US Army Corps of Engineers ®
Walla Walla District
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ST. HILAIRE FARMS COLUMBIA RIVER PUMP STATION MODIFICATIONS AND DREDGING

REAL ESTATE LEASE AMENDMENT AND NEW TEMPORARY CONSTRUCTION LICENSE

MCNARY LOCK AND DAM

In compliance with the NEPA of 1970

EAXX-202-00-G4P-1753106799

ADMINISTRATIVE RECORD – DO NOT DESTROY

PROJECT FILE NUMBER: PPL-C-2025-0025

November 2025

Executive Summary

Proposed Action

St. Hilaire Brothers Hermiston Farm, LLC (St. Hilaire or JSH Farms) and the East Improvement District (collectively, "St. Hilaire-EID") request that the U.S. Army Corps of Engineers (USACE) issue a new Regulatory Permit, a temporary construction license, and amend Real Estate Lease DACW68-2-00-05 to incorporate proposed modifications for the existing irrigation pump station located at River Mile 301.7 on the middle Columbia River in Umatilla County, Oregon.

USACE, Walla Walla District, Real Estate Division proposes to amend the existing St. Hilaire-EID lease to reflect the proposed modifications to an existing pump station. The proposed updates involve elevating and expanding the pump deck by 751 square feet to enhance accessibility and function, supported by 10 new H-pilings below the ordinary high-water mark (OHWM). Approximately 360 cubic yards of sediment would be temporarily removed in front of the pump station and disposed in the Columbia River approximately 700 feet northeast of the pump station following original river channel to enable installation of new pump cans and connection to the manifold. The Portland District Regulatory office would issue new individual Section 404/10 permits for such disposal action, which will also trigger the need for Section 401 certification from the Oregon Department of Environmental Quality (ODEQ).

The proposed action involves structural modifications to the St. Hilaire-EID pumping station, located along the south shoreline of the middle Columbia River in Umatilla County, Oregon. These revisions are intended to enhance the operational performance, structural stability, and maintainability of the existing irrigation infrastructure. The pumping station collectively supplies irrigation water to approximately 51,200 acres of farmland within Umatilla County.

Purpose of and Need for the Proposed Action

The purpose of the proposed action is to increase the safe and reliable availability and/or amount of irrigation water for approximately 51,200 acres of farmland in Umatilla County, Oregon. The intent is to ensure long-term agricultural productivity in the Lower Umatilla Basin by providing a consistent and dependable water supply.

The need for the proposed action arises from current limitations in the irrigation system that affect both reliability and safety. Variability in river conditions creates risks to worker safety and limits dependable access to water. Structural wear, sediment accumulation, and reliance on declining groundwater sources further threaten the efficiency and sustainability of water delivery. Without improvements, these challenges would continue to disrupt irrigation operations, increase risks to workers, and place additional pressure on already declining groundwater reserves.

The proposed action includes modifying the existing St. Hilaire-EID pump station and intake facilities to improve the operational performance, structural stability, and maintainability by elevating the pump deck to enhance worker safety and access during variable river conditions; installation of additional H-pilings to support long-term

structural integrity; and sediment removal to restore hydraulic efficiency and reduce the risk of operational disruptions.

Alternatives Considered

Two alternatives were carried forward for detailed analysis in this EA:

- Alternative 1: No Action. Under this alternative, USACE would not amend the existing lease. The existing pump station would remain in its current condition, limiting access for maintenance, risking long-term reliability, and reducing operational efficiency due to sediment accumulation.
- Alternative 2: Proposed Action – Lease Amendment for Pump Station Modifications (Preferred Alternative). Under this alternative, the USACE would amend the existing lease, issue a temporary construction license, and new regulatory permits for modifications to the existing St. Hilaire pump station. The modifications include expanding and elevating the pump deck, installing additional H-piles for support, and removing accumulated sediment from the intake area.

Summary of Environmental Resources Evaluated

This Environmental Assessment (EA) addresses the following resource areas: Aesthetics/Visual Resources, Water Quality, Terrestrial Resources (including Threatened and Endangered Species), Fish and Aquatic Resources (including Threatened and Endangered Species), Socioeconomics, Historic Resources, and Noise.

Because potential impacts to the following resources were determined to be negligible, or nonexistent, they were not further evaluated in this EA: Air Quality, Geology and Soils, Hazardous/Toxic Materials, Land Use, Recreation.

Summary of Potential Environmental Consequences of the Preferred Alternative

The Preferred Alternative would result in temporary and localized impacts during construction, including minor soil disturbance, potential turbidity during sediment removal, and short-term noise increases. Best management practices and regulatory permit conditions will minimize impacts.

Long-term impacts would be beneficial, as the action would restore pumping efficiency, reduce maintenance risks, and support more sustainable surface water delivery to farmland. No significant impacts to wetlands, threatened or endangered species, or cultural resources are anticipated.

The following table provides a tabular summary of the potential impacts to the resources associated with the Preferred Alternative.

Table 1-1. Summary of Impacts of the Preferred Alternative

Resource	Less than significant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Aesthetics/Visual Resources	X	-	-
Water Quality	X	-	-
Terrestrial Resources	X	-	-
Fish and Aquatic Resources	X	-	-
Socioeconomics	X	-	-
Historic Resources	X	-	-
Noise	X	-	-

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Appendix B: U.S Fish and Wildlife Service Official Species List dated May 22, 2025.
Appendix C: Amended Biological Opinions (BiOps) (NMFS 2023, WCRO-2023-01663; USFWS 2023, File No. 2023-F-0023).
Appendix D: Cultural Correspondence

Acronyms

°C	degrees Celsius
°F	degrees Fahrenheit
BA	Biological Assessment
BMP	Best Management Practice
CFR	Code of Federal Regulations
dB	decibels
dBA	decibels adjusted
USACE	U.S. Army, Corps of Engineers, Walla Walla District
CWA	Clean Water Act
cy	cubic yards
DPS	Distinct Population Segment
EA	Environmental Assessment
EFH	Essential Fish Habitat
EID	East Improvement District
EM	Engineer Manual
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
gpm	gallons per minute
MBTA	Migratory Bird Treaty Act
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NTU	Nephelometric Turbidity Units
NWP	Nationwide Permit
OHWM	Ordinary High-Water Mark
PSMP	Programmatic Sediment Management Plan
RLS	Reiss-Landreau Research
RM	River Mile
RV	Recreation Vehicle
SHPO	State Historic Preservation Officer
SPCC	Spill Prevention, Control, and Countermeasures
TCP	Traditional Cultural Property
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
Ecology	Washington State Department of Ecology
WOTUS	Waters of the United States

Certification of Compliance with Page Limit and Prioritization Requirements

In accordance with the requirements of Section 1074(a) of the National Defense Authorization Act for Fiscal Year 2023 (Pub. L. 117-263) and applicable Department of Defense (DoD) policy, I certify that this Environmental Assessment (EA)does not exceed 75 pages, exclusive of appendices and referenced materials. The breadth and depth of analysis in this EA have been tailored to comply with the congressionally mandated page limit.

This EA reflects DoD's good-faith effort to prioritize the documentation of the most important considerations required by the National Environmental Policy Act (NEPA). This prioritization reflects the expert judgment of DoD personnel responsible for preparing and reviewing the document. All factors mandated by NEPA have been considered in the development of this EA. Any considerations addressed briefly or not included were, in the judgment of DoD, comparatively not of a substantive nature that would meaningfully inform the analysis of environmental effects or the resulting decision on how to proceed.

Responsible Official:

Gabriela Freitez
Environmental Resource Specialist
U.S. Army Corps of Engineers
Walla Walla District

1 Introduction

1.1 Introduction and Background

St. Hilaire Brothers Hermiston Farm, LLC (St. Hilaire or JSH Farms) owns and operates an existing irrigation pump station located at River Mile 301.7 on the Columbia River in Umatilla County, Oregon. The existing station consists of seven 800 horsepower pumps and has a total water withdrawal capacity of approximately 27,600 gallons per minute (gpm) [61.4 cubic feet per second (cfs)]. From the river station a 30-inch cement-mortar lined steel discharge pipe runs south approximately 9,200 feet to the farm's main booster pump station. The main booster pump station currently has two 400 horsepower and four 250 horsepower pumps. This existing pump station provides irrigation water to JSH Farms, which comprises about 4,200 acres of farmland in Umatilla County. JSH Farms operates their irrigation system starting in March, peaking in June through July, and shutting down in October.

In 2018, the U.S Army Corps of Engineers, Walla Walla District (USACE) completed the St. Hilaire Farms Columbia River Pump Station Expansion and East Improvement District New Pump Station Real Estate Amendment and New Easement EA (Appendix A). This document evaluated the environmental impacts of associated with USACE's decision to amend St. Hilaire's Real Estate easement to allow for the expansion of their pump station. In addition, the scope of analysis included the issuance of a new easement to the East Irrigation District (EID) for the construction of a new pumping station within St. Hilaire's existing easement footprint.

The purpose of the original project was to expand the existing St. Hilaire Brothers' irrigation pump station and construct a new irrigation pumping station and intake immediately adjacent, to consolidate the transfer of existing and new, mitigated irrigation water rights to a centralized point of diversion.

USACE, at the time, determined the proposed action would not result in significant environmental impacts to the human environment, and issued the appropriate construction permit and easements necessary for the action's implementation. However, portions of this action were delayed due to funding, supply chain issues, and contractor availability. In addition, portions of the proposed expansion have been modified to better incorporate the new, adjacent EID pumping station infrastructure, and account for recent sediment accumulation. The permits associated with this action expired March of 2023.

St. Hilaire-EID requests that the USACE (Portland District) issue a new Regulatory Section 404/10 permits, that the USACE (Walla Walla District) amend lease (DACW68-2-00-05) to incorporate modifications to the existing pump station and intake infrastructure, and that a temporary construction license be issued. The purpose of this document is to evaluate the potential environmental impacts associated with obtaining new permits and a amend lease to include these updates, consistent with the requirements of the National Environmental Policy Act NEPA of 1969.

1.2 Proposed Action Location

The proposed action is located at the existing irrigation pump station owned and operated by St. Hilaire Brothers Hermiston Farm, LLC. This facility is situated on the Columbia River at River Mile 301.7, within Umatilla County, Oregon (Figure 1) Township 5 North, Range 28 East, Section 8, Willamette Meridian.

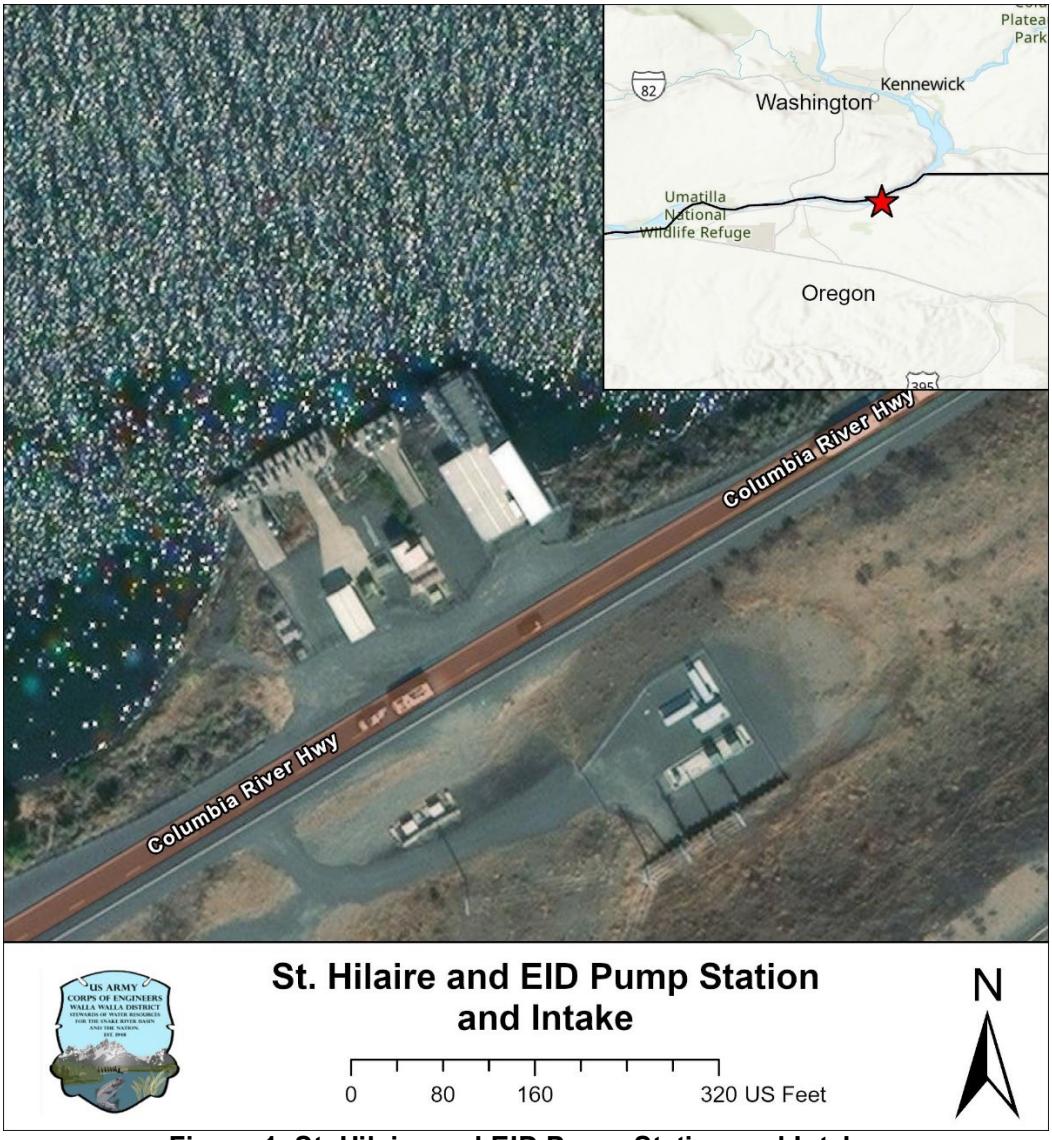

Figure 1. St. Hilaire and EID Pump Station and Intake.

1.3 Purpose of and Need for Action

The purpose of the proposed action is to support the continued safe and reliable operation of the St. Hilaire–EID Pumping Station and Intake, ensuring that the facility can deliver surface water to the irrigation network in a manner that sustains regional agriculture and aligns with broader water management goals. Achieving this purpose requires improvements that enhance the facility's operational performance, structural stability, and maintainability. The applicant has proposed to elevate and expand the pump deck for safer and more reliable maintenance access, install additional H-pilings

to strengthen the structure, and remove accumulated sediment to restore hydraulic efficiency. To facilitate these improvements, USACE must amend the real estate lease, issue a temporary construction license, and obtain new Regulatory Section 404/10 permits.

An action is needed because agricultural operations in the Lower Umatilla Basin rely on a dependable surface water supply delivered by the St. Hilaire Brothers and EID pumping stations, which currently serve approximately 51,200 acres of farmland in Umatilla County. There is a need to consolidate existing and newly mitigated Columbia River water rights at a centralized point of diversion for irrigation, to reduce dependence on declining groundwater resources and to ensure a more sustainable and reliable water supply for continued agricultural productivity. Additionally, limitations of the existing St. Hilaire pump station, such as restricted maintenance access during high water conditions, structural deficiencies, and reduced hydraulic efficiency due to sediment accumulation pose challenges to operational reliability and long-term facility service life.

1.4 Authority and NEPA History

USACE, Walla Walla District, Real Estate Division, has the authority under 10 U.S.C. § 2667 to issue construction licenses, leases, and easements to external entities for the use of USACE-administered lands. These real estate actions are administered in accordance with Engineer Regulation (ER) 405-1-12 to ensure consistency with federal laws, project purposes, and to balance the public interest with environmental considerations.

Authorization for construction or modification on federal land is issued through a real estate outgrant, in accordance with ER 1130-2-550, Chapter 17. This process includes a review of operational concerns prior to issuance.

The proposed action involves modifications to the existing St. Hilaire-EID pumping station, located on the Columbia River in Umatilla County, Oregon. The applicant has requested that the USACE Portland District issue a new Regulatory Permit to authorize maintenance activities.

Because the proposed work includes activities in navigable waters of the U.S. (WOTUS) and involves the discharge of dredged or fill material, it is subject to review under both Section 404 of the Clean Water Act (CWA) (33 U.S.C. § 1344) and Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 U.S.C. § 403). CWA Section 404 authorizes USACE to permit discharges into WOTUS, while Section 10 regulates any work or structures in, over, or under navigable waters. Since the proposed dredging involves the in-water disposal of approximately 360 cubic yards of sediment in the Columbia River, must comply with these statutory/permit requirements.

Environmental review of the proposed action was conducted in accordance with NEPA. A 2018 Environmental Assessment (EA) serves as existing NEPA documentation relevant to the proposed activities. The review will also ensure compliance with additional federal laws and Executive Orders, such as the Endangered Species Act, National Historic Preservation Act, Clean Air Act, and the Magnuson-Stevens Fishery Conservation and Management Act, among others.

Public involvement and interagency coordination are integral components of the NEPA process, promoting transparency and accountability. If USACE determines that the proposed action would not result in significant environmental impacts, a Finding of No Significant Impact (FONSI) would be issued. However, if significant impacts are anticipated, the USACE would initiate the preparation of an Environmental Impact Statement (EIS) before making a final permit decision.

1.5 Permits

USACE has prepared this EA based upon an evaluation of federal, state, and local laws, statutes, regulations, and policies pertinent to the implementation of the Proposed Action, as described in Chapter 6.

Construction-related permits relevant to the action include:

- Construction General Permit, Oregon Department of Environmental Quality
- National Pollutant Discharge Elimination System Permit, Oregon Department of Environmental Quality
- Clean Water Act Section 404 Permit, USACE Portland District Regulatory Division
- Section 10 Permit, USACE Regulatory Division Portland District

Operational permits relevant to the action include:

- Easement, USACE Real Estate Division Walla Walla District

2 Proposed Action and Alternatives

2.1 Proposed Action

The U.S. Army Corps of Engineers (USACE), Walla Walla District, Real Estate Division proposes to amend the existing St. Hilaire-EID, along with issuing a temporary construction license and associated regulatory permits, to reflect proposed structural modifications to the St. Hilaire-EID pumping station, located along the south shoreline of the Columbia River in Umatilla County, Oregon. These updates are intended to enhance the operational performance, structural stability, and maintainability of the existing irrigation infrastructure.

2.2 Formulation of Alternatives

The formulation of alternatives begins with the Purpose and Need statement, which establishes the objectives of the proposed action. From these objectives, the interdisciplinary team identifies a range of potential ways to meet the Purpose and Need, considering both agency capabilities and potential constraints such as environmental resources, statutory requirements, and technical feasibility.

Alternatives may originate from previous studies, similar projects, stakeholder or public input, or new concepts developed during internal scoping. This process involves:

- Identifying the full range of reasonable and technically feasible actions that could meet the Purpose and Need.
- Considering variations in location, scale, design, timing, or methods of implementation.
- Incorporating ideas raised during scoping, including those suggested by cooperating agencies, Tribes, and the public.
- Documenting any assumptions, constraints, or dependencies that guided the formulation.

The objective at this stage is to generate a reasonable set of alternatives without prematurely narrowing the options to a single preferred choice. Only after this broad set is developed will the screening process be applied to determine which alternatives should be carried forward for detailed analysis.

2.3 Alternatives Carried Forward for Analysis

Only two alternatives are carried forward for detailed consideration and environmental analysis: the No Action Alternative (Alternative 1) and the Proposed Action Alternative (Alternative 2). The No Action Alternative establishes the baseline against which the effects of other alternatives are compared. Although titled “No Action,” this alternative may still result in impacts associated with ongoing conditions or activities. The Proposed Action Alternative reflects USACE’s intent to issue an amended real estate easement and the necessary short-term construction license, enabling the applicant to implement

the Proposed Action on USACE-managed lands. This limited range of alternatives is appropriate because the Proposed Action is applicant-funded and implemented, and USACE's role as landowner is restricted to determining whether to grant the required approvals. The considered alternatives are:

- Alternative 1: No Action
- Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

2.4 Alternative 1: No Action

Under the No Action Alternative, USACE would not amend the St. Hilaire-EID lease to include the proposed design revisions to their pump station. As a result, the existing pump deck would remain at its current elevation and configuration, limiting safe access for maintenance activities during high water conditions. Structural limitations of the current deck would persist, and the lack of additional support pilings could constrain long-term reliability. Additionally, sediment accumulation in front of the intake would not be removed, potentially reducing hydraulic efficiency and increasing the risk of reduced water delivery capacity over time.

The No Action Alternative would not meet the purpose and need for the Proposed Action; however, as required by NEPA, the No Action Alternative is carried forward for analysis in this EA. The No Action Alternative will be used to analyze the consequences of not undertaking the Proposed Action and will serve to establish a comparative baseline for analysis.

2.5 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

Under Alternative 2, USACE would issue an amendment to St. Hilaire-EID existing lease, along with issuing a temporary construction license and associated regulatory permits to account for modifications to their existing pump station (Figure 2).

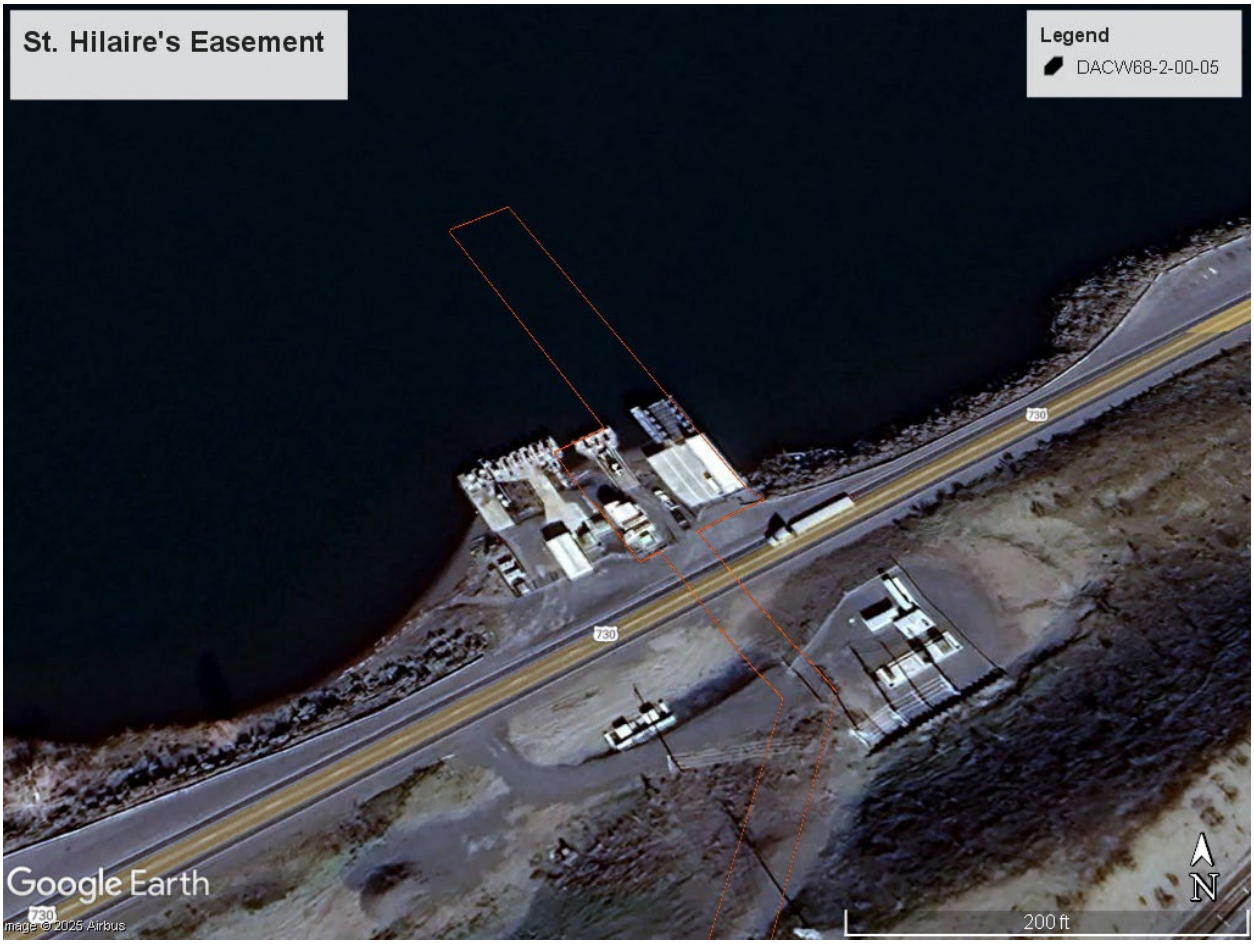

Figure 2. Pump Station Easement

The proposed updates to the pump station involve lifting and expanding the existing deck to enhance both accessibility and operational functionality. The expanded structure would add approximately 751 square feet over water, above the ordinary high-water mark (OHWM), including 544 square feet of concrete decking and 207 square feet of steel grating.

To support this enlarged deck, 15 new H-pilings would be installed, ten located below the OHWM, and five in the upland area. These structural additions, along with other proposed modifications, are shown in red in (Figure 3). The figure follows a color-coded legend where black represents existing infrastructure, green marks permitted elements that have not yet been constructed, and blue components originally permitted and analyzed in the USACE 2018 Environmental Assessment (Appendix A).

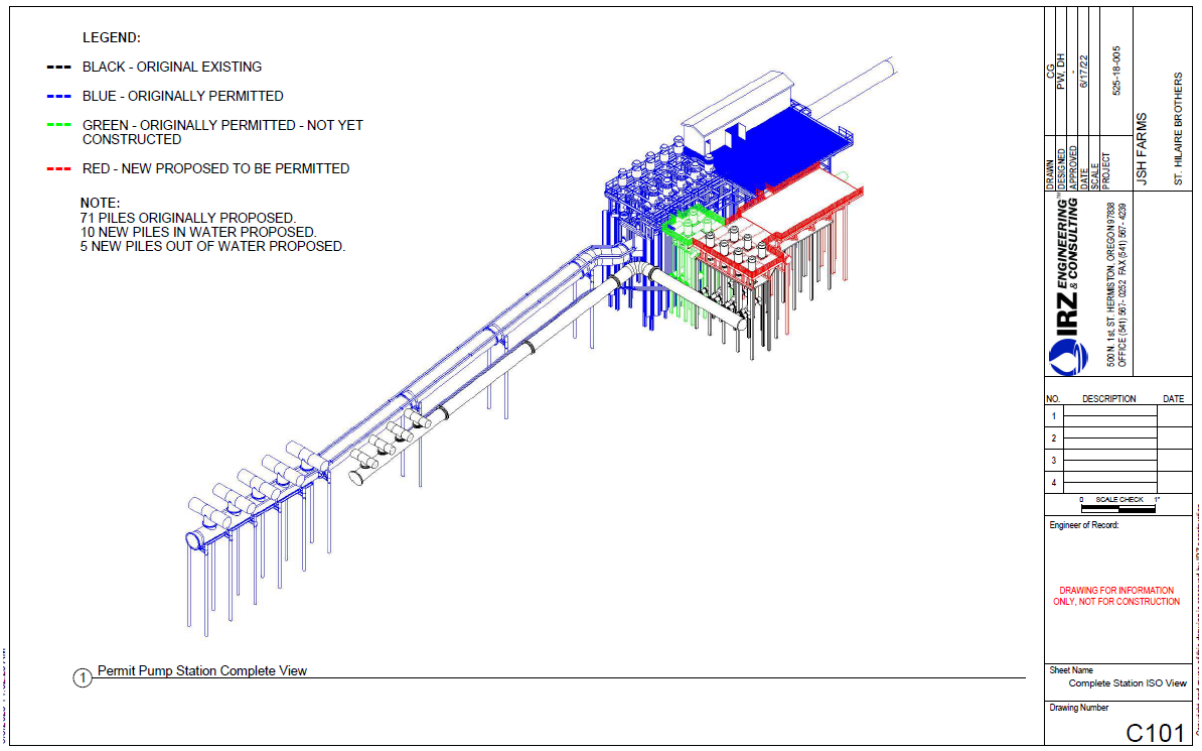

Figure 3. St. Hilaire Pump Station Overview (IRZ 2022).

In addition to deck modifications, approximately 360 cubic yards of accumulated sediment would be temporarily removed from the riverbed immediately in front of the existing pump station. The dredged sediment would be discharged underwater within the Columbia River's flow lane, approximately 700 feet northeast of the pump station following original river channel (Figure 4). This sediment removal is necessary to facilitate the installation of new pump cans and to ensure proper hydraulic connection to the existing manifold system. Pump cans are vertical chambers that house vertical turbine pumps, providing essential structural support, maintaining pump submergence, reducing turbulence, and isolating pumping components from sediment and debris. Implementation of these revisions would involve both overwater and in-water activities.

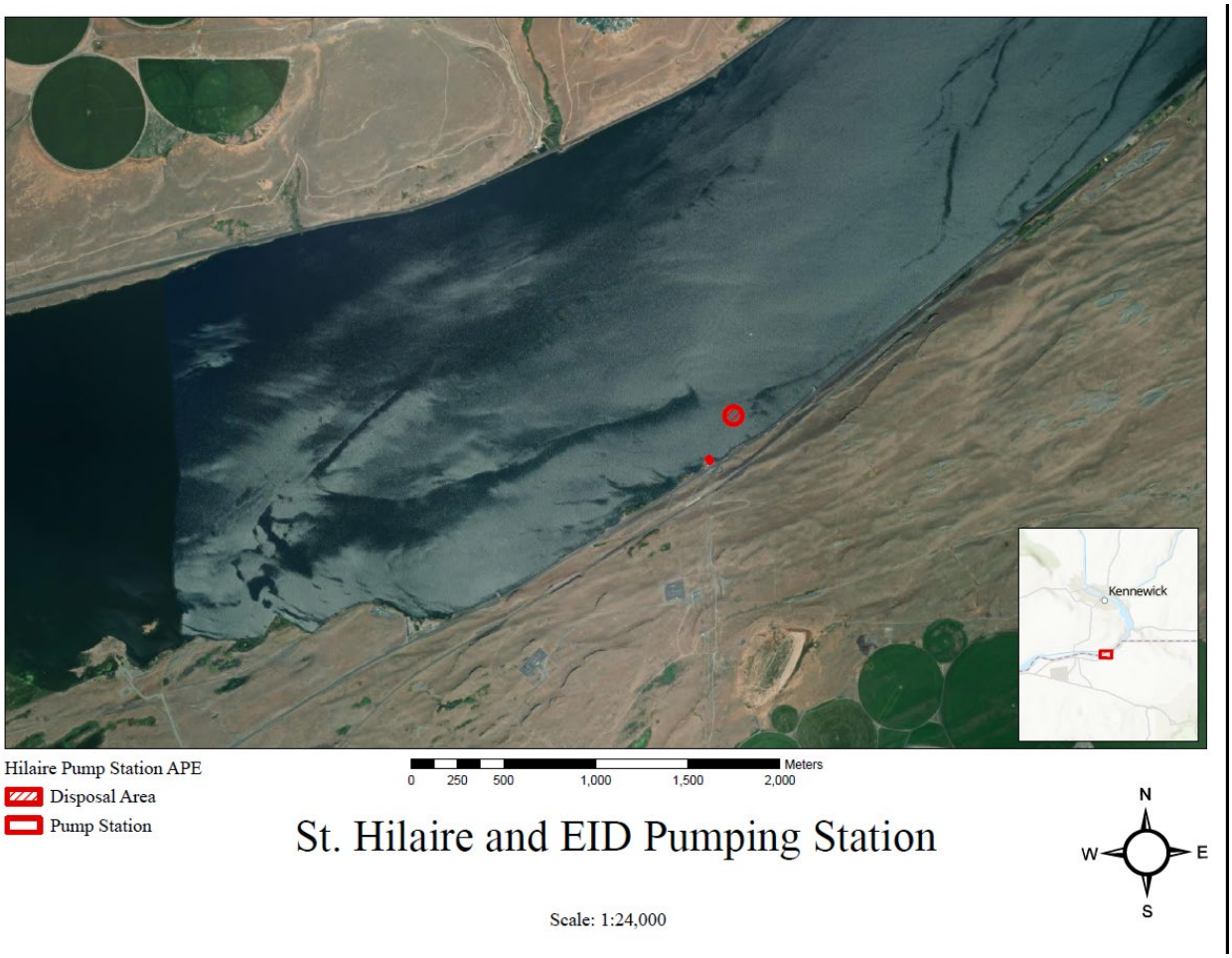

Figure 4. Proposed In-Water Discharge Location for Dredged Sediment.

Construction of the 544-square-foot concrete deck would be completed using either precast or cast-in-place methods, depending on contractor preference. The 207-square-foot steel grating section would be fabricated off-site and transported to the construction area, where it would be lifted into place by crane or boom truck operated from a barge or temporary trestle. Once positioned, grating panels would be bolted or welded to the underlying steel deck framing system. Lifting the existing pump deck would likely involve hydraulic jacks or cranes staged on a barge, with temporary shoring and close coordination with pile installation teams to maintain structural stability. Safety protocols will be followed to stabilize the elevated structure during the lifting process.

Steel H-piles and associated infrastructure required to support the deck, would be installed using a vibratory hammer. A crane or pile-driving rig mounted on a barge or work platform would drive the piles into the riverbed. Pile templates would guide installation to ensure vertical alignment and correct spacing. Vibratory installation minimizes noise, reduces turbidity, and limits potential impacts to aquatic species compared to impact pile driving.

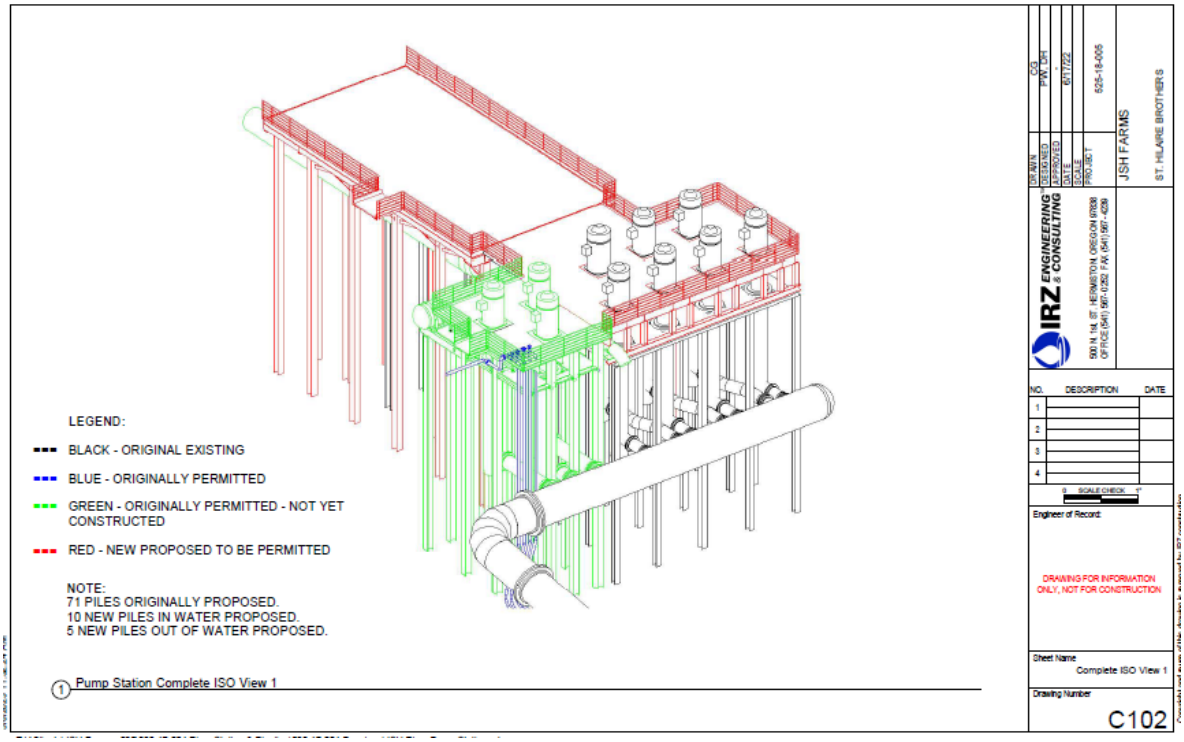

Figure 5. St. Hilaire Pump Station Front View (IRZ 2022).

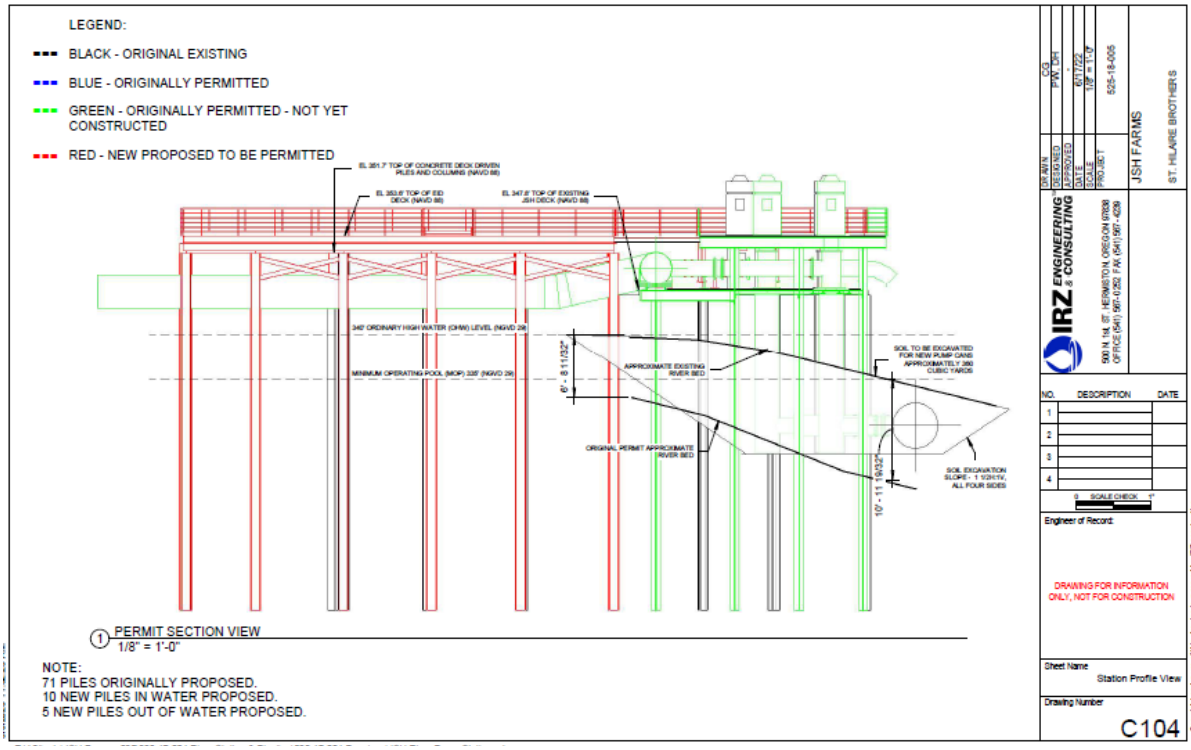

Figure 6. St. Hilaire Pump Station Side Profile (IRZ 2022).

Dredging operations would utilize a small hydraulic suction dredge mounted on a barge to remove accumulated sediment from the riverbed directly in front of the intake area. The suction head would be positioned to limit disturbance, and material would be conveyed via pipeline to a designated in-river disposal site. The proposed placement

location has been identified to minimize habitat disruption and avoid interference with navigation.

2.6 Best Management Practices Included in Proposed Action

This section presents an overview of the best management practices (BMPs) that are incorporated into the Proposed Action in this document. BMPs are existing policies, practices, and measures that St. Hilaire Brothers and EID Pumping Station will adopt to reduce the environmental impacts of designated activities, functions, or processes.

Although BMPs mitigate potential impacts by avoiding, minimizing, reducing, or eliminating impacts, BMPs are distinguished from potential mitigation measures because BMPs are (1) existing requirements for the proposed action, (2) ongoing, regularly occurring practices, or (3) not unique to this proposed action. In other words, the BMPs identified in this document are part of the proposed action and are not potential mitigation measures proposed as a function of the NEPA environmental review process for the proposed action.

BMPs include actions required by federal or state law or regulation.

Table 2-1. BMPs Included in the Proposed Action.

BMP	Description
Construction Timing and Methods	All in-water work must occur within the state and federally defined winter in-water work window (December 1 – February 28). Installation of piles, including 10 additional steel piles, shall use a vibratory hammer to reduce noise impacts on protected species.
Permit Compliance	The applicant must comply with all applicable state and federal permits during and after project implementation to ensure authorized activities minimize incidental take.
Benthic Habitat Impact Limitation	Impacts to benthic habitat below the OHWM must not exceed 0.041 acre of fill and 0.041 acre of removal, in compliance with regulatory thresholds.
Light Penetration Requirement for Overwater Structures	All overwater structures must be constructed to allow at least 60 percent light penetration, as required by federal and state aquatic habitat regulations.
Monitoring and Reporting	The applicant must monitor all construction activity and conduct daily visual fish surveys within the in-water work area. A final report is due to the National Marine Fisheries Service (NMFS) within two months of project completion and must include:

	• Size and area of structures • Number, size, and type of piles installed • Detailed pile installation log (dates, times, durations) Reports must reference NMFS Tracking Number WCRO-2023-01663 and be submitted to crbo.consultationrequest.wcr@noaa.gov.
Bull Trout Monitoring and Incident Reporting	Any observed adverse effects to bull trout must be documented and reported immediately to the U.S. Fish and Wildlife Service (USFWS) La Grande Field Office. Verbal notifications must be followed by written communication within 3 business days. If a dead, sick, or injured bull trout or other listed species is found, notify: • USFWS Law Enforcement: (503) 682-6131 • Oregon Fish and Wildlife Office: (503) 231-6179 Details must include time, location, and condition of the animal. Specimens must be handled with care to preserve biological integrity and any associated evidence. Exceeding the authorized incidental take of 5 non-lethal bull trout requires immediate reinitiation of consultation with the Service.

3 Affected Environment and Environmental Consequences

This section describes the existing affected environment (existing condition of resources) and evaluates predicted environmental effects on those resources for each alternative. Although only relevant resource areas are specifically evaluated for effects, USACE did consider all resources in the proposed action area and determinations as to which ones to evaluate. The following resource areas were evaluated: Aesthetics/Visual Resources, Water Quality, Terrestrial Resources (Including Threatened and Endangered Species), Fish and Aquatic Resources (Including Threatened and Endangered Species), Socioeconomics, Historic Resources, and Noise. USACE considered, but did not identify any potential effects to Air Quality, Geology and Soils, Hazardous/Toxic Materials, Land Use, Recreation.

The potential impacts to the following resource areas considered to be negligible or non-existent so they were not analyzed in detail in this EA:

Table 3-1. Environmental Resources Not Evaluated Further.

Resource	Explanation
Air Quality	The action area meets Oregon State's ambient air quality standards and is in "attainment". No Statement of Conformity is needed in attainment areas. Air quality would be negligibly affected by implementation of the proposed action alternative.
Geology and Soils	The proposed action would not require additional ground disturbance, as it would consist of design revisions to an existing pump station infrastructure. This would require in-water and over-water work, impacts to geology and soils would be negligible.
Hazardous/Toxic Materials	The proposed action would not involve the generation, transport, or disposal of hazardous or toxic materials beyond standard construction-related fuels and lubricants. All such materials would be handled in accordance with applicable regulations and best management practices to prevent spills or releases.
Land Use	The proposed action would not result in any changes to existing land use classifications. Construction activities would occur within previously developed or designated utility corridors, and no long-term alteration of land use patterns or zoning designations is anticipated.
Recreation	The proposed action may temporarily affect water-based recreational activities in the immediate vicinity due to localized construction operations; however, these impacts would be negligible given the availability of alternative access points and waterbodies nearby for recreators to utilize.

The following descriptors are used in the body of this chapter for consistency in describing impact intensity.

- No or Negligible Impact: The action would result in no impact, or the impact would not change the resource condition in a perceptible way. Negligible is defined as of such little consequences as to not require additional consideration or mitigation.
- Minor Impact: The effect to the resource would be perceptible; however, not major, and unlikely to result in an overall change in resource character.
- Moderate Impact: The effect to the resource would be perceptible and may result in an overall change in resource character. Moderate impacts are not significant due to their limited context (the geographic, biophysical, and social context in which the effects would occur) or intensity (the severity of the impact, in whatever context it occurs).
- Significant Impact: The effect to the resource would be perceptible and severe, or the effect would be unlawful or unpermitted. The effect would result in an adverse change in resource character and require the completion of an EIS.
- Direct Impacts: Direct effects are caused by the action and occur at the same time and place. Activities that occur from implementation of the proposed action would directly effect a change, and initial effects would be immediately evident.
- Indirect Impacts: Indirect effects are caused by the action but are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. Activities that occur from implementation of the proposed action would not effect this change, but would enable change to occur, or change would occur later in time, or farther in distance than the actions.

A clear statement regarding significance is presented at the beginning and end of each resource evaluation.

3.1 Aesthetics/Visual Resources

3.1.1 Affected Environment

Aesthetics or visual resources are the natural and cultural features of the landscape that can be seen and that contribute to the public's appreciative enjoyment of the environment. The aesthetic quality of an area is a measure of one's perception making it a subjective factor to quantify.

The proposed action is located within an arid sagebrush-steppe region near the Lake Wallula reservoir on the Columbia River, approximately 9.5 miles upstream of the McNary Dam. The general topography within the project site ranges from level uplands to steep sloping bluffs and rock outcroppings. The immediate shoreline of the project area is a steep rip-rap bank with sparse vegetation. The proposed project is not located within a National Wild and Scenic River or State Scenic Waterway. Surrounding

landscapes are predominately agricultural and the Umatilla County Comprehensive Plan for land use planning and development in Umatilla County does not identify scenic corridors or sensitive protected viewpoints within the proposed project location (Pacific Power 2015). Lake Wallula reservoir, McNary National Wildlife Refuge (NWR) and Cold Springs NWR provide many aesthetic resources within an otherwise arid landscape.

The general topography within the proposed mitigation site is riparian containing both sandy and vegetated areas. There are remnants of an old road that descends into the river and becomes submersed. Nearby there is a marina and a park that add aesthetic value to the surrounding area. The proposed mitigation site is not located within a National Wild and Scenic River or State Scenic Waterway.

3.1.1.1 Alternative 1: No Action Alternative

Under the No Action Alternative, effects on aesthetic and visual resources would be negligible. No construction would occur, and any changes to the viewshed would result from ongoing natural processes or routine maintenance. These effects would be minor, localized, and adverse or beneficial only in a limited, imperceptible way, and are not considered significant. Routine maintenance activities are expected to result in minor or no effects on aesthetics. No additional direct positive or negative effects on aesthetic or visual resources are anticipated under the No Action Alternative.

These effects would be minor and localized and are not considered significant.

3.1.1.2 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

Under Alternative 2, effects on aesthetic and visual resources are expected to be minor, direct, and adverse, and primarily short-term in duration. Temporary visual impacts may occur during construction due to the presence of equipment and materials, but permanent changes to the viewshed would be limited and not significant.

The proposed modifications include expanding the pump deck, installing 10 additional support pilings, and removing accumulated sediment to establish pump cans and connect to the manifold. Incorporating these features may lead to minor permanent changes in the viewshed; however, these changes are not anticipated to meaningfully affect the natural or cultural character of the landscape. Overall, significant impacts to aesthetic or visual resources in the action area are not expected. Therefore, there would be no significant impact to aesthetic or visual resources surrounding the action area.

3.2 Water Quality

This section provides an overview of the quality water present in the project area. Water quality resources include surface water, floodplains, and shorelines. No wetlands were identified in the proposed action area.

3.2.1 Affected Environment

3.2.1.1 Surface Water

Surface water resources generally consist of wetlands, lakes, rivers, and streams. These resources contribute significantly to the economic, ecological, recreational, and public health value of a region. A Total Maximum Daily Load is the maximum amount of a pollutant that a waterbody can assimilate without exceeding water quality standards. A waterbody is considered impaired when water quality analyses identify exceedances of those standards.

Within the proposed action area, surface water resources include the Columbia River. Water quality in the Columbia River is influenced by numerous factors, including the presence of dams and diversion structures, water withdrawals, agricultural runoff, road construction, mining activities, and urban development. Lake Wallula, a reservoir formed by the McNary Dam on the Columbia River, is listed on the Oregon Department of Environmental Quality (ODEQ) 303(d) list for year-round temperature exceedance (ODEQ 2012). According to the Columbia River Data Access in Real Time (DART), 10-year average (2008–2017) temperatures in the McNary forebay range from 3.72°C to 22.24°C (DART 2018).

Within Lake Wallula, segments of the Columbia River are designated as category 5 for pH and temperature. Segments are designated as category 4A for total dissolved gas and dioxin. Segments of the Snake River within Lake Wallula are designated as category 5 a break-down product of DDT (known as 4,4'-DDE), chlordane, dieldrin, temperature, total Polychlorinated Biphenyls (PCBs), total maximum daily load for Dioxin (2, 3, 7, 8-TCDD) of 0.013 parts per quadrillion (ppq) (USACE 2011a and ODEQ 2015). Additional concerns for Lake Wallula include excess nutrients, low dissolved oxygen, the presence of heavy metals, and pH fluctuations, all of which may adversely affect aquatic ecosystems in the broader Columbia River system (ODEQ 2015).

Median turbidity values in the Columbia River, between the Snake River confluence and the Yakima River, generally range from 2 to 3 Nephelometric Turbidity Units (NTUs). Per Washington State water quality regulations, actions shall not cause turbidity to exceed 5 NTU over background levels when background turbidity is 50 NTU or less (USACE 2011a). Sediments in the proposed action area are composed mainly of unconsolidated sand and fine particles deposited due to upstream dam operations and land use practices. These fine sediments are susceptible to suspension when disturbed.

3.2.1.2 Floodplains

Floodplains are low-lying areas adjacent to rivers, streams, large wetlands, or coastal waters. They provide essential ecological functions such as flood attenuation, groundwater recharge, nutrient cycling, and water quality maintenance. Naturally vegetated floodplains reduce the speed and volume of overland flow entering a water body, thereby enhancing flood storage and conveyance.

Floodplain boundaries are typically defined by recurrence intervals, such as the 100-year and 500-year flood events. The Federal Emergency Management Agency publishes floodplain delineation maps, which are commonly used to evaluate project siting in relation to floodplains.

The proposed project is located along the mainstem Columbia River, where the existing structure extends into the river and spans areas above and below the OHWM. As a result, the project site lies within the floodplain of the Columbia River.

3.2.1.3 Shorelines

Shorelines encompass areas along marine waters, estuaries, and freshwater bodies. They are shaped by physical and hydrologic processes including wave and current action, channel migration, sediment deposition, erosion, nutrient cycling, and temperature variability. Shorelines support critical habitat for many aquatic and terrestrial species, particularly in areas where diverse shoreline features provide multiple microhabitats. Organic material deposited along shorelines is an important source of nutrients and shelter for invertebrates and other organisms.

At the proposed project area, the Columbia River shoreline is regulated due to reservoir management by the McNary Dam. The shoreline consists of steep, armored banks composed of riprap and engineered materials. The shoreline zone, representing the narrow transition area between the river and adjacent upland, is relatively narrow and compact, with limited natural vegetation due to maintenance activities and fluctuating water levels. The bank morphology is relatively steep in this area, limiting the development of shallow, emergent shoreline habitat. These physical conditions influence the types and availability of aquatic and riparian habitats present at the site.

3.2.2 Environmental Consequences

In this EA, the analysis of water resources looks at the potential impacts on surface water, floodplains and shorelines.

3.2.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, there would be no direct impacts to water quality. Surface water, shorelines, and floodplains would remain undisturbed, and any minor, localized, and temporary effects from periodic maintenance would be negligible and not significant. Under the No Action Alternative, USACE would not authorize the proposed modifications to the existing pump station. As a result, no in-water or over-water construction activities, such as pile installation, sediment removal, or pump deck expansion would occur.

Surface Waters

Without construction activity, the Columbia River's surface water quality in the project area would remain unchanged. There would be no construction-related increases in

turbidity, risk of chemical spills, or sediment resuspension. Periodic maintenance removal of sediment in front of the intake may still be required, resulting in short-term, localized increases in turbidity. However, such events are expected to be infrequent and minor and are not anticipated to have meaningful or lasting effects on the river's overall water quality, including parameters such as temperature, pH, or contaminant levels.

Floodplain

The floodplain adjacent to the project area would remain undisturbed, as no new infrastructure or construction-related ground disturbance would occur. Natural floodplain functions, such as moderation of flood events, water storage and conveyance, groundwater recharge, and nutrient cycling would continue without alteration. The absence of construction also means there would be no increase in impervious surfaces or changes to floodplain boundaries.

Shorelines

Shoreline areas in the vicinity of the pump station would not be subject to construction activity, equipment access, or material staging. Physical and biological characteristics of the shoreline, including erosion patterns, sediment composition, habitat structure, and wrack accumulation would remain unchanged. No direct or indirect effects on shoreline habitats or functions are anticipated under the No Action Alternative.

Overall, the No Action Alternative would avoid any short-term or construction-related impacts to surface water, floodplain, shoreline, or wetlands within the project area. Any ongoing or periodic maintenance activities are expected to have only minor, localized, and temporary effects that would not result in significant changes to the affected environment.

3.2.2.2 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

Under Alternative 2, the effects on water quality are expected to be minor, direct, and adverse, and primarily short-term in duration. The anticipated impacts would be perceptible but not major and are unlikely to result in an overall change to the character of surface water, floodplain, or shoreline resources in the project area. Construction-related activities, such as the installation of H-piles, dredging of accumulated sediment, and construction of an expanded pump deck would result in localized and temporary increases in turbidity and a limited risk of pollutant introduction. However, these impacts would be minimized using BMPs and are not expected to persist beyond the construction period. No significant or long-term adverse effects to water quality or associated aquatic resources are anticipated as a result of the proposed action.

Surface Waters

Pile installation and dredging are expected to cause localized, temporary increases in turbidity within the Columbia River. Vibratory pile driving minimizes sediment disturbance and noise relative to impact driving. Dredging activities would suspend fine sediment in the water column, and in-water disposal of dredged material within the river's flow lane (approximately 275 feet from the intake) could create a short-lived turbidity plume. The proposed disposal location has been identified to avoid sensitive habitats and navigation channels. Construction of the expanded pump deck introduces a risk of accidental pollutant release, such as petroleum products from barges or construction equipment, which could affect water quality if not properly managed.

To address these risks, BMPs would be implemented. These include secondary containment for fuels and lubricants, routine equipment maintenance, daily inspection and repair of vehicles prior to operation near the river, and spill response protocols. Vehicles operating within 150 feet of any stream or waterbody would be subject to these BMPs to further reduce the risk of fluid leaks or spills. With these measures in place, the probability of significant water quality impacts from spills or leaks is considered low, though not discountable. Standard erosion and sediment controls would also be applied to land-based staging areas to limit stormwater runoff and associated sediment or pollutant discharge to the river.

Floodplains and Shorelines

Construction activities would occur within the designated floodplain and along the shoreline of the Columbia River. While temporary and localized, construction could result in minor, short-term alterations to shoreline habitat and floodplain function due to equipment access and material handling. These impacts are expected to be minimized through careful planning and adherence to established BMPs.

Overall, implementation of this alternative is expected to result in minor, short-term impacts to surface water quality, aquatic habitat, and shoreline characteristics in the immediate project area. With the proposed environmental safeguards and BMPs, impacts to water quality and aquatic organisms, including stream macroinvertebrates would be minimized and are anticipated to be less than significant.

3.3 Terrestrial Resources

Terrestrial resources include living, native, or naturalized plant and animal species and the habitats within which they occur. Plant associations are referred to generally as vegetation, and animal species are referred to generally as wildlife. Habitat can be defined as the resources and conditions present in an area that support a plant or animal.

Within this EA, terrestrial resources are divided into terrestrial vegetation and terrestrial wildlife. Threatened, endangered, and other special status terrestrial species are discussed in their respective categories.

Special-status species, for the purposes of this assessment, are those species listed as threatened or endangered under the Endangered Species Act (ESA) (16 U.S.C. section

1531 et seq.) and species afforded federal protection under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. section 703 et seq.), or Bald and Golden Eagle Protection Act (16 U.S.C. section 668 et seq.).

The purpose of the ESA is to conserve the ecosystems upon which threatened and endangered species depend and to conserve and recover listed species. Section 7 of the ESA requires action proponents to consult with the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species or result in the destruction or adverse modification of designated critical habitat.

Birds, both migratory and most native-resident bird species, are protected under the MBTA, and their conservation by federal agencies is mandated by EO 13186 (Migratory Bird Conservation). Under the MBTA it is unlawful by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, or possess migratory birds or their nests or eggs at any time, unless permitted by regulation.

Bald and golden eagles are protected by the Bald and Golden Eagle Protection Act. This act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.

3.3.1 Affected Environment

The following sections describe the existing conditions for each category of terrestrial resources within the proposed action area. This overview addresses vegetation, wildlife, and habitats present at the site. Information on federally and state-listed threatened and endangered species is presented separately below, with a composite list of relevant species provided in Table 3-2.

3.3.1.1 Vegetation

Vegetation within the proposed action area is characteristic of the sagebrush steppe ecosystem typical of eastern Oregon. The overstory is dominated by big sagebrush (*Artemisia tridentata*), gray rabbitbrush (*Ericameria nauseosa*), and bitterbrush (*Purshia tridentata*). The understory consists primarily of native bunchgrasses, including bluebunch wheatgrass (*Pseudoroegneria spicata*), Idaho fescue (*Festuca idahoensis*), and basin wildrye (*Leymus cinereus*). Non-native and invasive species are also present, such as cheatgrass (*Bromus tectorum*), medusahead (*Taeniatherum caput-medusae*), and tall tumble mustard (*Sisymbrium altissimum*).

The project area has a history of grazing, resulting in a moderate baseline level of disturbance. Existing features within the area include dirt access roads, partially exposed irrigation pipes, and overhead powerlines, which have further altered the native vegetation community.

Based on Oregon Department of Fish and Wildlife habitat classifications (Oregon Administrative Rule 635-415-0025), the following habitat categories are present within the proposed right-of-way:

- Category 2 Habitats (essential and limited)
    - Upland Shrub-Steppe
    - Upland Grassland Non-Native
- Category 3 Habitats (essential, important, and limited)
    - Upland Grassland Native

3.3.1.2 Wildlife

The proposed action area, located within the sagebrush steppe community of eastern Oregon and adjacent to the Columbia River, provides a mosaic of upland, shrub-steppe, grassland, and riparian habitats. This habitat complexity supports a diverse assemblage of wildlife species that utilize the area for breeding, foraging, migration, and shelter.

Mammals

The sagebrush steppe and grassland habitats support common species such as mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), American badger (*Taxidea taxus*), and various small mammals including voles and mice. Riparian corridors and the riverbank areas are used by semi-aquatic species such as North American beaver (*Castor canadensis*) and muskrat (*Ondatra zibethicus*). Bat species, including western small-footed myotis (*Myotis ciliolabrum*), little brown myotis (*M. lucifugus*), and Townsend's big-eared bat (*Corynorhinus townsendii*), are likely to forage over open areas and water at dusk, taking advantage of abundant insect prey.

Birds

Bird diversity is especially high due to the presence of upland shrub-steppe, open grasslands, and proximity to the Columbia River. Waterfowl and waterbirds, including mallard (Anas platyrhynchos), gadwall (A. strepera), Canada goose (Branta canadensis), and American white pelican (Pelecanus erythrorhynchos), are regularly observed along the river and adjacent wetlands. Shorebirds and waders such as killdeer (Charadrius vociferus), American avocet (Recurvirostra americana), and great blue heron (Ardea herodias) utilize mudflats, shallow waters, and shoreline areas for foraging and nesting. Upland habitats provide foraging and nesting opportunities for game birds (e.g., ring-necked pheasant, California quail), woodpeckers, and a variety of passerines (perching birds) such as western meadowlark (Sturnella neglecta) and sage thrasher (Oreoscoptes montanus).

Raptors, including red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), osprey (*Pandion haliaetus*), and bald eagle (*Haliaeetus leucocephalus*), may be observed hunting across the landscape, using both open fields and riparian corridors. Several owl species may use shrubland edges and riparian forests for nesting and hunting at night.

Reptiles and Amphibians

The area's well-drained soils and grassland-shrubland matrix provide suitable habitat for reptiles such as western fence lizard (Sceloporus occidentalis), sagebrush lizard (S.

graciosus), gopher snake (Pituophis catenifer catenifer), and the western rattlesnake (Crotalus viridis). Wetlands and slow-moving river sections can also support species such as the western painted turtle (Chrysemys picta) and red-eared slider (Trachemys scripta elegans).

Wildlife abundance and species composition in the project area vary seasonally. Migratory birds, particularly waterfowl and shorebirds, are present during spring and fall migration periods, taking advantage of open water and foraging habitat along the Columbia River. Upland areas with a mix of native and non-native grasses provide year-round resources for resident mammals, birds, and reptiles. The moderate level of historic and ongoing disturbance (e.g., grazing, access roads, infrastructure) may influence local wildlife use, with more disturbance-tolerant species likely to be common in the immediate project area.

3.3.1.3 Threatened and Endangered Terrestrial Species

Threatened and Endangered species potentially present in the proposed action area (Table 3-2) have been identified by the USFWS Official Species List, generated May 22, 2025 (Appendix B). The species list identifies species under the management of the USFWS that could exist within a given area; however, these species would likely not be present in the action area.

Table 3-2. Threatened and Endangered Terrestrial Species Potentially Occurring in the Proposed Action Area.

Listed Species Scientific Name	Status	Critical Habitat (CH)	CH in Project Area
Monarch Butterfly (*Danaus Plexippus*)	Proposed T	Proposed	No
Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*)	Proposed E	N/A	No
Yellow-billed Cuckoo (*Coccyzus americanus*)	T	Final	No

Critical habitat (CH) designations are listed under the Status column: E = Endangered, T = Threatened.

Monarch Butterfly: Monarch butterflies (*Danaus plexippus*) have the potential to occur within the action area during their annual migration, although their presence is expected to be limited and transient. Monarchs rely on specific habitat features for breeding and foraging. Suitable breeding habitat requires the presence of milkweed species (*Asclepias spp.*), which serve as the exclusive host plants for monarch caterpillars, while adult monarchs depend on a variety of native flowering plants for nectar, especially during fall migration to overwintering sites in central Mexico.

Showy milkweed (*A. speciosa*), the primary host plant for monarch butterflies in northeastern Oregon, may occur in localized patches within the shrub-steppe environment, particularly in disturbed areas or near water sources. Documented occurrences of showy milkweed are found within the general vicinity of the project area;

however, suitable monarch breeding habitat is not extensive or well-developed at the site. Given the limited and patchy availability of host plants and the scale of the proposed action, implementation of the project would not jeopardize the continued existence of the monarch butterfly. Therefore, formal Section 7 conferencing under the ESA is not required for this species.

Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*): This species is an obligate social parasite that depends on healthy populations of host bumble bees, particularly the western bumble bee (*Bombus occidentalis*), to reproduce. *B. suckleyi* does not form its own colonies; instead, it invades the nests of host species to lay its eggs. Both the cuckoo bumble bee and its hosts require diverse, flower-rich habitats with abundant native flowering plants that provide nectar and pollen, as well as undisturbed areas for nesting and overwintering.

The Oregon shrub-steppe environment within the proposed project area could potentially provide habitat for Suckley's cuckoo bumble bee if healthy host bumble bee populations (particularly *B. occidentalis*) and abundant native flowering plants are present. However, the project area does not appear to support extensive or diverse floral resources, and there are no known observations of *B. occidentalis or B. suckleyi* in the immediate vicinity. As such, suitable habitat is considered limited, and the likelihood of occurrence is low.

Yellow-Billed Cuckoo (*Coccyzus americanus*): In western North American, yellow-billed cuckoos begin arriving from migration in mid- to late May with most nesting occurring between June and early August but may extend until late September, particularly if more than one egg clutch is laid (Jewett et al. 1953, Hughes 1999). Unlike many species of cuckoos, yellow-billed cuckoos often build their own nests and care for their own young but, will also occasionally lay their eggs in the nests of other yellow-billed cuckoos as well as other species, such as American robins, gray catbirds, and wood thrushes; a behavior known as brood parasitism. The western yellow-billed cuckoo has experienced a major decline in its breeding range since the 1800s and is now extirpated throughout most of its historical range. Breeding no longer occurs in Washington, Oregon, and British Columbia (Campbell et al. 1990) despite the species being considered "abundant" along the lower Columbia River in the mid-1800s (Jobanek and Marshall 1992).

3.3.2 Environmental Consequences

This analysis focuses on wildlife or vegetation types that are important to the function of the ecosystem or are protected under federal or state law or statute.

3.3.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, effects to terrestrial resources, including vegetation, wildlife, and threatened or endangered species would be negligible. No new impacts

would occur, and the character or function of terrestrial resources would remain unchanged from existing baseline conditions.

Vegetation

No additional disturbance to terrestrial vegetation would occur beyond current, ongoing operation and maintenance activities. The existing vegetation community, characterized by a moderate baseline of disturbance due to grazing, roads, and utilities, would remain unchanged. No native plant communities or sensitive habitats would be further impacted.

Wildlife

Wildlife usage and composition in the area would continue to reflect current conditions, with no additional habitat loss, fragmentation, or disturbance. Disturbance-tolerant species would remain common, and no new or increased barriers to movement, foraging, or breeding would be introduced. Seasonal and migratory patterns would persist unchanged.

Threatened and Endangered Species

There would be no change to existing habitat conditions for federally or state-listed species, and no additional effects on their populations or habitats. Any current negligible impacts associated with routine maintenance would continue, but the No Action Alternative would not introduce new risks or adverse effects.

Impacts to all terrestrial resources, including vegetation, wildlife, and special status species, would be less than significant.

3.3.2.2 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

Under Alternative 2, the proposed action would result in minor, short-term, and localized adverse effects to terrestrial resources, including vegetation, wildlife, and special-status species primarily during the construction period. These impacts would be temporary, limited in scope, and not expected to alter the long-term character or function of terrestrial resources in the project area.

Vegetation

The proposed action includes overwater and in-water construction activities associated with modifications to the existing pump station, with construction occurring primarily within or immediately adjacent to the Columbia River. Construction staging and access would take place from barges or temporary work platforms, substantially limiting land-based disturbance. If any terrestrial areas are temporarily used for equipment access or material storage, short-term impacts such as trampling or removal of low-lying vegetation could occur. These effects would be minor in intensity, highly localized, and

temporary in duration, with no long-term habitat loss or fragmentation anticipated. Following construction, disturbed areas would be stabilized and allowed to revegetate naturally or with appropriate seeding as needed. Routine operation and maintenance activities following construction would continue as before and would not introduce new adverse effects on vegetation communities or habitat types.

Wildlife

Direct impacts to terrestrial wildlife are expected to be minimal due to the limited footprint and short duration of construction. Terrestrial wildlife may experience temporary, indirect effects such as displacement or avoidance behavior due to increased noise and human activity during construction. These effects are anticipated to be of low intensity and confined to the construction period. The absence of substantial new ground disturbance or permanent barriers means that habitat connectivity, migration, and breeding opportunities would not be appreciably altered. Routine operation and maintenance following construction would not expand or intensify impacts to local wildlife populations or communities.

Threatened and Endangered Species

Monarch Butterfly: While showy milkweed (A. speciosa) is documented in the broader region, the proposed project area does not support extensive or high-quality monarch habitat. The limited and patchy availability of host plants, combined with the small project footprint, means the action is not expected to adversely affect monarch butterflies or jeopardize their continued existence. Section 7 conferencing is not required.

Suckley's Cuckoo Bumble Bee: The project area's shrub-steppe is unlikely to support the healthy host bumble bee populations and diverse floral resources required for this species. The likelihood of occurrence is low, and the action is unlikely to have an adverse effect on Suckley's cuckoo bumble bee or jeopardize its continued existence. Section 7 conferencing is not required.

Yellow-billed Cuckoo: This species is considered extirpated from Oregon and has not been observed in the project vicinity for many decades. The Proposed Action would have no effect on yellow-billed cuckoo or its habitat.

In summary, the proposed action would result in minor, short-term impacts to terrestrial resources during construction, with no long-term adverse effects expected. Operational and maintenance activities would remain consistent with existing conditions and are not anticipated to adversely affect terrestrial vegetation or wildlife. The impacts to terrestrial resources would be less than significant.

3.4 Fish and Aquatic Resources

Aquatic resources include living, native, or naturalized aquatic plant and animal species and the habitats within which they occur. Habitat can be defined as the resources and conditions present in an area that support a plant or animal.

Within this EA, aquatic resources are divided into anadromous fish, resident fish, and other aquatic resources of interest. Threatened, endangered, and other special status species are discussed in their respective categories.

Special-status species, for the purposes of this assessment, are those species listed as threatened or endangered under the ESA (16 U.S.C. section 1531 et seq.) and species afforded federal protection under the Marine Mammal Protection Act (16 U.S.C. section 1361 et seq.) or the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. section 1801 et seq.).

The purpose of the ESA is to conserve the ecosystems upon which threatened and endangered species depend and to conserve and recover listed species. Section 7 of the ESA requires action proponents to consult with USFWS or NMFS to ensure that the proposed actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species or result in the destruction or adverse modification of designated critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act provides for the conservation and management of the fisheries. Under the Act, essential fish habitat (EFH) consists of the waters and substrate needed by fish to spawn, breed, feed, or grow to maturity.

3.4.1 Affected Environment

Aquatic resources in the vicinity of the proposed action area are influenced by the physical, chemical, and biological conditions of the Columbia River mainstem and its impoundment as Lake Wallula. The area supports diverse aquatic habitats, including deep channel environments, shallow shoreline and embayment zones, and transitional riverine-lacustrine areas. The river's flow regime is regulated by the McNary Dam, resulting in altered seasonal flow patterns, water levels, and thermal regimes within Lake Wallula. Substrate in the project area consists primarily of sand, gravel, and finer sediments, with variable amounts of organic material and aquatic vegetation depending on local hydrology and river morphology.

Lake Wallula, a reservoir formed by the impoundment of the Columbia River behind McNary Dam, provides habitat for a wide range of aquatic organisms, including anadromous and resident fish, amphibians, mollusks, aquatic insects, and other invertebrates. The reach near the project area is influenced by upstream and downstream fish passage structures, periodic water level fluctuations, and variable water quality conditions. Seasonal variations in flow, water temperature, and turbidity affect species composition and productivity, particularly for fish and invertebrates that rely on specific habitat features for different life stages.

3.4.1 Aquatic Species

3.4.1.1 Anadromous Fish Species

The Columbia River near the proposed action area supports significant populations of anadromous fish, species that migrate from the ocean to freshwater to spawn. These include several salmonid species and other migratory fish. Key anadromous species present in the action area and the broader Lake Wallula environment are:

- **Chinook Salmon** (*Oncorhynchus tshawytscha*): Both spring/summer and fall-run populations migrate through Lake Wallula en route to and from spawning tributaries. Juvenile Chinook use the reservoir as a migration corridor and for rearing.
- **Sockeye Salmon** (*O. nerka*): Snake River sockeye are present in the action area as outmigrating smolts and returning adults, with Lake Wallula serving as a critical migration pathway.
- **Coho Salmon** (*O. kisutch*): Occur less frequently but may be present during migration seasons.
- **Steelhead** (*O. mykiss*): Both summer and winter steelhead runs utilize this reach of the Columbia for migration, holding, and foraging.
- **Pacific Lamprey** (*Entosphenus tridentatus*): Are anadromous and use the Columbia River and its tributaries during migration, spawning, and early rearing. Within Lake Wallula, deep, slow-moving reservoir conditions are generally unsuitable for spawning or larval development; however, adults are expected to occur in the project vicinity while migrating upstream. More suitable habitat for spawning and rearing exists in tributaries such as the Walla Walla and Umatilla Rivers, where gravel riffles and fine sediments provide conditions necessary for reproduction and ammocoete rearing (Moser and Close 2003).
- **American Shad** (*Alosa sapidissim*a): A non-native, but now well-established, anadromous fish that migrates in large numbers through the mainstem Columbia.

The Columbia River and Lake Wallula provide essential migratory corridors for these species. The proposed action area is within a reach that supports both upstream (adult) and downstream (juvenile) migrations, which are influenced by dam operations, water temperature, and flow conditions.

3.4.1.2 Resident Fish Species

Resident fish species are those that complete their entire lifecycle within the freshwater environment of the Columbia River and its tributaries. Common resident species near the proposed action area and within Lake Wallula include:

- **Bull Trout** (*Salvelinus confluentus*): Present but generally rare, typically requiring cold, clean water for spawning and rearing.
- **Suckers:** Largescale sucker (*Catostomus macrocheilus*) and bridgelip sucker (*C. columbianus*) are widely distributed and utilize both mainstem and backwater habitats.

- **Sturgeon:** White sturgeon (*Acipenser transmontanus*) inhabit deeper pools and are an important native species, while supporting both ecological functions and recreational fisheries.
- **Warmwater Species:** Carp (*Cyprinus carpio*), channel catfish (*Ictalurus punctatus*), bullhead species (*Ameiurus spp.*), smallmouth bass *(Micropterus dolomieu*), largemouth bass (*M. salmoides*), yellow perch (*Perca flavescens*), and walleye (*Sander vitreus*) are well established and contribute to the local sport fishery.

The diversity of resident fish reflects the range of available habitats from swift currents to quiet embayment's. Many of these species are tolerant of habitat modification and variable water quality.

3.4.1.3 Other Aquatic Resources

The Columbia River and Lake Wallula also support a variety of aquatic organisms beyond fish, which are important for ecosystem function and as food resources for higher trophic levels.

- **Amphibians:** Amphibian species potentially present in the vicinity of the action area include bullfrog (*Lithobates catesbeianus*), which is common and widespread along the Columbia River's margins and associated wetlands. Other native amphibians, such as Woodhouse's toad (*Bufo woodhouseii)*, Pacific tree frog *(Pseudacris regilla*), Great Basin spadefoot (*Spea intermontana*), and long-toed salamander (*Ambystoma macrodactylum*), may occur in off-channel wetlands, seasonally inundated floodplain habitats, or irrigation ditches adjacent to the river, though they are unlikely to utilize the mainstem river itself. The presence of Columbia spotted frog (*Rana luteiventris*) and northern leopard frog (*Rana pipiens*) in this stretch of the Columbia is considered unlikely, as these species are generally restricted to cooler, more permanent wetlands.
- **Aquatic Insects:** The river and reservoir support diverse aquatic macroinvertebrate communities, including mayflies, caddisflies, dragonflies, midges, freshwater scuds, and stoneflies. These taxa are important food sources for fish and birds and are indicators of water quality.
- **Mollusks:** Mollusk species present include the western ridged mussel (*Gonidea angulata*), native fingernail and pea clams (*Family Sphaeriidae*), and the non-native Asian clam *(Corbicula fluminea*). These species occupy both sandy and muddy substrates and contribute to nutrient cycling and water filtration.

3.4.1.4 Threatened and Endangered Terrestrial Species

Table 3-3 lists species designated as threatened or endangered under the ESA that could occur on lands surrounding the Proposed Action Area.

Table 3-3. Threatened and Endangered Aquatic Species Potentially Occurring in the Proposed Action Area.

Listed Species Scientific Name	Listed Species	Status	Critical Habitat (CH)	CH in Project Area
Chinook Salmon (Oncorhynchus tshawtytscha)	Upper Columbia River Spring-run ESU	E	Final	Yes
	Snake River Spring/Summer-run ESU	T	Final	Yes
	Snake River Fall-run ESU	T	Final	Yes
Sockeye Salmon (Oncorhynchus nerka)	Snake River ESU	E	Final	Yes
Steelhead (Oncorhynchus mykiss)	Upper Columbia River DPS	T	Final	Yes
	Middle Columbia River DPS	T	Final	Yes
	Snake River DPS	T	Final	Yes
Bull Trout (Salvelinus confluentus)	Bull Trout Columbia River DPS	T	Final	Yes

Critical habitat (CH) designations are listed under the Status column: E = Endangered, T = Threatened.

3.4.2 Environmental Consequences

This section evaluates the likely impacts of each alternative on fish and aquatic resources, with particular attention to species and habitats protected under federal and state law.

3.4.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, impacts to aquatic resources would remain negligible to minor, localized, and consistent with current operations. No new or significant adverse effects would occur, and aquatic community structure and function would remain unchanged. Aquatic resources would continue to be influenced by ongoing routine operations and maintenance activities performed by St. Hilaire. These include pumping irrigation water, in-water repairs, and potential spills or leaks from maintenance equipment. Resulting effects such as temporary increases in turbidity or short-term displacement of aquatic species would remain minor, localized, and consistent with existing conditions. No additional direct positive or negative effects would occur under the No Action Alternative.

Anadromous Fish Species

Migratory species such as Chinook, sockeye, and coho salmon; steelhead; Pacific lamprey; and American shad would experience the same environment as under current conditions. Routine activities may cause highly localized, temporary changes in turbidity or water quality, but would not hinder passage, alter migratory cues, or affect overall

population viability. Habitat connectivity and access to spawning and rearing areas would be maintained.

Resident Fish Species

Resident fish, including bull trout, white sturgeon, suckers, bass, catfish, and other warmwater species, would continue to utilize available habitats in the Columbia River and Lake Wallula. Periodic, short-term disturbance or displacement from maintenance activities would remain minor, with no long-term or population-level consequences. The diversity and abundance of resident fish would persist as currently observed.

Other Aquatic Resources (Amphibians, Invertebrates, and Mollusks)

The status of aquatic insects, amphibians, and mollusks would remain unchanged. Macroinvertebrate and mollusk communities may continue to experience occasional disturbance from sediment resuspension or minor habitat disruption during existing operations. Amphibian habitat, primarily associated with off-channel wetlands and shoreline margins, would not be affected by the No Action Alternative. No new adverse impacts to these resources are anticipated.

ESA-listed and Sensitive Fish Species

ESA-listed salmonids and bull trout would continue to be influenced by ongoing operations and maintenance, including irrigation pumping and periodic in-water repairs. Temporary and localized effects, such as brief increases in turbidity or short-term displacement could still occur but would not increase beyond current levels. Critical habitat features would remain intact, and no new barriers, significant habitat alteration, or disruption to migration or spawning would be anticipated. Overall, continued operations are not expected to interfere with the survival or recovery of listed species.

In summary, the No Action Alternative would result in continued, minor, and localized indirect effects to aquatic resources consistent with current operations. These effects would not significantly impact aquatic species, their habitats, or broader ecological functions.

3.4.2.2 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

Under Alternative 2, the construction related activities would result in minor, temporary, and localized adverse direct and indirect effects on aquatic resources, primarily during pile installation and sediment removal operations. These effects would be mitigated through the implementation of BMPs, and no significant or long-term adverse impacts are expected.

ESA-listed and Sensitive Fish Species

ESA-listed fish species such as Snake River spring/summer- and fall-run Chinook salmon, Snake River sockeye salmon, Snake River steelhead, Upper and Middle Columbia River steelhead, and bull trout could be affected by temporary increases in turbidity, hydroacoustic disturbance from vibratory pile driving, and localized displacement from construction zones. Vibratory pile driving, which produces lower sound pressure levels compared to impact driving, is less likely to result in injury or significant behavioral disruption. Sediment removal of up to 360 cubic yards from the riverbed may temporarily degrade water quality and disturb benthic prey availability. However, these effects would be limited in duration and spatial extent, and no long-term or significant effects to listed species or their critical habitat are anticipated.

Anadromous Fish Species

The Columbia River near the project area supports a diverse assemblage of anadromous fish species, including ESA-listed salmonids (Chinook salmon, sockeye salmon, and steelhead) as well as migratory bull trout, Pacific lamprey and other anadromous species. These species, which use the mainstem river and Lake Wallula for critical phases of their life cycles (migration, rearing, and spawning), may be seasonally present within or near the proposed action area during construction.

Direct Effects

Construction activities, such as vibratory pile installation and hydraulic dredging, would generate localized and temporary disturbances to anadromous fish and their habitats.

- **Turbidity:** The temporary suspension of sediments during in-water work may reduce water clarity, potentially affecting foraging, respiration, or migration for fish within the immediate vicinity of the activity. These effects would be minor in magnitude, highly localized, and brief, especially with implementation of best management practices (e.g., sediment control measures and work windows timed to minimize fish presence).
- **Underwater Noise:** Vibratory pile driving is expected to produce low-intensity underwater noise, well below thresholds associated with physical injury or significant behavioral disruption for salmonids and bull trout. Most fish are likely to avoid the immediate work area during construction but are expected to resume normal activities shortly thereafter.
- **Displacement:** Some anadromous fish may temporarily avoid the area during construction, but the effect is not anticipated to interrupt broader migratory movements or significantly delay upstream or downstream passage.

Indirect Effects

- **Critical Habitat:** Designated critical habitat for ESA-listed salmonids and bull trout overlaps the action area. Localized disturbances (e.g., minor, short-term changes to substrate and water quality) would not affect the essential physical or biological features required by these species. Prey resources (such as aquatic invertebrates) may be temporarily disturbed but would quickly recover after work completion.
- **Migration and Habitat Connectivity:** Project timing will be coordinated to avoid key periods of migration and outmigration, further reducing risk of adverse

effects. The completed structures would not impede fish movement, alter main channel flow, or substantially change temperature or habitat structure.

- **Post-Construction Conditions:** Overwater and in-water structures are not expected to create long-term or population-level impacts on habitat availability or suitability for anadromous fish. The structures would not provide meaningful additions to predator habitat in Lake Wallula.

Direct and indirect effects to anadromous fish, including ESA-listed salmonids and migratory bull trout, would be minor, highly localized, and temporary, with no significant or long-term impacts anticipated. With implementation of BMPs, timing restrictions, and mitigation measures, the project would not jeopardize the continued existence of any ESA-listed anadromous fish or bull trout, nor would it result in destruction or adverse modification of designated critical habitat.

Resident Fish Species

Resident fish species may be temporarily displaced from the immediate in-water work area. Localized increases in turbidity and substrate disturbance may cause short-term stress or avoidance. The addition of overwater structures may alter fish movement patterns locally but could also provide beneficial cover or refuge post-construction. No substantial or long-term effects to resident fish populations are expected.

Other Aquatic Resources (Amphibians, Invertebrates, and Mollusks)

Benthic macroinvertebrates and mollusks could be temporarily affected by increased turbidity and physical disturbance in the construction footprint. Filter-feeding invertebrates are most susceptible to suspended sediments, but the localized and temporary nature of the disturbance would limit population-level effects (NMFS 2011). Adjacent habitats would continue to support robust invertebrate and mollusk communities. Amphibian populations, largely reliant on off-channel habitats, are not expected to be directly affected. BMPs and work area isolation would minimize the potential for unintended impacts.

Alternative 2 would result in minor, short-term, and localized adverse impacts to aquatic resources during construction. These effects would be minimized through the application of BMPs and seasonal work restrictions. No significant, long-term, or population-level impacts to fish, invertebrates, mollusks, or their habitats are anticipated, and the ecological function of the Columbia River and Lake Wallula would be maintained.

3.5 Socioeconomics

3.5.1 Affected Environment

The proposed action is located in Umatilla County, Oregon and has a population of approximately 80,000 residents (U.S. Census Bureau, 2020 Decennial Census). The county remains largely rural with a population density of about 25 persons per square

mile. Demographically, the region is relatively young, with a median age of 36.4 years, and includes a significant Hispanic or Latino population that accounts for nearly 29 percent of residents.

The local economy reflects a mix of agricultural, service, and trade-related activity. Median household income is about $60,600, and the per capita income is $29,600 (U.S. Census Bureau, ACS 2022 5-Year Estimates). However, poverty levels are notably higher than the state average, with nearly one in five residents living below the poverty line. Employment is concentrated in health care and social assistance, retail trade, and educational services, consistent with regional service demands and the county's role as a hub for both rural and small urban communities.

Educational attainment trails behind state and national averages, with approximately 82 percent of adults over 25 holding a high school diploma and 18 percent holding a bachelor's degree or higher. This reflects ongoing challenges in higher educational access in rural counties of eastern Oregon.

Housing conditions show relative stability. The 2020 Census recorded nearly 33,000 housing units, with two-thirds owner-occupied and a median value of $256,100. Average household size is 2.5 persons, reflecting both family households and working populations tied to agricultural and service employment.

Socioeconomic conditions of Umatilla County are considered below in Table 3-4 illustrate a rural, working community with strong agricultural roots, modest incomes, and a diverse population. These characteristics provide context for understanding the social and economic setting that could intersect with the Proposed Action.

Table 3-4. Socioeconomic Indicators of Umatilla County, Oregon

Category	Indicator	Umatilla County
Population	Total Population (2020)	80,075
	Population Density (per sq. mile)	24.9
	Median Age	36.4 years
	Hispanic/Latino Population	28.9%
Income & Employment	Median Household Income	$60,582
	Per Capita Income	$29,648
	Poverty Rate	18.9%
Education	High School Graduate or Higher (25+ yrs)	82%
	Bachelor's Degree or Higher (25+ yrs)	18%
Housing	Total Housing Units	32,837
	Homeownership Rate	67.1%
	Median Home Value	$256,100
	Average Household Size	2.5 persons

3.5.2 Environmental Consequences

3.5.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, there would be negligible direct effects and minor long-term adverse indirect effects on socioeconomic conditions. No construction would

occur, and existing traffic patterns would remain unchanged. However, the continued reliance on the current pump station, with less efficient irrigation delivery, could limit water availability. This could indirectly reduce farm revenues and associated agricultural employment, which are important to Umatilla County's largely rural population of approximately 80,000 residents. Lower-than-average household incomes and elevated poverty rates could make the community more sensitive to these indirect economic effects. Housing, education, and public services would not experience direct impacts under this alternative, though prolonged economic stress could affect local tax revenue over time.

3.5.2.2 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

Under Alternative 2, there would be minor short-term adverse direct effects and moderate long-term beneficial indirect effects on socioeconomic conditions. Construction activities, including dredging of approximately 360 cubic yards of sediment, would temporarily increase traffic, create short-term local employment, and slightly raise demand for construction-related services. These direct effects would be localized and limited in duration.

Operation of the upgraded pump station would enhance irrigation reliability and efficiency for approximately 51,200 acres of farmland. This would support agricultural productivity, stabilize employment in farming and related sectors, and maintain the county's tax base. For a rural county with modest incomes and higher-than-average poverty, these outcomes constitute moderate long-term indirect beneficial effects. No changes to housing, population distribution, or educational attainment are anticipated.

3.6 Historic Resources

3.6.1 Affected Environment

The project area is located along the Columbia River in Umatilla County, Oregon, near Lake Wallula, a region of rich cultural and historical significance. Indigenous peoples, including the Cayuse, Umatilla, and Walla Walla Tribes, have occupied the confluence of the Columbia and Snake Rivers for more than 10,000 years. This area holds a concentration of prehistoric and historic sites, including rockshelters, pithouses, fishing stations, trails, and other locations of traditional and archaeological importance. The historic period in this region began with the Lewis and Clark Expedition in 1805, and continued use of the river corridor has created a dense archaeological landscape along the Lake Wallula shoreline.

The proposed action is located adjacent to three existing pumping stations constructed over the past 40 years. Reiss-Landreau Research (RLR) conducted a cultural resource inventory, including a walkover visual reconnaissance of the upland pipeline corridor and subsurface coring in the Columbia River in support of a previous undertaking.

Despite the high sensitivity of the area, no subsurface cultural materials were observed during fieldwork, including the ten core samples extracted from the underwater sediments of the Columbia River. Portions of the project area exhibited significant prior

disturbance from roads, railroads, and construction associated with existing infrastructure, further reducing the potential for intact cultural deposits. Based on the prior findings of RLR's archaeological reconnaissance, subsurface monitoring, and a current record search conducted by USACE archaeologist, no historic or archaeological resources were identified within the project area.

3.6.2 Environmental Consequences

Analysis of potential impacts to historic resources considers both direct and indirect impacts. Direct impacts may be the result of physically altering, damaging, or destroying all or part of a resource, altering characteristics of the surrounding environment that contribute to the importance of the resource, introducing visual, atmospheric, or audible elements that are out of character for the period the resource represents (thereby altering the setting), or neglecting the resource to the extent that it deteriorates or is destroyed. Indirect effects to historic properties are those caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable.

3.6.2.1 Alternative 1: No Action Alternative

The No Action Alternative would result in no changes to any processes affecting historic resources and would have no potential to affect historic properties.

3.6.2.2 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

This alternative involves a lease amendment by USACE to accommodate modifications to an existing pump station facility along the Columbia River in Umatilla County, Oregon. This real estate action constitutes a federal undertaking under Section 106 of the National Historic Preservation Act (NHPA) and serves to define the Area of Potential Effect.

A cultural resource investigation conducted by RLR did not identify any archaeological sites or historic properties within the boundaries of the lease area. The project area has been previously disturbed by infrastructure development associated with the original construction and operation of the existing pump stations.

Because no historic properties were identified during the inventory and the project activities are confined to previously disturbed areas, implementation of the proposed action would result in no direct or indirect impacts to historic resources.

3.7 Noise

This discussion of noise includes the types or sources of noise and the associated sensitive receptors in the human environment. Noise in relation to biological resources and wildlife species is discussed in the Biological Resources section.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air or water, and are sensed by the human ear. Sound is all around us. The perception and evaluation of sound involves three basic physical characteristics:

- Intensity – the acoustic energy, which is expressed in terms of sound pressure, in decibels (dB)
- Frequency – the number of cycles per second the air vibrates, in Hertz
- Duration – the length of time the sound can be detected

Noise is defined as unwanted or annoying sound that interferes with or disrupts normal human activities. Although continuous and extended exposure to high noise levels (e.g., through occupational exposure) can cause hearing loss, the principal human response to noise is annoyance. The response of different individuals to similar noise events is diverse and is influenced by the type of noise, perceived importance of the noise, its appropriateness in the setting, time of day, type of activity during which the noise occurs, and sensitivity of the individual.

An extensive amount of research has been conducted regarding the effects of noise exposure, including its impact on annoyance, speech interference, classroom and learning disturbances, sleep disruption, effects on recreation, potential hearing loss, and other non-auditory health consequences. Emphasizing the temporality of the exposure-effect relationship (Tao, Chai, Kou, & Kwan, 2020).

3.7.1 Affected Environment

Many components may generate noise and warrant analysis as contributors to the total noise impact. USACE supports conditions free from noise that threaten human health and welfare and the environment. Response to noise varies, depending on the type and characteristics of the noise, distance between the noise source and whoever hears it (the receptor), receptor sensitivity, and time of day. A noise sensitive receptor is defined as a land use where people involved in indoor or outdoor activities may be subject to stress or considerable interference from noise. Such locations or facilities often include residential dwellings, hospitals, nursing homes, educational facilities, and libraries. Sensitive receptors may also include noise-sensitive cultural practices, some domestic animals, or certain wildlife species.

The proposed action is located within a rural area with relatively few noise sources. Sources may include noise generated by existing pump stations, boat operation along Lake Wallula, and vehicle use within the right-of-way and nearby highway. Because the area is sparsely populated, background noise levels at locations distant from boat traffic and traveled roadways are likely to be between 30 and 40 decibels adjusted (dBA), under calm wind conditions (USACE 2011b). New construction, pumping, and asphalt excavation from the river could increase noise in the immediate area of the work.

3.7.2 Environmental Consequences

3.7.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, effects to the noise environment would be negligible, with no perceptible changes in baseline conditions. Existing sources of noise in the project area, including operation of the irrigation pump station (96–104 dBA at source, Depczynski 2005), recreational boat activity on Lake Wallula, and occasional vehicle traffic within the right-of-way and nearby highways, would remain the primary contributors to ambient sound levels. Background noise in rural portions of the project area, away from these sources, is expected to remain low (generally 30–40 dBA under calm conditions).

No new construction or operational activities would occur under this alternative. Therefore, there would be no additional noise generation beyond what is currently experienced. Sensitive receptors in the area, such as residents at nearby Recreation Vehicle (RV) parks or campgrounds, or wildlife species would not be exposed to noise levels beyond existing conditions. Any short-term, periodic increases in noise would remain associated with normal seasonal activities (e.g., increased boating during recreation season), and would not constitute a new or intensified impact.

In summary, the No Action Alternative would result in no new direct or indirect noise impacts. Effects to the acoustic environment would be negligible, localized, and not adverse. No significant impact to human health, welfare, the environment, or noise-sensitive receptors would be expected under the No Action Alternative.

3.7.2.2 Alternative 2: St. Hilaire-EID Lease Amendment for Pump Station Modifications (Proposed Action)

Under Alternative 2, minor to moderate, short-term, adverse impacts to the noise environment would occur as a direct result of construction-related activities. Primary sources of noise would include equipment operation (such as cranes, barges, generators), vibratory pile driving for installation of 10 H-piles, and concrete construction work for the expanded pump deck. All construction noise would be temporary and would occur only during daylight hours, in accordance with applicable noise ordinances and best management practices.

Construction activities, particularly vibratory pile driving, would generate continuous, low-frequency noise both above and below water. In-water noise can transmit efficiently through the aquatic environment and may be perceptible to fish and aquatic organisms within the immediate project area. However, vibratory pile driving is generally less intense than impact pile driving, resulting in lower peak sound levels and a reduced risk of injury to fish, including ESA-listed anadromous species. Potential impacts would be limited to short-term behavioral avoidance or displacement from the immediate vicinity, with no expected long-term or population-level effects.

On land, elevated noise levels may cause temporary avoidance behaviors in local terrestrial wildlife but given the limited spatial extent of the action and the moderate baseline disturbance from existing infrastructure and activities, these impacts would be

localized and reversible. Sensitive human receptors, such as those at nearby RV parks or campgrounds are located at a sufficient distance from the project site that construction noise is anticipated to be perceptible but not disruptive.

No increases in operational or maintenance-related noise are expected following completion of the project. The proposed modifications would not introduce new mechanical systems or increase the frequency or intensity of pump operations beyond existing levels.

In summary, Alternative 2 would result in short-term, localized, and minor to moderate adverse noise impacts during the construction period. These effects would be temporary and would not persist beyond the completion of construction activities. With adherence to construction timing restrictions and BMPs, no long-term or significant adverse effects to human health, welfare, the environment, or noise-sensitive receptors are anticipated.

Upon the completion of the public review period, USACE has selected Alternative 2, St. Hilaire-EID Lease Amendment for Pump Station Modifications as the preferred alternative. This alternative best meets the purpose and need for the action.

The preferred alternative would amend the existing lease, issue a temporary construction license, and new regulatory permits for modifications to the existing St. Hilaire pump station. The modifications would include expanding and elevating the pump deck, installing additional H-piles for support, and removing accumulated sediment from the intake area.

This alternative would address the need to enhance the facility's operational performance and structural stability by elevating and expanding the pump deck for safer and more reliable maintenance access, installing additional H-pilings to strengthen the structure, and removing accumulated sediment to restore hydraulic efficiency. These improvements would ensure that the St. Hilaire–EID Pumping Station can continue to deliver reliable surface water for irrigation while improving overall performance.

The environmental impacts of the preferred alternative are summarized in Table 4-1 below.

Table 4-1. Summary of Impacts of the Preferred Alternative.

Resource	Less than significant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Aesthetics/Visual Resources	X	-	-
Water Quality	X	-	-
Terrestrial Resources	X	-	-
Fish and Aquatic Resources	X	-	-
Socioeconomics	X	-	-
Historic Resources	X	-	-
Noise	X	-	-

5 Compliance with Applicable Treaties, Laws, and Executive Orders

5.1 Treaties

Treaties are legally binding contracts between sovereign nations that establish those nations' political and property relations. Treaties between Native American Tribes and the United States confirm each nation's rights and privileges. In most of these treaties, the Tribes ceded title to vast amounts of land to the United States but reserved certain lands (reservations) and rights for themselves and their future generations. It is important to be clear that "the rights of sovereign Indian Tribes pre-existed their treaties; they were not granted them by treaties or by the United States government. Rather, the treaties gave their rights legal recognition" (Hunn et al. 2015:58). Like other treaty obligations of the United States, Indian treaties are "the supreme law of the land," and they are the foundation upon which Federal Indian law and the Federal Indian trust relationship is based.

There are several treaties with Native American Tribes which may be applicable to the St. Hilaire-EID pump station project. These include treaties with the Nez Perce Tribe (1855, 1863,1868), Confederated Tribes of the Umatilla Indian Reservation (1855), Yakama Nation (1855), and the Warm Springs Tribe (1859). Each of the above named Tribes explicitly reserved certain rights, including the exclusive right to take fish in streams running through or bordering reservations, the right to take fish at all usual and accustomed (U&A) places in common with citizens of the territory, and the right of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed lands. The treaty rights and resources potentially affected by the proposed action primarily relate to fish and fishing.

The proposed action is not expected to have a greater than de minimus effect (if any) on treaty rights or substantially diminish any treaty resource. In-water construction would be limited to the established in-water work window of December 1 through February 28, a time when few ESA-listed fish would be in the area. All heavy equipment (i.e., crane and excavator) would access the project site via existing roadways, parking areas, disturbed upland area, and/or floating barges. The proposed action does not impair access to any usual and accustomed fishing stations.

5.2 Federal Laws, Regulations, and Executive Orders

5.2.1 National Environmental Policy Act

NEPA requires federal agencies to use a systematic interdisciplinary approach to evaluate the environmental effects of a proposed federal action prior to implementing that action. This is usually accomplished through preparation of a statement of either an EIS if the action is a major federal action significantly affecting the quality of the human environment, or an EA if the federal agency has not yet determined the significance of the effects.

USACE prepared this EA and provided it to other Federal, state and local agencies, Tribes, and the public. The draft FONSI, this EA, and all supporting appendices were

made available to other federal and state agencies, Tribes, and the public for a 30-day review and comment period from October 3, 2025, to November 2, 2025. While preparing the EA and during the public review period, USACE did not identify any impacts that would significantly affect the quality of the human environment. No comments were received during the public comment period. Therefore, compliance with NEPA will be achieved upon the signing of the FONSI. If significant impacts had been identified during public review, an EIS would have been required. Completion of an EIS and the signing of a Record of Decision would then achieve compliance with NEPA.

5.2.2 Clean Water Act

The Federal Water Pollution Control Act (33 U.S.C. §1251 et seq., as amended) is more commonly referred to as the Clean Water Act (CWA). This act is the primary legislative vehicle for federal water pollution control programs and the basic structure for regulating discharges of pollutants into WOTUS. The act was established to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." The CWA sets goals to eliminate discharges of pollutants into navigable water, protect fish and wildlife, and prohibit the discharge of toxic pollutants in quantities that could adversely affect the environment.

Section 402 of the Act, the National Pollutant Discharge Elimination System (NPDES) program, pertains to discharge of pollutants and also regulates ground disturbance that could potentially cause storm water run-off ending up in WOTUS. Activities involving construction or soil disturbance on the shoreline or upland have the potential for storm water runoff and would be subject to the storm water provisions of Section 402 of the CWA if the area of soil disturbance would be more than an acre and would discharge storm water into surface water. The applicant would comply with the applicable Section 402 construction general permit for these site-specific actions.

Section 404 of the CWA established a program to regulate the discharge of dredged or fill material into WOTUS and Section 401 requires that any federal activity that may result in a discharge to WOTUS must first receive a water quality certification from the state in which the activity would occur.

Discharge of dredged or fill material below the line of the OHWM requires evaluation under Section 404 of the Clean Water Act. Proposed activities would involve placement of approximately 360 cubic yards of dredge material below the ordinary high-water mark in the Columbia River, therefore, an individual permit would be issued to St. Hilaire by the Corps of Engineers Portland District Regulatory Branch.

Section 401 of the Act requires a certification from the applicable permitting agency that the discharge of a pollutant or dredged or fill material meets water quality standards. If a permit under either Section 402 or 404 is needed for an action, Section 401 water quality certification is also needed. In this case, ODEQ would issue Section 401 Certification to St. Hilaire.

5.2.3 Rivers and Harbors Act

The RHA of 1899 was the first federal water pollution act in the U.S. It focuses on protecting navigation, protecting waters from pollution, and acted as a precursor to the CWA. Section 10 of the RHA of 1899 regulates alteration of and prohibits unauthorized obstruction of navigable (WOTUS). Original construction of the federal navigation channels was authorized, nationwide under the RHA, and USACE maintenance dredging maintains the navigability of the channels in accordance with their authorized dimensions.

Section 10 of the RHA requires that regulated activities conducted below the OHWM elevation of navigable WOTUS be approved/permitted by USACE. Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway.

New Regulatory permit would be issued to St. Hilaire by the USACE Portland District Regulatory Branch.

5.2.4 Endangered Species Act

The ESA established a national program for the conservation of threatened and endangered fish, wildlife, and plants and the habitat upon which they depend. Section 7(a)(2) of the ESA requires federal agencies to consult with USFWS and NMFS, as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their critical habitats. Section 7(c) of the ESA and the federal regulations on endangered species coordination (50 CFR §402.12) require that federal agencies prepare biological assessments of the potential effects of major actions on listed species and critical habitat.

Formal consultation with both USFWS and NMFS was concluded. USFWS issued its Biological Opinion (BiOp) on September 13, 2023 (Appendix C), concluding that the proposed action is not likely to jeopardize the continued existence of bull trout and not likely to result in the destruction or adverse modification of designated bull trout critical habitat. NMFS issued its BiOp on October 9, 2024 (Appendix C), concluding that the proposed action is not likely to jeopardize the continued existence of any ESA-listed anadromous salmonids in the proposed action area.

5.2.5 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions, primarily for Native American Tribes. Take under this Act includes both direct taking of individuals and take due to disturbance.

Bald and golden eagles are known to nest throughout USACE managed lands in the Walla Walla District. While all nest sites have not been documented, locations of some

are known. None are known to occur in or near the proposed action area, therefore, there would be no effect or take (to include disturbance) of either bald or golden eagles.

5.2.6 Migratory Bird Treaty Act

The MBTA (16 U.S.C. §§ 703-712, as amended) prohibits the taking of and commerce in migratory birds (live or dead), any parts of migratory birds, their feathers, or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof.

To ensure compliance with the MBTA:

- **Timing Restrictions:** Dredging and disposal activities are scheduled, to the extent practicable, outside of the primary migratory bird nesting season (generally April 1–July 31 in Washington), minimizing the potential for direct disturbance or incidental take of active nests, eggs, or dependent young.
- **Pre-Construction Surveys:** Prior to initiating dredging or upland disposal during the nesting season, surveys would be conducted by qualified biologists to identify any active nests in or adjacent to work areas. If active nests are found, appropriate buffers and avoidance measures would be implemented until the young have fledged.
- **Minimization Measures:** Vegetation removal in upland disposal areas would be limited to previously disturbed locations with low habitat value. Where feasible, natural vegetation would be preserved, and disturbed sites would be promptly revegetated with native grasses following disposal.
- **Best Management Practices (BMPs):** Standard construction BMPs would be implemented to limit noise, dust, and other disturbances that could affect migratory birds in the vicinity of work sites.

With these avoidance and minimization measures in place, the proposed action is not expected to result in the take of migratory birds, their eggs, or nests, and would comply with the MBTA.

5.2.7 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) of 1934, as amended (16 U.S.C. 661 et seq.), requires federal agencies to coordinate with USFWS and state wildlife agencies when planning the control or modification of water bodies, in order to conserve fish and wildlife resources. In this case, USACEs role is limited to the issuance of a real estate easement amendment and associated construction license to a non-federal applicant. The underlying project, including its design and implementation, is applicant-funded and applicant-led, and does not involve federal planning, funding, or construction participation.

Because USACE's involvement is restricted to real estate authorizations and does not include project planning or implementation, consultation under the FWCA was not required for this action. The applicant was not subject to FWCA coordination requirements, and USACE's regulatory review focused on ensuring compliance with other applicable federal laws and regulations. Consultation with USFWS under Section 7 of the Endangered Species Act was completed separately to address potential impacts to federally listed species.

5.2.8 Fishery Conservation Management Act of 1976

The Fishery Conservation and Management Act of 1976 (16 USC 1801-1882; 90 Stat. 331; as amended), also known as the Magnuson-Stevens Fishery Conservation and Management Act, established a 200-mile fishery conservation zone, effective March 1, 1977, and established the Regional Fishery Management Councils consisting of federal and state officials, including USFWS. The fishery conservation zone was subsequently dropped by amendment and the geographical area of coverage was changed to the Exclusive Economic Zone, with the inner boundary being the seaward boundary of the coastal states. Columbia River salmon and steelhead are found in this zone.

NMFS reviewed the proposed action for its potential effects on EFH under the Magnuson-Stevens Fishery Conservation and Management Act. NMFS determined on October 9, 2024 (Appendix C) that the action would adversely affect EFH designated under the Pacific Salmon Fishery Management Plan, specifically for Chinook and coho salmon. These impacts could affect critical habitat functions such as spawning, rearing, and migration. In response, NMFS provided five conservation recommendations to avoid, minimize, or offset adverse effects. These include adhering to all applicable state and federal permits; limiting additional fill and substrate removal to no more than 0.041 acres each; designing overwater structures to allow at least 60 percent light penetration; and installing sediment turbidity curtains to control sediment dispersion. EFH encompasses the physical, chemical, and biological attributes of aquatic habitats essential for fish survival and productivity.

5.2.9 National Historic Preservation Act

Section 106 of the NHPA requires agencies to consider the potential effect of their actions on properties that are listed, or are eligible for listing, on the National Register of Historic Places (NRHP). The NHPA implementing regulations, 36 CFR Part 800, requires that the federal agency consult with the State Historic Preservation Officer (SHPO), Tribes and interested parties to ensure that all historic properties are adequately identified, evaluated and considered in planning for proposed undertakings.

Consultation was conducted with the Oregon SHPO, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Colville Reservation, Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation, consistent with 36 CFR §800.5(d)(1).

According to SHPO's correspondence (Appendix D), if no response is received within 30 calendar days from receipt of the submittal, the agency's responsibilities under

Section 106 of the NHPA (as amended), Oregon Revised Statute 358.653, and other related review processes are considered complete, and the project may proceed as described in the submitted scope of work. The SHPO 30-day response period concluded on October 2, 2025 and USACE did not receive any responses.

All federal and state laws protecting cultural resources, local permitting requirements, and necessary coordination with Native American Tribes for federal, state, and local government projects continue to apply.

5.2.10 Executive Order 11988, Floodplain Management

This Executive Order outlines the responsibilities of federal agencies in the role of floodplain management. Each agency must evaluate the potential effects of actions on floodplains and avoid undertaking actions that directly or indirectly induce development in the floodplain or adversely affect natural floodplain values. The proposed action is sited within the Columbia River floodplain, as the facility is dependent on direct access to the river for its continued operation and maintenance as an irrigation water supply intake. Siting the project outside the floodplain is not practicable given its water-dependent purpose.

The proposed modifications do not involve new or expanded development unrelated to the continued operation of the existing pump station, and no additional structures are planned beyond what is required for safety, maintenance, and improved reliability. The project would not induce secondary growth or development in the floodplain, nor would it alter floodplain functions, increase flood risk, or diminish natural floodplain values. All construction and modifications would be designed and implemented in a manner that avoids and minimizes adverse effects to floodplain resources and complies with applicable federal, state, and local requirements.

5.2.11 Executive Order 11990, Protection of Wetlands

Executive Order 11990 requires federal agencies to take actions to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands when undertaking federal activities and programs.

The proposed action would not result in the destruction, loss, or degradation of wetlands.

6 Consultation, Coordination, and Public Involvement

6.1 Tribal and Agency Consultation and Coordination

6.1.1 Tribal Consultation

USACE acknowledges the federally recognized Treaties of 1855, 1863, 1868, and 1859, which reserve rights such as fishing at usual and accustomed places, hunting, gathering, and access to open and unclaimed lands. Given these reserved rights, particular attention was given to the project's potential effects on fisheries resources.

Input received from the Tribes in 2018 emphasized the importance of protecting aquatic habitat, ensuring that ESA-listed species are not adversely affected, and maintaining access to usual and accustomed fishing areas. Based on this feedback, the project team confirmed that in-water construction would occur within the designated in-water work window (December 1 to February 28) to minimize disturbance to fish populations. In addition, all construction access would be confined to existing roadways, uplands, or floating barges to avoid new ground disturbance or habitat loss.

As additional components proposed in 2025 amendment, Consultation with Confederated Tribes of the Umatilla Indian Reservation, Confederated Colville Tribes, Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation has been completed.

6.1.2 National Historic Preservation Act Section 106 Coordination

USACE has prepared a review of historic resources within the project area to identify any potential effects to properties eligible for or listed in the NRHP. This review included archival research, and an assessment of potential project impacts to historic properties.

On September 2, 2025, the review was provided to the Oregon State Historic Preservation Office (SHPO) and to Treaty Tribes associated with the 1855 Walla Walla Treaty for their review and comment. Tribal governments consulted include the Confederated Tribes of the Umatilla Indian Reservation, Confederated Colville Tribes, Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation.

In accordance with 36 CFR §800.5(d)(1), if no response is received within 30 calendar days from the date of SHPO receipt, the agency's responsibilities under Section 106 of the NHPA of 1966, as amended, and Oregon Revised Statute 358.653, are considered complete. The 30-day SHPO response period concluded on October 2, 2025 and no response was received from SHPO or the Tribes.

USACE has determined that the proposed action will result in no adverse effects to historic properties. Consultation with the Oregon SHPO and the tribes has been completed, and Section 106 compliance is therefore concluded.

6.1.3 Endangered Species Act Consultation:

Pursuant to Section 7 of the ESA of 1973, as amended, USACE conducted formal consultation with USFWS and NMFS. USFWS issued its BiOp on September 13, 2023 (Appendix C), concluding that the proposed action is not likely to jeopardize the continued existence of bull trout and not likely to result in the destruction or adverse modification of designated bull trout critical habitat. NMFS issued its BiOp on October 9, 2024 (Appendix C), concluding that the proposed action is not likely to jeopardize the continued existence of any ESA-listed anadromous salmonids in the proposed action area. Applicant will implement all reasonable and prudent measures, as well as the terms and conditions outlined in both BiOps to ensure compliance with the ESA.

6.1.4 Clean Water Act Compliance and Coordination:

The proposed action would involve the placement of approximately 360 cubic yards of dredged material below the ordinary high-water mark in the Columbia River. As a result, the USACE Portland District Regulatory Branch would issue an individual permit to St. Hilaire under Section 404 of the CWA. Compliance with the applicable CWA Section 402 Construction General Permit would also be required. Additionally, because a permit under CWA Sections 402 or 404 is necessary, CWA Section 401 water quality certification is required to ensure that the discharge meets applicable water quality standards. In this case, the ODEQ would provide the Section 401 certification to St. Hilaire.

6.2 Public Involvement

6.2.1 Public Review – Draft Finding of No Significant Impact and Environmental Assessment

In compliance with NEPA, the draft FONSI, EA, and all supporting appendices were made available for a 30-day review and comment period beginning on October 3, 2025, and concluding on November 2, 2025. During the public review period, no comments were received. In compliance with and to complete the NEPA process, USACE will sign the FONSI and proceed with the proposed action at earliest convenience. This EA, the final FONSI, and all supporting appendices are available on the Walla Walla District Corps of Engineers website at www.nww.usace.army.mil/Missions/Environmental-Compliance.

If significant environmental effects resulting from implementing the proposed action had been identified during the review period, USACE would have proceeded to write a Supplemental EIS, and the proposed action would have been delayed until USACE completed the NEPA process with the signing of a Record of Decision.

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