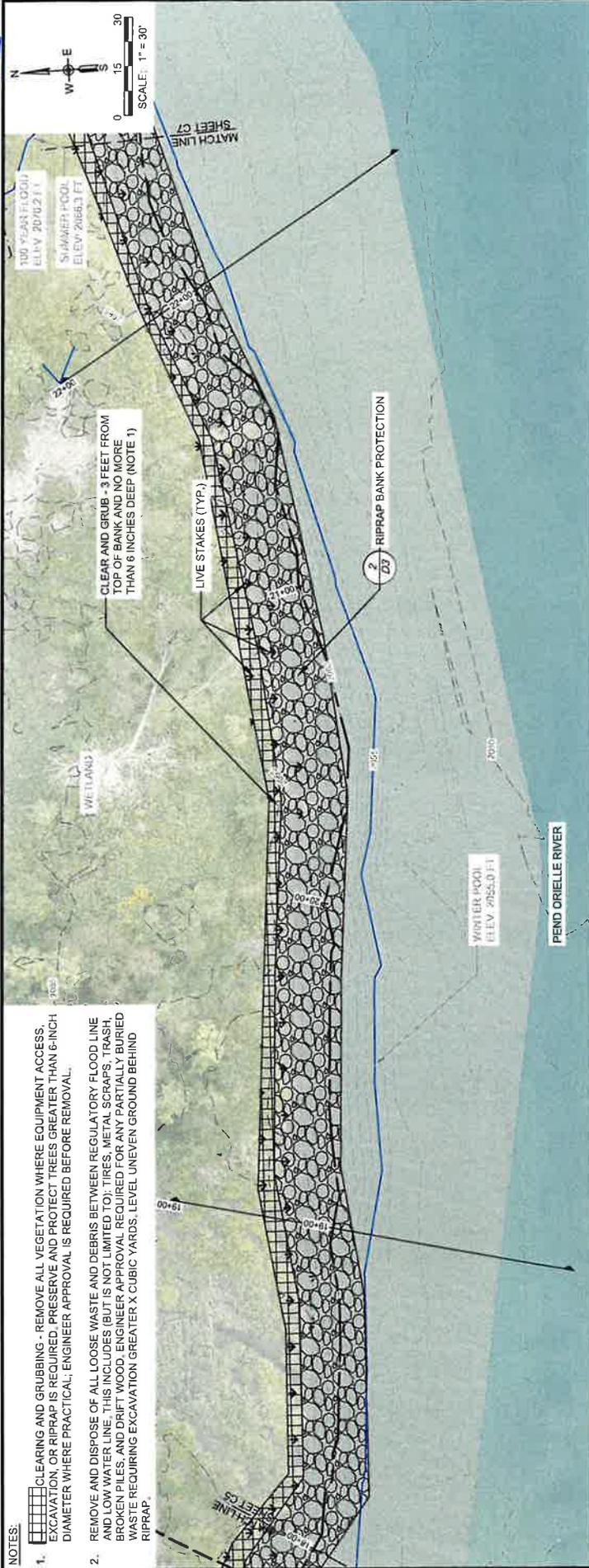
TWO RIVERS PARK - SHORELINE STABILIZATION
 BONNER COUNTY, IDAHO



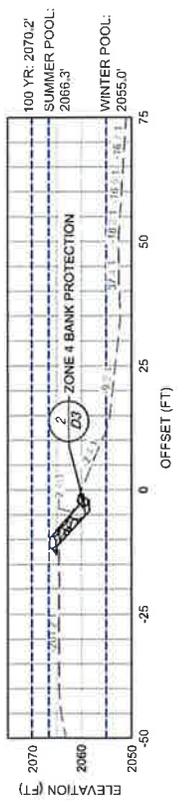
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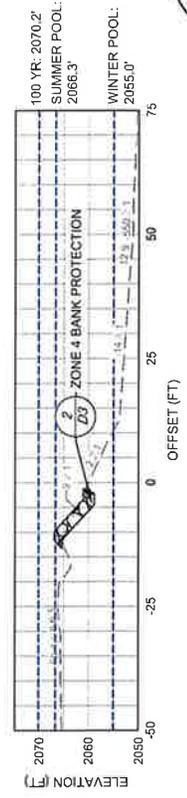
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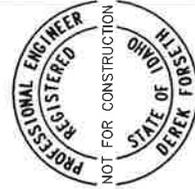
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22+00 (ZONE 4 SECTION TYP.)
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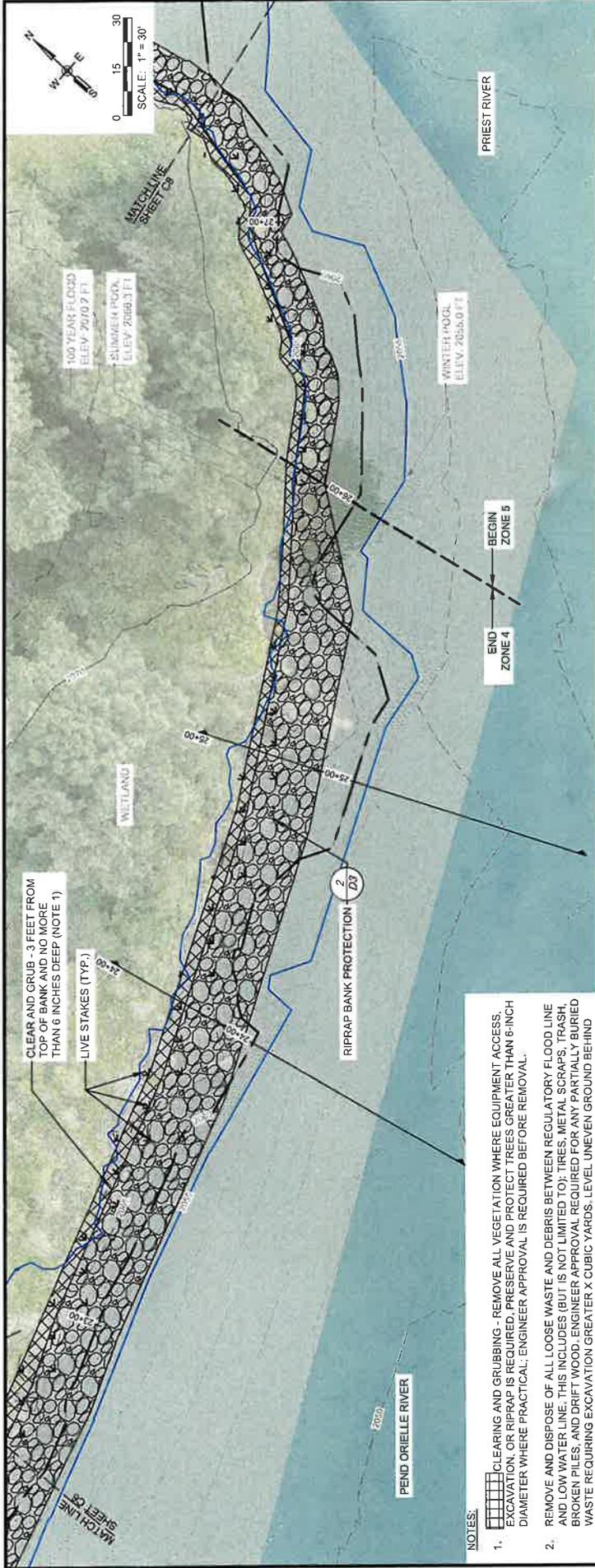
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DATE:	2/10/2025
PROJECT NO.:	XXXX-XXXX
SHEET NO.:	10 OF 18

TWO RIVERS PARK - SHORELINE STABILIZATION		WETLAND STABILIZATION PLAN	
BONNER COUNTY, IDAHO			

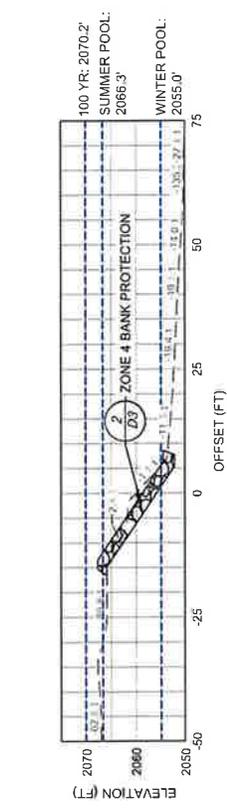
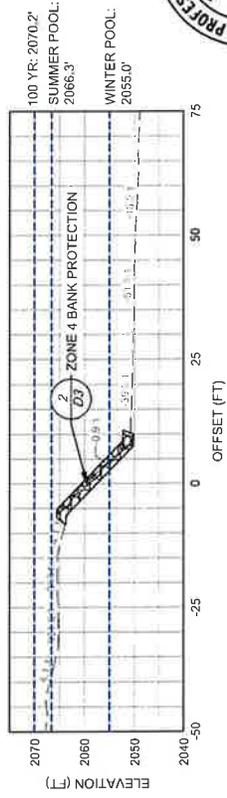


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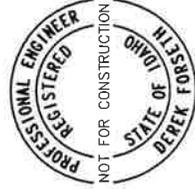


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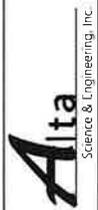
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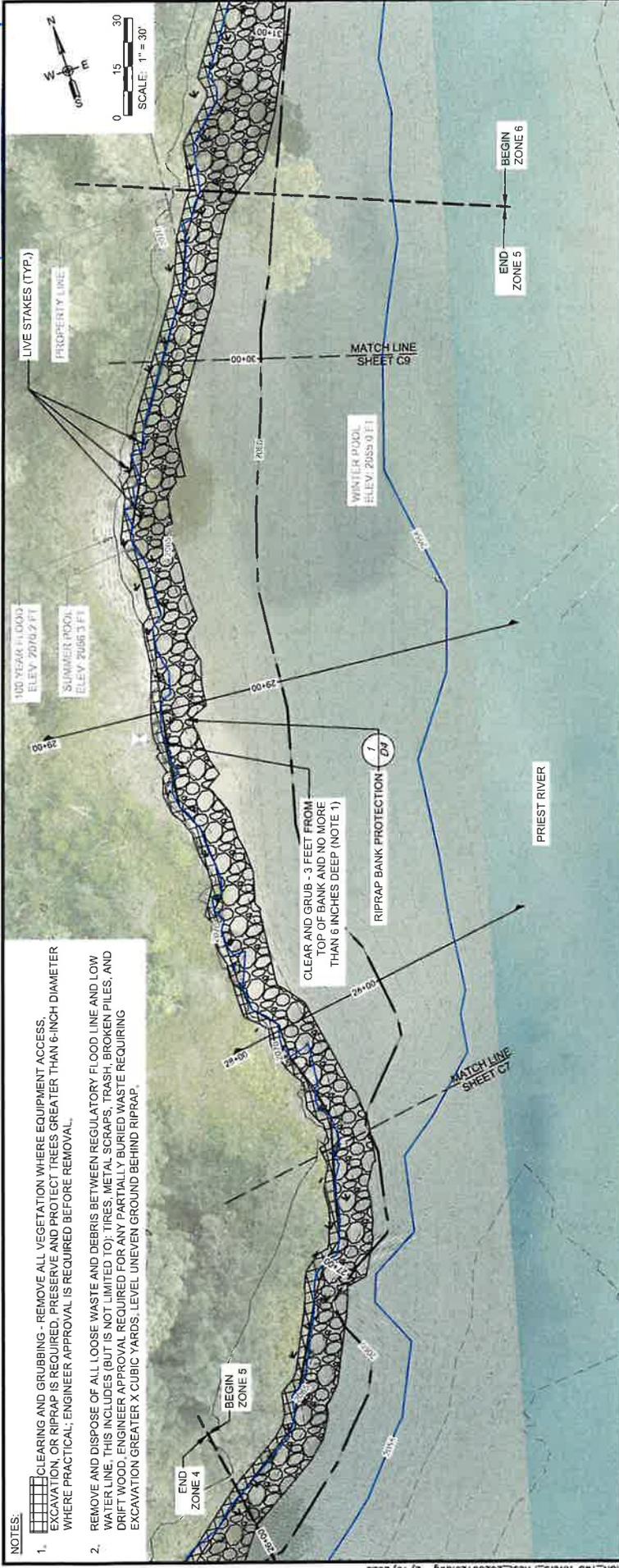
WETLAND
 STABILIZATION PLAN

TWO RIVERS PARK - SHORELINE
 STABILIZATION
 BONNER COUNTY, IDAHO

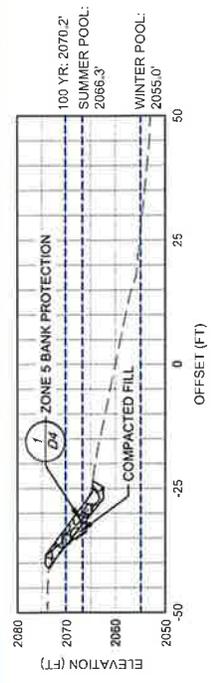


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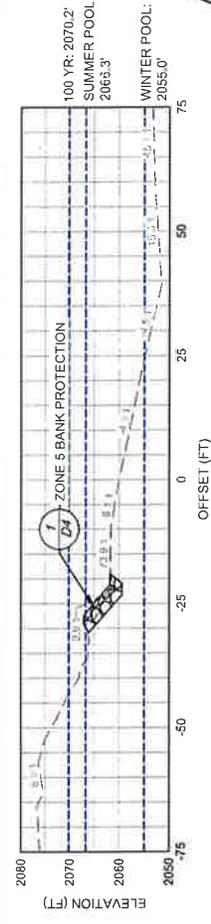
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DRAWN BY	E. HURLEY
CHECKED BY	D. FORBETH
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DATE	XX/XX/XXXX



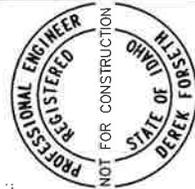
- NOTES:
- CLEARING AND GRUBBING - REMOVE ALL VEGETATION WHERE EQUIPMENT ACCESS, EXCAVATION, OR RIPRAP IS REQUIRED. PRESERVE AND PROTECT TREES GREATER THAN 6-INCH DIAMETER WHERE PRACTICAL; ENGINEER APPROVAL IS REQUIRED BEFORE REMOVAL.
 - REMOVE AND DISPOSE OF ALL LOOSE WASTE AND DEBRIS BETWEEN REGULATORY FLOOD LINE AND LOW WATER LINE. THIS INCLUDES (BUT IS NOT LIMITED TO): TIRES, METAL SCRAPS, TRASH, BROKEN PILES, AND DRIFT WOOD. ENGINEER APPROVAL REQUIRED FOR ANY PARTIALLY BURIED WASTE REQUIRING EXCAVATION GREATER X CUBIC YARDS, LEVEL UNEVEN GROUND BEHIND RIPRAP.



28+00 (ZONE 5 SECTION TYP.)
 SCALE: 1" = 2'



29+00 (ZONE 5 SECTION TYP.)
 SCALE: 1" = 2'



SHEET:	CB
DATE:	2/16/2025
PROJECT NO.:	XXXX-XXXX
SHEET NO.:	12 OF 18

CONFLUENCE & PRIEST RIVER
 WEST BANK STABILIZATION PLAN

TWO RIVERS PARK - SHORELINE
 STABILIZATION
 BONNER COUNTY, IDAHO

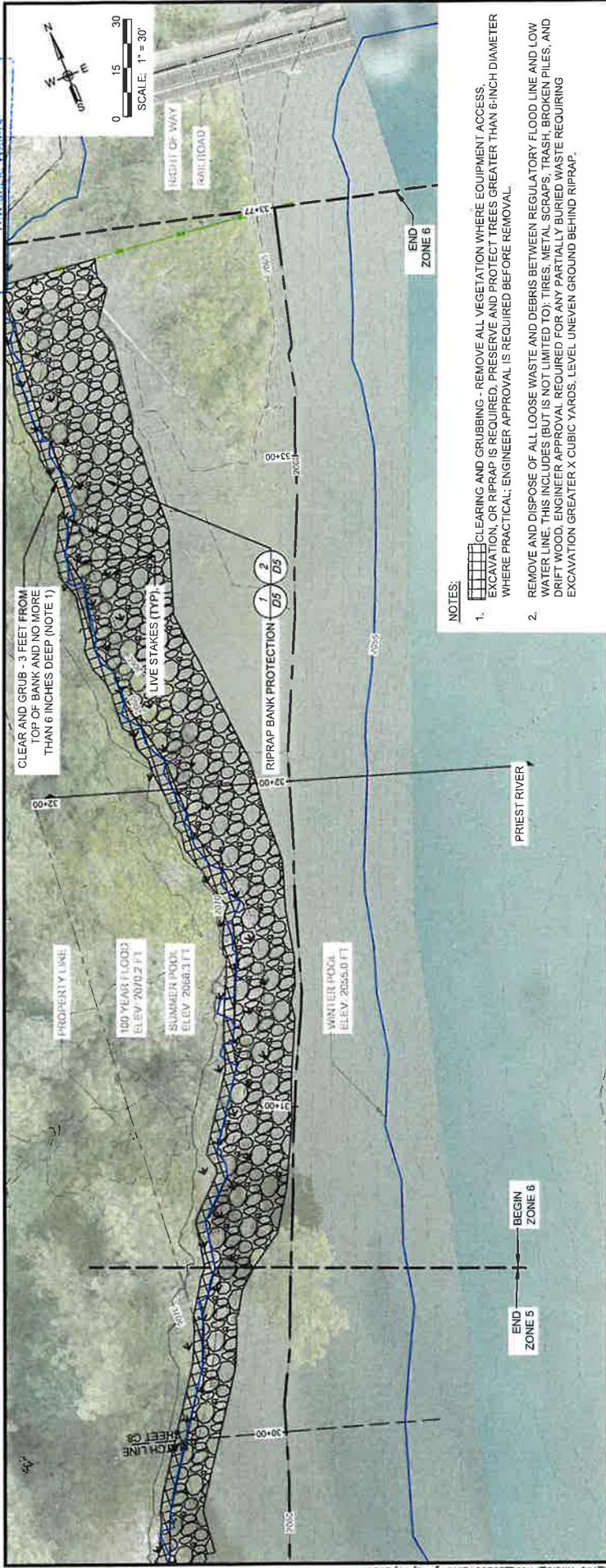


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DATE:	XX/XX/XXXX

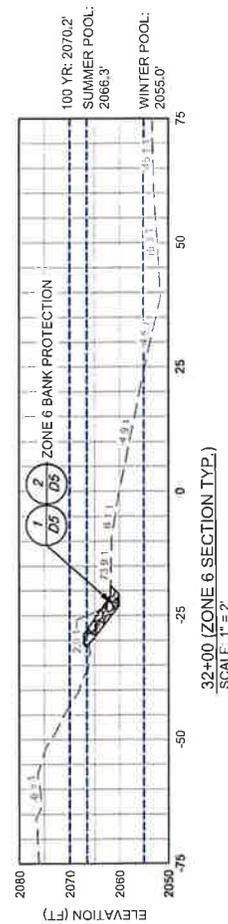
JAN 05 2026

Pend Oreille Lake Suprensky Area
Navigable Waters

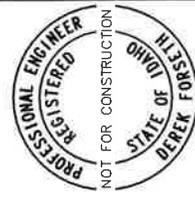


NOTES:

1. CLEARING AND GRUBBING - REMOVE ALL VEGETATION WHERE EQUIPMENT ACCESS, EXCAVATION, OR RIPRAP IS REQUIRED. PRESERVE AND PROTECT TREES GREATER THAN 6-INCH DIAMETER WHERE PRACTICAL; ENGINEER APPROVAL IS REQUIRED BEFORE REMOVAL.
2. REMOVE AND DISPOSE OF ALL LOOSE WASTE AND DEBRIS BETWEEN REGULATORY FLOOD LINE AND LOW WATER LINE. THIS INCLUDES (BUT IS NOT LIMITED TO): TREES, METAL SCRAPS, TRASH, BROKEN PILES, AND DRIFT WOOD. ENGINEER APPROVAL REQUIRED FOR ANY PARTIALLY BURIED WASTE REQUIRING EXCAVATION GREATER X CUBIC YARDS, LEVEL UNEVEN GROUND BEHIND RIPRAP.



32+00 (ZONE 6 SECTION TYP.)
SCALE: 1" = 2'



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DATE:	3/10/2025
PROJECT NO.:	XXXX-XXXX
SHEET NO.:	13 OF 18

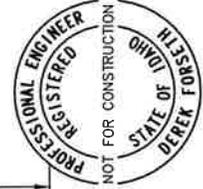
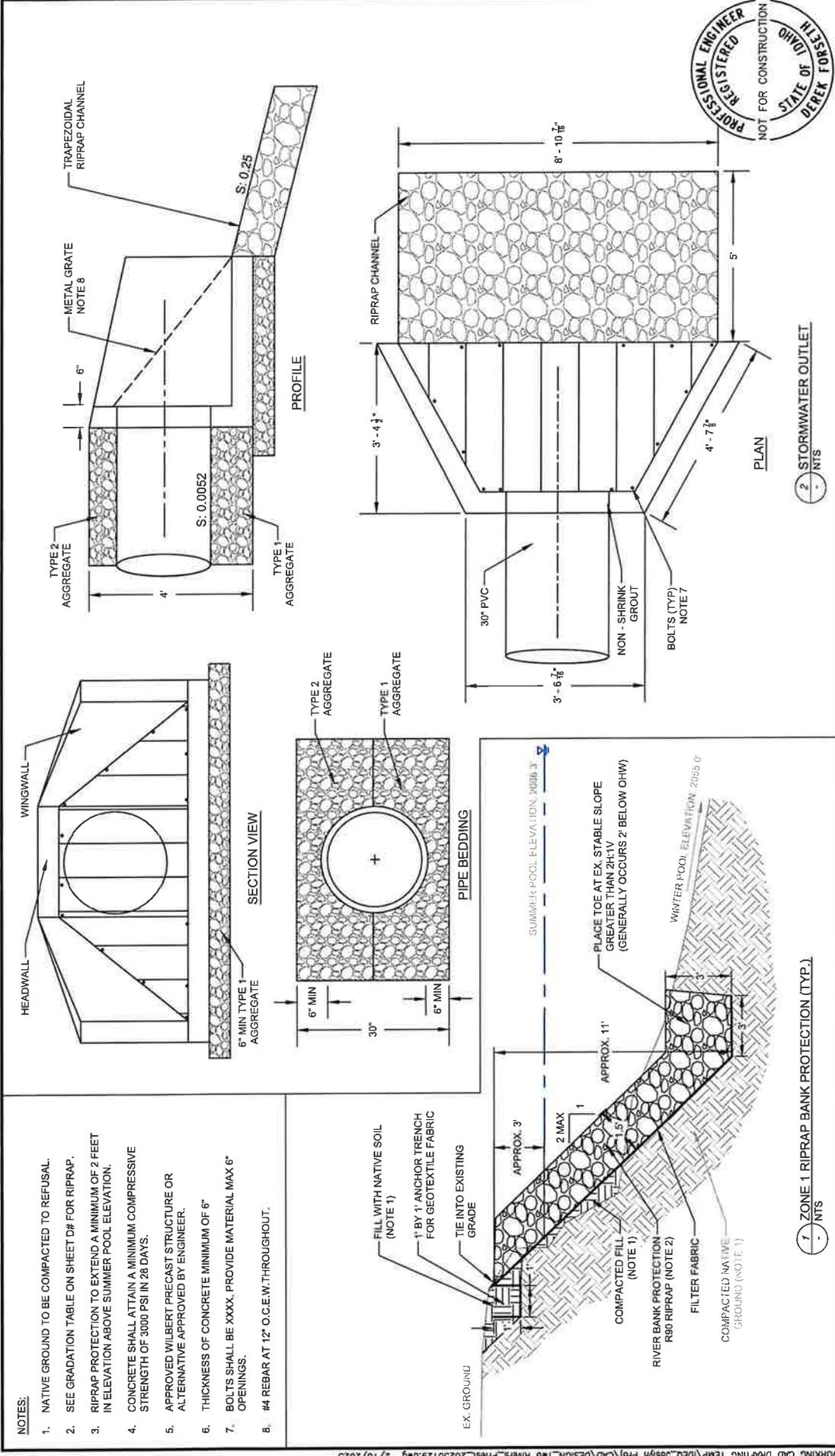
PRIEST RIVER EAST BANK
STABILIZATION PLAN

TWO RIVERS PARK - SHORELINE
STABILIZATION
BONNER COUNTY, IDAHO



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DATE:	2/10/2025
PROJECT NO.:	XXXX-XXXX
SHEET NO.:	14 OF 18

DETAILS	
TWO RIVERS PARK - SHORELINE STABILIZATION	
BONNER COUNTY, IDAHO	



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							D. FORSETH				

Appendix B
Photos of Action Area

Idaho Department of Lands
JAN 05 2026
Pend Oreille Lake Supervisory Area
Navigable Waters

Photo 1



View of cribs to be removed at shoreline facing east (taken January 2024)

Photo 2



View of pilings and cribs to be removed as part of the Action facing west

Photo 3



View of cribs to be removed as part of the Action facing west.

Photo 4



View of relic cottonwood stumps on shoreline south of wetlands facing east .



PRINT DATE:
MAY 15, 2025

PROJECT MANAGER:
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PROJECT NAME:
TWO RIVERS PARK
SHORELINE
STABILIZATION

APPENDIX B PHOTO LOG

PROJECT NUMBER:
24076

CREATED BY:
KATE DEZIL

BIOLOGICAL ASSESSMENT

Photo 5



View of shoreline south of wetlands facing west

Photo 7



View of shoreline south of APE facing west

Photo 6



View of shoreline sediment substrate with embedded piling

Photo 8



View of shoreline at confluence of Priest and Pend Oreille Rivers facing northeast



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PROJECT NAME:
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TWO RIVERS PARK
SHORELINE
STABILIZATION

BIOLOGICAL ASSESSMENT

Oregon Department of Lands

JAN 05 2026

Pend Oreille Lake Supervisory Area
Navigable Waters

Photo 9



Seep in western portion of APE emanating from eroding bank facing east.

Photo 10



Seep in western portion of APE flowing into Pend Oreille River facing south

Photo 11



View of seep surface flow facing east

Photo 12



Stormwater outfall facing north



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BIOLOGICAL ASSESSMENT

Idaho Department of Lands

JAN 05 2026

Pend Oreille Lake Supervisory Area
Navigable Waters

Photo 13



Photo of Priest River Bridge in background in Zone 6 of Project Area facing northeast

Photo 14



View of vegetation on top of bank in Zone 5 of project area facing east

Photo 15



View of vegetation on top of bank in Zone 6 of project area facing east

Photo 16



View of vegetation on top of bank in Zone 6 of Project area facing south



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SHORELINE
STABILIZATION

APPENDIX B PHOTO LOG
BIOLOGICAL ASSESSMENT

Photo 17



View of forest canopy in eastern portion of APE facing northeast

Photo 18



View of forested area to be cleared and grubbed for riprap placement in Zone 5 facing west

Photo 19



View of upland meadow within forested area of APE facing west.

Photo 20



Forested area in central portion of APE facing west.



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APPENDIX B PHOTO LOG
BIOLOGICAL ASSESSMENT

Utah Department of Lands

JAN 05 2026

Pend Oreille Lake Supervisory Area
Navigable Waters

Photo 21



View of overhanging alders in area of proposed riprap in Zone 5 facing west

Photo 22



View of overhanging ponderosa in eastern portion of Zone 2 facing east

Photo 23



View of pilings and shoreline in central portion of Zone 1 facing east

Photo 24



Change in substrate along shoreline in eastern portion of Zone 2 facing north



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SHORELINE
STABILIZATION

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BIOLOGICAL ASSESSMENT

Idaho Department of Lands

JAN 05 2026

Pend Oreille Lake Supervisory Area
Navigable Waters

Photo 25



Waterline stain on concrete pier extending into Pend Oreille River.

Photo 26



Large woody debris wracked, break in slope, and sediment deposition on shoreline. Shoreline faces Pend Oreille River.

Photo 27



Exposed root system and cracking of shoreline bank material along Pend Oreille River.

Photo 28



Break in slope and bank erosion. Photo facing upstream of Pend Oreille River.



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TWO RIVERS PARK
SHORELINE
STABILIZATION

PROJECT NUMBER:
24076

CREATED BY:
KATE DEZII

BIOLOGICAL ASSESSMENT

Photo 29



Undercut banks, root exposure, and rills along Pend Oreille River. Photo facing upstream.

Photo 30



Sediment shifts from silt (bottom of bank) to cobble (break in slope) to clay (top of bank)

Photo 31



Vegetation shift with exposed rootline along wetland boundaries facing Pend Oreille River, west of Priest River.

Photo 32



Break in slope and undercut bank approaching the confluence of Pend Oreille River and Priest River.

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 Pend Oreille Lake Supervisory Area
 Navigable Waters

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TWO RIVERS PARK
SHORELINE
STABILIZATION

APPENDIX B PHOTO LOG
BIOLOGICAL ASSESSMENT

Photo 33



Combination of shelving, vegetation shift, and root exposure along the confluence.

Photo 34



Vegetation break line along the confluence and wrack line of woody debris.

Photo 35



Shelving, break in slope, exposed roots, wracking of woody debris observed immediately after confluence and facing Priest River..

Photo 36



Break in slope and exposed root line on bank facing Priest River.



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SHORELINE
STABILIZATION

BIOLOGICAL ASSESSMENT

Photo 37



Break in slope along silty interface. Photo facing upstream Priest River, shoreline facing Priest River.

Photo 38



Break in slope along silty interface. Shoreline facing Priest River and extending towards confluence.

Photo 39



Grassy vegetation line along woody vegetation. Shoreline relatively flat in this location, gradual slope shifts and cracking in clay interface. Shoreline facing Priest River and extending towards confluence.

Photo 40



Grassy vegetation line at top of bank with water lines showing changes in water surface elevation on Priest River. Photo facing upstream Priest River..



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TWO RIVERS PARK
SHORELINE
STABILIZATION

APPENDIX B PHOTO LOG
BIOLOGICAL ASSESSMENT



Photo 41



Erosion and exposed tree roots in western portion of study area facing north.

Photo 42



Unvegetated depression in PEM1C wetland facing south.

Photo 43



View from western edge of PEM1C wetland facing east

Photo 44



View from eastern edge of PEM1C/PSS1C wetland facing west



Hawai'i Department of Lands
JAN 05 2026
Pend O'hele Lake Supervisory Area
Navigable Waters

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MAY 15, 2025

PROJECT NUMBER:

24076

PROJECT MANAGER:

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CREATED BY:

KATE DEZIL

PROJECT NAME:

TWO RIVERS PARK
SHORELINE
STABILIZATION

APPENDIX B PHOTO LOG

BIOLOGICAL ASSESSMENT

Appendix C
Noise and Vibration

Idaho Department of Lands
JAN 05 2026
Pend Oreille Lake Supervisory Area
Navigable Waters

Noise and Vibration

Baseline noise impacts within the Action Area include State Highway 2, the Wisconsin Street Bridge, and boat activity on Pend Oreille and Priest Rivers. The use of construction equipment such as excavators, backhoes, dump trucks, and chainsaws are anticipated to occur as a result of constructing the riprap shoreline, clearing vegetation for the access/haul route, and import/export of material.

Both point source noise and line source noise may be generated by the project actions. The standard reduction for point source noise is 6 decibels (dB) per doubling of distance from the source. The standard reduction for line source noise is 3 dB per doubling of distance from the source. For this project, point source noise may be generated by an excavator, or chainsaw working in a single location over a given period of time, and line source noise may be generated by dump trucks traveling haul routes.

Noise path may be attenuated by topography, vegetation, atmospheric factors, and ground substrate. The following bullets describe each and how they may be affected within the Action Area.

- **Topography** – a break in the line of sight between the noise and the receptor can result in a 5 dB reduction. The Action Area is predominately flat with the exception of the steep shoreline where riprap is to be placed.
- **Vegetation** – Dense vegetation can reduce noise levels by as much as 5 dB for every 100 ft of vegetation, up to a maximum reduction of 10 dB over 200 ft (USDOT 1995). The Action Area between the shoreline and Burlington Northern Railroad is comprised of dense timber measuring approximately 500-750 ft by 2100 ft. The western portion of the Action Area is where the existing marina is located and void of vegetation.
- **Atmospheric Conditions** – Atmospheric conditions including humidity and temperature vary greatly throughout the year and project actions may occur throughout multiple seasons. Therefore, this factor will not be taken into consideration.
- **Ground Substrate** – Projects with hard substrate versus soft substrate vary in noise attenuation. In general, hard sites including flat, hard surfaces such as water concrete or hard packed soil attenuate less noise while soft substrate such as unpacked earth (soft site) is more absorptive of noise energy. Ground substrate within the Action Area is predominately soft substrate/unpacked earth. Exceptions to this include the existing marina within the farthest west portion of the Action Area.

Based on the equipment to be used for the project listed above, the environmental surroundings listed above, and utilizing the Washington Department of Transportation (WSDOT 2020) Construction Noise Impact Assessment equation for noise attenuation, the following equation was used for the loudest piece of machinery to be used on the project (dump truck (cyclical) at 91 weighted decibels [dBA]) to determine the distance to noise attenuation:

- $D = D_o * 10((\text{construction noise} - \text{ambient sound level in dBA})/\alpha)$
- Where D = the distance from the noise source
- D_o = the reference measurement distance (50 feet [WSDOT 2020])
- α = 25 for soft ground (forest)
- Construction noise = 91 dBA for dump truck (cyclical)



- Ambient sound level = 45 dBA for ambient sound in a forested site (soft site) in urban setting. Therefore:
- $D = 50 * 10^{(91-45)/25}$
- $D = 50 * 10^{(46/25)}$
- $D = 50 * 10^{(1.84)}$
- $D = 50 * 69.2$
- $D = 3,460$ feet (approximately 1.5 miles)

The calculation equated to approximately 1.5 miles (rounded up to the nearest tenth). Therefore, 1.5 miles was used for the terrestrial zone of impact.

Regarding how sound is transmitted from dry land to water, the following excerpt is included from the WSDOT Biological Assessment Manual:

“Impact driving in the dry can also generate underwater noise in adjacent aquatic habitats. Sound flanking occurs when a pressure wave travels down the pile, is transmitted into the soil, and then travels back up through the soil and into the water column. Pile driving in the dry is a minimization measure designed to reduce the amount of sound that is transmitted through the water. Currently, we have an approved method for calculating transmission loss from pile driving in the air and a method for calculating transmission loss from pile driving in the water. There is no method for calculating transmission loss through soil outside of the water, and then calculating the loss in the water. What we don’t know is how much transmission loss occurs within the soil – the assumption is that it is greater than what occurs in water or air due to the denseness of the soil. We know that soil type - density and composition can affect transmission loss. It is impossible to predict what the transmission loss in soil will be and what the sound level will be at when it enters the water column. We have monitored a very few piles that have been driven in the dry; adjacent to or within the OHWM of a river. This includes H-piles, 16-inch steel and 72-inch steel piles. In all cases the pile installation did not exceed the current thresholds (these reports are on the WSDOT website). Based on this information, driving in the dry is effective at minimizing the effects of sound in the water and protecting fish.”

Due to uncertainties in calculating noise transmission from the dry into aquatic systems, we assume impacts to aquatic systems from terrestrial noise disturbance to be limited based on the loudest machinery (excavators and dump trucks).

Underwater Noise

In-water work activities for the project include the removal of pilings and cribs at the waters edge during low water levels between October and May. In-water work activities contribute to noise in freshwater environments and pile driving activities in-water have known to cause fish kills (WSDOT 2020). Proposed methods for removing the piles are vibratory pulling with a crane or excavator (preferred) or hydraulic underwater chainsaw and piles cut to the mudline. Both methods are anticipated to create underwater noise levels above ambient conditions.

Underwater noise propagation is highly variable based on factors such as ambient conditions, substrate, wave action, and temperature. As measured from research conducted by Washington Department of Transportation (WSDOT). Vibratory pile removal is generally expected to generate less noise and vibration as compared to vibratory pile installation but conservatively

considered here to be the same. National Marine Fisheries Service has set underwater noise injury and disturbance thresholds for fish and is included in Table 1 below (FHWG 2008).

Table 1. Fish Sound Injury Disturbance Threshold (FHWG 2008)

Pulse	
Single Strike Injury (fish of all sizes)	206 dB _{peak}
Cumulative Sound Injury	
Fish <2 grams	183 dBSEL
Fish ≥ 2 grams	187 dBSEL
Disturbance	150 dBRMS

dB_{peak} = Unit of relative pressure when the pressure of the sound wave is characterized by peak pressure. When evaluating potential impacts to fish, peak sound pressure (dB_{peak}) is often used.

dBSEL = Sound Exposure Level (SEL). SEL is calculated by summing the cumulative pressure squared (p^2), integrating over time, and normalizing to 1 second.

dBRMS = The RMS level is the square root of the energy divided by the impulse duration. This level is the mean square pressure level of the pulse. NMFS uses RMS to describe disturbance-related effects (harassment) to marine mammals from underwater impulse-type noises (WSDOT 2020).

Table 7-15 of the WSDOT Construction Noise Impact Assessment includes broadband sound pressure levels associated with pile types during vibratory pile driving/removal (WSDOT 2020). For timber piles, 12-inches in diameter, the measured dBRMS was 150; right at the disturbance level listed in Table 1 above. Cumulative SEL was not measured however, apart from large diameter (30-inches or larger) steel piles, no methods of vibratory pile driving or removal exceeded 206 dB_{peak}.

In consideration of the values above and the equipment generating the vibration and noise will be above and not within the water column, it is likely the action will create disturbance to aquatic biota but unlikely to cause to harm or injury.

References

Washington Department of Transportation (WSDOT), 2020. Biological Assessment Preparation Manual. August.

Fisheries Hydroacoustic Working Group (FHWG), 2008. Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities. Vancouver, WA. June 11.



Appendix D
Resources and Coordination Conversations

Idaho Department of Lands
JAN 05 2026
Pend Oreille Lake Supervisory Area
Navigable Waters



Outlook

RE: Request for Consultation - IDEQ Joslyn/Two Rivers - Shoreline Stabilization Project

From Horsmon, Merritt <merritt.horsmon@idfg.idaho.gov>

Date Thu 4/17/2025 10:53 AM

To Tom Jenkins <Thomas.Jenkins@alta-se.com>

Cc Tarita Harju <Tarita.Harju@alta-se.com>

Hi Tom,

1. The presence of Wolverine in the project area, or a 10 mile radius is unlikely. IDFG has no concerns or recommendations regarding Wolverine.
2. The likelihood of Bull Trout presence is high, but occurrence within the work area is seasonal. Both the Priest and Pend Orielle River are Bull Trout critical habitat, but the project is along the shoreline of what is considered seasonal habitat due to summertime high water temperatures and spawning migrations. In this area, IDFG would generally recommend an "in-water" work window of July 15-September 15 as that is when water temperatures are highest, reducing the likelihood of Bull Trout presence. Bull Trout migrate through the area going upstream into Priest River in the spring as the freshet recedes, and migrate back through the area post spawning in the fall as water temperatures cool. While it is always possible that low numbers of Bull Trout will be present year round, it is least likely when water temperatures are above 60°F or 15.5°C. During winter pool, Bull Trout will not likely be impacted if the "in-water" work areas are isolated, or if work is occurring from land on the shoreline.

Please feel free to contact me if you have any additional questions.

Thank you,

Merritt Horsmon

Regional Technical Assistance Manager

Panhandle Region

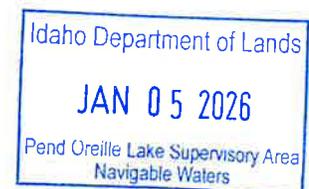
2885 W. Kathleen Ave.

Coeur d'Alene, ID 83815

208.769.1414 office

208.251.4509 mobile

merritt.horsmon@idfg.idaho.gov



From: Tom Jenkins <Thomas.Jenkins@alta-se.com>

Sent: Monday, April 14, 2025 8:30 AM

To: Horsmon, Merritt <merritt.horsmon@idfg.idaho.gov>

Cc: Tarita Harju <Tarita.Harju@alta-se.com>

Subject: Request for Consultation - IDEQ Joslyn/Two Rivers - Shoreline Stabilization Project

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Hi Merritt,

I am reaching out to you again in regard to another project Alta is performing a Biological Assessment for; IDEQ – Joslyn/Two Rivers – Priest River, ID. We are requesting correspondence from IDFG on the occurrence of Tier/Type 1 species that are known to occur within a 10-mile radius of the project area or were included as part of the USFWS IPaC request. Would it be possible to get correspondence on the following?:

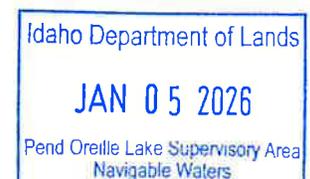
1. Likelihood of presence for North American wolverine within the Action Area (I attached a KMZ of the Action Area) and if there are any concerns or recommendations for this species as a result of the action?
2. Likelihood of presence for bull trout and potential of occurrence within the Action Area during the feasible work windows at low water from October through April (outside of summer pool). We understand that this typically falls during FMO periods and in-water actions (such as pile and crib removals) will require potential work area isolation and fish handling by qualified professionals. However, with flow regulation from Albeni Falls, it limits the construction window to this period.

Below is a bulleted narrative of the project actions relevant to potential effects and preliminary analysis from our end:

3. Streambank stabilization will include the installation of riprap along the entire toe from the Priest River Bridge on the east end of the Action Area to the Bonner Park West Marina on the west end of the project area.
4. Rehabilitation and development of former skid road into haul route for equipment and material mobilization.
5. Removal of historic pilings, cribs, and debris that occur at the water line (photo attached at low water).
6. Our analysis generally concludes that occurrence of wolverine within the Action Area is possible but unlikely. However, it is unlikely that sufficient habitat quantity and quality is present within the Action Area to present measurable effects to forage, denning, prey source, migration corridor, and suitable and occupied habitat criteria as a result of the action, therefore a 'no effect' determination is our preliminary effect determination for this species.
7. We will also be analyzing habitat for monarch butterfly and Suckley's Cuckoo bumble during the blooming period (obligate milkweed and pollinators, respectively).
8. Also attached is the draft Basis of Design report that includes the proposed actions and all the conceptual drawings. However, it is a large document and we are happy to extract any details you may need to make this analysis more efficient on your end.

We greatly appreciate your support in advising these project actions.

Tom Jenkins
Environmental Scientist





Science & Engineering, Inc.

220 East. 5th Street, Suite 325, Moscow, Idaho 83843

Phone: 208.882.7858 | Cell: 208.669.0488

www.alta-se.com

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Pacific FMC

- ▶ EFH Areas Protected From Fishing ...
- ▶ Habitat Areas of Particular Concern ...
- ▶ Essential Fish Habitat ...
- ▶ Reference Data ...



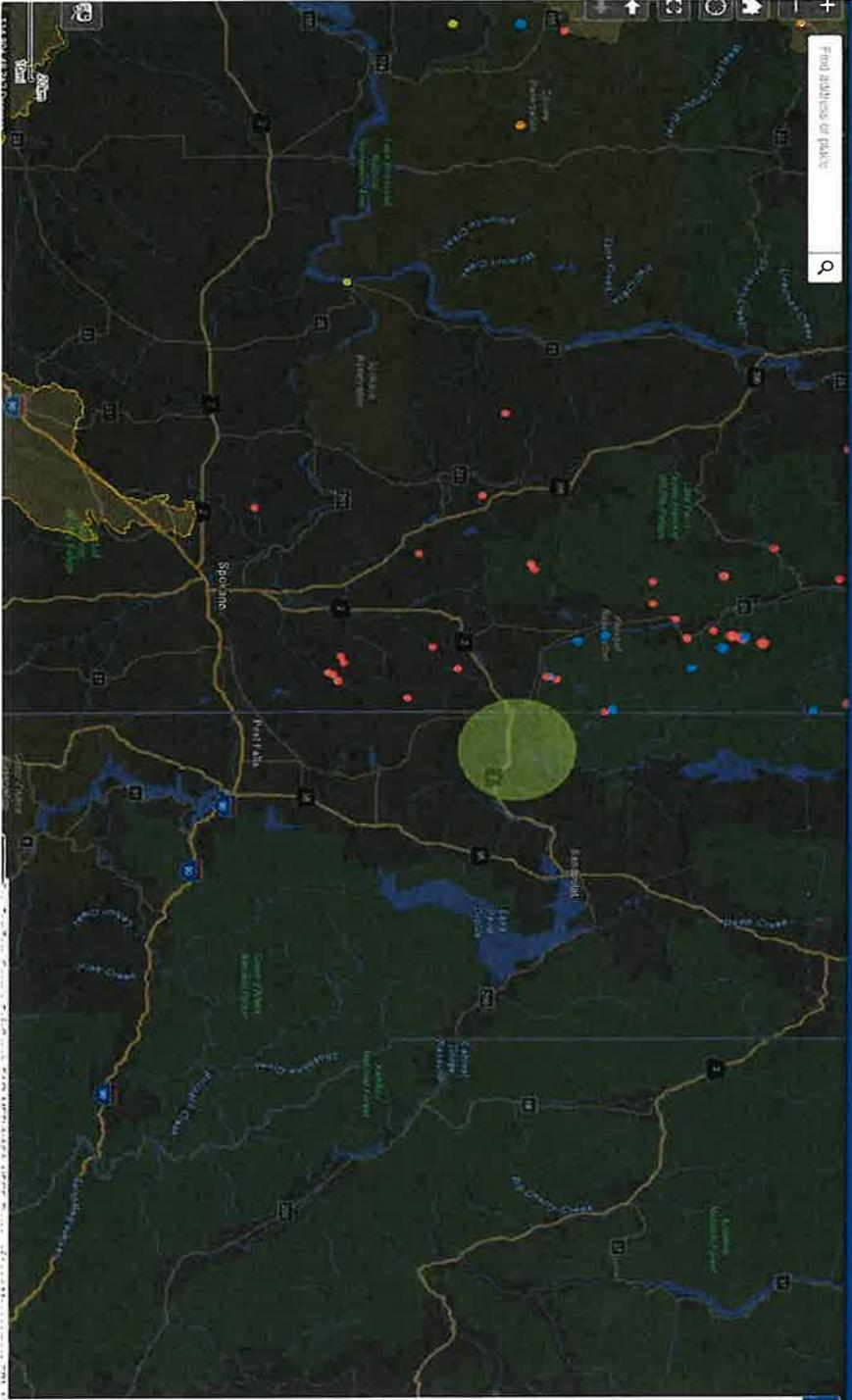
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Idaho Department of Lands

JAN 05 2026

Pena Oreille Lake Supervisory Area
Kawagaha Waters

Find address or place



Layers

- Watershed Boundary Database (WCR version) ...
- ESA Critical Habitat ...
- All WCR Critical Habitat ...
- Absconite Block 20111027 ...
- Block of Puget Sound/Groegle Basin DPS; 20141113 ...
- Education (Southern DPS); 20111020 ...
- Rockfish, yelloweye (Puget Sound/Groegle Basin DPS); 20141113 ...
- Sea lion, Steller (Western DPS); 19940615 ...
- Sea turtle, leatherback; 20120126 ...
- Surgeon green (Southern DPS); 20091009 ...
- Surgeon green (Southern DPS); 20091009 ...
- Whale, humpback (Central Amer. cd DPS); 20210421 ...
- Whale, humpback (Mex. cd DPS); 20210421 ...
- Whale, killer (Southern Resident DPS); 20210802 ...
- Salmon ...
- Steelhead ...
- MSA Essential Fish Habitat ...
- Habitat Areas of Particular Concern (HAPC) ...
- EFH Areas Protected from Fishing (EFHA) ...

Idaho Department of Lands

JUN 05 2026

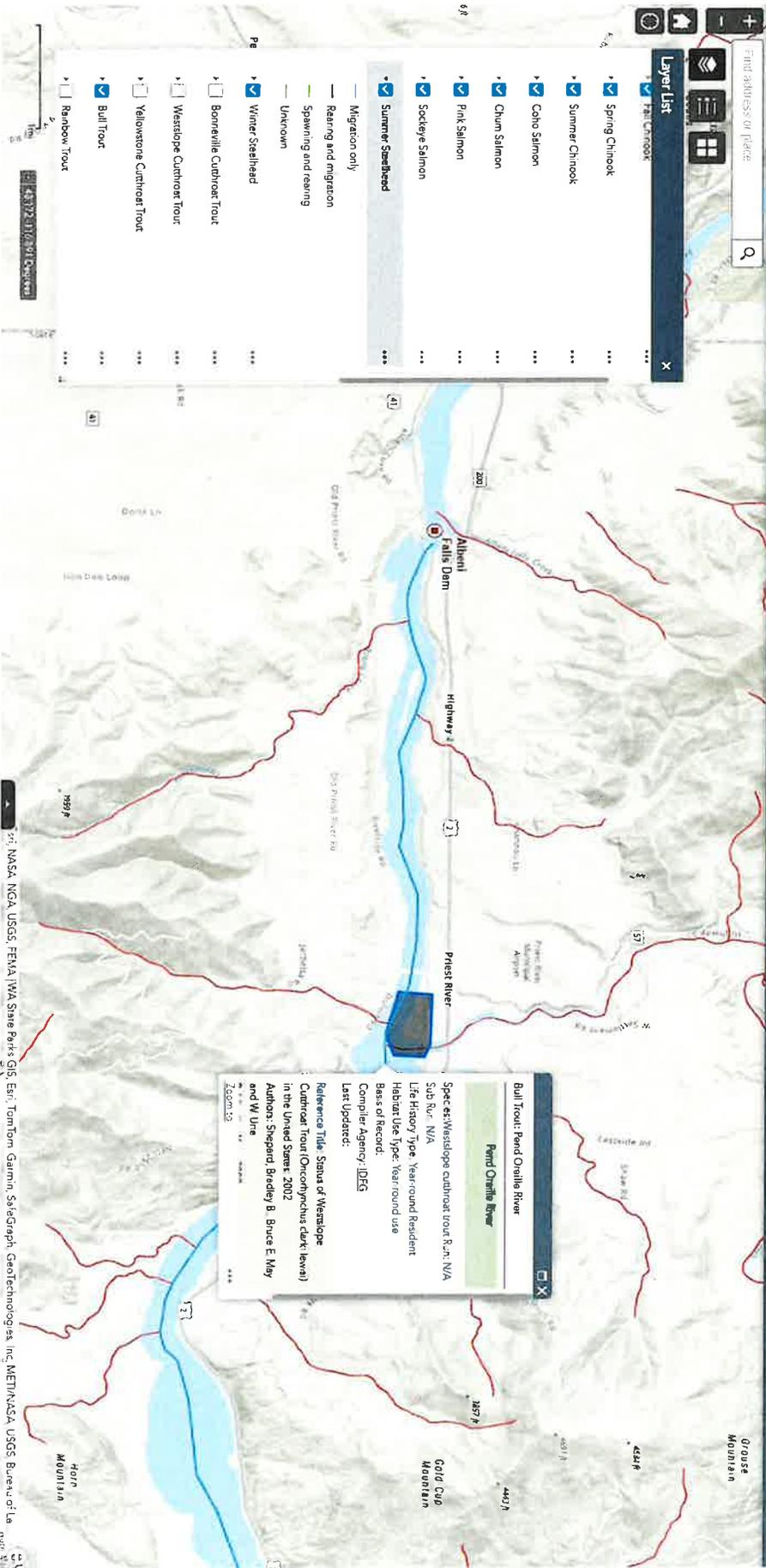
Private/Utility Lake Stipulatory Areas Navigational Matters

Find address or place



Layer List

- 126 Chinook
- Spring Chinook
- Summer Chinook
- Coho Salmon
- Chum Salmon
- Pink Salmon
- Sockeye Salmon
- Summer Steelhead
- Migration only
- Rearing and migration
- Spawning and rearing
- Unknown
- Winter Steelhead
- Bonneville Cutthroat Trout
- Westslope Cutthroat Trout
- Yellowstone Cutthroat Trout
- Bull Trout
- Rainbow Trout



Bull Trout: Bend Oreille River

Pend Oreille River

Species: Westslope cutthroat trout Run: N/A
 Sub Run: N/A
 Life History Type: Year-round Resident
 Habitat Use Type: Year-round use
 Basis of Record:
 Compiler Agency: IDFG
 Last Updated:

Reference Title: Status of Westslope Cutthroat Trout (Oncorhynchus dark lewis) in the United States, 2002
 Authors: Shepard, Bradley B. Bruce E. May and W. Ure

Zoom 13

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Idaho Department of Lands

JAN 05 2026

Pend Oreille Lake Supervisory Area Navigable Waters

Appendix E
USFWS IPaC Report

Idaho Department of Lands
JAN 05 2026
Pend Oreille Lake Supervisory Area
Navigable Waters



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Idaho Fish And Wildlife Office
1387 South Vinnell Way, Suite 368
Boise, ID 83709-1657
Phone: (208) 378-5243 Fax: (208) 378-5262



04/15/2025 16:12:28 UTC

In Reply Refer To:
Project Code: 2025-0083518
Project Name: Priest River - Two Rivers Park

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

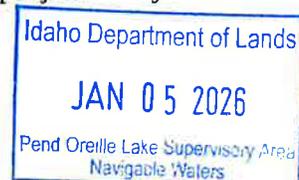
<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.



Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

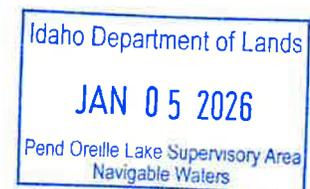
This species list is provided by:

Idaho Fish And Wildlife Office

1387 South Vinnell Way, Suite 368

Boise, ID 83709-1657

(208) 378-5243



PROJECT SUMMARY

Project Code: 2025-0083518

Project Name: Priest River - Two Rivers Park

Project Type: Shoreline Stabilization

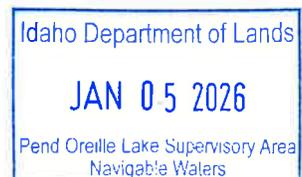
Project Description: The City of Priest River entered Idaho Department of Environmental Quality's (IDEQ) Brownfield program to conduct All Appropriate Inquiry in compliance with the Code of Federal Regulations, per 40 CFR Part 312 prior to acquiring the property from Joslyn Manufacturing, Inc. in 2021. The City prepared the Joslyn Park Master Plan (Welch Comer 2023) in order to develop the site into a sustainable multi-use community park. A primary objective of the Master Plan is to stabilize the site's shoreline and restore environmental quality by reducing sediment loading and loss of riparian wetland areas along the confluence of the Priest and Pend Oreille rivers and provide wide-spread recreational use of the property by the general public. Construction of bank stabilization measures will include installation of riprap along approximately 3,100 feet of shoreline.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@48.1752744,-116.89815580539873,14z>



Counties: Bonner County, Idaho



ENDANGERED SPECIES ACT SPECIES

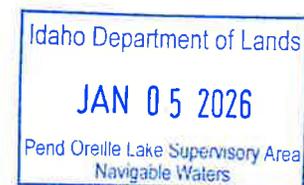
There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.



MAMMALS

NAME	STATUS
North American Wolverine <i>Gulo gulo luscus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123 General project design guidelines: https://ipac.ecosphere.fws.gov/project/WLEGIJ5TOVHZPFHF5RI6ZGNQBU/documents/generated/7151.pdf	Threatened

FISHES

NAME	STATUS
Bull Trout <i>Salvelinus confluentus</i> Population: U.S.A., coterminous, lower 48 states There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8212 General project design guidelines: https://ipac.ecosphere.fws.gov/project/WLEGIJ5TOVHZPFHF5RI6ZGNQBU/documents/generated/7151.pdf	Threatened

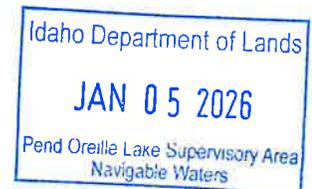
INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Bull Trout <i>Salvelinus confluentus</i> https://ecos.fws.gov/ecp/species/8212#crithab	Final



USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information](#)



[on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

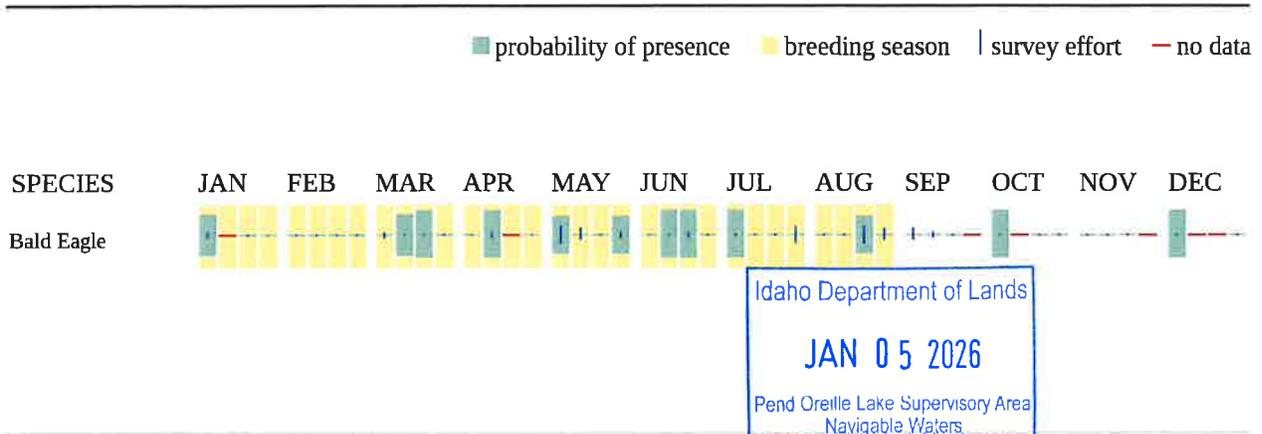
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

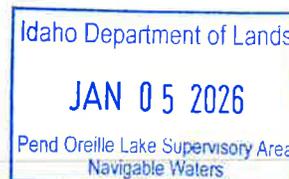
MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10955	Breeds Mar 1 to Jul 31



NAME	BREEDING SEASON
<p>Calliope Hummingbird <i>Selasphorus calliope</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9526</p>	Breeds May 1 to Aug 15
<p>Cassin's Finch <i>Haemorhous cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462</p>	Breeds May 15 to Jul 15
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9465</p>	Breeds May 15 to Aug 10
<p>Rufous Hummingbird <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	Breeds Apr 15 to Jul 15
<p>Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (●)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

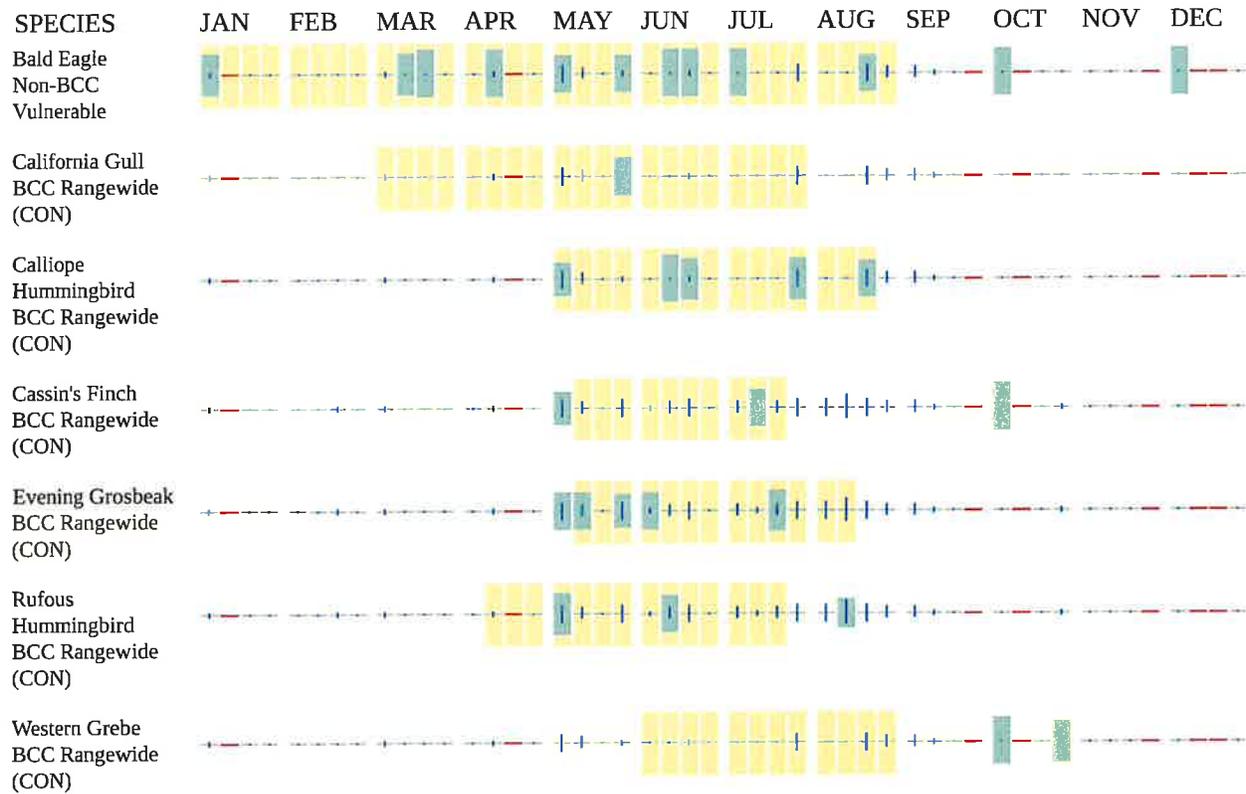
No Data (—)

A week is marked as having no data if there were no survey events for that week.





■ probability of presence ■ breeding season | survey effort - no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

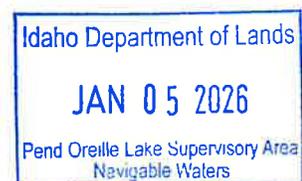
WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.



IPAC USER CONTACT INFORMATION

Agency: Priest River city
Name: Tom Jenkins
Address: 220 East 5th St Suite 325
City: Moscow
State: ID
Zip: 83843
Email: tjenkins202@gmail.com
Phone: 2086690488

