

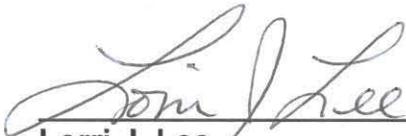
RECLAMATION

Managing Water in the West

Record of Decision for the Cle Elum Pool Raise Project Final Environmental Impact Statement

Yakima Project, Washington

Approved:



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Regional Director
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JUN 25 2015

Date



U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Columbia-Cascades Area Office
Yakima, Washington

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MISSION STATEMENTS

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Introduction

This document constitutes the Record of Decision (ROD) of the U.S. Department of the Interior, Bureau of Reclamation, regarding the Cle Elum Pool Raise Project Environmental Impact Statement (EIS). Reclamation has selected Alternative 3 – Additional Storage Capacity for Instream Flow with Hybrid Shoreline Protection identified in the *Final Environmental Impact Statement on the Cle Elum Pool Raise Project* (FEIS) for implementation. The purpose of this action is to increase the capacity of Cle Elum Reservoir and improve aquatic resources for fish habitat below Cle Elum Dam.

Background

Cle Elum Dam is located in the upper Yakima River basin in Kittitas County within the Okanogan-Wenatchee National Forest, 8 miles northwest of the City of Cle Elum, Washington. Cle Elum Reservoir has the largest storage capacity and average annual water yield of all the reservoirs in the Yakima River basin. Reclamation operates Cle Elum Reservoir as part of the Yakima Project.

The Secretary of the Interior authorized the Tieton and Sunnyside Divisions of the Yakima Project under the Reclamation Act of June 17, 1902, and December 12, 1905, for the purposes of storage, diversion, development of waters, and the construction of irrigation works for the reclamation of arid lands. Reclamation constructed Cle Elum Dam under this authority in 1933.

Congress specifically authorized the Cle Elum Pool Raise Project in Sections 1205 and 1206 of the Yavapai-Prescott Indian Tribe Water Rights Settlement Act of 1994 (Public Law 103-434), Title XII, Yakima River Basin Water Enhancement Project (108 Stat. 4550 USC). Section 1205 of the Act authorized fish, wildlife, and recreation as additional purposes of the Yakima Project, and authorized the accrued stored water from the Cle Elum Pool Raise Project to be used for instream flows as described in Section 1205.

Yakima River Basin Integrated Water Resource Management Plan

In June 2009, Reclamation and the Washington State Department of Ecology (Ecology) brought together representatives from the Yakama Nation; irrigation districts; environmental organizations; and Federal, State, county, and city governments to form the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup to help develop a solution to the basin's water problems. Over the next 18 months, the group developed the Yakima River Basin Integrated Water Resource Management Plan (Integrated Plan) as the preferred approach to restoring ecological functions and

providing more reliable and sustainable water resources for the health of the riverine environment and for agricultural, municipal, and domestic needs.

The 2012, *Yakima River Basin Integrated Water Resource Management Plan Final Programmatic EIS* (Integrated Plan PEIS) examined the effects of implementing the Integrated Plan. The Selected Alternative identified in the Integrated Plan PEIS Record of Decision (Integrated Plan ROD) includes the following seven elements, each containing distinct actions that collectively provide a comprehensive approach to water management in the Yakima River basin:

- Reservoir Fish Passage
- Structural and Operational Changes
- Surface Water Storage
- Groundwater Storage
- Habitat/Watershed Protection and Enhancement
- Enhanced Water Conservation
- Market Reallocation

Increasing the capacity of Cle Elum Reservoir is one of the actions that comprise the Structural and Operational Changes element. The Cle Elum Pool Raise Project EIS is tiered to the Integrated Plan PEIS and Integrated Plan ROD.

Alternatives Considered

The No Action Alternative and four action alternatives designed to increase the capacity of Cle Elum Reservoir were analyzed in detail in the Cle Elum Pool Raise Project EIS.

Alternative 1 – No Action Alternative

Under Alternative 1 – No Action, Reclamation would continue to manage the water supply provided by Cle Elum Reservoir consistent with current operational practices and constraints, and the capacity of the reservoir would not be increased.

The following four projects and actions that are currently designed, authorized, and scheduled for implementation are expected to continue or proceed under the No Action Alternative as well as all action alternatives:

- Continued operation and reconstruction of existing interim juvenile fish passage facilities at Cle Elum Dam (conducted by Yakama Nation)
- Ongoing fish reintroduction at Cle Elum Reservoir and upper Cle Elum River
- Construction and operation of permanent fish passage facilities at Cle Elum Dam

- YRBWEP Phase II water conservation and land and water rights acquisition program

Proposed Action (Alternative 2) – Additional Storage Capacity for Instream Flow with Rock Shoreline Protection

Under the Proposed Action (Alternative 2), Reclamation would increase the storage capacity of Cle Elum Reservoir by 14,600 acre-feet, dedicating the accrued water to instream flow needs, as authorized in the Yavapai-Prescott Indian Tribe Water Rights Settlement Act of 1994 (Public Law 103-434) Sections 1205 and 1206, Title XII, Yakima River Basin Water Enhancement Project (108 Stat. 4550 USC).

The Proposed Action includes the following components:

- Modify the existing Cle Elum Dam spillway radial gates to increase the reservoir capacity by 14,600 acre-feet.
- Dedicate the accrued water to instream flows.
- Install rock shoreline protection to stabilize shorelines adjacent to private property that are subject to increased erosion from the higher reservoir pool.
- Monitor shoreline conditions and implement appropriate protection measures where necessary in conjunction with Reclamation's existing annual shoreline monitoring assessment.
- Raise the elevation of three existing earthen saddle dikes north and east of the dam, and raise the height of the right abutment of the dam to provide adequate freeboard.
- Provide shoreline protection for Federal property, including U.S. Forest Service (USFS) recreational facilities and access at Speelyi Beach Boat Launch and Day Use Area, Wish Poosh Campground and Boat Launch, Cle Elum River Campground, and portions of the west shoreline.
- Provide erosion protection for portions of Salmon La Sac Road.
- Acquire land, easements, or both from willing private sellers where necessary to accommodate shoreline protection.
- Improve aquatic habitat at the mouths of Para, Branch, and Two Coves Creeks on Federal lands along the west shore of Cle Elum Reservoir.

Alternative 3 – Additional Storage Capacity for Instream Flow with Hybrid Shoreline Protection (Preferred Alternative)

Under Alternative 3, Reclamation and Ecology would dedicate the accrued water for instream flows as described for the Proposed Action (Alternative 2), but would employ a hybrid shoreline protection strategy in place of the rock shoreline protection strategy identified in the Proposed Action. Reclamation identified Alternative 3 as the Preferred Alternative in the FEIS and in this ROD.

Under the hybrid shoreline protection strategy, Reclamation would protect the same shoreline areas as described for the Proposed Action (Alternative 2). In addition to using rock walls where needed, Reclamation would include bioengineered shoreline protection such as perched beaches, anchored logs, and other techniques.

Alternative 4 – Additional Storage Capacity for TWSA with Rock Shoreline Protection

Under Alternative 4, Reclamation and Ecology would dedicate the accrued water for Total Water Supply Available (TWSA). This alternative would require additional authorization from Congress in order to allow use of the water for a purpose other than instream flow. Alternative 4 would employ the same rock shoreline protection strategy described for the Proposed Action (Alternative 2).

Alternative 5 – Additional Storage Capacity for TWSA with Hybrid Shoreline Protection

Under Alternative 5, Reclamation and Ecology would dedicate the accrued water to TWSA as described for Alternative 4, but they would employ the hybrid shoreline protection strategy as described for Alternative 3. This alternative would require additional authorization from Congress.

Environmentally Preferable Alternative

Alternative 3 – Additional Storage Capacity for Instream Flow with Hybrid Shoreline Protection (Preferred Alternative) is the Environmentally Preferable Alternative. It would increase the capacity of Cle Elum Reservoir by 14,600 acre-feet, thus providing new opportunities and greater flexibility to manage instream flows and improve aquatic resources for fish habitat below Cle Elum Dam. The No Action Alternative was not considered environmentally preferable despite its overall lower level of both short-term and long-term adverse effects because it did not satisfy the purpose and need for the proposed action to increase the capacity of Cle Elum Reservoir and improve aquatic resources for fish habitat below Cle Elum Dam, as discussed in Section 1.3 of the FEIS.

Alternative 3 would provide minor benefits for fish and aquatic habitat below Cle Elum Dam in the Cle Elum and Yakima rivers in comparison to the No Action Alternative. Currently, low-flow conditions and lack of variation in flow occur in the Cle Elum and Yakima rivers during the fall and winter. This limits available habitat complexity by reducing access to side channel rearing habitats for juvenile fish, particularly Chinook salmon. The water accrued under Alternative 3 could be released during fall and winter to provide greater access to side channels for resident fish and anadromous salmonids, to increase the availability of spawning areas for spring Chinook, and to help ensure that fall redds would not be dewatered in winter. Increased flow during the winter period would also benefit outmigrating juvenile spring Chinook salmon, sockeye salmon, and, potentially, coho salmon originating in the upper Yakima and Cle Elum rivers by providing necessary migratory cues and flow variation.

Other scenarios for using the water accrued under Alternative 3 to benefit fish and aquatic habitat would be to increase flows in the Cle Elum River during mid-March through May to provide flow for outmigrating smolts, to create summer flow pulses during July and August that would benefit sockeye and Chinook salmon by improving habitat connectivity within the lower Yakima River, and/or to retain the accrued water in Cle Elum Reservoir to create a higher reservoir level that would increase the length of time during which outmigrating juvenile salmon could access the proposed Cle Elum Dam fish passage facility. Under these scenarios, Alternative 3 would provide a marginally greater benefit for fish and aquatic habitat than Alternative 4 and Alternative 5, both of which would dedicate the accrued water for use as part of TWSA instead of exclusively for instream flows.

Alternative 3 is also preferable to the Proposed Action (Alternative 2) and Alternative 5 because it would have a slightly reduced level of long-term environmental impacts on the near-shore environment within the reservoir. Specifically, a more natural riparian area would be created with the hybrid shoreline protection under Alternative 3, thus providing minor long-term benefits to littoral fish habitat and reduced long-term impacts on visual quality. The short-term adverse effects of Alternative 3 on water quality, fish, littoral habitat, wetlands and shoreline vegetation, and visual quality are slightly higher than for the Proposed Action (Alternative 2) and Alternative 5. All other adverse impacts among the action alternatives would be similar in effect and magnitude.

In summary, Reclamation has considered the overall beneficial and adverse environmental effects of the alternatives and believes the beneficial effects of Alternative 3 on fish and aquatic habitat below the Cle Elum Dam in the Cle Elum and Yakima rivers, in combination with its lower level of long-term adverse effects on erosion within the reservoir and reduced impacts on the near-shore environment in comparison to the other action alternatives, warrants its identification as the Environmentally Preferable Alternative.

Public Involvement

Scoping

On October 30, 2013, Reclamation published a Notice of Intent to prepare an EIS and Notice of Public Meetings in the Federal Register. Reclamation also issued a press release to local media on November 6, 2013, announcing the dates and locations of scoping meetings and requesting comments. Reclamation mailed meeting notices to interested individuals, Tribes, interest groups, and governmental agencies. In addition, Reclamation posted the notice on its Integrated Plan website and associated pages, describing the proposal, requesting comments, and providing information about the public scoping meetings.

Two scoping meetings were held on November 20, 2013, at the Yakima Arboretum in Yakima, Washington, and two were held on November 21, 2013, at the U.S. Forest Service Tom Craven Conference Room in Cle Elum, Washington. A combined total of 56 individuals attended the four meetings. At the meetings, Reclamation described the Cle Elum Pool Raise Project proposal and alternatives, and provided attendees the opportunity to discuss the proposal with Reclamation staff as well as comment on the scope of the EIS, the EIS process, and resources and issues to be evaluated in the EIS. Major issues raised during scoping included the uses of the additional storage capacity and potential impacts to resources such as fish, threatened and endangered species, wetlands, vegetation, and recreation.

Comments on the Draft EIS

Reclamation released the Cle Elum Pool Raise Project Draft EIS (DEIS) on September 23, 2014, when the Notice of Availability and Public Hearings was published in the Federal Register. Reclamation distributed a press release announcing the availability of the DEIS and the date, time, and location of the public meetings to area media. Reclamation held two public meetings during the DEIS comment period. The first meeting was held on October 21, 2014 in Ellensburg, with eight members of the public in attendance. The second meeting was held on October 22, 2014 in Cle Elum, with 13 members of the public in attendance.

The 60-day public comment period on the DEIS ended November 25, 2014. A total of 21 comment letters containing 286 individual comments were received. There were no community initiated or consensus-based alternatives, mitigation measures, or monitoring plans advanced in the course of the EIS. Responses to the comments are included in the Comments and Responses section of the FEIS.

Consultation and Coordination

The Washington State Department of Ecology was a joint lead for the EIS. The Bonneville Power Administration (BPA), National Marine Fisheries Service (NMFS),

USFS, and Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) served as cooperating agencies for the EIS. The U.S. Fish and Wildlife Service (Service) was invited to serve as a cooperating agency, but requested instead that its participation in the EIS be through the Fish and Wildlife Coordination Act. Development of the EIS also involved a number of other Federal, State, and local agencies as well as comments expressed by interested members of the public. Additional consultation and coordination will occur during permitting and implementation. The following sections describe the consultation and coordination that was carried out for the Cle Elum Pool Raise Project.

Endangered Species Act, Section 7

The Endangered Species Act requires Reclamation to consult with the Service and NMFS on those actions that may affect threatened and endangered species under those agencies' respective jurisdictions. Reclamation initiated ESA Section 7 consultation with the Service and NMFS, and submitted a Biological Assessment to the agencies in May of 2015. In the Biological Assessment, Reclamation concluded that the Cle Elum Pool Raise Project may affect, but is not likely to adversely affect bull trout, bull trout critical habitat, gray wolf, Canada lynx, grizzly bear, marbled murrelet, northern spotted owl, northern spotted owl critical habitat, and steelhead and steelhead critical habitat. NMFS and the USFWS concurred with these determinations in letters dated June 9, 2015, and June 5, 2015, respectively.

Fish and Wildlife Coordination Act

Reclamation consulted with the Service under the Fish and Wildlife Coordination Act (FWCA) for the Integrated Plan. The Service completed the Final Fish and Wildlife Coordination Act Report for the Integrated Plan in February 2012.

Reclamation consulted with the Service again regarding the need for further FWCA consultation when Reclamation initiated the NEPA process for the Cle Elum Pool Raise Project. The Service replied that the FWCA consultation for the Integrated Plan had adequately considered the Cle Elum Pool Raise Project and stated that no further consultation was needed. Reclamation will comply with the conditions of the Final Fish and Wildlife Coordination Act Report as it implements the Cle Elum Pool Raise Project.

Cultural and Historic Resources Consultations

Reclamation conducted cultural resource compliance for the Cle Elum Pool Raise Project concurrently with NEPA in accordance with Section 106 of the National Historic Preservation Act (NHPA) implementing regulations, entitled *Coordination with the National Environmental Policy Act*, contained in 36 CFR Part 800.8. Reclamation's compliance with these regulations includes meeting its public involvement requirements under NHPA. Before Reclamation issued the DEIS, it notified the Yakama Nation, Confederated Tribes of the Colville Reservation (Colville Confederated Tribes), Confederated Tribes of the Umatilla Indian Reservation (CTUIR), State Historic Preservation Officer (SHPO), Advisory Council on Historic Preservation, and USFS of

its intent to use the NEPA process for Section 106 purposes, as required by 36 CFR Part 800.8.

As a result of studies conducted by Reclamation and the Yakama Nation Cultural Resources Program, Reclamation has determined that the Cle Elum Pool Raise Project has Adverse Effects on historic and cultural properties. Cle Elum Dam is eligible for inclusion to the National Register of Historic Places (NRHP) and modification of the radial spillway gates constitutes an Adverse Effect to the character-defining features of the dam. The Cle Elum Pool Raise Project also would impact at least one identified archaeological site. The Yakama Nation Cultural Resource study identifies the likelihood that existing reservoir operations impact cultural resources, including traditional cultural properties (TCPs). Implementation of the selected alternative would contribute to the impacts. Reclamation has consulted with the SHPO and with Native American Tribes. The SHPO concurred with the Adverse Effects determinations in its letter dated February 9, 2015. Reclamation will continue consultation regarding impacts to historic and cultural resources and will develop and implement a treatment plan and a Cultural Resources Management Plan to define appropriate impact avoidance and mitigation.

Tribal Consultations

Reclamation has determined that the affected area lies within the ceded territory of the Yakama Nation and the CTUIR. Reclamation is also consulting with the Colville Confederated Tribes as part of the NHPA process. The Yakama Nation is a major partner in the overall Integrated Plan and has been involved in all aspects of the Integrated Plan, including the Cle Elum Pool Raise Project. Additionally, the Yakama Nation is conducting cultural resource surveys to assist Reclamation with compliance activities associated with the NHPA.

Reclamation sent a letter on July 24, 2014, requesting Government-to-Government consultation with the CTUIR. To date, Reclamation has not received a response from the CTUIR. Reclamation also sent the DEIS and FEIS to the CTUIR.

Reclamation will comply with the 1990 Native American Graves Protection and Repatriation Act (NAGPRA) regulations (43 CFR Part 10) if any graves or other NAGPRA cultural items are discovered.

Clean Water Act

Section 404 of the Clean Water Act regulates the discharge of dredged or fill materials into waters of the United States, including wetlands. Reclamation will delineate, categorize, and assess functions of all wetlands and conduct vegetation community and sensitive plant species surveys in the affected project area in support of project permitting. Reclamation will design shoreline protection measures to avoid or minimize impacts to wetlands and will locate construction staging areas, roads, and other facilities outside wetlands to the extent possible. If wetland impacts are unavoidable, Reclamation

will consult with the U.S. Army Corps of Engineers (Corps) and Ecology, and will comply with mitigation measures established by permit conditions.

Consistency with USFS Forest Plan

The USFS, Okanogan-Wenatchee National Forest served as a cooperating agency providing technical assistance, review, and recommendations throughout the EIS process. The USFS expressed the finding in its letter dated June 17, 2015, that the proposed Cle Elum Pool Raise Project and mitigation commitments at the current level of design are consistent with the Forest Plan and federal regulations that pertain to National Forest System Land.

Indian Trust Assets and Sacred Sites

Reclamation has determined that the affected area does not include land held in trust by the United States for Tribes or individual allottees, nor does the affected area include trust land or allotments. Thus, Alternative 3 would have no impact on Indian Trust Assets.

Reclamation also has determined the Alternative 3 would not impact Indian sacred sites because the Tribes have not identified any in the affected area. Reclamation will continue to coordinate with affected Tribes and, if the agency identifies any Indian sacred sites in the future, it will consult with affected Tribes to determine how to protect them.

Environmental Commitments

This section describes the environmental commitments that apply to implementation of the Cle Elum Pool Raise Project. All practicable means to avoid or minimize environmental harm will be adopted and employed during implementation of the project.

Environmental commitments express Reclamation's specific intent to monitor for potential adverse environmental impacts during all phases of the action, including construction, operation, and maintenance activities, and to employ appropriate mitigation as conditions warrant. Reclamation is obligated to fulfill and appropriately fund all monitoring and mitigation measures committed to as part of the Cle Elum Pool Raise Project, or to ensure that they are fulfilled by other responsible parties. If there are changes to either the project or these environmental commitments that are relevant to environmental concerns, Reclamation will conduct the appropriate environmental review and compliance prior to the undertaking to identify and address the potential for significant adverse effects.

Commitments are described below and grouped according to the phase of project implementation when they would be initiated: during project final design, prior to construction, during construction, or during operation and maintenance. Several

commitments are initiated during one phase with the understanding that they will continue into subsequent phases of the project.

Project Design Commitments

Reclamation will locate facilities, access roads, and staging areas in areas where vegetation has already been disturbed or on the reservoir bed to the extent possible.

Reclamation will replant disturbed areas with native vegetation where replanting does not interfere with the function of shoreline protection measures.

Reclamation will, to the extent practicable, ensure that project features and mitigation meet the Bureau of Land Management's Resource Inventory Management objectives and the prescribed USFS Visual Quality Objective of Retention and corresponding Scenic Integrity Level of High to the extent practicable.

Reclamation will use nonreflective materials on the modified spillway gates.

Reclamation will design shoreline protection to blend with the surrounding areas by using native rock and replanting with native species.

Reclamation will, to the extent possible within available authorization and funding, relocate or replace any impacted recreational facilities.

Reclamation will install portable toilet facilities in heavily used dispersed recreation areas.

Reclamation will replace affected pedestrian access at public facilities in compliance with applicable standards of the Americans with Disabilities Act (ADA).

Reclamation will install signage in dispersed recreation areas, providing information about USFS dispersed camping regulations and how to reduce resource degradation.

Reclamation will install barrier guardrails along both sides of NF-4308 and north along portions of the Cle Elum River in the French Cabin Creek dispersed recreation area to prevent vehicle access to the Cle Elum Reservoir and the river. Reclamation will coordinate with the USFS, Washington State Department of Transportation (WSDOT), and Kittitas County as appropriate to ensure that the guardrails do not create safety hazards for pedestrians in proximity to adjacent vehicle traffic.

Reclamation will install barriers to prevent vehicles from parking in the forested area at the Morgan Creek and Dry Creek dispersed camping and boat launch areas.

Reclamation will restore the French Cabin Creek dispersed recreation area and construct a 30-vehicle parking area west of the NF-4308 bridge to allow for walk-in camping and day use recreational activities.

Reclamation will improve the road at the Morgan Creek and Dry Creek boat launch areas to accommodate boat launching.

Reclamation will coordinate with shoreline property owners to determine the appropriate type of shoreline protection for private properties and to reduce the amount of property acquisition or easements needed.

Reclamation will avoid impacts on Indian sacred sites whenever possible, and ensure continued access. If a planned action could adversely affect an NRHP-eligible archeological, historical, or TCP site, Reclamation will investigate options to avoid the site, such as feature redesign and protective measures. For cultural resources immediately and unavoidably affected by project construction, Reclamation will develop and implement treatment plans as needed.

Commitments Prior to Construction

Reclamation will conduct the appropriate environmental review and compliance for off-site borrow sites, staging areas, and sundry sites when their location, footprint, duration of use, and access routes are determined.

Reclamation will obtain all applicable Federal, State and local permits.

Reclamation will develop an environmental inspection and mitigation monitoring program to track and ensure that all environmental commitments for the Cle Elum Pool Raise Project are accomplished. Reclamation will coordinate development and implementation of this program with the USFS, Ecology, WDFW, WDNR, the Service, NMFS, and other State and Federal agencies, as appropriate. If monitoring shows that the mitigation commitments are inadequate or unsuccessful, Reclamation will develop new or additional mitigation in coordination with the affected agencies. Reclamation will conduct the appropriate environmental review and compliance on the environmental inspection and mitigation monitoring program and any changed project actions when they are developed.

Reclamation will conduct water quality analyses at the time of project permitting and/or during project operation to determine the extent and magnitude of impacts on turbidity, temperature, nutrient loads, and any other water quality criterion. Reclamation will use the results of these analyses in coordination with the regulatory agencies to develop measures to develop necessary corrective measures and ensure compliance with the State antidegradation policy for water quality.

Reclamation will develop and implement a Temporary Erosion and Sedimentation Control Plan and a Stormwater Pollution Prevention Plan (SWPPP) per Ecology's rules and regulations. The plan will include erosion control methods, stockpiling, site containment, shoreline protection methods, equipment storage, fueling, maintenance, and

washing, as well as methods to secure a construction site under circumstances of an unexpected high water or rain event.

Reclamation will develop a Spill Prevention Plan and a Toxics Containment and Storage Plan to implement containment of construction materials such as fuels, solvents, treated woods, contaminated soils, concrete, concrete leachate, grout, and other substances that could be in close proximity to receiving waters and riparian areas.

Reclamation will coordinate with WDFW, the Service, and NMFS to develop a monitoring program to evaluate stranding of fish or dewatering in newly inundated habitat after initially raising the reservoir level. The monitoring program will include evaluating tributary mouths to determine if the higher water level has degraded fish populations or habitat. Reclamation will develop the details of the monitoring program prior to raising the level of the reservoir. The monitoring program also will include evaluating how the project affects habitat downstream in the Cle Elum River. Reclamation will conduct the appropriate environmental review and compliance on the monitoring program when it is developed.

During project permitting, and prior to any type of ground disturbance, Reclamation will delineate, categorize, and assess functions of all wetlands and conduct vegetation community and sensitive plant species surveys in the affected project area using current survey and wetland delineation methodologies accepted by Federal, State, and local agencies. Reclamation will avoid construction in wetlands to the extent feasible, and if any wetland impacts are unavoidable, Reclamation will comply with mitigation measures established in permit conditions from applicable agencies. Reclamation will work with the Corps, Ecology, and local agencies to determine the effect of construction and additional inundation on jurisdictional wetlands.

Reclamation will preserve habitat of significant value to the greatest extent possible. Reclamation will evaluate potentially affected tree stands and avoid removal of higher value trees and habitat to the extent feasible. Delineated and well-marked clearing boundaries will be established to limit disturbance to habitat.

Reclamation, in coordination with the USFS and WDFW, will conduct surveys to determine the presence of any Survey and Manage, State-listed species, Priority Habitats and Species, sensitive, or other special status species in the construction or inundation areas. Reclamation will avoid or minimize impacts to these species and develop additional mitigation for unavoidable impacts.

If suitable northern spotted owl nesting, rearing, or foraging habitat is within 72 feet of a construction activity, construction will not take place within the early nesting period (March 1-July 15) unless owl surveys conducted over a 2-year period confirm the area is not occupied by northern spotted owl. Reclamation will implement the conservation measures and recommendations provided by the Service in the Fish and Wildlife Coordination Act Report prepared for the Integrated Plan.

Reclamation will work with the USFS to enhance habitat and other natural functions as well as reduce fragmentation and create more contiguous forested habitat within designated critical habitat for northern spotted owl on Federal lands adjacent to Cle Elum Reservoir. Approximately 3 miles of former access roads and corridors that are no longer open or accessible will be restored as forested habitat. The restoration will include the following activities:

- Removing culverts
- Recontouring or removing fill and recreating natural slopes
- Scarifying former road beds using an excavator to reduce compaction
- Pulling of vegetation and rocks from adjacent areas to restore the soil surface and prevent erosion
- Treating weeds with herbicides
- Planting native vegetation

Reclamation will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (42 USC 4601) and the procedures described in the Reclamation Manual Directives and Standards (LND 06-01, 2003) for any property or easement acquisition.

Reclamation will conduct utility surveys during final design and will coordinate with utility service providers to identify measures to minimize impacts or service disruptions prior to initiating construction in these areas or project operation. Advance communication and coordination also will be conducted with potentially impacted local residents and businesses.

Reclamation will identify any potentially affected on-site sewer systems (OSS) to establish baseline conditions and develop mitigation strategies for any OSS that could become noncompliant as a result of the increased reservoir pool prior to initiating construction in these areas or project operation.

Reclamation will develop a traffic management plan prior to construction to minimize potential safety risks.

Reclamation will coordinate with the WSDOT, USFS, Kittitas County, and local transportation authorities to review plans, establish specific mitigation actions, and obtain necessary permits.

Reclamation will provide signage for closures and construction, mark detour routes, provide flaggers, and provide information to the public, school districts, and emergency service providers in advance of construction activities in accordance with the Federal Highway Administration Manual of Uniform Traffic Control Devices and the Washington State supplement.

In the case of the radial gate modifications to Cle Elum Dam, Reclamation has entered into a Memorandum of Agreement (MOA) with the SHPO to resolve the Adverse Effect. In accordance with the MOA, prior to modifying the radial gates, Reclamation will complete field documentation needed to prepare a Historic Engineering Record (HAER) of the dam.

In regard to the installation of shoreline protection features, increased freeboard, and aquatic habitat improvements, Reclamation will complete cultural resource studies of all areas that will be disturbed prior to initiating construction. If a planned action could adversely affect an NRHP-eligible archeological, historical, or TCP site, Reclamation will investigate options to avoid the site, such as feature redesign and protective measures. For cultural resources immediately and unavoidably affected by project construction, Reclamation will develop and implement treatment plans as needed.

Reclamation will avoid impacts on Indian sacred sites whenever possible, and ensure continued access. The Yakama Nation and the CTUIR and Colville Confederated Tribes will be consulted to identify how to protect and provide continued access to any affected sacred sites.

Reclamation will comply with its Indian Trust Assets Policy (July 2, 1993) that states impacts on ITAs will be avoided whenever possible.

Commitments During Construction

Reclamation will use sediments with a low percentage of fine sediments in perched beach construction to minimize the amount of fine sediment subject to wave erosion. Reclamation will place an armoring layer of clean gravel and cobbles over perched beach sediment with higher concentrations of fine-grained material.

Reclamation will implement best management practices (BMPs) to enhance resource protection and reduce potential affects to surface and groundwater quality, earth resources, fish, wildlife, and their habitats:

- Time construction activities to avoid earth disturbance during periods of high precipitation.
- Strategically place stockpiles of earthen materials to minimize runoff into nearby receiving waters.
- Use straw bales, silt fencing, or other suitable sedimentation control or containment devices when shoreline protection measures are constructed.
- Cover exposed soil stockpiles, rock stockpiles, and exposed slopes.
- Retain vegetation in construction areas where possible.
- Seed or plant exposed areas with appropriate native vegetation as soon as possible after work is completed.

- Haul oils and chemicals to an approved site for disposal and use vegetable-based lubricants for machinery when working in or near water to prevent petroleum products from entering surface or groundwater.
- Equip all construction equipment with environmental spill kits to contain petroleum products in the event of a leak.
- Require all contractors to inventory noxious weed populations by marking with temporary fencing to avoid spreading weeds to other areas in accordance with local, State, and Federal weed control requirements.

Reclamation will schedule reservoir drawdowns to minimize effects on water supplies and fish during the current year and following year.

Reclamation will schedule construction to occur in the dry, after the reservoir is drawn down and fish are not present near the shore. Reclamation will comply with appropriate fish work windows for the reservoir and downstream to avoid critical periods. In-water and near-water construction will comply with applicable permits and approvals.

Reclamation will use existing, on-site driftwood, trees, and vegetation as stabilization material on the west bank and at the mouth of the three streams. To reduce construction impacts, hand methods will be used (e.g., chainsaws, winches, ropes, and cables) to install the shoreline protection. No heavy machinery will be used. No additional materials will be imported, and no access road will be employed.

Reclamation will restore temporary access, work areas, staging areas, and other disturbed areas to preconstruction conditions and replant with native species.

Reclamation will assess areas where shoreline protection will be installed to identify any invasive species or undesirable vegetation present in the area. Reclamation will suppress this vegetation prior to ground disturbance.

Reclamation will monitor for infestations of invasive plant species associated with project-related ground disturbance and implement suppression strategies to control invasive plant populations. Reclamation will evaluate strategies to reduce environmental risks associated with control strategies, and will comply with Federal, State, and local laws and requirements, including Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management, to incorporate integrated pest management concepts.

Reclamation will employ the following BMPs to reduce construction impacts on air quality:

- Comply with the BMPs required in Washington Administrative Code 173-400-040 (general standards for maximum emissions).
- Comply with applicable dust control policies and plans.

- Spray dry soil with water to reduce dust.
- Use temporary ground covers.
- Minimize idling of equipment when not in use.
- Maintain equipment in good working order.
- Minimize trip distances.
- Require combining workers' trips and using local materials.
- Plan construction areas to minimize exposing areas of earth for extended periods.
- Cover dirt and gravel piles.
- Sweep paved roadways to reduce mud and dust.
- Replant exposed areas as soon as possible after construction.

Reclamation will limit construction activities to daytime hours and will implement BMPs to reduce construction noise to the extent feasible. Reclamation will implement measures to reduce noise and limit human activity near high-quality habitats such as old-growth or riparian zones. Reclamation will provide regular notification to affected property owners. Reclamation will implement the following measures to further reduce construction noise impacts:

- Use broadband back-up alarms and design site access to minimize the need for backing up trucks
- Use equipment with mufflers or noise control
- Situate noise-generating equipment away from houses or other sensitive receivers
- Keep heavy equipment maintained to minimize noise to the greatest extent feasible

Reclamation will conduct work at Wish Poosh Campground and Boat Launch and Cle Elum River Campground after they are closed for the season in September. Reclamation will conduct work at saddle dikes 2 and 3, which will require closure of Speelyi Beach for approximately 2 months, after Labor Day.

Reclamation will maintain access to private properties at all times. To the extent possible, alternate access routes also will be provided to recreation sites and facilities.

If, even after field treatments are complete, it is determined there still exists the likelihood of short-term impacts to cultural resources, certain construction activities could be designated for archaeological monitoring. If any archaeological material is encountered during construction, construction activities in the immediate vicinity will halt. The Washington State Department of Archaeology and Historic Preservation (DAHP) and a professional archaeologist and the affected Native American Tribe will be contacted for further assessment prior to resuming construction activity in that area. Reclamation will comply with the 1990 Native American Graves Protection and

Repatriation Act (NAGPRA) regulations (43 CFR Part 10) if any graves or other NAGPRA cultural items are discovered.

Operation and Maintenance Commitments

Reclamation will complete all planned shoreline protection measures prior to raising the level of the reservoir.

As a condition of Reclamation's Safety of Dam Program, additional instrumentation will be installed at the Cle Elum Reservoir Dam, and the frequency of visual inspections of the dam and associated facilities will be increased before and after the 3-foot pool raise is implemented. If the monitoring indicates unacceptable seepage with the pool raise, the reservoir elevation will be lowered and additional modifications will be installed to address the issue. Reclamation will conduct the appropriate environmental review and compliance prior to undertaking modifications of the dam or saddle dikes.

Reclamation will structure reservoir operational practices related to the timing and volume of storage releases to mitigate water quality impacts, and will conduct monitoring of reservoir and downstream water quality to assess the effectiveness of water quality management strategies.

Reclamation will assess the feasibility of removing nonnative fishes, such as lake trout, from Cle Elum Reservoir in order to advance bull trout recovery efforts. The presence of nonnative fishes is suspected to have contributed significantly to the decline of the Cle Elum Reservoir bull trout local population according to the Yakima River basin Integrated Water Resource Management Plan Final Fish and Wildlife Coordination Act Report dated February 10, 2011.

Reclamation will investigate the feasibility of modifying releases from Cle Elum Reservoir in an effort to temper river segments that exceed temperatures required by bull trout and to further normalize the hydrograph in order to support the recovery of bull trout.

Reclamation will continue the existing annual shoreline inventory and year-to-year comparative assessments to identify erosion problems and appropriate control measures.

If erosion is identified that could affect private property or infrastructure, Reclamation will coordinate with the property owners to implement appropriate slope stabilization or erosion control measures. Reclamation will conduct the appropriate environmental review and compliance prior to undertaking new or enhanced shoreline protection.

Reclamation will continue with ongoing weed control efforts on disturbed lands following construction and revegetation in accordance with Federal, State and local regulations.

In accordance with the MOA executed with the SHPO regarding Cle Elum Dam Spillway Modifications, by June 24, 2019, Reclamation will develop Historic Interpretation materials for the general public regarding Cle Elum Dam, and complete HAER Level II documentation of Cle Elum Dam.

Reclamation will prepare and implement a Cultural Resources Management Plan (CRMP) to address ongoing and future operational and land management implications of the Cle Elum Reservoir, such as increased inundation and shoreline fluctuation. This will apply to the long-term and cumulative effects on the full range of cultural resources, including archaeological sites, historic structures and objects, and TCPs.

Reclamation will develop and maintain a CRMP for the Cle Elum Pool Raise Project within 5 years of issuance of the Record of Decision. The CRMP will include the following elements:

- Survey the drawdown zone of the reservoir to accurately determine the effects of reservoir drawdown, including studies to measure soil displacement and sorting caused by operations and the resultant effects on archaeological sites.
- Update the previously known sites within the drawdown zone. The DAHP and USFS will provide site data and make the data available to the archaeological community.
- Determine eligibility for each site. The drawdown zone of the reservoir reportedly contains numerous potentially eligible sites that Reclamation has not fully evaluated.
- Conduct a study to identify and evaluate TCP values of the historic lake and its environs, and examine associations of precontact habitation and resource procurement sites at historic Cle Elum Lake to each other. Reclamation will also examine possible linkages with the occupation of the ethnographic village of Tle'lam.
- Record or update site records to reflect historic Euro-American associations, making maximum use of General Land Office maps and other archival sources. Record historic homesteads in a manner that appropriately reflects the community the resources represent.
- Develop management prescriptions based upon site condition and risk of damage, including a decision matrix to assist in appropriate treatment measures.

Reclamation and Ecology can add elements of a CRMP and integrate them as appropriate if the agencies carry forward other components of the Integrated Plan, such as the Keechelus-to-Kachess Conveyance and Kachess Drought Relief Pumping Plant.

In all cases, cultural resources management actions will be implemented using methods consistent with the Secretary of the Interior's Standards and Guidelines.

Public Response to the Final EIS

Reclamation received written comments on the FEIS from two sources. The Environmental Protection Agency (EPA) provided comments in their letter dated June 11, 2015. David Ortman sent comments by email on June 5, 2015. The major issues raised and Reclamation's responses to those issues are presented in Table 1.

Table 1. Responses to issues raised in comments on the FEIS

ISSUE RAISED	RESPONSE
The FEIS is responsive to EPA's request for updated information on permit applications and outcomes of work with the U.S. Fish and Wildlife Service and National Marine Fisheries Service.	Comment acknowledged.
The EPA supports selection of Alternative 3.	Comment acknowledged.
Can Congress amend the 1945 Consent Decree by altering the total water storage available for irrigators?	Under the selected Alternative 3, the accrued water is dedicated to instream flows. The Total Water Supply Available (TWSA) remains unchanged; thus, the 1945 Consent Decree is not affected.
Why are Reclamation's project cost estimates lower than the Water Research Center's (WRC) estimates?	Reclamation's cost estimates reported in Section 2.8.2, Table 2-6 of the FEIS, are lower than the \$15.5 million total cost referenced in the WRC report, in part, because the EIS estimates do not include the costs to acquire land and easements necessary for construction of the shoreline bank protection. Reclamation estimated the total cost of the Cle Elum Pool Raise Project as a range between \$13.5 and \$23.6 million in the Yakima River Basin Study, Volume 1, Proposed Integrated Water Resource Management Plan (April 2011).
Please amend Section 2.8.2 of the FEIS to include information concerning cost-effectiveness and least-cost design analysis.	The comments referred to are taken out of context and thus do not apply to the Cle Elum Pool Raise Project. No change in the FEIS is necessary.
How does the sockeye reintroduction goal of 35,000 returns to Cle Elum Reservoir relate to the estimate of 250,000 fish for the entire Yakima Basin?	The Cle Elum Reservoir sockeye reintroduction goal is 35,000 adult returning sockeye in 10 out of 20 years (see Section 3.4.2 of the FEIS). The 35,000 threshold is the point at which sockeye populations in the Cle Elum Reservoir would be self-sustaining and the level at which sockeye reintroduction could end. The expectation is that sockeye populations would continue to increase and contribute to the estimates of sockeye abundance for the entire Yakima basin.
The Integrated Plan PEIS should not be used for tiered environmental review under NEPA because it examined only the	As discussed in Section 1.7.1 of the FEIS, Reclamation determined that the findings of the Integrated Plan PEIS regarding the conditions and environmental effects of the Cle Elum Pool Raise Project remain valid.

ISSUE RAISED	RESPONSE
Preferred and No Action alternatives.	

Reclamation's Decision

Implementation of Alternative 3 – Additional Storage Capacity for Instream Flow with Hybrid Shoreline Protection will satisfy the congressional authorization for the Cle Elum Pool Raise Project contained in Sections 1205 and 1206 of the Yavapai-Prescott Indian Tribe Water Rights Settlement Act of 1994 (Public Law 103-434), Title XII, Yakima River Basin Water Enhancement Project (108 Stat. 4550 USC), and will yield a variety of benefits in the Yakima basin. It will increase the capacity of Cle Elum Reservoir by 14,600 acre-feet, which will enable Reclamation to adapt to changes in the volume and timing of runoff in response to climate change. In addition, the accrued water will provide new opportunities and greater flexibility to manage instream flows and improve aquatic resources for fish habitat below Cle Elum Dam. Accrued water in the reservoir can also benefit operation of the permanent Cle Elum Dam Fish Passage Facility for downstream passage of juveniles when it becomes operational.

Implementation of the Cle Elum Pool Raise Project cannot be accomplished without some adverse environmental impacts. Nonetheless, Reclamation considers the beneficial effects of Alternative 3, including implementation of the environmental commitments identified in this ROD, to be greater than its adverse impacts. The net benefit of Alternative 3 also outweighs the effects of taking no action, which would not meet the purpose and need for the Proposed Action or satisfy the congressional authorization expressed in the Yavapai-Prescott Indian Tribe Water Rights Settlement Act of 1994.

Based upon these factors, Reclamation selects Alternative 3 – Additional Storage Capacity for Instream Flow with Hybrid Shoreline Protection for implementation, as described in the FEIS, including all environmental commitments contained in this ROD. This alternative most effectively achieves the purpose and need for the Proposed Action in an environmentally sensitive manner.

Reclamation may partner with multiple agencies and others to ensure execution of the Cle Elum Pool Raise Project. The partnerships could include funding, design, implementation, or other participation that Reclamation determines will effectively fulfill the decision and commitments contained in this ROD.