Lyle Falls Fish Passage Project

Final Environmental Impact Statement

Bonneville Power Administration
Confederated Tribes and Bands of the Yakama Nation
Washington Department of Fish and Wildlife
U.S.D.A. Forest Service

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Lyle Falls Fish Passage Project Final Environmental Impact Statement (EIS)
DOE/EIS-0397

Cooperating Agencies: U.S. Department of Energy, Bonneville Power Administration (BPA); Confederated Tribes and Bands of the Yakama Nation (Yakama Nation); Washington Department of Fish and Wildlife (WDFW); U.S. Department of Agriculture, Forest Service (USFS)

Title of Proposed Project: Lyle Falls Fish Passage Project

State Involved: Washington

Abstract: BPA proposes to fund modifications to the existing Lyle Falls Fishway on the lower Klickitat River in Klickitat County, WA. The proposed project would help BPA meet its off-site mitigation responsibilities for anadromous fish affected by the development of the Federal Columbia River Power System and increase overall fish production in the Columbia Basin. The fishway is owned by WDFW and operated by the Yakama Nation. Lyle Falls prevents some upstream migrating fish from reaching the upper watershed, especially when flows are low. The existing fishway is inefficient due to its current design limitations. BPA must decide whether to fund the project; WDFW must decide whether to approve the proposed modifications and issue a Hydraulic Project Approval; and the USFS must decide whether the project is consistent with the National Wild and Scenic Rivers Act.

The underlying need for the project is to improve fish passage at Lyle Falls No. 5 to access habitat in the upper part of the watershed. The Draft EIS (DEIS) evaluated the potential environmental impacts of two alternatives: No Action and the Proposed Action. These alternatives are described in detail in Chapter 2 of the DEIS and were found to be the only viable alternatives that warranted in-depth evaluation. In selecting between the alternatives, BPA will consider the following purposes: provide properly functioning year-round adult fish passage; provide opportunities to improve collection of biological information that would monitor success of fishery management actions; and enhance opportunities for adult salmonids to access and use habitat in the upper Klickitat River.

The proposed project could impact geology and soils, water resources, fisheries, vegetation and wildlife, threatened and endangered species, wetlands and floodplains, cultural resources, air quality, noise, human health, public safety, aesthetics, land use, transportation, recreation, and socioeconomics. Chapter 3 of the DEIS describes the Affected Environment and potential impacts in detail.

This abbreviated Final EIS (FEIS) for the Lyle Falls Fish Passage Project includes four major components: Section 1 provides an overall summary of the proposed action, alternatives, project purpose, summary of impacts, and list of mitigating measures; Section 2 identifies language changes to the DEIS found to be necessary; Section 3 lists the comment letters/ emails that were submitted during the public notice period on the DEIS; and Section 4 provides a summary of the comments along with our responses to each. Appendix A reproduces the letters and emails received during the DEIS public comment period. The FEIS should be used as a companion to the DEIS, which contains the full text of the affected environment, environmental analysis, and mitigation measures sections, as well as appendices. BPA expects to issue a Record of Decision on the proposed project in the winter of 2008.

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For additional copies of this document, please call 1-800-622-4520 and ask for this document by name. The DEIS and FEIS are also on the Internet at: http://www.efw.bpa.gov/environmental_services/Document_Library/Lyle_Falls/. You may also request copies by writing to:

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SECTION 1 PROJECT SUMMARY

This is the Final Environmental Impact Statement (FEIS) for the proposed Lyle Falls Fish Passage Project. The Confederated Tribes and Bands of the Yakama Nation have requested funding from the Bonneville Power Administration (BPA) to modify the existing Lyle Falls Fishway located at river mile 2.2 on the lower Klickitat River in Klickitat County, Washington. This fishway is owned by the Washington Department of Fish and Wildlife (WDFW) and operated by the Yakama Nation. The U.S. Department of Agriculture, Forest Service (USFS) administers portions of the Klickitat River and its corridor under the National Wild and Scenic Rivers Act. The existing fishway does not function properly, particularly during low flows, and does not comply with federal and state fish passage criteria. Lyle Falls is the major obstacle interfering with upstream salmon migration.

This FEIS presents changes to the Draft EIS (DEIS) made as a result of public comments received on the DEIS that was published in March 2008. These changes are not of sufficient magnitude to warrant reproducing the entire EIS. Therefore, this document has been prepared as an abbreviated FEIS pursuant to the Council on Environmental Quality's National Environmental Policy Act (NEPA) regulations. This abbreviated FEIS provides comments received on the DEIS, BPA's response to these comments, and changes made to the DEIS. This FEIS should be used as a companion document to the DEIS, which contains the full text of the NEPA analysis and supporting information for the proposed Lyle Falls Fish Passage Project. For readers of this FEIS who do not already have a copy of the DEIS, it may be obtained by:

- Calling BPA's document request line at 1-800-622-4520. Provide your name, address, and which document you would like.
- Accessing the DEIS on BPA's website at: http://www.efw.bpa.gov/environmental_services/Document_Library/Lyle_Falls, or
- Writing to:

  Bonneville Power Administration
  P.O. Box 3621
  Portland, Oregon 97208
  Attn: Public Information Center – CHDL-1

The remainder of Section 1 provides an overview of the proposed action and alternatives considered; presents the purpose of and need for the project; identifies the lead and cooperating agencies; and summarizes anticipated environmental effects from implementing the project. Subsequent sections of this FEIS: identify changes made between the Draft and Final EIS (Section 2), list the comments received on the DEIS (Section 3), provide BPA's responses to each substantive comment (Section 4), and present copies of each letter/email received during the DEIS public review period (Appendix A).

1.1 Purpose of and Need for the Project

This project would improve passage at Lyle Falls for fish migrating into the Klickitat River, the largest subbasin in the lower Columbia River with a partial natural passage barrier so close to its mouth. The proposed fish passage improvements would facilitate migration for spring and fall Chinook salmon, coho salmon, steelhead trout, Pacific lamprey (lamprey), and possibly bull trout, but the primary benefits would be to fall Chinook and coho salmon. Enhancing passage past the falls may enable more spring Chinook and steelhead to reach suitable, underused spawning habitat in the upper Klickitat River subbasin. Improved passage also would reduce the number of non-indigenous fall Chinook and coho, raised at the Klickitat Hatchery, from straying to other Columbia River subbasins where they are thought to interfere with recovery of listed populations. This would in turn improve fisheries management capabilities and harvest opportunities for these species.

The underlying need for the project is to improve fish passage to habitat in the upper part of the watershed. Funding from BPA would serve to provide off-site mitigation for the effects of the federal Columbia River hydroelectric facilities on fish populations by improving fish passage at Lyle Falls. While the fish passage issues at Lyle Falls were not caused by the hydroelectric facilities, this project would help BPA meet its mitigation responsibilities and potentially increase overall fish production in the Columbia Basin by enhancing fish passage into the Klickitat subbasin.

The following purposes have been identified for the Lyle Falls Fish Passage Project and were used to evaluate the alternatives addressed in the DEIS:

- To provide properly functioning and effective year-round adult fish passage facilities that would be consistent with the intent of current state and federal fish passage standards and criteria.

- To provide more efficient facilities to collect, monitor, and enumerate biological information that could provide a foundation for effectively monitoring success of fishery management actions in the subbasin.

- To enhance opportunities for adult salmonids to access the upper Klickitat River and make use of abundant, available and under-utilized spawning and rearing habitat and provide nutrient enhancement to the watershed.

1.2 Proposed Action and Alternatives

Two alternatives were evaluated in detail in the DEIS: (1) the No Action alternative, and (2) the Proposed Action alternative, under which modifications would be made to the existing fishway and related facilities. Several other alternatives were considered, but eliminated from detailed analysis.

At the Lyle Falls site, No Action means that the existing fishway would retain its current configuration and operational practices. The fishway is an 80-foot long, reinforced concrete structure with an off-ladder adult trap used to collect data on upstream migrating

fish. A siphon-type auxiliary water supply system intended to provide additional attraction flow is present but non-functional. Fish capture and monitoring gear used by the Yakama Nation and WDFW would continue to be stored in a metal container on the fishway. Under the No Action alternative, the fishway would continue to provide the same inefficient passage and fish sampling capabilities as it does at this time.

Under the Proposed Action, improvements would include reconstructing and lengthening the fishway, modifying the ladder entrance to facilitate fish access during low flow, upgrading the adult trapping facility, and improving fisheries monitoring capabilities by adding a PIT-tag detector and a video monitoring system. Operationally, the Proposed Action would alter the distribution of flow passing through the natural channel and the fishway. In addition, the extent of fishway maintenance would be reduced because less rock and sediment would enter the structure. Each of these changes is described and illustrated in Section 2.2 of the DEIS.

Under the Proposed Action, a permanent storage and maintenance building would be built in a cleared area upslope from the fishway. In addition to storage space, this building would provide an on-site location for facility maintenance equipment. An existing overhead power line operated and maintained by the Klickitat County Public Utility District extends across the project site on wooden poles, although currently there is no interconnection to the fish ladder. A new transformer would be installed on an existing pole to provide power via underground lines to the fish ladder and maintenance building.

Access road improvements also would be made. Vehicle access to the ladder is via a 0.2-mile-long private road extending from the County-maintained Fisher Hill Road. This access road would require minor improvements to accommodate construction vehicles and long-term access for maintenance and operation of the fishway.

1.3 Lead and Cooperating Agencies

BPA is the lead agency responsible for preparing this EIS and NEPA compliance. The agencies cooperating in this effort by providing valuable analysis, review, expertise, and guidance are the Yakama Nation, WDFW, and the USFS.

1.4 Project Effects

Table 1 summarizes the beneficial and adverse effects associated with implementing the No Action and the Proposed Action alternatives. Mitigating measures identified in the respective sections of the DEIS and listed in Section 1.5 of this FEIS have been recognized in identifying consequences of the proposed action. These consequences are unchanged from the DEIS analysis to the FEIS.

Table 1. Summary of Environmental Consequences of Alternatives.

Environmental Resource	No Action Alternative	Proposed Action
3.1 Geology and Soils	Deposited sediment would continue to be dredged from the fishway exit.	Up to 1.6 acres of basalt and soils would be disturbed during construction to modify the fishway.
3.2 Water Resources	From 4.5% (at low flow) to 2.9% (at high flows) of river flow would continue to be diverted through the ladder, affecting a 200-foot-long reach of the Klickitat River.	From 26.7% (at low flow) to 8.6% (at high flow) of river flow would be diverted through the ladder, affecting a 475-foot-long reach of the Klickitat River.
	Turbidity would increase during periodic instream dredging of fishway exit and bedload stored in the river channel would be disrupted.	Construction of the modified ladder would temporarily dewater a 1,500-sq.ft. area of river. A cofferdam would reduce potential water quality effects from work in this area. Sediment detention tanks would filter water from construction areas prior to release back to the Klickitat River. New fishway exit location would reduce or eliminate need to remove accumulated bedload from river.
		No long-term effects on water quality from ladder operation.
3.3 Fisheries	Upstream migration of some fish (fall Chinook, coho salmon, Pacific lamprey) would continue to be impaired, particularly during high and low flow conditions.	Upstream migration of fish, primarily fall Chinook and coho, and possibly lamprey, would be improved.
	Poor passage conditions would continue to depress reproductive success of some salmon and steelhead due to delays in migration and fallback.	Improved passage conditions and escapement of fall Chinook and coho could increase competition between spring Chinook and steelhead, and between coho and fall Chinook. However, due to different spawning habitat requirements and different spawn timing, these competitive effects are expected to be minimal.
	Nutrient enrichment from salmon carcasses would be unchanged. This basin is nutrient and prey-limited, factors contributing to low productivity.	Enabling more salmonids to reach the upper Klickitat River would increase primary productivity and nutrients available to aquatic organisms.
	Population monitoring of fish from this site would continue to be difficult due to condition and functionality of existing facilities. Fish stress and mortality from handling would continue at current levels.	Basin fisheries management would benefit from improved monitoring capabilities. Monitoring stress and mortality to fish would be reduced with PIT-tag and video monitoring capabilities that would greatly reduce fish handling.

Environmental Resource	No Action Alternative	Proposed Action
	Fish harvest opportunities would continue at approximately current levels.	Overall Klickitat subbasin harvest opportunities, including commercial, subsistence, recreational and ceremonial, would increase as escapement and resultant productivity increase. There is potential for some slight decrease in harvest at the immediate fishway site.
	Lamprey would continue to avoid the fish ladder as an upstream passage route.	The modified fishway would be designed to be more favorable for lamprey passage; i.e., with rounded corners/edges.
3.4 Vegetation and Wildlife	Vegetation around the margins of the ladder, parking area, and informal camping sites would continue to be disturbed at approximately the same levels as the present. The entire project site experiences frequent minor human disturbance, such as by subsistence fishers and their families, as well as by biologists checking the fishway.	Construction would displace up to 1.6 acres of grasses, forbs, scattered shrubs and several pine and oak trees. About 0.65 acres would be revegetated. Ongoing disturbance would be similar to current levels.
	Ladder operations and active tribal fishing would continue to contribute some level of disturbance to wildlife that might be present.	Noise during two summer construction seasons may reduce use by some animals. Construction would be avoided during critical osprey nesting and hatchery periods (April 1 – June 30). Disturbance during ladder operations would be similar to current conditions.
3.5 T&E Species	Upstream passage and associated population levels for mid-Columbia River steelhead and bull trout would be unchanged from current conditions. There are no other ESA-listed species that would be affected.	Improved passage conditions would benefit steelhead populations and potentially could aid migratory bull trout. There are no other ESA-listed species that would be affected.
3.6 Wetlands and Floodplains	The 1,350-sq.ft. wetland within a project area high flow channel would be undisturbed.	The 1,350-sq.ft. wetland would not be affected by project construction or operations because it is in an isolated location without hydraulic connection to the fishway.
	Floodplain conditions would be unaffected.	The modified fishway would be within the active 100-year flood elevation; however, water would flow through the structure with a negligible addition of mass to the floodway.

Environmental Resource	No Action Alternative	Proposed Action
	Equipment storage container is moved out of the active floodway each season to a location within the FEMA-designated flood zone.	The permanent equipment storage and workshop building and material deposited from site excavation would be outside of the active floodway, but within the FEMA-designated flood zone. There would be no measurable restriction in high flow passage.
3.7 Cultural Resources	Uses associated with a National Register-eligible traditional cultural property (TCP) would continue as they currently do.	Construction would occur within a National Register-eligible TCP, temporarily displacing certain traditional activities, such as subsistence fishing at up to 3 dip net sites adjacent to the existing fish ladder entrance.
	Any effects on cultural resources would continue as they are currently.	The SHPO agreed with BPA that the proposed project would have no effects on listed cultural resources.
	Access road users crossing the National Register-eligible railway corridor (now a Rail-to Trail conversion) would be limited primarily to Yakama Nation tribal members who fish in the area and Yakama Nation and WDFW biologists managing the fish ladder.	Construction vehicles and workers using a developed access road would cross a National Register-eligible railway corridor.
3.8 Air, Noise, Heath and Safety	Air quality, noise levels, and public health and safety would be unchanged from current conditions.	Dust and emissions would be introduced by machinery, equipment, vehicles, and other commotion during the construction periods. Fugitive dust on the access road would be reduced by a new gravel surface.
		Machinery and equipment would generate noise during the construction periods. Measures would be taken to protect the public during construction and blasting, including placement of warning signs on the river upstream of the fishway and on the Klickitat Trail. Workers would be posted on the trail and river during blasting to provide warnings.
	Biologists would continue to collect fisheries data from within a ladder chamber.	Remote monitoring measures would replace much of what now must be done from inside the ladder. Biological fisheries data still would be collected, although the new chamber would be designed for safer and more convenient human access.

Environmental Resource	No Action Alternative	Proposed Action
3.9 Aesthetics	Visual conditions would be unchanged at the fishway and in adjacent areas.	Modifications to the fishway would be visible from few locations. From the river and the highway overlook, the lengthened fishway would be most apparent. Klickitat Trail users would be aware of the deposition of a large quantity of basalt, a visual effect that would lessen over time as vegetation takes hold. Screened views of the new equipment storage building would be expected from the trail and the highway overlook.
3.10 Land Use, Transportation, Recreation	Land use would be consistent with current conditions.	Fishway modifications would be an expansion of a current use and would conform to existing land use regulations.
	Vehicle use in the area would continue at current levels.	Temporary increases in vehicle traffic would occur during the two-season construction period. Upon completion, traffic levels are expected to return to pre-construction conditions.
	Recreational use of the Klickitat Trail is expected to increase and boating above the project site is reported to be growing. The reach upstream of the ladder is reported to be a portage point around Lyle Falls for kayaks.	Recreation use largely would be unaffected by this project. During construction, very brief interruptions would be experienced along the Klickitat Trail due to access road use and periodic blasting charges. Kayak take-out would have to occur away from active construction areas in the vicinity of the new fish exit structure, an approximately 8 week effect. Boating take-out could resume upon completion of this component. The few kayakers that might run the Lyle Falls reach would be precluded from doing so during modifications to the downstream ladder entrance, also for approximately 8 weeks.
3.11 Socioeconomics	Employment levels associated with operation and maintenance of the fishway and biological monitoring/sampling would continue at levels similar to current conditions.	Project construction would generate about 10 to 12 temporary construction jobs over two summer seasons. In addition, secondary employment associated with construction would contribute to between 22 and 26 jobs.

1.5 Mitigation Measures

The mitigation measures, summarized in Table, 2 correspond to resource topics in the DEIS and FEIS and, if implemented, would reduce potential impacts from the project.

Table 2. Proposed Mitigation Measures.

Mitigation Measure	Time of Implementation
Geology and Soils	
Use controlled, minimal blasting to limit disturbance to surrounding rocks during blasting and excavation for the fishway.	During construction
Prepare and implement a blasting plan.	Prior to and during construction
Prepare and implement an erosion and sediment control plan.	Prior to and during construction
Place fencing around the external limits of the construction site to prevent unnecessary disturbance outside of the work areas.	During construction
Comply with the requirements of state and federal permits governing erosion control and water quality protection.	During construction
Water Resources (Hydrology, Water Rights, Water Quality)	
Implement appropriate BMPs during construction.	During construction
Follow the dewatering guidelines established by WDOE to ensure that water quality is protected while the cofferdam is placed, removed, and in use.	During construction
Ensure that chemicals and fuels are not released into the work area.	During construction
Ensure that appropriate BMPs are implemented during instream work to eliminate or reduce turbidity to the greatest extent practicable.	During construction
Ensure that appropriate BMPs are implemented during upland work to eliminate or reduce erosion to the greatest extent practicable.	During construction
Ensure that the contractor follows all conditions set forth in construction permits to protect water quality.	During construction
Fisheries	
Adhere to the WDFW instream work window for all in-water work in order to avoid disturbance when the majority of juvenile salmon and steelhead would be moving past the project site.	During construction
Minimize in-water work effects on fish through controlled blasting and erosion control measures, and by implementing BMPs to limit water quality degradation during construction.	During construction
Use cofferdams to temporarily isolate the area required to construct the new fish ladder exit structure.	During construction
Prohibit construction at night in order to allow fish to migrate without disturbance over the falls.	During construction
Provide a qualified fish biologist or natural resource specialist during dewatering of work areas to conduct salvage operations for any fish that become stranded in the dewatered zone.	During construction
Compile aquatic protection measures, including monitoring of potential blasting effects, in a plan for pre-construction approval by WDFW.	Prior to construction

Mitigation Measure	Time of Implementation
Address maintenance requirements for the attraction water screen, transportation channel, and the auxiliary flow diffuser in the final fishway design documents.	Prior to construction
Vegetation and Wildlife	
Install temporary fencing around the small wetland area to prevent accidental disturbance during construction.	Prior to construction
Place trees felled to clear areas for construction along the margins of the site to provide cover for birds, reptiles and small mammals.	During construction
Follow construction timing restrictions to reduce potential disturbance of the nearby osprey nest. Consultation has been undertaken with WDFW and could result in the relocation of the platform (see Response to Comment LFP0001-8).	During construction
Conduct a rare plant and noxious weed survey within 100 feet of all potentially disturbed areas.	Prior to construction
Install temporary fencing around the perimeter of the work site to confine ground disturbance to only that which is necessary.	Prior to construction
Implement the Vegetation Protection Objectives listed in Section 3.4.3 (pages 3-56 and 3-57) of the DEIS.	During construction
Implement a Wildlife Protection Plan.	During construction
Implement a Revegetation Plan.	After construction
Threatened and Endangered Species	
Consultation with the NMFS and the USFWS has been completed to ensure that appropriate measures are implemented to protect any listed species in the project area (see Response to Comment LFP0013-5). No additional mitigation was required in either consultation.	Completed
Wetlands and Floodplains	
Implement an erosion and sediment control plan.	During construction
Stipulate avoidance of the identified wetland and require that temporary protective fencing be installed around the wetland perimeter prior to and during construction in the construction specifications.	Prior to and during construction
Limit the profile of instream structures to affect the least surface area within the floodplain.	During design
Allow unimpeded flow of water through the Klickitat River channel.	During construction and operation
Cultural Resources	
Ensure a qualified cultural resource monitor would be present during ground-disturbing activities.	During construction
Limit construction access to existing and improved road grades to the greatest extent possible.	During construction
Surface the project access road adjacent to the Native American interment area with crushed rock to reduce dust from construction traffic.	During construction
Exercise extreme caution near interment areas and advise construction workers to respect these areas.	During construction

Mitigation Measure	Time of Implementation
Preclude use of the historic railroad corridor for construction or operation access.	During construction and operation
Coordinate with those who traditionally fish adjacent to the existing ladder. Identify construction activities that could present potentially dangerous settings for fishing, and provide the timing and extent of disruption to those fishers.	Prior to and during construction
Air Quality, Noise, Human Health, and Public Safety	
Apply dust abatement treatments to the unpaved roadway accessing the project site. Resurface the access road with six inches of crushed rock.	During construction
Apply abatement measures to prevent the generation of wind-borne dust if soils are stockpiled (as discussed in the DEIS Section 3.1.3).	During construction
Use blasting mats, sand or crushed rock to cover excavation sites during blasting activities to reduce the generation of sound and contain the dispersion of rock, soil, and fugitive dust.	During construction
Exclude all unauthorized personnel from entry at active worksites including excavation, spoil disposal and construction.	During construction
Provide portable restrooms and debris collection during construction.	During construction
Post signs on the Klickitat Trail throughout construction to warn users of vehicle crossings where the trail and access road intersect as well as at adjacent trailheads at Fisher Hill and Pitt.	During construction
Post signs upstream of the project area on the Klickitat River to inform kayakers of construction. Develop an outreach plan in coordination with the USFS to inform this user group of construction activities.	Prior to and during construction
Require the contractor to follow OSHA safety regulations for blasting. These regulations require displaying signage warning the public about the blasting zone, using loud warning signals to indicate the commencement of blasting, and stationing of flagmen on public routes immediately adjacent to the blast zone during blasting operations to prevent accidental intrusion of the public into the blast zone.	During construction
Coordinate with those who traditionally fish adjacent to the existing ladder.	Prior to and during construction
Retain the non-functioning attraction flow pipeline on the existing ladder segment as a public safety structure.	During construction
Install safety ladders to access the fish sorting area within the fishway structure.	During operation
Aesthetic Resources	
Specify the new equipment storage building be brown with a dark, non-reflective roof to reduce the visual contrast.	During design
Use a color additive in the concrete placed on the surface of the new fish transportation channel and fishway exit/water supply intake to reduce visual contrast with the adjacent native rock.	During construction
Paint the existing auxiliary water supply pipeline a dark color to match the adjacent concrete.	During construction
Implement a vegetation protection plan to reduce potential construction damage to vegetation.	During construction

Mitigation Measure	Time of Implementation
Develop and implement a landscape management plan to reduce the visual contrast of the equipment storage building from the Klickitat Trail (Key Observation Point 1) and the State Highway 142 overlook (Key Observation Point 4).	Prior to and during construction
Direct motion sensor-activated exterior lighting for the new building to achieve security objectives while limiting stray ambient light.	During operation
Place weed-free sand or soil in crevices of the excavated rock at the soil disposal site adjacent to the Klickitat Trail to facilitate revegetation using within-watershed sources of seeds.	During construction
Shape the rock disposal pile to appear as natural as possible. Retain and place larger rock across the top of the pile. Final pile configuration shall be coordinated with the USFS and WDFW.	During construction
Land Use, Transportation, and Recreation	
Add crushed rock to the Lyle Falls access road to provide a more stable surface for existing users and construction vehicles.	During construction
Construct a turn-out along the access road to improve safety for existing road users and to reduce conflicts with construction vehicles.	During construction
Clear vegetation along access road to improve sight lines and allow safe passage of vehicles in opposite directions.	During construction
Install safety signage at the intersection of the Klickitat Trail and the access road as well as at nearby trail access points at Fisher Hill and Pitt to reduce conflicts between trail users and construction traffic.	During construction
Use flaggers as needed at the intersection of the Klickitat Trail and the access road on days when blasting would occur. Also post warnings on the river bank upstream of the work area cautioning boaters of construction. Outreach to boaters before construction begins. If necessary, position a flagger upstream prior to blasting.	Prior to and during construction
Prohibit any use of the Klickitat Trail for vehicular access during construction; include the stipulation in the construction documents.	Prior to and during construction.

SECTION 2 CHANGES TO THE DRAFT EIS

Comments received on the Lyle Falls DEIS, published in March 2008, did not necessitate major changes to the scope or the analysis. Therefore, in this section we present corrections as well as additions to the DEIS that respond to reviewers' comments. Each change is identified by chapter, subsection and page number of the original language in the DEIS. The changes to the DEIS that we found necessary are presented below in the Summary (Section 2.1); Purpose of and Need for Action (Section 2.2); Description of the Alternatives (Section 2.3); Affected Environment and the Environmental Consequences (Section 2.4); Consultation, Review and Permit Requirements (Section 2.5); References (Section 2.6); and Appendix A (Section 2.7). The comments which prompted these changes are each included in Appendix A. In addition, some modifications were requested by the cooperating agencies and are incorporated into the revisions below.

2.1 Summary

Section S.3.3 (Fisheries): The last sentence of the first paragraph on **page S- 5** is changed to read:

Stocks arriving at this time (non-indigenous coho and fall Chinook, and indigenous summer steelhead) would continue to be the most affected (Table 3-8).

Section S.3.10 (Land Use, Transportation, Recreation): The first sentence of the third paragraph on **page S-9** is revised to insert the word "kayakers":

Recreation use largely would be unaffected by implementation of the Proposed Action; however, the extended fishway would be located on the shoreline where kayakers wishing to portage the falls typically disembark.

2.2 Chapter 1 Purpose of and Need for Action

In **Section 1.3 (Purposes of the Project)**, the phrase "non-native" is deleted from the third bulleted item.

The text of **Section 1.4.4 (USFS Decisions)** found on **page 1-6** of the DEIS is replaced at the request of the USFS:

Under the National Wild and Scenic Rivers Act (PL 90-542, as amended; 16 USC 1271-1287) the lower 10.8 miles of the Klickitat River were designated into the National Wild and Scenic Rivers System, to be managed to by the USFS. The USFS would use this document as the basis for determining whether this project would be consistent with the Wild and Scenic Rivers Act (WSRA) regarding effects to the values for which the river was designated (free flow, water quality, and the following outstandingly remarkable values: hydrology, anadromous fish, resident fish, Native American dip-net fishing sites, and the geology of the lower river gorge). Section 10(a) of the WSRA requires that these values be protected or enhanced. Section 7(a) of the WSRA applies to portions of the project within the ordinary high water mark, and prohibits federal agencies from funding or assisting any project that would have a direct and adverse effect on the river's values. The requirements of the WSRA are discussed further in Section 4.5 and the effects of the

Proposed Action and No Action alternatives on the values of the Klickitat WSR are examined in Sections 3.1, 3.2, 3.3 and 3.7.

2.3 Chapter 2 Description of the Alternatives

On **page 2-4** of the DEIS, in the last sentence of the second paragraph, coho was misspelled.

Add the following to Section 2.2.2 on page 2-5:

Final facility design would incorporate and seek to be consistent with velocity criteria defined by the State of Washington in WAC 220-110-070 3(b) (ii) (D).

2.4 Chapter 3 Affected Environment and Environmental Consequences

Section 3.1.3, Mitigation Measures (Geology and Soils)

Two mitigation measures are added:

- Place fencing around the external limits of the construction site to prevent unnecessary disturbance outside of the work areas.
- Comply with the requirements of state and federal permits governing erosion control and water quality protection.

Section 3.2.1.1, page 3-8, the last sentence of the fourth paragraph is corrected to read:

Data summarized in Figure 3-2 were derived from streamflow data collected by the USGS (July 1, 1909 to September 6, 2006) for the Klickitat River near Pitt gage.

Section 3.2.1.1, page 3-8, in the final paragraph, the highest flow on record is changed from 40,000 cfs to 51,000 cfs.

Section 3.2.2.2, Proposed Action Alternative, Wild and Scenic River Designation: Replace the last sentence of the first paragraph of this section on **page 3-16** with the following:

Management of this corridor is designed to conserve the river values that lead to its designation, and to maintain or enhance them.

Section 3.2.2.2, Proposed Action Alternative, Wild and Scenic River Designation: Modify the third sentence of the second paragraph of this subsection on **page 3-16** to read:

"Any improvements to the existing fish passage facility either enhance river resources or reduce the potential for negative impacts" (USFS1991).

Section 3.3.1.1, Fish Populations, Steelhead Trout, page 3-22, the first sentence of the second full paragraph is modified to read:

A hatchery program annually releases approximately 100,000 summer steelhead smolts to support sport and tribal fisheries in the basin.

Section 3.3.1.3, Fish Passage: A number was omitted from the first sentence of the section on **page 3-25**. The corrected statement is:

Lyle Falls consists of a series of five waterfalls ranging from 4 to 17 feet high; the largest is Lyle Falls #5 at the project site.

Section 3.3.1.4, Harvest, last sentence of the second full paragraph of **page 3-28** was incorrect. Klickitat fall Chinook have not been documented in the Little White Salmon River as we stated in the DEIS, but in the White Salmon River.

Page 3-39, first full paragraph, coho was misspelled.

Section 3.3.2.2, Disease, the following statement is added to the end of the first full paragraph on **page 3-40**:

That said, if infected wild fish are present at the source of a hatchery's water supply, disease transmission to a hatchery population can occur.

Section 3.3.3, Mitigation Measures. The fifth bullet on **page 3-42** is modified to read:

- During dewatering of work areas, a qualified fish biologist or natural resources specialist working with an experienced fisheries technician support would be present to conduct salvage operations for any fish that become stranded in the dewatered zone.

Section 3.3.3, Mitigation Measures. The following measures are added to **page 3-42**:

- Compile aquatic protection measures, including monitoring of potential blasting effects, in a monitoring and operations plan for pre-construction approval by WDFW.

- Final fishway design documents submitted to WDFW will address maintenance requirements for the attraction water screen, transportation channel, and the auxiliary flow diffuser.

Section 3.4.2.2, Construction Effects. The last sentence of the first paragraph on **page 3-55** is deleted. Information received from WDFW since publication of the DEIS indicates that a bald eagle roost has been established downstream of the project site (see Response to Comment LFP0001-9).

Section 3.4.2.2, Construction Effects. Additional information is added to the second full paragraph on **page 3-55** about western gray squirrels. The expanded paragraph now reads:

It is unlikely that project construction would adversely affect the western gray squirrel. Studies in Klickitat County showed that squirrels in this population use pine trees more

frequently than oak trees for nesting, foraging and cover, and tend to select the largest conifer trees for nesting (Linders and Stinson 2007). Linders and Stinson (2007) found that the mean diameter at breast height (dbh) of 110 nest trees was 15.6 inches for pine and 17.9 inches for oak. On the Klickitat Wildlife Area, nearly all natal dens were in oak cavities (M. Vander Haegen, pers. comm., cited in Linders and Stinson 2007). The average diameter of the den trees found was 17.1 inches and the minimum dbh was 11 inches. Only one to two oaks over 11 inches dbh would be removed during project construction. However, these trees have no arboreal links with other trees, and would not likely be used for nesting, although they are in the minimum size range used by squirrels in the Klickitat Wildlife Area.

Section 3.4.3, Mitigation Measures

The **third bullet on page 3-56** should refer to a "nest platform" rather than a "next platform".

Two additional mitigation measures are added to **page 3-56**:

- Before any ground disturbing activities occur, conduct a rare plant and noxious weed survey within 100 feet of all potentially disturbed areas. Provide results to the Yakama Nation, WDFW, USFS, and Klickitat County Noxious Weed Board.

- Install temporary fencing around the perimeter of the work site to confine ground disturbance to only that which is necessary to construct this project.

Change "Vegetation Protection Objectives" to Vegetation Protection Measures". The following new Vegetation Protection Objectives are added on **page 3-56**:

- If pre-construction rare plant surveys indicate the presence of rare species within the work area, consult with the Yakama Nation, WDFW and USFS to identify and implement appropriate protective measures (e.g., flagging, temporary fencing, placement of boulders around rare plant populations, or relocation).

- If pre-construction surveys indicate noxious weeds are present in the work area, consult with the Yakama Nation, WDFW, USFS, and Klickitat County Noxious Weed Board to identify and implement control measures prior to ground disturbance.

- If weeds are documented and treated, monitor treatment effectiveness for 3 years following construction, and re-treat as needed, consistent with the Revegetation Plan (see below).

- If extensive weed populations are documented, work should proceed from "clean" areas into weedy areas, if possible.

- Wash all equipment entering the work area to minimize the risk of transporting weed seeds and propagules.

Two measures listed under the Wildlife Protection Plan on **page 3-57** are modified:

- Consult with WDFW regarding steps to relocate the existing osprey nest platform prior to March 1 in the year of construction, including 1) installing an alternative nest pole and platform farther upstream on the Klickitat River, away from the project site and potential noise disturbance caused by project construction; or installing a platform on an existing power pole, if one is suitably situated and Klickitat Public Utility District (PUD) agrees, moving nest materials from the existing platform to the new platform, and installing nest deterrent device(s) at the existing platform; 2) monitoring osprey use of both structures in March and April to determine whether/where the pair is nesting; and 3) removing the nest deterrent device(s) from the existing nest platform following completion of construction, and outside the breeding season (i.e., between October 1 and March 1).

- Place felled trees along the margins of the construction staging area adjacent to the existing woodland to provide cover for reptiles, birds and small mammals.

Additional measures are added to the Wildlife Protection Plan on **page 3-57**:

- Conduct a western gray squirrel nest survey in suitable habitat within 400 feet of any areas that will be disturbed by construction; if nesting is documented, consult with the Yakama Nation and WDFW to identify and implement appropriate protection measures.

Two additional measures are added to the Revegetation Plan on **page 3-57**:

- Plant Oregon white oak and ponderosa pine at a 5:1 ratio to replace those lost or disturbed during construction, using local stock (e.g., Milestone Nursery in Lyle or Yakama Tribal nursery), and monitor and maintain for 3 years following construction.

- When all rock has been deposited at the spoil disposal area, place weed-free soil or sand in the crevices to facilitate establishment of grasses and forbs that are common in the adjacent boulder field.

Section 3.5.1.2, Middle Columbia River Steelhead DPS Status and Distribution

In the second paragraph of **page 3-61**, a citation was missing attribution. It should be WDFW 2002.

Section 3.5.1.2, Steelhead in the Klickitat River

In the first full paragraph of **page 3-62**, the term “redd” was misspelled. The correct spelling should be changed to “redd”, not “red”.

Harvest number corrections were provided for the third to the last sentence in the first full paragraph of **page 3-62**. The statement is corrected to read:

The annual harvest of steelhead in the Klickitat River has averaged 2,544 fish since 1986 (Yakama Nation in press).

Section 3.6.3, Mitigation Measures

On **page 3-73,** the second bullet is revised to read:

- Construction specifications shall stipulate avoidance of the identified wetland and require that temporary protective fencing be installed around the wetland perimeter prior to and during construction.

Section 3.8.3, Mitigation Measures

On **page 3-89,** the sixth bullet is revised to read:

- Signs would be posted on the Klickitat Trail throughout construction to warn users of vehicle crossing where the trail and access road intersect and at adjacent trailheads at Fisher Hill and Pitt. Trail use typically is not heavy enough to merit posting of flaggers.

Section 3.9.2.2, Proposed Action Alternative

On **page 3-95**, the USFS management plan quotation included at the end of the first paragraph of this section should be deleted. The USFS points out that this guidance is directed at fisheries and is not to be generalized to include aesthetics.

Section 3.9.2.2, Operational Effects

On **page 3-97**, the last sentence of the first paragraph of this section is changed to read:

This would be mitigated by shaping the spoil pile, placing some larger rocks on top of the pile, and placing weed free soil or sand in the crevices to facilitate establishment of grasses and forbs that are common in the adjacent boulder field (see Section 3.4.3, Revegetation Plan).

Section 3.9.3, Mitigation Measures

The last two bulleted measures identified on **page 3-99** are modified to read as follows:

- Direct motion sensor-activated exterior lighting for the new building downward to achieve security objectives and limit stray ambient light.

- Place weed-free sand or soil in crevices of the excavated rock at the spoil disposal site adjacent to the Klickitat Trail to facilitate revegetation.

A new measure is added to **page 3-99**:

- Shape the rock disposal pile to appear as natural as possible. Retain and place larger rock across the top of the pile. Prior to final shaping, the contractor shall

meet on site with the USFS visual resource specialist and WDFW for final guidance to reduce the overall visual effect of the rock disposal pile.

The summary paragraph on **page 3-99** is expanded as follows:

Several elements of the proposed action that detract from achieving Visual Quality Objectives include the expanded fishway, the new equipment storage building, and the rock debris pile. Mitigation measures listed in this section would reduce these effects, bringing the proposed action closer to the Visual Quality Objectives. For example, the color, design and placement of the equipment storage building would blend with the surrounding vegetation and terrain. Shaping the rock debris pile and placing soil in the crevices would reduce this potentially obtrusive element and accelerate the process of vegetation establishment. Painting the existing water supply pipeline a dark color would greatly reduce its visual contrast with the fishway and river. Using a color additive in the newly placed concrete to better match the surrounding basalt rock also would reduce visual contrast. With these measures in place, the USFS Visual Quality Objectives are expected to be achieved from Key Observation Points 1 and 2. These standards would not be achieved from Key Observation Point 3, and during summer low flows, would not be achieved from Key Observation Point 4.

Section 3.10.1.1, Land Use and Ownership

Figure 3-8 on **page 3-101** of the DEIS has been modified, extending the mapped coverage of the Klickitat River. It is included at the conclusion of this section (page 24).

Section 3.10.1.3, Recreation

In the first paragraph of this section on **page 3-103**, Rail-to-Trail should be capitalized.

The final three sentences of the second paragraph of this section on **page 3-103** are revised to read:

Five outstandingly remarkable values were identified for the Klickitat: hydrology, anadromous fish, resident fish, Native American dip-net fishing sites, and the geology of the lower river gorge. The boundary of this designation extends approximately 0.25 mile from each bank. It is noted that the Lyle Falls Fishway was constructed many years before this designation.

In the second to last paragraph on **page 3-104**, the location of Wheeler Canyon is revised from RM 0.8 to RM 10.8.

Section 3.10.2.1, Land Use, Proposed Action Alternative, Construction Effects:

In the second paragraph of this section on **page 3-106**, the last sentence is modified as follows:

Because this reach of the Klickitat River is also a designated National Wild and Scenic River, the USFS is finalizing a Section 7a analysis of consistency with the National Wild and Scenic Rivers Act.

Section 3.10.3, Mitigation Measures

A new measure is added to **page 3-109** and an existing measure is expanded:

- Prohibit any use of the Klickitat Trail for vehicular access during construction.
- Install safety signage at the intersection of the Klickitat Trail and the access road and nearby trail access points at Fisher Hill and Pitt to reduce conflicts between trail users and construction traffic.

Section 3.12.10, Land Use, Transportation and Recreation

On **page 3-117**, the second to the last sentence in the second paragraph is revised:

Due to the federally designated Recreation River status of this portion of the Klickitat River, future development within the corridor must be compatible with the Wild and Scenic Rivers Act.

Table 3.17, Summary of Environmental Consequences

Under the **No Action Alternative for Land Use, Transportation and Recreation** on **page 3-126**, the phrase "reported to be" is deleted. The statement now reads:

The reach upstream of the ladder is a portage point for kayaks.

2.5 Chapter 4 Consultation, Review and Permit Requirements

Section 4.2.1, Federal Endangered Species Act

Substitute the second paragraph with the following three paragraphs to reflect a completed Section 7 ESA consultation process:

Sources of information for the potential occurrence of sensitive species in the project area include NMFS, USFWS and the Washington Natural Heritage Database. Each was contacted during preparation of the DEIS for lists of threatened, endangered, sensitive, or candidate species. Potentially affected species and their habitat are discussed and analyzed in Sections 3.3 through 3.5 of the DEIS. Based on this information, a Biological Assessment (BA) was prepared and consultation initiated with the NMFS and USFWS in accordance with ESA Section 7. The BA was prepared to evaluate effects of the proposed modifications (upgrades) and maintenance of the Lyle Falls Fish fishway on federally listed affected species. The BA also includes an impact assessment of designated critical habitat for Mid-Columbia River steelhead (BPA 2008), as well as an Essential Fish Habitat assessment in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

In their August 18, 2008 letter, NMFS responded by indicating that project-induced turbidity would be of a short duration, of very low intensity, and insignificant; that streambed disturbance would not mobilize more than an insignificant amount of sediment; and that noise and other activity during construction would not disrupt fish

migratory behaviors. Accordingly, NMFS determined that the proposed action "may affect, but is not likely to adversely affect" mid-Columbia River steelhead and that the long-term effect of the actions would result in increased numbers of steelhead use of spawning areas upstream. For critical steelhead habitat, NMFS determined that the new fish ladder would not affect migrating steelhead, the ladder would provide unobstructed downstream passage, and would not destroy or adversely modify or affect critical steelhead habitat. Regarding Essential Fish Habitat, NMFS determined that additional conservation measures pursuant to the MSA were not needed. This concluded the Section 7 ESA consultation process with NMFS.

It its May 5, 2008 letter, the USFWS stated that due to the limited number of bull trout in the Klickitat River mainstem, extreme unlikelihood of bull trout presence during project activities, and small amount of habitat that could be affected, project construction would result in a discountable and insignificant effect to individual bull trout and their critical habitat. The FWS concurs that the project “may affect, but is not likely to adversely affect” this species and proposed critical habitat. Other than what was provided in the DEIS, the USFWS offered no additional mitigating or conservation measures. This concluded the Section 7 ESA consultation process with the USFWS.

Section 4.4, Floodplain/Wetland Assessment

The following Statement of Findings is added to **Section 4.4, page 4-4** of the DEIS:

In accordance with the Department of Energy regulations on Compliance with Floodplain/Wetlands Environmental Review Requirements (10 CFR 1022.12), we have prepared a wetland/floodplain impact assessment of the Lyle Falls Fish Passage Project. The project DEIS, dated March 2008, describes the proposed actions (Section 2.2.2); outlines the project’s purposes, needs, and objectives (Sections 1.1 through 1.3); identifies the proximity of the project location to wetlands and floodplains (Section 2.2.1); assesses the alternatives that were considered (Sections 2.1, 2.3 and 2.4); assesses project impacts on floodplains and wetlands (Sections 3.6.2, 3.2.2, 3.12.6, 3.13.6, 4.4 and Table 3-21), and outlines appropriate mitigation that, if implemented, would minimize potential harm to these landscape types (Sections 3.2.3 and 3.6.3). In addition, hydrologic effects of the proposed project are discussed in Section 3.2.2.2 of the DEIS. When BPA publishes the Notice of Availability of the FEIS in the Federal Register, it will include the following floodplain statement of findings as required by 10 CFR 1922, 15(6).

4.4.1.1 Floodplain Statement of Findings

- Facility upgrades would take place within the FEMA-designated 100-year floodplain, including construction of the proposed maintenance building.

- The DEIS examined various alternatives for an improved fishway, but we arrived at no practical alternative to locate the ladder outside of the floodplain because this proposed facility is a water-dependent feature. By definition, the fish passage facility must be in close proximity to the river in order to serve its function.

- The floodplain encroachment is expected to be minor, with no appreciable net rise in water levels. The new fishway channel would effectively create a "hole" below existing grade (approximately 2,200 cubic yards in size) that would transport floodwaters, offsetting the small portion of the fishway that would be above grade. The net effect of this addition would be near zero.

- The proposed 960-square-foot concrete equipment building would be upslope from the fishway (about 20 feet higher in elevation) yet still within the FEMA-designated floodplain. The building would be approximately 5 feet above the active flood channel elevation but within the 100-year floodplain level. Proximity to the fishway was an importent consideration in locating this new building as it will contain equipment and materials to monitor the ladder daily.

- The rock deposited from excavation of the extended fishway would cover an area of about 30,000 square feet to a depth of approximately 4 feet. This would have a minor effect on the flood elevation but is not expected to result in flooding of previously flood-free areas upstream.

- The following measures are intended to reduce/avoid possible adverse effects on the project wetlands/floodplains: employ best management practices, mark and fence the wetland perimeter, avoid storing equipment or supplies on site between work periods; stabilize disturbed areas by implementing an erosion and sediment control plan, limit the profile of instream structures to affect the least surface area within the floodplain, eliminate storing equipment or supplies on site and stabilize all disturbed areas; construct only during the driest period of the year when no flooding or inundation is anticipated, and allow unimpeded flow of water through the Klickitat River channel.

- Implementation of the project would be consistent with applicable floodplain protection standards in 10 CFR 1022.12, Executive Order 11988, and Executive Order 11990.

Section 4.5, Wild and Scenic Rivers Act

The USFS requested slight modifications to the description of Wild and Scenic Rivers Act compliance on **page 4-5** of the DEIS. Replacement language follows:

Under the National Wild and Scenic Rivers Act (PL 90-542, as amended; 16 USC 1271-1287), the lower 10.8 miles of the Klickitat River were designated into the National Wild and Scenic Rivers System. The entire designated river is classified as recreational. Section 10(a) of the Wild and Scenic Rivers Act (WSRA) requires that wild and scenic river (WSR) values be protected or enhanced. Section 7(a) of the WSRA applies specifically to projects within the ordinary high water mark of designated WSR, and protects river values from any direct and adverse effect of such projects. The Klickitat WSR was designated to protect free flow, water quality, and these outstandingly remarkable values: hydrology, anadromous fish, resident fish, Native American dip-net fishing sites, and the geology of the lower river gorge.

The WSRA Section 10(a) requirement for enhancement and preservation of the Klickitat WSR values is accomplished by the USFS through direction in the comprehensive river management plan (USFS 1991). The WSRA Section 7(a) requires the USFS to make a specific determination for "water resources projects". A water resources project is defined as any project within the ordinary high water mark of a designated river. The standard for a WSRA Section 7(a) determination for water resources projects is, "Does the project have direct and adverse effects on the values for which the river was designated (free flow, water quality, and outstandingly remarkable values)?" Under the WSRA, no federal agency can fund or assist a project that has direct and adverse effects on the values for which a river has been designated.

Section 13 of the WSRA recognizes state jurisdiction for wildlife and fish, stipulates that federal and state jurisdiction over water rights be determined by established principles of law, recognizes that the state jurisdiction over waters is unaffected to the extent that such jurisdiction may be exercised without impairing the purposes of the WSRA, and specifics that the WSRA does not affect existing state rights of access with respect to the bed of navigable streams.

Compliance of the Proposed Action with the WSRA requirements and with CRMP direction are disclosed and analyzed in Sections 3.1, 3.2, 3.3 and 3.7 of the DEIS. This information will be used by the USFS as the basis of its determination of whether or not the project protects or enhances WSR values (WSRA Section 10 (a)), and whether or not portions of the project within the ordinary high water mark will have direct and adverse effects to river values (WSRA Section 7(a)).

2.6 References

Add the following citations to **Chapter 5**.

Bonneville Power Administration (BPA). 2008. Biological Assessment and Essential Fish Habitat Assessment, Lyle Falls and Castile Falls Fish Passage and Monitoring Facility Projects. Submitted to BPA from Meridian Environmental, Inc. and D.J. Warren Associates, Inc. Seattle, WA and Philomath, OR. April 21, 2008. 76pp w/appendix A.

Linders, M.J and D.W. Stinson. 2007. Washington State Recovery Plan for the Western Gray Squirrel. Washington Department of Fish and Wildlife, Olympia.

Poole, A.F., R.O. Bierregaard and M.S. Martell. 2002. Osprey (*Pandion haliaetus*). The Birds of North America Online. Cornell Lab of Ornithology.http://bna.birds.cornell.edu/bna/species/683.

USDA Forest Service. 1991. Comprehensive River Management Plan, Final EIS for the Lower Klickitat River. US Forest Service.

USFWS. 2007. National Bald Eagle Management Guidelines. U.S. Fish and Wildlife Service, May, 2007.

www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

USGS. 1995. Ospreys in Oregon and the Pacific Northwest. USGS Fact Sheet 153-02. Revised September 2005. USDI Geological Survey. http://fresc.usgs.gov/products/fs/fs-153-02.pdf.

WDFW. 2001. Bald Eagle (*Haliaeetus leucocephalus*). Priority Habitat and Species Management Recommendations. Volume IV: Birds. Washington Department of Fish and Wildlife. Olympia, WA. http://wdfw.wa.gov/hab/phs/vol4/baldeagle.pdf.

Yakama Nation and Washington Department of Fish and Wildlife. 2008. Klickitat River Anadromous Fisheries Master Plan. Yakama/Klickitat Fisheries Project. Toppenish, WA. March 2008.

2.7 Appendix A

Appendix A: Visual Resource Inventory Field Form for Key Observation Point 1

On **page A-2, Potential Facility Contrast Issues**, delete the last sentence of the first paragraph.

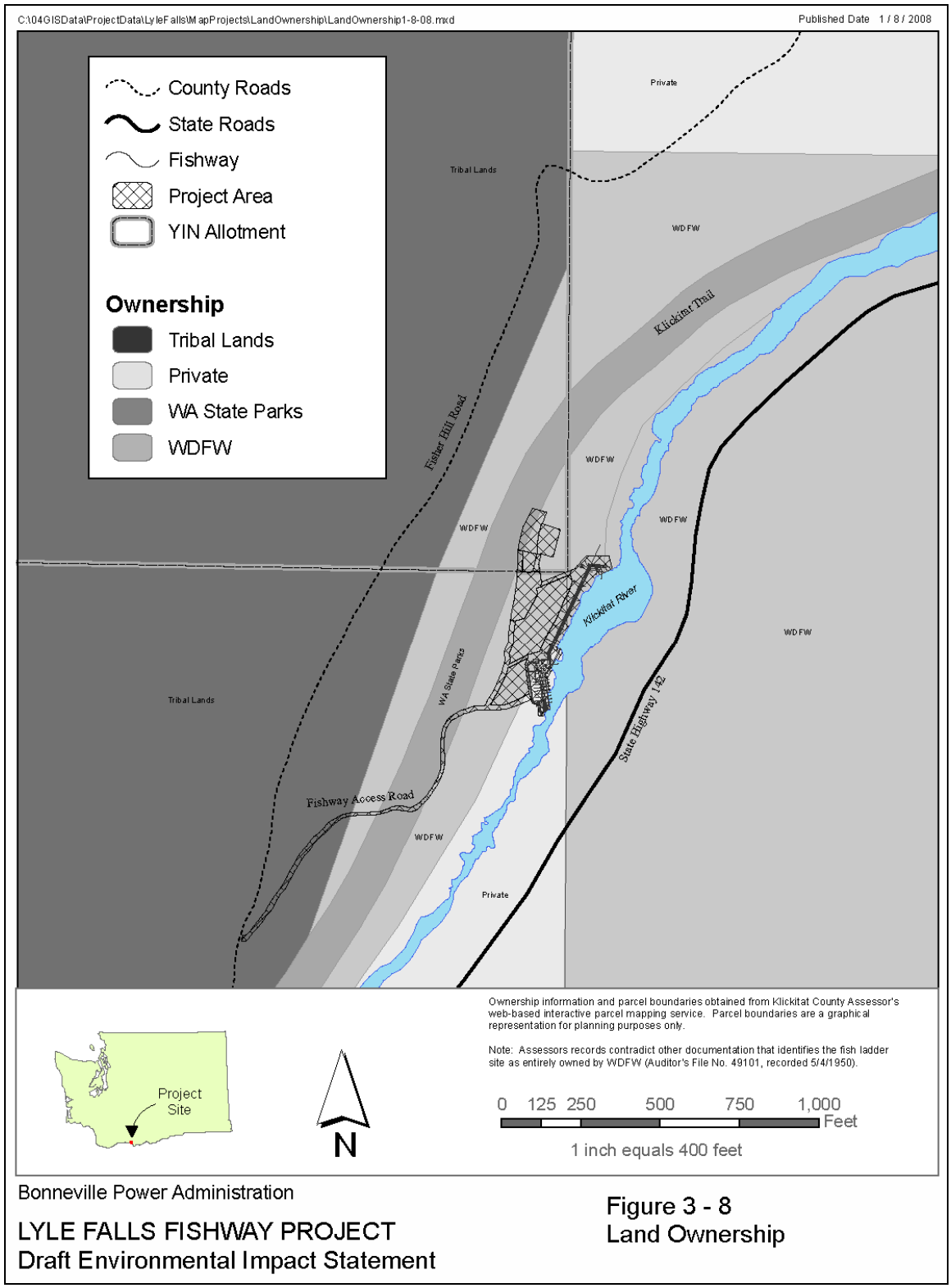


Figure 3-8. Land Ownership.

SECTION 3 COMMENTS ON THE DRAFT EIS

With the release of the Lyle Falls DEIS and announcement in the Federal Register on March 28, 2008 (Vol. 73, No. 61, pp.16672-16673), we requested that public comments be filed with BPA to assist in formulating a FEIS. BPA received 16 letters/emails which are reproduced in Appendix A and listed in Table 3. Each letter or email is assigned an identifying number (i.e. LFP0001) and each substantive comment within that letter or email is assigned a sequential number beginning with that identifier (i.e., LFP0001-1). In addition, a number of unattributed oral comments were offered at the Lyle Falls Project public meeting on April 16, 2008 in Lyle. These comments and responses are compiled as LFP0017 in Section 4. The comment letters/emails can also be viewed at: http://www.bpa.gov/applications/publiccomments/CommentList.aspx?ID=23 on BPA's web site. BPA's responses to these comments are presented in Section 4.

Table 3. Summary of Comments Received on the Lyle Falls Draft EIS.

Comment Log No.	First Name	Last Name	Affiliation	Total No. of Comments
LFP0001	Bill	Weiler	Washington Department of Fish and Wildlife	13
LFP0002	Bryan	Neet	State of Washington Department of Ecology	1
LFP0003	Daniel	Jim	Confederated Tribes of the Umatilla Indian Reservation	1
LFP0004	Leonard	Dave	Yakama Nation	1
LFP0005	Wilbur	Slockish, Jr.	Klickitat Chief	2
LFP0006	Johnny	Jackson	Chief	2
LFP0007	Dan	Enz	Citizen	5
LFP0008	Vijai	Rai	U.S. Department of the Interior	1
LFP0009	Gwen	Clear	State of Washington Department of Ecology	3
LFP0010	Phil	Rigdon	Confederated Tribes and Bands of the Yakama Nation	8
LFP0011	Pam	Essley	Citizen	4
LFP0012	John	Easterbrooks	Washington Department of Fish and Wildlife	12
LFP0013	Jessica	Gonzales	U.S. Fish and Wildlife Service	6
LFP0014	Christine	Reichgott	U.S. Environmental Protection Agency	3
LFP0015	Preston	Sleeger	U.S. Department of the Interior	6
LFP0016	Richard	Turner	National Marine Fisheries Service	11
LFP0017	---	---	Various Public Comments	15

SECTION 4 RESPONSES TO COMMENTS ON THE DRAFT EIS

In this section we reproduce each substantive comment or question from Appendix A, followed by BPA's response to each. A number of comments were offered at the April 16, 2008 public meeting in Lyle; these are summarized and addressed here as well. Where a comment necessitated a change to the EIS, the language modification is included in Section 2 of this FEIS. Otherwise, discussion or responses are provided here in Section 4.

LFP0001 Washington Department of Fish and Wildlife Letter: 4/4/08

Comment LFP0001-1

S.3.6 - Wetlands and Floodplains: Paragraph 2 states that there may be no effect on the "existing small wetland because its location could easily be isolated from construction." We request that the final EIS Lyle Fish Passage Project narrative state that "Construction shall avoid this wetland."

Response

In Section 3.6.2.2, we identified that a 1,350-square-foot wetland identified in the project area would not be disturbed during construction. Figure 3-5 also shows that this wetland is outside of the proposed work area. It lies between the proposed water supply intake structure and the spoil disposal site. Construction activities would be conducted in such a manner as to avoid this wetland. Adverse impacts would be further prevented by following standard best management practices such as installing silt fences around construction work areas and fencing the perimeter of the wetland prior to and during construction. An additional mitigation measure has been added to Section 3.6.3 that construction specifications would require wetland avoidance.

Comment LFP0001-2

3.1.2.2. Soils: As October is typically the month for the autumn rainy season to begin, we believe there is a reasonable chance that soil erosion could be a concern during this month. If possible, we ask that the project construction end before the fall rainy season begins.

Response

Construction is proposed to be performed over two summer seasons specifically to limit the potential effects of high water on the work areas. In addition, WDFW is expected to limit instream work to a period from mid-June through the end of August to protect aquatic resources. Near stream work and upland activities are proposed to extend until October in order to accomplish fishway modifications within two summers. It may be not be possible to compress the construction period further.

Section 3.1.3 identifies a number of measures that should be implemented to minimize the risk of erosion. This includes consultation with the permitting agencies to develop an erosion and sediment control plan, and the project proponent's intent to comply with regulatory requirements (e.g., conditions of the Hydraulic Project Approval, Sections 401

and 404 of the Clean Water Act). We believe this comprehensive approach would manage the potential for erosion without further need to limit the construction window.

Comment LFP0001-3
3.3.3 Mitigation Measures: We support the on-site presence of a "qualified fish biologist" during the de-watering of work areas in order to conduct potential salvage operations.

Response

A qualified fish biologist, or other qualified natural resources specialist, would be present during any dewatering actions to conduct potential fish salvage operations.

Comment LFP0001-4
3.4.1.1 Vegetation and Wildlife: Was a rare plants survey conducted within the project area? From the narrative on page 3-44, it appears that the Forest Service did not perform an on-site survey? Page 3-46 describes a site visit in September, 2006, not the best time of year to be searching for rare plants. We request that a rare plants survey occur this spring and early summer, if at all possible. We ask the survey cover the entire project area not just those "probable disturbed areas" as stated on 3-56.

Response

The text in Section 3.4.3 addressing rare plant protection and noxious weed management has been clarified. In summary, prior to the start of construction, we propose that a survey be conducted for the presence of rare plants and invasive weeds within 100 feet of all areas that would be disturbed. These surveys would be conducted at the appropriate time of year to identify target species. Proposed follow-up monitoring is also described in Section 3.4.3.

Comment LFP0001-5
Noxious Weeds: Three noxious weed species are described in the narrative. As a mitigation measure, were there plans to attempt to eradicate these species from the project area?

Response

State law requires control and /or containment efforts for Class B weeds (that were observed) rather than eradication, which is directed to Class A weeds (that were not observed). In Section 3.4.3 we propose a list of measures to control and prevent the spread of noxious weeds at the project site. Based on a May 22, 2008 conference call with Bill Weiler (WDFW), we have added more specific detail to address weed control. Surveys will be conducted for noxious weeds prior to the start of construction. If surveys indicate that weeds are present in the work area, we recommend consultation with Klickitat County Noxious Weed Board, WDFW, and USFS to identify and implement control measures prior to ground disturbance; and monitoring the success of any treatments that are applied for three years following construction.

Comment LFP0001-6
Western gray squirrel: It appears that no western gray squirrel nest survey occurred adjacent to the project area. WDFW's "Western Gray Squirrel Management Guidelines" (April 2004) call for timing restrictions for development projects within 400 feet of known nests. We recommend that western gray squirrel nest surveys occur as soon as possible within suitable habitat out to at least 400 feet from the project area.

Response

We have added a recommendation to Section 3.4.3 specifying that squirrel surveys should be conducted in suitable habitat within 400 feet of the work area prior to ground disturbance, in accordance with squirrel management protocol. If squirrel nests are documented, we recommend consultation with WDFW to identify and implement appropriate protection measures.

Comment LFP0001-7
Mitigation measures for Oregon white oak, ponderosa pine, and alder removal: We ask that BPA re-plant at a 5: 1 replacement ratio: 50 Oregon white oak, 20 new ponderosa pine and 15 alder seedlings as mitigation for the removal of 17 trees as stated on page 3.52 in the EIS narrative. Milestone Nursery of Lyle, Washington carries both white oak and ponderosa pine plants. These trees should be planted either in late October or early November to ensure survival success. These plants should also be monitored for up to three years.

Response

We have modified the text in Section 3.4.3 regarding the Revegetation Plan to specify that it should include replanting Oregon white oak and ponderosa pine at a 5:1 ratio. Alder is likely to recolonize on its own, wherever site conditions allow. Control of alder may be needed to promote the growth and survival of oak and pine. For these reasons, alder planting (and management, if necessary) would be addressed as part of the Revegetation Plan.

Comment LFP0001-8
Osprey: We ask that WDFW be consulted and that osprey mitigation measures be developed prior to the issuance of the final EIS. We are presently opposed to moving the current nest to a location farther from the project site.

Response

A pair of osprey has nested for about 10 years at the project site on a power pole owned by Klickitat PUD. In 2007, the PUD worked with USFWS and WDFW to obtain permits and with Goldendale High School students and local citizens to construct and install a platform on the pole to protect the osprey and maintain the reliability and safe operation of the transmission line. The osprey pair nested on this platform in 2008 (pers. comm., N. Mains, Klickitat PUD, May 21, 2008). Artificial nesting platforms have been used successfully at many other locations (USGS 2005; Poole et al. 2002).

Preliminary consultation with the District Biologist (pers. comm., David Anderson, WDFW Region 5 District Biologist, July 16, 2008) indicates the following steps would be feasible. Prior to the beginning of the osprey breeding season (i.e., prior to March 1) of the construction year:

- Install deterrent device(s) to prevent osprey nesting on the existing platform.
- Install an alternative nest pole and platform farther upstream on the Klickitat River, away from the project site and potential noise disturbance caused by project construction; or install a platform on an existing power pole, if one is suitably situated and Klickitat PUD agrees, and move nest materials from the existing platform to the new platform.
- Monitor osprey use of both structures in March and April to determine whether/where the pair is nesting.
- Remove the nest deterrent device(s) from the existing nest platform following completion of construction, and outside the breeding season (i.e., between October 1 and March 1). In the long term, adult osprey in the project area would then have two available structures available for nesting and rearing their offspring.

This language has been added as a mitigation measure to Section 3.4.3.

Comment LFP0001-9

Eagles: Please remove the sentence in paragraph one on page 3-55 that states that winter is the only time when bald eagles have been observed in the Lyle Falls project area. With a nest located 1.5 miles away, bald eagles are known to utilize the Lyle Falls area during the summer months.

Response

At the time the DEIS was written, we were unable to locate written documentation of bald eagle presence at the project site in summer. We relied on the reports of biologists who are present almost daily throughout the year and had observed frequent use during the winter, but none during the summer. Consultation with David Anderson on July 16, 2008 (WDFW Region 5 District Biologist) indicates there is a new nest located just south of the Fisher Hill Bridge. The bridge is at River Mile 1.6, about 0.6 miles downstream of the project site. Eagles nesting at this site could use the Lyle Falls project area for foraging during the summer. Eagles would likely avoid the area during the construction period, but construction activities would be unlikely to disturb bald eagles at the nest, or interfere with reproductive success. Topographic screening prevents a clear line-of-sight between construction activities and the nest, and would prevent visual disturbance. Distance and ambient river/falls noise would prevent noise disturbance. The proposed project would be consistent with National Bald Eagle Management Guidelines (USFWS 2007), which call for restricting disturbing activities within 660 feet of a nest, and restricting blasting within 0.5 miles of a nest. It would also be consistent

with WDFW's recommendations, which call for timing restrictions of potentially disturbing activities, including blasting, within 800 feet of a nest.

Comment LFP0001-10

Western Gray Squirrels: Please remove the sentence in the second paragraph on page 3.55 that states: "Studies in the Klickitat watershed showed that squirrels in this population use pine trees more frequently than oak trees for nesting..." Essentially all western gray squirrels in the Klickitat River basin use Oregon white oak trees initially for their nest sites, then construct visible nests in both ponderosa pine and Douglas fir in trees greater than eight inches dbh.

Response

The information presented in Section 3.4.2.2 is taken directly from the western gray squirrel recovery plan (Linders and Stinson 2007) and therefore seems appropriate to retain. However, we have added "on the Klickitat Wildlife Area, nearly all natal dens were in oak cavities (M. Vander Haegen, pers. comm., cited in Linders and Stinson 2007). The average diameter of the den trees found was 17.1 inches and the minimum diameter was 11 inches." We also updated the reference to reflect the date of publication of the final recovery plan in November, 2007.

Comment LFP0001-11

Wildlife Protection Plan: We oppose using felled trees to construct brush piles along the western margin of the construction staging area as stated on page 3-57. Though these brush piles can provide cover for "reptiles, birds and small mammals," the piles are also extensively utilized by California ground squirrels. Please eliminate the above clause as part of the wildlife protection plan. We recommend that all felled trees be evenly distributed throughout the project site (or offsite).

Response

We understand WDFW's concern that potential brush piles could inadvertently improve habitat conditions for California ground squirrels, which may compete with western gray squirrels. We have modified our proposal accordingly.

Comment LFP0001-12

Re-vegetation: We commend the applicant for developing a re-vegetation plan for the project site. This plan should be in place prior to the Final EIS publication.

Response

We suggest that it would be more appropriate to draft the revegetation plan prior to the start of project construction rather than prior to the Final EIS publication. For various administrative reasons (funding and regulatory approvals), it is uncertain when project construction will be initiated; therefore, rather than potentially having to repeat the fieldwork, surveys for rare plants, noxious weeds, and western gray squirrels are not proposed to be conducted until a reasonably certain construction timeframe is established. Conducting surveys once the project boundaries have been flagged would also assist

surveyors in establishing 100-foot (for rare plants and noxious weeds) and 400-foot (western gray squirrel) survey areas. Surveys will provide information needed to complete the revegetation plan. Postponing development of the plan will also allow time for consultation with the agencies, including the Yakama Nation, WDFW, USFS, and Klickitat County Noxious Weed Board, to ensure it is consistent with their management policies.

Comment LFP0001-13

Finally, we request a site visit to the project area as soon as feasible to observe the following:

1. Permanent spoils site
2. Temporary haul road location
3. Equipment building locale
4. The 1.6-acres that will be disturbed

Response

Subsequent to making its written comments, WDFW amended its request so staff could visit the site once the work area boundaries are flagged, and stakes are in the ground to show the footprint of the spoil site, haul road, and equipment building, (i.e. once funding and permitting approvals are in place and project design is proceeding). BPA would accommodate WDFW's request.

LFP0002 WA State Department of Ecology Letter: 4/3/08

Comment LFP0002-1

SEPA comments for this project were sent to the lead agency by Ecology's Water Quality Program stating that a Construction Stormwater General Permit may be needed. The purpose of this letter and the enclosed brochure is to give you and your company a detailed description of the requirements of the Washington State Construction Stormwater General Permit. Construction sites that disturb one or more acres of land in total and discharge (or have the potential to discharge) stormwater from the site into a water of the state are required to apply for the permit. Waters of the state include lakes, rivers, streams, creeks, canals, ponds, inland waters, underground waters, and all other surface waters and water courses. Ecology encourages and prefers voluntary compliance with state water quality standards. To that end, we offer detailed technical assistance to permittees and potential permit applicants. Therefore, even if there is only a slight potential for your site to discharge stormwater, applying for the permit is in your best interest. We prefer to not pursue enforcement, but that is the likely course of action without the permit. The enclosed brochure is full of information, but if you have a questions please feel free to contact Bryan Neet at (509) 575-2808.

Response

We appreciate the reminder to secure a Washington State Construction Stormwater General permit. This requirement is identified in Table 4-1 of the DEIS.

LFP0003 Daniel Jim/C.T.U.I.R. email: 5/12/08

Comment LFP0003-1
I am contacting you on behalf of Rosetta Minthorn, as she received packet for comment to the Proposed Lyle Falls Fish Project. She is no longer a member of CTUIR-Cultural Resource Committee and asked that I contact and have BPA remove her name from mailing list. Thank you.

Response

Thank you for this information.

LFP0004 Leonard Dave Letter: 4/16/08

Comment LFP0004-1
I don't know if it will be good for the fish. I will have to witness it first.

Response

We believe that because of long-term planning and engineering design evaluations performed for this project, it will attain its objectives to improve upstream fish migration around Lyle Falls No. 5.

LFP0005 Wilbur Slockish Jr. Letter: 4/30/08

Comment LFP0005-1
The flow from the ladder development will disrupt the channel of the set net across from the ladder. I fished there many years. My Aunt Sally Slockish Buck was the one who utilized the places across from the ladder for her benefit.

Response

In Section 3.3.2.2, it is disclosed that this fishing site would be inaccessible for up to four months during one construction season while the downstream fishway intake is modified. Upon completion, directing from 122 to 300 cfs of additional flow through the ladder would alter hydraulics in the 475-foot-long bypass reach. This reach includes the site used by the family of Mr. Slockish. The effects of altered hydraulics on fishing success at this site have not been possible to determine.

Comment LFP0005-2
There is a steelhead site that only steelhead use to come off the boil so I object to the flow, unless we are compensated yearly, not sufficient as a onetime payment using the Dalles Dam as an example.

Response

Flows passing over Lyle Falls No. 5 would be reduced by this project, affecting the "boil" identified by Mr. Slockish. Directing additional flow through the ladder is likely to induce more steelhead to select the modified fishway as their upstream migration path rather than the falls, which may reduce potential fishing success. Although it has not been possible to quantify this effect, it is anticipated that it would be greatest in the initial few years of ladder operation. In the longer term, it is anticipated that improved access to spawning reaches in the upper watershed would increase the number of fish reproducing naturally and improve their homing fidelity, resulting in greater numbers of steelhead returning to the Klickitat River. While many of these upstream migrants would chose the fishway to pass Lyle Falls No. 5, others are expected to continue to select the falls route and would be subject to harvest at the traditional site adjacent to the ladder. Please also refer to our response to comment LFP0010-5.

LFP0006 Johnny Jackson Letter: 4/30/08

Comment LFP0006-1
I believe that the Lyle Falls and rapids should be left alone. It's a fishing place that has always been there and it's never been a problem for the fish to get up river to spawn. My people have always used it.

Response

Lyle Falls was initially altered by fishway construction in the 1950s, a facility that has not been particularly successful at passing fish. The existing, poorly functioning passage structure is harming rather than benefitting the fishery. This site will continue to be a fishing place for tribal people and if predicted outcomes are correct, more fish will be returning and passing through this fishery.

Comment LFP0006-2
I believe that the state and government should meet with the River Chiefs and the River People first before they talk to the Tribes.

Response

BPA has directed all communication through tribal governments of the Yakama Nation, Nez Perce Tribe, the Confederated Tribes of the Umatilla Reservation, and the Confederated Bands and Tribes of the Warm Springs Reservation. Participation of individuals is always welcomed and we thank Mr. Jackson for his input.

LFP0007 Dan Enz email: 5/12/08

Comment LFP0007-1
I do have a few concerns that were somewhat glossed over in your draft statement that I feel should receive more in depth coverage. 1) There should be a lay down area well defined for contractors accomplishing the work. The same thing for the heavy

equipment. There is sensitive plant life adjacent to this work site. We should do what we can (within reason) to limit the impact of this project onto the adjacent areas.

Response

BPA concurs that there is potential for construction activities to extend beyond the affected area described in the draft EIS. We have added a mitigation measure to Section 3.4.3 to indicate that work area boundaries are to be physically marked prior to any ground-disturbing activities. Contractors would be required to work entirely within these boundaries. We do not think it would be appropriate to dictate precisely where materials can be stockpiled and equipment placed within this defined area (this should be left to the discretion of the contractor) but it is important that work (staging) areas not encroach unnecessarily on adjacent lands.

Comment LFP0007-2
2) There should be adequate number of porta potties located on site to accommodate contractor personnel.

Response

BPA concurs that adequate temporary sanitation facilities must be provided during each construction season (see Section 3.8.3, Mitigation Measures). Such portable facilities would be removed between work seasons.

Comment LFP0007-3
3) There were some assumptions made regarding flow rates of the river. I have no argument with the winter and spring flow rates. There seems to be plenty of water in the river during that period. However, that is not the case during the summer and fall months. The river is already low and flow rates can fluctuate considerably. I believe some of the reason for this is not natural, it is primarily due to the drawdown of water by adjacent land owners. I float the river and it seems to me that each year there is more and more land owners drawing off water from the river. It's also concerning from what was said at this meeting, nobody is monitoring this situation. During summer and fall the river is already low and the water temp high. This is the same time frame that land owners are drawing off the most water. Fish are already stressed in this situation, this can't help.

Response

BPA did not seek out specific information about locations and volumes of upstream water withdrawals or of associated monitoring activities. We understand such monitoring is the responsibility of the Washington Department of Ecology (WDOE), the agency that issues and enforces stock watering/irrigation water rights. Our analysis of the proposed Lyle Falls modifications focused on flows available at the fishway and their seasonality. The project proponent, the Yakama Nation, intends to obtain authorization from WDOE to divert flows for fishway operations, and if this right is granted, must rely on WDOE's records that sufficient flows will be available for use. Exploring upstream water uses, both legal and illegal, was beyond the scope of this analysis.

Comment LFP0007-4

4) Also something must be done about the free range cattle located at the upper section of river, starting at the gate on Haul Road north of the town of Klickitat, all the way up to the Glennwood Hwy. I believe the number of cattle free ranging in this area has increased significantly. The hillsides and river banks are being destroyed. During winter flood much of this debris and soil is washed into the river. Prime spawning areas throughout the river being clogged completely or at minimum, degraded. There should be "NO" free ranging of cattle allowed in this sensitive region of the river.

Response

While we concur that uncontrolled free-range cattle can have deleterious effects on stream banks and water quality, any suggestion to modify this practice on lands not within the project boundary is outside the scope of BPA's authority.

Comment LFP0007-5

I'm also considering the purpose of the project which is (in Part): increase fish passage and enhancing opportunities of adult salmonids to access the upper section of the Klickitat and spawn. Ultimately we will fail in this endeavor unless we address all the problems facing the entire river system.

Response

Mr. Enz observes that for migrating fish to thrive in the upper Klickitat subbasin, it is important to broadly examine the challenges they encounter. We concur that it is important to protect and sustain high quality habitat in the Klickitat watershed for fish that migrate past Lyle Falls. The Yakama Nation and their partners are seeking to do so under the Yakima-Klickitat Fisheries Program, as are other entities identified in Section 4.6.9 of the DEIS.

LFP0008 US Department of the Interior Letter: 4/29/08

Comment LFP0008-1

This is to inform you that the Department may have comments, but will be unable to reply within the allotted time. Please consider this letter as a request for an extension of time in which to comment. Our comments, if any, should be available by May 27, 2008.

Response

BPA appreciates being informed of the Department's schedule.

LFP0009 WA State Department of Ecology Letter: 5/2/08

Comment LFP0009-1

Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48, Water Pollution Control, and WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and is subject to enforcement action.

Response

BPA has identified measures in Section 3.2.3 of the DEIS that reduce the potential for project construction to contribute sediment-laden runoff and other pollutants to the Klickitat River.

Comment LFP0009-2
An NPDES Construction Stormwater General Permit from the Washington State Department of Ecology is required if there is a potential for stormwater discharge from a construction site with more than one acre of disturbed ground. This permit requires that the SEPA checklist fully disclose anticipated activities including building, road construction and utility placements. Obtaining a permit is a minimum of a 38-day process and may take up to 60 days if the original SEPA does not disclose all proposed activities.

The permit requires that Stormwater Pollution Prevention Plan (Erosion Sediment Control Plan) is prepared and implemented for all permitted construction sites. These control measures must be able to prevent soil from being carried into surface water (this includes storm drains) by stormwater runoff. Permit coverage and erosion control measures must be in place prior to any clearing, grading or construction.

Response

We appreciate the reminder to secure a Washington State Construction Stormwater General permit and have identified this requirement in Table 4-1 of the DEIS.

Comment LFP0009-3
More information on the stormwater program may be found on Ecology's stormwater website at: http://www.ecy.wa.gov/programs/wg/stormwater/construction/. Please submit an application or contact Bryan Neet at the Dept. of Ecology, (509) 575-2808, with questions about this permit.

Response

BPA appreciates receiving this information.

LFP0010 Yakama Nation Letter: 5/9/08

Comment LFP0010-1
The Yakama Nation has a keen interest in seeing the implementation of the proposed action because of the benefit to the anadromous fishery on the Klickitat River. The Yakama Nation supports the proposed improvements to the existing dysfunctional fishway as an effective measure to enable improved upstream migration for listed anadromous and other fish species to habitat above Lyle Falls (at river mile 2.2) of the Klickitat River.

The existing fishway was built by the State of Washington in the 1950s to provide a way for fish to migrate around the falls under a range of flow conditions. The fishway is part

of a larger set of projects that were designed to increase fishery recruitment to mitigate for the loss of anadromous fish abundance from dam construction in the Columbia River. The mitigation strategy includes enhanced fish passage within the Klickitat Subbasin and increased abundance of adult returns to treaty-reserved fishing places through artificial propagation methods.

Response

Thank you for your comment.

Comment LFP0010-2
The existing fishway currently provides only modest improvement in fish passage efficiency over Lyle Falls. Due to design and construction flaws, the fishway impedes upstream fish migration, and is least functional during low flows, when passage conditions are most challenging. Fall Chinook salmon, coho salmon, and to a lesser degree, steelhead trout, are affected by these conditions. Steelhead are listed as "threatened" under the Endangered Species Act (ESA). The Yakama Nation believes that the proposed changes to the fishway will significantly improve passage at Lyle Falls, particularly during extreme high and low flow conditions, allowing improved access to habitat in the upper part of the watershed. Furthermore, the accessory structures will allow for more efficient operation and maintenance of the fishway facilities, thus better promoting the fishway purposes.

Response

The Yakama Nation’s support of project objectives is noted.

Comment LFP0010-3
The DEIS presents arguments that certain unavoidable adverse impacts will result from implementation of the proposed action. These include increases to the length of the bypass reach (475 feet) as a result of relocation of the water intake for the fishway, impacts to tribal dip net fishers at Lyle Falls, and impacts to the visual experience of recreationists viewing the facility from the Klickitat Trail, the state highway, and from prospective portage takeout points above the water intake point. We acknowledge that facility improvements constitute changes to the environment, but do not agree that the changes constitute adverse environmental impacts. There is no evidence that the change in the length of the existing bypass reach would result in any identifiable loss of ecosystem function served by the current wetted area.

Response

We concur with the Yakama Nation that facility modifications would not result in a loss of aquatic habitat function (DEIS, page 3-37).

Comment LFP0010-4
The entire floodway is subject to scouring, bed load accumulation and inundation during seasonal high water conditions. As noted in the DEIS, the necessity for streambed disturbance during maintenance of the current fishway would be eliminated in the

affected reach. The evidence accordingly indicates an improvement over existing conditions rather than an unavoidable adverse impact.

Response

BPA concurs that eliminating this maintenance measure would be desirable.

Comment LFP0010-5

The Yakama Nation presently regulates tribal fishers to promote fisheries management objectives. Interruption of fishing is recognized as a necessary constraint in order to promote escapement and natural and artificial propagation in the Klickitat. While we appreciate recreationist interest in observing traditional fishing techniques at Lyle Falls, the purpose of such fishing is to provide for subsistence, ceremonial and economic needs of tribal members. The satisfaction of these needs is directly connected to natural and artificial propagation of salmon and steelhead above Lyle Falls. Improving passage to support system productivity does not produce an overall adverse impact to the dip net fishery. In light of the Yakama Nation's sovereign authority to regulate tribal fishers, it is not appropriate to ascribe interruption of fishing activities to the passage improvements at Lyle Falls.

Response

There is no intent to question or alter the Yakama Nation’s authority to regulate tribal fishers. It should be noted, however, that this EIS is an analysis tool, not a regulatory document. The DEIS discloses likely effects of project implementation, which include temporarily displacing three tribal fishing sites. Our analysis identifies this as a direct, short-term project impact. The impact will cease when construction is complete, as tribal fisherman would then return to the traditional sites proximal to the fish passage entrance to continue their long-term practice. Long-term effects on fishing success at three to four tribal dip net sites have not been possible to quantify, an uncertainty that we thought important to disclose.

Comment LFP0010-6

We also appreciate that the U.S. Forest Service has identified outstandingly remarkable values (ORVs) in the lower Klickitat River that warrant protection in accordance with the Wild and Scenic Rivers Act; however, we do not believe that improvements to the existing facilities compromise recreational or scenic values important to the inclusion of the lower river in the national wild and scenic rivers system. As noted, the fishway improvements will support the Lyle Falls traditional tribal fishery, which is part of the basis for inclusion of the reach in the nation system. Effects on instream flow from changes to facility water diversion rates will be indiscernible by anyone other than the hardy few who are willing to risk their lives to kayak over Lyle Falls. There is no evidence of any identifiable threshold instream flow important to recreationists that would be compromised by the additional proposed diversions for fishway operation.

The proposed storage facility is important to the efficiency of maintenance of the improved fishway facility. We acknowledge that the facility would present a change to the current conditions, but do not agree that the facility would constitute any sort of

additional adverse effect on recreational experience in the recreational river corridor. Regardless of any methodology that might be employed by the USFS under Section 7 of the Wild and Scenic Rivers Act, the current facility predates the Act, and improvements to the existing facility, including the maintenance shed, would be designed to have less visual impact than the current facility.

Response

BPA notes the Yakama Nation conclusion that fishway modifications would not compromise the values for which the lower Klickitat River was designated as Wild and Scenic. The purpose of the analysis and our consultation with the USFS was to document temporary and permanent changes to the values for which the reach was designated. It is correct that that flow thresholds for recreational boating have not been established, yet the intent of our analysis was to disclose an expected change from current conditions and to assess, as systematically as possible, the implications of this change. The use patterns of a few recreational boaters may be altered. We also concur that the proposed storage facility represents an improvement in both form and function over the current shipping container used for fishway equipment storage.

Comment LFP0010-7
Funding of the improvements by BPA would assist in fulfilling BPA's obligations to provide off-site mitigation for the effects of the federal Columbia River hydroelectric facilities on fish populations by improving fish passage at Lyle Falls.

Response

We agree, thank you.

Comment LFP0010-8
Finally, the proposed improvements will enhance the important anadromous fishery in the Klickitat River, and consequently add to the mainstem and ocean fisheries. The DEIS speculates about a possible loss of fitness of naturally spawning fish stocks as a result of improving passage. While the whole purpose of passage improvements is to change the selective pressures faced by returning adult fish, we do not agree that effects on naturally spawning populations from the passage improvements are adverse. The concept of fitness concerns reproductive success and is closely correlated with the environment in which it might be assessed. Improved passage changes the environment in which fish stock life histories are played out, but the possibility that more "athletic" fish will not enjoy a competitive advantage does not translate into an adverse impact from a changed environment. If, as a result of improved passage, abundance of naturally spawning spring Chinook and steelhead increases, we do not see a loss of fitness.

Response

The fish fitness debate is for fisheries scientists and managers, not power marketing agencies. Fish fitness was a concern identified by a pre-publication reviewer and accordingly, we attempted to predict the potential effects of changes in passage conditions on this parameter. Indeed, as we cite in the text (page 3-37 of the DEIS), post-

project abundance of natural spawners may outweigh any selection factors that favor more “athletic” fish, if such a mechanism is occurring.

Comment LFP0010-9
In addition, the monitoring facilities proposed for the facility will provide an information base that will allow non-speculative assessment of naturally spawning stock status. Lyle Falls and the Klickitat River represent a crucial fishery to the Yakama Nation. We believe that the proposed improvements will safeguard the runs on which tribal fishers depend, as well as augmenting sport and commercial catch opportunities within and outside of the basin that are an integral part of the local and regional economies.

Response

We concur with the benefits cited in this comment.

LFP0011 Pam Essley email: 5/12/08

Comment LFP0011-1
The rock disposal area is only 40' from the trail. The plan to integrate soil into this zone for future revegetation is encouraged. However, it is important that the soil not be contaminated with noxious weeds.

Response

Thank you. Please see the changes made to Sections 3.4.3 and 3.9.3 in response to the comment.

Comment LFP0011-2
It is possible that visual disruption from the trail could be minimized if larger boulders were deposited on top of the pile.

Response

We indicate that the rock disposal area would be shaped and soil placed to facilitate grass recolonization. The recommendation to place larger rocks at the top of the pile may be visually beneficial. This has been added to the potential spoil pile mitigation measure in Sections 3.9.2.2 and 3.9.3.

Comment LFP0011-3
A 20' x 40' split face concrete storage building will be a permanent fixture to house equipment needed for ongoing maintenance of the facility. Good that the building will be dark colored and partially screened by foliage -- I encourage additional foliage and/or natural screening to further reduce visibility from the trail.

Response

We concur that the visual effect of this new structure can be reduced by careful material color selection and vegetation installation as described in Section 3.9.3 of the DEIS.

Comment LFP0011-4

I am concerned about several proposed contractor staging areas that will doubtlessly impact scenic value through sheer physical disturbance. The staging areas have the potential of sprawling well beyond what is characterized as a small 1.6 acre footprint due to trucks and heavy equipment accessing areas where roads may not currently exist. I encourage great care and sensitivity be given to impacts to the Klickitat Trail, especially with regard to strategic planning of where and how equipment accesses the core project area. Potentially negative impacts to the trail could involve random pathways for heavy equipment machinery, vehicles crossing the trail (12-50 round trip trail crossings per day), rock excavation, and blasting (OSHA requirement has workers posted on the trail during blasting; as much as 30 minute delays in foot/bike traffic on trail while blasting takes place).

Response

BPA concurs that there is potential for construction activities to extend beyond the affected area described in the DEIS. A measure has been added to Section 3.4.3 of the FEIS to indicate that work area boundaries should be physically marked prior to any ground-disturbing activities. Contractors would be required to work entirely within these boundaries. We do not think it would be appropriate to dictate precisely where materials can be stockpiled and equipment placed within this defined area (this should be left to the discretion of the contractor), but it is important that work areas not encroach unnecessarily on adjacent lands. Vehicle access to the project area would be limited to the existing roadway extending from the Fisher Hill Road; construction specifications would be required to stipulate that no vehicle encroachment on the Klickitat Trail would be permitted.

LFP0012 Washington Department of Fish and Wildlife Letter: 5/14/08

Comment LFP0012-1

1. There is insufficient information to perform a detailed engineering analysis at this time. The review of plans with elevations and fully dimensioned details, along with a hydraulics report on the functionality of the fishway, will be required prior to final WDFW approval.

Response

The level of detail requested will be available and provided to WDFW in the final design stage of the project.

Comment LFP0012-2

a) The additional work proposed on the downstream fish ladder entrance (adding three new steps, adding auxiliary flow) may have limited success due to the change in flow direction (two, 90° turns), shape and dimensions of pools, and the water surface elevations. The Energy Dissipation Factor (EDF), water depth, and water velocity must be evaluated in each fishway pool to ensure there are no localized turbulence barriers to fish within this newly created area. It appears that flow may pulse and surge in this proposed configuration.

Response

As part of final facility design, ladder flow direction, pool dimensions, water surface elevations, and water velocities will be re-evaluated to ensure they are consistent with the most current fish passage guidance. The final construction documents will be provided to WDFW for review prior to the start of construction.

Comment LFP0012-3
b) The downstream fish ladder entrance appears to have a proposed auxiliary flow device, but the flow is dissipated in the first pool and does not jet out into the river. This current design will likely have limited attraction flow characteristics. An orifice should be added to address this issue.

Response

Attraction flow is a critical improvement needed at the Lyle Falls Fishway. The proposed design will be re-examined and possibly refined to address this concern during the final design stage.

Comment LFP0012-4
c) There are concerns with the length of the transportation channel. This is a long path without resting areas for fish to utilize. Can this length be reduced? Can the fish exit sooner? Depending upon water surface elevations, backwater effects, and weir slot elevations, the channel must meet depth and velocity criteria found in WAC 220-110-070 3(b)(ii)(D) table 1 for the full range of fish passage design flows.

Response

One of the flaws of the current fishway is that the transportation channel exits into a shallow area next to a high flow reach of river, introducing both fish stress and fallback. Under the proposed design, fish would exit into a very stable and deep pool. The length of the fishway is necessary to reach this pool. There are no feasible intermediate exit locations.

Guidelines for the recommended velocity criteria will be discussed with WDFW and incorporated to the greatest extent feasible and evaluated further during final design.

Comment LFP0012-5
d) There is concern that the upstream screened attraction water diversion will operate sufficiently. There is insufficient information to determine screen area, and velocities. There also appears to be no mechanical cleaning device. It also appears the sweeping flow for the screen may guide fish into the fishway exit. This will likely cause confusion and result in fish congregating rather than exiting the fishway.

Response

Detailed design drawings of the upstream attraction water screens will be provided for review when design is advanced in a subsequent stage of the project. Project engineers

state that these components will comply with current NMFS criteria for flow velocities measured as both gross surface area and the rate through the screens (J. Hutchins, Harbor Engineering Inc., personal communication, July 28, 2008). Final project design will also address sweeping velocities. These are not expected to induce fish confusion due to a combination of fishway orientation and sweeping velocities. Mechanical screen cleaning alternatives are currently being evaluated by design engineers.

Comment LFP0012-6

e) How will this fishway operate if a 600 cfs water right is not obtained? A change in the water right (change of diversion location and increase to 600 cfs) should be obtained prior to construction of this project.

Response

BPA would work with its partners through the appropriate regulatory channels to ensure that the fishway has adequate water rights to operate as planned.

Comment LFP0012-7

f) Evaluation of the 100-year flood elevation should be performed to ensure there is a "no net rise" in the localized area.

Response

As described in Section 3.6.2.2, our calculations of the interior volume of the fish passage facilities proposed to be sited in the floodway would result in a no net rise determination. The location identified for the proposed small storage building is near the upper elevational extent of the FEMA-designated floodway and is approximately five feet higher than the active seasonal flood channel. It would be designed to standards for structures in flood zones. Finally, rock excavated from the extended fishway will be placed near the storage building, at the uppermost perimeter and highest elevation within the flood zone, where inundation appears to be rare.

Comment LFP0012-8

WDFW recommends that the final design take into account the frequency and severity of high flow events in order to minimize damage and cost of operation, maintenance and repairs. Maintenance requirements for the attraction water intake fish screen, transportation channel, and auxiliary flow diffuser may be particularly high. Additional design options or operational strategies shall be submitted to WDFW prior to final approval to ensure these fishway components do not become a chronic maintenance concern.

Response

We appreciate these suggestions and have added this consultation recommendation to Section 3.3.3 of the FEIS. Each of these parameters would be considered in final fishway design.

Comment LFP0012-9

3) There is concern with proposed development within the 100-year flood elevation. The storage building should be designed to minimize flood damage to the structure (building should meet FEMA's "flow-through design" methodology). A maintenance and operation plan shall be required prior to WDFW approval of the final design to ensure this area does not contribute as a source of downstream contamination and debris caused by the structure and/or storage of material and equipment.

Response

The small storage building would be designed in accordance with appropriate criteria for structures near an active floodway. WDFW's requirements for an operation and maintenance plan for a storage building will be determined though consultation during the final design stage.

Comment LFP0012-10

4) Best Management Plans (BMP) must be developed to ensure the potential harm to fish is minimized during blasting operations. A monitoring and operation plan shall be required prior to final WDFW approval to ensure fish in distress are identified and sufficient actions are taken to minimize the potential for a fish kill.

Response

Section 3.3.3 identifies fisheries mitigation measures. The second listed measure has been expanded to include a monitoring plan for streamside blasting.

Comment LFP0012-11

5) Rock and debris from the blasting operation shall be disposed of in a WDFW approved (upland) area outside the 100-year flood elevation.

Response

As currently proposed, the entire project site, including the rock disposal location, is within the FEMA-designated 100-year floodplain. The area selected for rock placement is on the property perimeter farthest from the river (see Comment/Response LFP0012-7), where high flow inundation is rare. Fishway excavation would generate about 4,000 cubic yards of rock, an amount that when placed as proposed, would not measurably change the capacity of the floodplain to pass high flows. An off-site disposal area close to the fishway was not identified during site analysis. Previous coordination with WDFW and the YN did not reveal this as a site use restriction. Therefore, because inundation is rare, sensitive habitat would not be affected, and a measureable reduction in floodplain capacity would not occur, we believe this is both a practical and economical location for rock placement. Additional consultation with WDFW and USFS would be undertaken as design is finalized, coordination that could include additional discussion about rock placement locations.

Comment LFP0012-12
WDFW strongly supports the proposed reconstruction of the Lyle Falls No.5 Fishway as a Yakima/Klickitat Fisheries Project (YKFP) partner, together with the Yakama Nation and Bonneville Power Administration (BPA). The addition of monitoring and anadromous fish broodstock collection facilities at the site is a needed enhancement that will benefit the YKFP's goal of restoring native stocks of naturally reproducing spring Chinook and steelhead to levels of abundance and productivity capable of providing sustainable harvest opportunities for tribal and non-tribal fishermen. Successful completion of this project is critical to the YKFP's "Klickitat Basin Master Plan".

WDPW is prepared to work with our YKFP partners to develop reasonable and effective mitigation for any short-term negative impacts of project construction.

Response

Such cooperation is appreciated toward achieving the goals of this project.

LFP0013 US Fish and Wildlife Service Letter: 5/9/08

Comment LFP0013-1
The FWS' management and mitigation goal is to optimize fish passage conditions at the Project for upstream and downstream migrants as necessary to fulfill the objectives of the Federal, regional, and State management plans. This goal includes avoiding and minimizing the loss of fish from the operation and maintenance of the proposed upstream fish passage facility, including associated structures and devices. To meet this goal, the Project should provide an overall survival and passage efficiency rate for upstream migrants that are at the highest level technically and reasonably feasible.

Response

As described in Section 3.3.2.2 (Operations Effects), fishway modifications are expected to improve passage conditions over a variety of flows as compared to existing conditions. Post-construction monitoring will track the fish passage efficiency under a range of conditions.

Comment LFP0013-2
The Service's objective is to maintain the full complement of native fish within their historic habitats within the Klickitat River Basin. To accomplish this objective, successful fish passage for fall Chinook salmon, steelhead, Pacific lamprey, and bull trout is needed throughout the duration of the Project. This goal is consistent with the direction of existing State and Federal agency management plans. These state and Federal plans call for the recovery and long-term sustainability of harvestable native fishery populations, including Pacific lamprey, as a top priority. Accomplishing this goal will require the operation and maintenance of an effective, safe and timely upstream fishways at the Project. Without the continued operation of an effective fishway at the Project, impacts to resident and anadromous species will continue. An effective and well-maintained fishway will also ensure that the Project does not impair future efforts to

restore fish production in the Klickitat River Basin and will contribute to the maintenance of fish populations.

Response

The proposed project is an important component of the Yakama-Klickitat Fisheries Project. Consistency with other regional fishery management plans is assessed in Section 4.6.9 of the DEIS. The basic goal is to improve passage for all resident and anadromous species identified by managers as important in the Klickitat subbasin. These structural and operational improvements are expected to have the additional benefit of simplifying operations and maintenance of the fishway.

Comment LFP0013-3

Pacific lamprey are an important traditional food source for the YN and other tribes. While there has been increasing concern over the declining abundance of this species in the Columbia River Basin, little is known about its current status or distribution in the Klickitat River. Pacific lamprey are known to negotiate Lyle Falls, but they do not use the existing fishway because it does not have rounded corners. The subject DEIS discusses that adult Pacific lamprey have been observed as far upstream as river mile 57 in the Klickitat River. The naturally high glacial sediment load in the basin also provides good rearing conditions for juvenile Pacific lamprey.

Pacific lamprey may use excessive energy in negotiating fishways during their upstream migration, hence the impetus to implement future evaluations of Pacific lamprey passage at the Project. Mesa et al. (1999) found that the physiological responses of adult Pacific lamprey to exhaustive exercise were immediate, sometimes severe, and short-lived. They estimated the critical swimming speed of adult lamprey as 0.86 m/s at 15°C. Water velocities in fishways at Bonneville Dam can reach 1.8-2.4 m/s (Mesa et al. 1999), whereas average velocities at the existing adult fishway at Lyle Falls ranges from 900 cubic feet per second (cfs) to 2,000 cfs. Vella et al. (undated) found that in experimental PVC pipe fishways, lamprey passage was low at high water velocities (6-6.5 ft/s) and shallow water depths (1-2 inches) within stepped transition sections. This indicates that Pacific lamprey probably have difficulty negotiating the high water velocities in fishways such as those found at Bonneville Dam. The research by Mesa et al. (1999) also indicates that lamprey recover quickly from a single stress. However, the response of lamprey to several bouts of exhaustive stress remains unclear. While the FWS is encouraged that the Project entails the rounding of corners within the new fishway, we suggest that additional passage improvements be considered in the formulation of the subject fishway modification. These would include considering the feasibility of attaching plates over the fishway diffuser gratings, construction of a separate PVC pipe fishway, fishway entrance head reduction at night, or the installation of a Lamprey Auxiliary Passage System.

Response

We appreciate receiving this lamprey passage information. Lamprey passage is being addressed in refinements of the current design (J. Hutchins, Harbor Engineering, Inc., personal communication, July 28, 2008). The goal will be to accommodate lamprey

behavioral characteristics and movement needs throughout the fishway. Because, as the comment says, “little is known” about current lamprey status or distribution in the Klickitat River, considering a separate PVC fishway or auxiliary passage system for lamprey is premature and may not be feasible at this time.

Comment LFP0013-4

Implementation of the proposed Project could impact habitats occupied by federally listed, proposed and candidate species such as the gray wolf (*Canis lupus*), Canada lynx (*Lynx canadensis*), bull trout (*Salvelinus confluentus*), and Ute-ladies' –tresses (*Spiranthes diluvialis*). These potential impacts need to be considered in the study, planning, environmental review, and implementation of this project.

Response

Sections 3.5.1 and 3.5.2 of the DEIS present information on each of these species and the potential for the Lyle Falls Fish Passage Project to affect them. In addition, a draft Biological Assessment was submitted to the USFWS in April 2008 in which we also assess potential effects on these species. We added language to section 4.2.1 of the DEIS that describes BPA’s ESA Section 7 consultation steps (page 19).

Comment LFP0013-5

As such, the FWS received the BPA's Biological Assessment for the proposed Project and evaluated the scope and magnitude of effects on threatened and endangered species. While we concurred with the proposed action for threatened and endangered species under the purview of the FWS, we also suggest that all fishway modifications are compatible with all species, including Pacific lamprey, which will utilize the Lyle Falls fishway in the future.

Response

As we stated in Response LFP0013-3, fishway modifications would accommodate lamprey passage measures.

In regards to the referenced Biological Assessment, BPA initiated ESA Section 7 consultation with both the USFWS and NOAA Fisheries on April 21, 2008. The ESA-listed species addressed are the bull trout (and critical bull trout habitat) and mid-Columbia River steelhead.

BPA received a response from the USFWS on May 5, 2008 which stated that because of the limited number of bull trout in the Klickitat River mainstem, extreme unlikelihood of their presence during project activities, and small amount of habitat affected, that the project would result in discountable and insignificant effects to bull trout individuals and habitat. They agreed with BPA’s “may affect, but not likely to adversely affect” determination, along with the identified conservation measures:

- Develop and implement an erosion and sediment control plan.
- Allow unimpeded flow of water through the Klickitat River channel.

- Implement sediment and erosion control measures, such as silt fencing, straw bales, and covering exposed soils with plastic sheeting, jute matting or mulching to minimize erosion and prevent sediments from entering waterways.

- Minimize disturbance to riparian vegetation in order to prevent erosion, sedimentation, and habitat alteration.

- Identify project area boundaries on all construction drawings and define boundaries in the field with silt fences or temporary construction fencing before initiating construction activities.

- Ensure that project design and construction activities meet all other environmental requirements and incorporate industry standard BMPs for erosion control, hazardous material handling (including an SPCCP), waste management, dust control, weed management, fire prevention, and work hour and noise considerations.

- Stockpile emergency equipment on site to control accidental spills.

- When work areas are dewatered (i.e. Lyle Falls fishway and the new intake area), schedule a qualified fish biologist and/or another qualified representative to be present to salvage and release any fish that become stranded in the dewatered zone.

- In-water work would adhere to the WDFW instream work window in order to avoid disturbance when the majority of juvenile salmon and steelhead would be moving past the project site.

- A cofferdam would temporarily isolate the area required to construct the new fish ladder exit.

- No construction would occur at night in order to allow fish to migrate without disturbance over the falls.

- Temporary fencing would be installed around the small wetland area to prevent accidental disturbance during construction.

- Limit the profile of instream structures to affect the least surface area within the floodplain.

- Comply with applicable state and local permits and authorizations, including WDFW Hydraulic Project Approval.

- Restrict the amount of time, as much as possible, for any inwater work to reduce potential adverse effects on fish and the associated aquatic resources.

While these aforementioned measures may not specifically target the protection of listed fish, they are intended to help to maintain functions of ecosystem integrity that would indirectly benefit listed fish species.

Any terms, conditions, and/or measures intended to conserve the affected biological resources will be included in the Mitigation Action Plan for the project.

Comment LFP0013-6

We appreciate the opportunity to review this DEIS. The BPA should understand that the FWS is interested in seeing these concerns addressed during the formulation of the proposed Project to prevent unnecessary delays and to assist in the creation of an environmentally acceptable project.

Response

We appreciate the USFWS' objectives and their recommendations.

LFP0014 US Environmental Protection Agency Letter: 5/12/08

Comment LFP0014-1

Although we do not object to the proposed action, EPA believes there are some issues which warrant additional consideration in the final EIS. These are described below.

Range of Alternatives

As discussed above, the draft EIS evaluates only one action alternative. While the overall impacts of the action alternative have been determined to be either limited to construction, or generally positive, this does not efface the requirement under NEPA to evaluate a reasonable range of alternatives. There may need to be consideration of additional alternatives developed in response to comments on the draft EIS, resulting in other reasonable action alternatives in the final EIS. Considering other alternatives will ensure that the EIS provides the public and the decision-maker with information that pointedly defines the issues and identifies a clear basis for choice among alternatives as required by NEPA. The Council on Environmental Quality (CEQ) recommends that all reasonable alternatives be considered, even if some could be outside the capability or the jurisdiction of the agency preparing the EIS. EPA strongly encourages selection of alternatives that will minimize environmental and resource degradation.

EPA recommends that additional alternatives be considered for inclusion in the final EIS to ensure compliance with NEPA. If additional alternatives are developed, we recommend that information about those alternatives and their associated impacts be provided to project stakeholders for review prior to the release of the final EIS and ROD.

Response

We appreciate EPA's recommendation concerning the consideration of alternatives in the DEIS. Chapter 2 of the DEIS discusses a range of alternatives that were considered for the proposed project. As explained in Section 2.3 of the DEIS, most of these alternatives were eliminated from detailed study in the EIS because they either did not meet the

underlying need of this project or would not be practical or feasible from a technical, environmental, and/or economic standpoint. The remaining alternatives – i.e., the proposed action and the no action alternative – were analyzed in detail in the EIS. We believe this represents a reasonable range of alternatives given the nature of the proposal and BPA's role of needing to respond to a funding request. No comments were received on the DEIS that identified other alternatives that should have been considered in the EIS. We believe that our approach to addressing alternatives in this case comports with CEQ NEPA regulations.

The EIS identifies a variety of mitigating measures for each resource discipline. These measures are intended to reduce or eliminate the severity of individual resource impacts introduced by the proposed alternative.

Comment LFP0014-2
Socioeconomics, Environmental Justice and Tribal Consultation

Currently, there is no discussion in the draft EIS regarding possible minority and/or low income populations beyond the Native American population that may be impacted by this project. There is also no information provided regarding poverty rates or ethnic diversity or the project versus reference area. Lastly, it is also unclear if the Native American population identified in the socioeconomics sections of the document utilizes the fish species that will be potentially impacted by the project.

EPA recommends that the final EIS disclose what efforts were taken to ensure effective public participation, including participation of low income or minority populations, if applicable. In addition, if low income or people of color communities will be impacted by the proposed project, the final EIS should disclose what efforts were taken to meet environmental justice requirements consistent with Executive Order (EO) 12898 Federal Actions to Address Environmental Justice in Minority and Low-Income Population, including a description of the methodology and criteria utilized for identifying environmental justice populations, a comprehensive accounting of all impacts on low income or minority populations, and determination if the impacts to these populations will be disproportionately higher than those on non-low income or minority communities. Lastly, the EIS must demonstrate that environmental justice populations bearing disproportionately high and adverse effects have had the opportunity for meaningful input into the decisions being made about the project.

Response

The project site is in an undeveloped area where socioeconomic effects on the human population are limited primarily to those associated with traditional fishing sites in immediate proximity to the existing fish ladder. No established businesses or residences would be affected by project construction or operation; therefore, effects on ethnic diversity and poverty rates were not assessed.

Fish species that would benefit from improved passage conditions at Lyle Falls are all targeted in the Native American fishery at the falls. Yakama Nation representatives informed Tribal fishers of the proposed project throughout the 2-3 year period that

preliminary design and environmental analysis were being conducted (Bill Sharp, YN, personal communication). In addition, we invited all publics, including tribal members, to attend and participate in the environmental scoping meetings (summer of 2006) and public DEIS comment meeting (spring of 2008), and tribal representatives did attend and comment. Their oral and written comments were appropriately acknowledged. In accordance with Executive Order 13175, BPA also invited the affected tribes to participate in government-to-government consultation for this project (see response to LFP0014-3). No tribal members responded to our request.

Comment LFP0014-3
Finally, the draft EIS does not include information concerning the tribal consultation activities that were undertaken or have been planned for this proposed project. There is also no discussion of the requirements of EO 13175 Consultation and Coordination with Indian Tribal Governments. Although the YN is a cooperating agency and applicant for this project, requirements of this EO continue and there may be other federally-recognized tribal governments with interest in this project.

EPA recommends that the final EIS include discussion relating to the requirements of EO 13175 and what action have been undertaken or planned to ensure compliance with this EO.

Response

In an effort to ensure broad distribution of the DEIS, to request assistance that would help us prepare this EIS, and to comply with the spirit of NEPA, BPA sent the DEIS to a variety of individuals on our mailing list. The DEIS was issued on March 19, 2008 along with a cover letter and was sent to all potentially interested and affected Tribes. These letters specifically invited government-to-government consultation for this project, if deemed meaningful or beneficial. Given the inherent interest that Tribes have in the fishery resources of the lower Columbia River Basin, BPA offered to work with Tribal representatives to set up any additional meetings to address their concerns pertaining to the Lyle Falls Fish Passage Project. To date, no such requests have been received by BPA.

Additionally, Section 4.3 (Heritage Conservation) of the DEIS identifies BPA's consultation responsibilities for compliance with section 106 of the National Historic Preservation Act. This consultation focused on potential historic properties within the area of potential effect. Consultation included the Washington State Historic Preservation Office (SHPO), the Confederated Tribes of the Umatilla Indian Reservation, the Yakama Nation, and the Nez Perce Tribe. The Yakama Nation prepared the Cultural Resources Inventory for the proposed Lyle Falls Fishway project. An Historic Structure Evaluation Report was prepared by Historical Research Associates, Inc. in order to evaluate the National Register eligibility of the existing fish passage structure. The methodology for identification of historic properties was developed in consultation with the Yakama Nation. BPA submitted the results of both studies to the consulting parties.

The State Historic Preservation Office concurred with our determination of no adverse effect to historic properties.

LFP0015 US Department of the Interior Letter: 5/27/08

Comments and Response LFP0015-1 through LFP0015-5
These comments are identical to LFP0013-2 through LFP0013-6 provided by the US Fish and Wildlife Service on May 9, 2008. Because BPA's responses are identical, the comments and responses are not repeated here.

Comment LFP0015-6
Section 3.2.1.1, Hydrology, page 3-8: The DEIS states that, "USGS flow data summarized in Figure 3-2 is derived from the entire period of record (July 1, 1909 to September 6, 2006) for the Klickitat River near Pitt gage." It would be more correct to state that the data summarized in the figure were derived from streamflow data collected by the USGS at gaging station number 14113000 (Klickitat River near Pitt, WA) for the period of record of July 1, 1909 to September 6, 2006. Data continue to be collected at this USGS streamflow gaging station and are available on a near real-time basis at http://waterdata.usgs.gov/nwis/nwisman/?site_no=14411300. Also note that a peak streamflow of 51,000 cubic feet per second (cfs) at this gaging station was recorded on February 8, 1996, which is greater than the value (40,000 cfs) reported in the DEIS.

Response

We appreciate this clarification and have modified Section 3.2.1.1 accordingly.

LFP0016 National Marine Fisheries Service Letter: 6/23/08

Comment LFP0016-1
An internal review by an engineer from NOAA Fisheries' Hydro Division found an inconsistency between the proposed action and Federal Design Criteria as described in Table 2-1 (page 2-5). Updated criteria recently posted on NOAA Fisheries' Northwest Region's Website (http://www.nwr.noaa.gov/Publications/Reference-Documents/Passage-Refs.cfm) includes criteria for Transport Channel water velocities (see Section 4.4.2.1 Velocity Range, page 34) which states "The transport channel velocities must be between 1.5 and 4 ft/s, including flow velocity over or between fishway weirs inundated by high tailwater." In Table 2-1, the values provided for the Modified Fishway list velocities of 0.9 to 1.4 ft/s, which are outside the current criteria. Footnote 6, does not provide enough information to determine if the criteria will be met even if bedload is present, furthermore, the additional bedload may cause the transport channel depth to become out of criteria. This inconsistency needs to be addressed in the final EIS.

Response

The Lyle Falls fishway modifications were designed in 2002 based on standards in effect at that time and consultation between the Yakama Nation's fisheries engineers, NOAA Fisheries and WDFW engineers (J. Hutchins, Harbor Engineers, personal

communication, July 28, 2008). Agency design concurrence was based on re-use of the existing ladder components, the mix of species present, and river conditions at this site. To maximize fish passage at Lyle Falls, fishway modifications require a reduced energy gradient where possible; therefore, flow velocities are slightly lower than criteria, yet are thought to be appropriate for site conditions. The final design process will be coordinated with NOAA Fisheries engineers, ensuring that fishway modifications appropriately address federal fish passage criteria and site specific conditions.

Comment LFP0016-2
Page S-5: First paragraph under Fisheries, the last sentence needs to be changed to: Stocks arriving at this time (non-indigenous coho and fall Chinook, and indigenous summer steelhead) would be the most affected (Table 3-8).

Response

This clarification to Section S3.3 has been made.

Comment LFP0016-3
Page 2-4: Second full paragraph, in the last sentence needs to have a “c” to spell coho salmon.

Response

This correction to Section 2.2.1 has been made.

Comment LFP0016-4
Page 3-22: Second full paragraph, the first sentence needs to be changed to the following: A hatchery program annually releases approximately 100,000 summer steelhead smolts to support sport and tribal fisheries in the basin.

Response

This correction to Section 3.3.1.1 (Steelhead Trout) has been made.

Comment LFP0016-5
Page 3-25: First paragraph under Fish Passage, the other end of the range is missing in the first sentence.

Response

This correction to Section 3.3.1.3 has been made.

Comment LFP0016-6
Page 3-27: Last paragraph, second to the last sentence in the paragraph is not consistent with the preceding sentences on harvest impacts on spring Chinook. This should be clarified.

Response

Thank you for this comment; however, we regret we are unable to identify an inconsistency.

Comment LFP0016-7
Page 3-28: Second full paragraph. The last sentence should be changed to reflect that Klickitat fall Chinook stray into the White Salmon River and not the Little White Salmon River.

Response

This correction to Section 3.3.1.4 has been made.

Comment LFP0016-8
Page 3-39: Second paragraph, first sentence: the "c" is missing in coho.

Response

This correction to Section 3.3.2.2 has been made.

Comment LFP0016-9
Page 3-40: Second full paragraph, it should be noted here that disease transmission can occur in both directions because disease pathogens are present in wild populations and that transmission to hatchery populations can occur when natural populations are present in the hatchery water supply.

Response

This clarification has been made in Section 3.3.2.2 (Disease).

Comment LFP0016-10
Page 3-61: Second paragraph, the citation needs to be corrected (should it be WDFW 2002?) in the second sentence. The third and fourth sentences are inconsistent. If the status of the winter and summer steelhead is unknown, then harvest rates cannot be determined. The 76% harvest rate identified in the paragraph is wrong and probably an artifact of the methods used to estimate the escapement of naturally produced summer and winter steelhead. Escapements have been based on the expansion of redd counts which are very difficult to estimate due to high turbid flows during the spawning ground surveys. More recent population estimates using mark-recapture methods to provide a more accurate measure of the escapement, and for 2005-06 and 2006-07 return years harvest rates for summer steelhead were estimated to average 4.7% (Yakama Nation et al. 2008).

Response

The missing citation should be WDFW (2002), which is the most recent Washington Department of Fish and Wildlife Salmonid Stock Inventory (http://wdfw.wa.gov/fish/sasi/).

The third sentence is accurately cited from WDFW (2002), which states "there are no adequate abundance trend data available for Klickitat summer steelhead, so their status is Unknown," and "There are no adequate abundance trend data for Klickitat winter steelhead, so their status is Unknown."

The fourth sentence is also accurately cited. On page 21, Table 3 of YN (2004a), Klickitat Subbasin Anadromous Fishery Master Plan, it states that from 1986 to 2003, the average Klickitat River steelhead run size was 2,727 fish. The average sport plus tribal harvest (1,225+872) equals 2,097 fish. Therefore, based on these data, the average harvest rate would be 2,097/2,727, or 76.8%.

We agree that there is a conflict in WDFW's "Unknown status" classification for Klickitat steelhead (due to lack of abundance data), and its calculation of harvest estimates. One would need abundance data to estimate harvest. For the Lyle Falls analysis, we have presented data available in the public domain published by the fishery co-managers (i.e. WDFW and YN).

We agree that steelhead are notoriously difficult to inventory and redd counts are problematic for estimating steelhead escapement for the reasons NMFS has identified (usually poor visibility and high flow conditions during spawning time). The lack of accurate anadromous fish abundance data is why the monitoring facility upgrades at Lyle Falls would be so valuable, providing the co-managers an ability to more accurately estimate steelhead abundance and escapement trends.

NOAA Fisheries indicates that more recent mark-recapture methods used to measure escapement in 2005-06 and 2006-07 provide better estimates of escapement, and that harvest in those years averaged 4.7%. We note that the work NOAA Fisheries probably references (conducted by S. Gray of WDFW) was only for hatchery steelhead and did not estimate naturally-produced steelhead abundance or a harvest rate. In addition to not being applied to naturally-produced steelhead, which are focus of the MCR steelhead DPS, the mark-recapture methods used by WDFW have limitations when used as the basis for abundance estimates. This further supports the need for the proposed monitoring facilities at the Lyle Falls Fish Passage Project.

Comment LFP0016-11

Page 3-62: First full paragraph, the description of harvest of steelhead in the last part of the paragraph is inconsistent with the information provided regarding harvest on page 3-28. These estimates should be reconciled.

Response

Thank you for identifying this inconsistency. It has been reconciled. On page 3-62, average annual harvest of steelhead in the Klickitat River was identified as 2,100 fish from 1987 to 2002. On page 3-28, the average annual harvest since 1986 was identified as 1,146 fish in the tribal fishery and 1,398 fish in the sport fishery from YN (in press). The YN (in press) citation should replace the average harvest numbers given on page 3-62.

LFP0017 Public Comments Verbal Comments: 4/16/08

Comment LFP0017-1
Why is BPA involved with the Lyle Falls Project, and why are they on the Klickitat River?

Response

Please see section 1.2 in the DEIS. The Northwest Power and Conservation Council has recommended that BPA fund this project as part of the Columbia River Fish and Wildlife Program under the Northwest Power Act.

Comment LFP0017-2
Will the ladder be closed for a certain period of time?

Response

The ladder would be inoperable during portions of two consecutive summer seasons. A detailed schedule identifying closure periods would be required of the construction contractor. It is likely that these closures will occur during modifications to the downstream fishway intake and when interconnection is made between the existing and new ladder segments.

Comment LFP0017-3
Are there eagles in area, and if so are there any concerns?

Response

Bald eagles have been observed in the project areas in winter and recently a nest was identified downstream of the Fisher Hill Bridge. The project is not expected to have an effect on this species because construction will occur only in summer and at a sufficient distance so as not to be harmful to the closest known nest. Please see Response to Comment LFP0001-9 for additional information.

Comment LFP0017-4
Are there protections in place in the event of a flood?

Response

Because the fishway is inundated every year, it would be designed and built to withstand regular flooding.

Comment LFP0017-5
There will be traffic and disturbances to the environment. There needs to be limitations on contractors to keep contaminants (soil, weeds, etc.) from the river. The DEIS doesn't show how they'll get to and from the construction site.

Response

Vehicle access will be restricted to the existing road extending from Fisher Hill Road and to designated travel corridors on the site (see also Response to Comment LFP0011-4). As described in Section 1.5 and in Comment/Response LPF0009-2, protective measures would be installed to prevent contaminants and debris from reaching the Klickitat River.

Comment LFP0017-6
Will there be limits on contractors for how large the turn-around area, etc. is? We don't want these areas to keep growing.

Response

Measures that would prohibit construction activities from extending into non-project areas were not included in the DEIS. We have added a measure to the FEIS requiring installation of a temporary fence around the perimeter of all work areas (see Section 2.3 [3.1.3 Mitigation Measures]).

Comment LFP0017-7
How will vehicles entering and leaving the project area be kept weed-free during construction? Once ground is disturbed it is easy for weeds to come in.

Response

A vegetation management plan would be developed that would include measures to reduce introduction of noxious weeds (see Section 2.3 [3.4.3 Mitigation Measures]). Both the Yakama Nation and Klickitat County have programs and guidelines that will be followed.

Comment LFP0017-8
What will be done with the large existing attraction flow pipe? Do you want to maintain this historic component of this project?

Response

The intent is to retain this 48-inch-diameter pipe along the length of the existing fishway transportation channel. It will not be a functional component of the modified ladder, but will continue to provide a safety barrier on the fishway. As identified in Section 3.9.3 of the DEIS, the intent is to repaint the pipeline a darker color to reduce its visual contrast with the setting.

Comment LFP0017-9
Is it a hazard to put additional force on the structure? Will it be vulnerable? Every few years flows top the pipe. Where the old structure is connected to the new component the concrete becomes compromised and it could be a hazard. Are anchor points inspected? Bolts holding it down would probably fail first, not concrete.

Response

Fishway design has been developed for the specific site conditions, which at Lyle Falls include the ability to withstand annual inundation, debris impacts, and to function under very high flow conditions. Modifications will incorporate current engineering design criteria for structural anchoring and concrete/steel joints in wetted conditions. Regular operational inspections would be conducted by the Yakama Nation to ensure integrity of the structure and its functionality.

Comment LFP0017-10
What is the historic value of this facility?

Response

The fishway was determined to be eligible for the National Register of Historical Places by BPA and the Washington State Historic Preservation Office. Because it is an industrial facility that has been in continuous operation since its construction in the 1950s, modifying the fishway to sustain its designated purpose is allowable, despite its historic status.

Comment LFP0017-11
What is carrying capacity above falls? Productivity?

Response

Although the carrying capacity and productivity of habitat above Lyle Falls was not quantified as part of this analysis, the YKFP is collecting this data. Recent fish passage improvements at Castile Falls opened high quality habitat that previously was inaccessible to anadromous fish. Improved passage at Lyle Falls would enable more fish to reach this and other available habitat in the Klickitat subbasin.

Comment LFP0017-12
Fish need additional energy to pass the falls. What about the additional energy consumption fish are putting into get past this point?

Response

Bioenergetic requirements of migrating fish are discussed in the Fisheries section of the DEIS on page 3-29 and pages 3-35 through 3-37.

Comment LFP0017-13
If fish are delayed at the falls less, then it will change productivity and there will be more carcasses in the ecosystem which will increase productivity.

Response

BPA concurs with this comment (see page 3-38 of the DEIS).

Comment LFP0017-14
How many days of the week will construction be happening?

Response

We do not know what work schedule a contractor may adopt, but because the construction season is very short, we anticipate an intensive effort. A six-day per week schedule is probable over two summer seasons.

Comment LFP0017-15
We hope that care and sensitivity goes into construction area. The area is appreciated for its natural beauty.

Response

BPA concurs with this objective and has included a requirement that temporary fencing be installed to contain construction and prevent unnecessary disturbance of project area lands. Other measures to protect the visual integrity of the site are presented on page 3-99 of the DEIS.

Appendix A

Written Comments Provided on the DEIS

LFP0001

State of Washington
Department of Fish & Wildlife
P.O. Box 213, Lyle, Washington 98635 (509) 365-0075

April 4, 2008

Mr. Carl J. Keller – KEC-4
Project Environmental Lead
Bonneville Power Administration
PO Box 3621, KEC-4
Portland, OR 97208-3621

Dear Carl:

Subject: Lyle Falls Fish Passage Project

Thank you for sending us a copy of your Lyle Falls Fish Passage Project Draft EIS. Biologists from the Washington Department of Fish & Wildlife Region Five have reviewed the draft Lyle Falls Fish Passage Project and we submit the following initial comments:

LFP0001-1 1. S.3.6 Wetlands and Floodplains: Paragraph 2 states that there may be no effect on the "existing small wetland because its location could easily be isolated from construction." We request that the final EIS Lyle Fish Passage Project narrative state that "Construction shall avoid this wetland."

LFP0001-2 2. 3.1.2.2. Soils: As October is typically the month for the autumn rainy season to begin, we believe there is a reasonable chance that soil erosion could be a concern during this month. If possible, we ask that the project construction end before the fall rainy season begins.

LFP0001-3 3.3.3 Mitigation Measures: We support the on-site presence of a "qualified fish biologist" during the de-watering of work areas in order to conduct potential salvage operations.

LFP0001-4 3.4.1.1 Vegetation and Wildlife: Was a rare plants survey conducted within the project area? From the narrative on page 3-44, it appears that the Forest Service did not perform an on-site survey? Page 3-46 describes a site visit in September, 2006, not the best time of year to be searching for rare plants. We request that a rare plants survey occur this spring and early summer, if at all possible. We ask the survey cover the entire project area not just those "probable disturbed areas" as stated on 3-56.

LFP0001-5 Noxious Weeds: Three noxious weed species are described in the narrative. As a mitigation measure, were there plans to attempt to eradicate these species from the project area?

LFP0001-6 Western gray squirrel: It appears that no western gray squirrel nest survey occurred adjacent to the project area. WDFW western gray squirrel management guidelines (April, 2004) call for timing restrictions for development projects within 400 feet of known nests. We recommend that western gray squirrel nest surveys occur as soon as possible within suitable habitat out to at least

LFP0001-6 cont. 400 feet from the project area.

LFP0001

LFP0001-7 Mitigation measures for Oregon white oak, ponderosa pine, and alder removal: We ask that BPA re-plant at a 5:1 replacement ratio: 50 Oregon white oak, 20 new ponderosa pine and 15 alder seedlings as mitigation for the removal of 17 trees as stated on page 3.52 in the EIS narrative. Milestone Nursery of Lyle, Washington carries both white oak and ponderosa pine plants. These trees should be planted either in late October or early November to ensure survival success. These plants should also be monitored for up to three years.

LFP0001-8 Osprey: We ask that WDFW be consulted and that osprey mitigation measures be developed prior to the issuance of the final EIS. We are presently opposed to moving the current nest to a location farther from the project site.

LFP0001-9 Eagles: Please remove the sentence in paragraph one on page 3-55 that states that winter is the only time when bald eagles have been observed in the Lyle Falls project area. With a nest located 1.5 miles away, bald eagles are known to utilize the Lyle Falls area during the summer months.

LFP0001-10 Western Gray Squirrels: Please remove the sentence in the second paragraph on page 3.55 that states: "Studies in the Klickitat watershed showed that squirrels in this population use pine trees more frequently than oak trees for nesting… Essentially all western gray squirrels in the Klickitat River basin use Oregon white oak trees initially for their nest sites, then construct visible nests in both ponderosa pine and Douglas fir in trees greater than eight inches dbh.

LFP0001-11 Wildlife Protection Plan: We oppose using felled trees to construct brush piles along the western margin of the construction staging area as stated on page 3-57. Though these brush piles can provide cover for "reptiles, birds and small mammals," the piles are also extensively utilized by California ground squirrels. Please eliminate the above clause as part of the wildlife protection plan. We recommend that all felled trees be evenly distributed throughout the project site (or off-site).

LFP0001-12 Re-vegetation: We commend the applicant for developing a re-vegetation plan for the project site. This plan should be in place prior to the Final EIS publication.

LFP0001-13 Finally, we request a site visit to the project area as soon as feasible to observe the following:

1. Permanent spoils site
2. Temporary haul road location
3. Equipment building locale
4. The 1.6-acres that will be disturbed.

Thank you for your consideration.

Bill Weiler
WDFW Habitat Biologist

Cc: Tim Rymer, David Anderson
Sue VanLeuven
Bill Sharp

2

LFP0002

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

April 3, 2008

CERTIFIED MAIL
7007 2560 0001 7692 2642

Carl J. Keller – KEC4
Bonneville Power Administration
PO Box 3621
Portland, OR 97208

RE: Washington State Construction Stormwater General Permit – Lyle Falls Fish Passage Project

Dear Carl Keller:

LFP0002-1

This letter is in response to a SEPA notification for your proposed project designated as Lyle Falls fish passage project, located on the lower Klickitat River, in Klickitat County. SEPA comments for this project were sent to the lead agency by Ecology's Water Quality Program stating that a Construction Stormwater General Permit may be needed. The purpose of this letter and the enclosed brochure is to give you and your company a detailed description of the requirements of the Washington State Construction Stormwater General Permit. Construction sites that disturb one or more acres of land in total and discharge (or have the potential to discharge) stormwater from the site into a water of the state are required to apply for the permit. Waters of the state include lakes, rivers, streams, creeks, canals, ponds, inland waters, underground waters, and all other surface waters and water courses. Ecology encourages and prefers voluntary compliance with state water quality standards. To that end, we offer detailed technical assistance to Permittees and potential permit applicants. Therefore, even if there is only a slight potential for your site to discharge stormwater, applying for the permit is in your best interest. We prefer to not pursue enforcement, but that is the likely course of action without the permit. The enclosed brochure is full of information, but if you have a questions please feel free to contact Bryan Neet at (509) 575-2808.

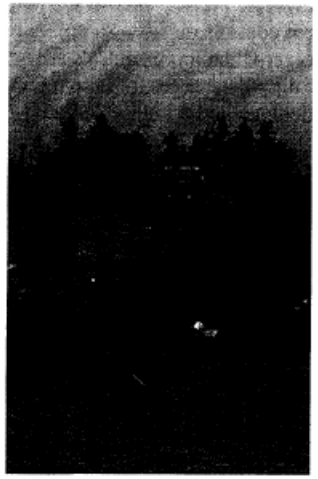
Sincerely,

Bryan Neet
Water Quality Program
WA State Department of Ecology

Enclosures: Construction Stormwater Brochure

LFP0002

The Washington State Construction Stormwater General NPDES/State Permit



How do I get more information?

Ecology Regional Contact

Bryan Neet
(509) 575-2808
bnee461@ecy.wa.gov

Water Quality Section
15 W Yakima Ave.
Yakima, WA 98902

Ecology's Stormwater Website

Web browsers:
Search for "Washington construction stormwater"
look for the extension **ecy.wa.gov** or go to:
http://www.ecy.wa.gov/programs/wq/stormwater/construction/

WHAT IS ON THIS PAGE?

- A copy of the permit
- All the application, reporting, transfer and termination forms
- The stormwater plan template
- Guides for staying in compliance and monitoring
- Contact information

WHO NEEDS THE PERMIT?

Size matters

Is your site over 1 acre or part of a subdivision or other common plan of development? There are also different requirements when the project is larger than 5 acres.

*Is there a potential for stormwater to run off to waters of the state?**

These include:

- Waterways on the site that may collect runoff
- Runoff off site that goes to a ditch, wetland or creek.
- Pond or ditch outlets
- Runoff down roads
- Mud tracked onto roads
- Dewatering

*A water of the state:
Includes: lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington. This may include dry ditches, stormdrains and road surfaces that have drains and ditches.

2

LFP0002

Why a permit?

Stormwater is Washington's top source of water pollution.

Studies show that erosion from construction sites put dirt and other pollutants into water.

A permit requires erosion and sediment controls are taken to prevent problems.

These include:

- Erosion controls, like mulch and vegetation, which keep dirt in place.
- Sediment controls like silt fences and sediment ponds, that catch runoff and let the dirt settle out.

This prevents water quality problems for other water users.

How to apply

SEPA

The site must have State Environmental Policy Act determination made. There are no categorical exemptions. SEPA may take up to 45 days.

Public Notice

Two public notices are required in a local paper, 7 days apart.

Application (Notice of Intent)

File a complete application with Ecology's HQ. This starts a 38 day review. A coverage letter will be sent 31 days after the second public notice.

Erosivity Waiver

This is available for sites under 5 acres during periods of low rainfall. (See website or call Ecology for details.)

All forms are available on Ecology's Stormwater website.
http://www.ecy.wa.gov/programs/wq/stormwater/construction/

What does the permit require?

Stormwater Pollution Prevention Plan

A practical erosion and sediment control plan says what and where erosion and sediment controls are needed to be done.

Implementation

The focus is on putting practical and effective erosion and sediment controls on the ground and making sure they work.

Sampling/Reporting

Sampling water leaving sites larger than 5 acres is required now. Smaller sites will start sample Oct. 2008. Sampling results help evaluate performance of erosion and sediment controls on site. Sampling results also trigger when more controls are needed. Really dirty discharges must be reported to Ecology and fixed immediately.

Inspections

Weekly inspections by a Certified Erosion Sediment Control Lead are required. Sample reports must be submitted monthly. Results are kept in a log book.

Fees *(adjusted annually in July)*

(based on the total disturbed acreage)

less than 5 acres	$ 388
5 - 7 acres	$ 631
7 - 10 acres	$ 853
10 - < 20 acres	$1,163
greater than 20 acres	$1,447

3

Public Comments Page 1 of 3

LFP0003, LFP0007, LFP0011

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Lyle Falls fish passage project

The following comments were submitted in response to the open comment period described below.

The draft Environmental Impact Statement (EIS) for the proposed Lyle Falls Fish Passage Project located on the lower Klickitat River in Klickitat County, Washington is available for public review. A final EIS is expected to be issued in the fall of 2008. BPA expects to issue a record of decision in December 2008.

The proposed action would modify the existing fishway and be designed to safely and more effectively allow adult fish to move through the existing Lyle Falls into spawning areas of the upper reaches of the Klickitat River. The project would facilitate collection and monitoring of biological information for future fishery management.

BPA will hold a public meeting on Wednesday, April 16, 2008 at the Lyle Lions Club Community Center. During the meeting, BPA and others involved in the project will present an overview of the draft EIS, discuss the project, reply to questions and receive comments.

For More Information:
http://www.efw.bpa.gov/environmental_services/Document_Library/Lyle_Falls/

Close of comment: 5/12/2008

- LFP0003 - Daniel Jim/C.T.U.I.R.
  LFP0003-1 I am contacting on behalf of Rosetta Minthorn, as she received packet for comment to the Proposed Lyle Falls Fish Project. She is no longer a member of CTUIR-Cultural Resource Committee and asked that I contact and have BPA remove her name from mailing list. Thank you.
- LFP0001 - Bill Weiler/WDFW Habitat Biologist
- LFP0002 - Bryan Neet/WA State Department of Ecology
- LFP0004 - Leonard Dave
- LFP0005 - Wilbur Slockish Jr./Klickitat Chief
- LFP0006 - Chief Johnny Jackson
- LFP0007 - Dan Enz
  Dear BPA, I attended your 16 Apr 08 Public Meeting addressing the Lyle Falls Fish Passage Project. From what I heard at this meeting I believe all in attendance were pleased with your draft proposal/environmental Impact Statement. I wanted to say that first and foremost, I do have a few concerns that were somewhat glossed over in your draft statement that I feel should receive more in depth coverage. 1) There should be a lay down area well defined for contractors accomplishing the work. The same thing for the heavy equipment. There is sensitive plant life adjacent to this work site. We should do what we can (within reason) to limit the impact of this project onto the adjacent areas. 2) There should be adequate number of porta potties located on site to accommodate contractor personnel. 3) There were some assumptions made regarding flow rates of the river. I have no argument with the winter and spring flow rates. There seems to be plenty of water in the river during that period. However, that is not the case during the summer and fall months. The river is already low and flow rates can fluctuate considerably. I believe some of the reason for this is not natural, it primarily

LFP0007-1 LFP0007-2 LFP0007-3

http://www.bpa.gov/APPLICATIONS/PUBLICCOMMENTS/COMMENTLIST.ASPX?ID... 7/2/2008

LFP0007-3 cont.

due to the draw down of water by adjacent land owners. I float the river and it seems to me that each year there is more and more land owners drawing off water from the river. It's also concerning from what was said at this meeting, nobody is monitoring this situation. During summer and fall the river is already low and the water temp high. This is the same time frame that land owners are drawing off the most of the water. Fish are already stressed in this situation, this can't help. 4) Also something must be done about the free range cattle located at the upper section of river, starting at the gate on Haul Road north of the town of Klickitat, all the way up to the Glennwood Hwy. I believe the number of cattle free ranging in this area has increased significantly. The hillsides and river banks are being destroyed. During winter flood much of this debris and soil is washed into the river. Prime spawning areas throughout the river being clogged completely or at minimum, degraded. There should be "NO" free ranging of cattle allowed in this sensitive region of the river. Yes, it's hard for me to focus on just the fish passage project. I'm also considering the purpose of the project which is (in Part): increase fish passage and enhancing opportunities of adult salmonids to access the upper section of the Klickitat and spawn. Ultimately we will fail in this endeavor unless we address all the problems facing the entire river system. Lastly, if possible, I would like the name of the young lady who spoke for the Wild & Scenic River system at this meeting. Thank you for the opportunity to comment. Dan Enz

LFP0007-4

LFP0007-5

- LFP0008 - Vijai N. Rai/US Department of the Interior
- LFP0009 - Gwen Clear/State of Washington
- LFP0010 - Phil Rigdon/Yakama Nation, Natural Resources Program
- LFP0011 - Pam Essley
  RE: Lyle Falls Fish Passage Project My comments come from the perspective of being a recreationist who enjoys hiking on the Klickitat Trail. The proposed project core area for the Lyle Falls Fish Passage Project lies some 250' from the Klickitat Trail, considered to be an "important entity" in the draft EIS. The rock disposal area is only 40' from the trail. The plan to integrate soil into this zone for future revegetation is encouraged. However, it is important that the soil not be contaminated with noxious weeds. The existing boulder field is gorgeous. It is possible that visual disruption from the trail could be minimized if larger boulders were deposited on top of the pile. A 20' x 40' split face concrete storage building will be a permanent fixture to house equipment needed for ongoing maintenance of the facility. Good that the building will be dark colored and partially screened by foliage -- I encourage additional foliage and/or natural screening to further reduce visibility from the trail. I am concerned about several proposed contractor staging areas that will doubtlessly impact scenic value through sheer physical disturbance. The staging areas have the potential of sprawling well beyond what is characterized as a small 1.6 acre footprint due to trucks and heavy equipment accessing areas where roads may not currently exist. I encourage great care and sensitivity be given to impacts to the Klickitat Trail, especially with regard to strategic planning of where and how equipment accesses the core project area. Potentially negative impacts to the trail could involve random pathways for heavy equipment machinery, vehicles crossing the trail (12-50 round trip trail crossings per day), rock excavation, and blasting (OSHA requirement has workers posted on the trail during blasting; as much as 30 minute delays in foot/bike traffic on trail while blasting takes place).

LFP0011-1

LFP0011-2

LFP0011-3

LFP0011-4

- LFP0012 - John Easterbrooks/YKFP Policy Representative
- LFP0013 - Jessica Gonzales/Fish and Wildlife Service
  Dated May 9, 2008

  View Attachment

- LFP0014 - Christine B. Reichgott/US EPA
  Dated May 12, 2008

  View Attachment

- LFP0015 - Preston A. Sleeger/US Department of the Interior
- LFP0016 - Richard Turner/National Marine Fisheries Service

If you believe information on this site is missing or in error, please Submit that comment here.

NOTICE: This site is owned and operated by the Bonneville Power Administration, United States Department of Energy. Use of this system is monitored by system and Security personnel. Anyone using this system consents to MONITORING of this use by system or security personnel.

B O N N E V I L L E P O W E R A D M I N I S T R

LFP0004

Proposed Lyle Falls Fish Passage Project

I have the following comments about the Proposed Lyle Falls Fish Passage Project Draft Environmental Impact Statement: I Don't Know if it will be good for the fish I will have to witness it first.

LFP0004-1

Name Leonard Dove

Address ,

City Lyle, Wa. State Wa. Zip 98635

☒ I am not currently on your mail list. Please add me to your mail list.

Please mail your comments by **May 12, 2008,** to:
Bonneville Power Administration
Public Affairs Office – DKE-7
Attn: Lyle Falls Fish Passage Project
PO Box 14428
Portland, OR 97293-4428

You may also call us with your comment toll-free phone at (800) 622-4519, fax comments to (503) 230-3285 or submit them through online at: www.bpa.gov/comment/.

B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

4/16/08

LFP0005

Wilbur Slockish Jr. April 30, 2008

Concerns on the ladder development - the flow from the ladder development will disrupt the channel of the set net across from the ladder. LFP0005-1
I fished there many years. My Aunt Sally Slockish Buck was the one who utilized the placs across from the ladder for her benefit. Also the ladder has 3 fishing sites that the Dam or ladder displaced those family fishing sites that the Dave family fished these sites were with no compensation to the Dave family. I my self fished the set net site and also the dip net site also there is a steelhead site that only steelhead use to come off the rock LFP0005-2
so I object to the flow unless were are compensated yearly not sufficient as as one time payment. using the Dalles Dam as an example.
I have more to say but this is enough for now.

Wilbur Slockish Jr.
Klickitat Chief

Johnny Jackson

LFP0006

April 30, 2008

I have to say that

I believe that the Lyle falls and rapids should be left alone. its a fishing place that has always been there and it never been a problem for the fish to get up river to spawn

LFP0006-1

My people has always used it.

I believe that the state & government should meet with the River chiefs and the River people first befor they talk to the tribes or young ones elsa

LFP0006-2

Chief Johnny Jackson

P.S. on the present sight where the loader is now that was blasted out. that belongs to the Yakes.

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

TAKE PRIDE IN AMERICA

9043.1
PEP/NRM

APR 29 2008

ER 08/451

LFP0008

Mr. Carl Keller
Environmental Project Manager
Bonneville Power Administration – DKE-7
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Mr. Keller:

This is in regard to the Department of the Interior's review on the Draft Environmental Impact Statement for the Proposed Lyle Falls Fish Passage Project, Klickitat County, Washington. Would you please send us a copy of the document.

LFP0008-1 This is to inform you that the Department may have comments, but will be unable to reply within the allotted time. Please consider this letter as a request for an extension of time in which to comment.

Our comments, if any, should be available by May 27, 2008.

Sincerely,

Vijai N. Rai
Team Leader, Natural Resources Management
Office of Environmental Policy and Compliance

LFP0009

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

May 2, 2008

Carl J. Keller
Project Environmental Lead
Bonneville Power Administration
P. O. Box 3621, KEC-4
Portland, OR 97208-3621

Dear Mr. Keller:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for the Lyle Falls Fish Passage Project. We have reviewed the documents and have the following comments.

Water Quality

LFP0009-1 Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48, Water Pollution Control, and WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and is subject to enforcement action.

Project Greater-Than 1 Acre with Potential to Discharge Off-Site

LFP0009-2 An NPDES Construction Stormwater General Permit from the Washington State Department of Ecology is required if there is a potential for stormwater discharge from a construction site with more than one acre of disturbed ground. This permit requires that the SEPA checklist fully disclose anticipated activities including building, road construction and utility placements. Obtaining a permit is a minimum of a 38 day process and may take up to 60 days if the original SEPA does not disclose all proposed activities.

The permit requires that Stormwater Pollution Prevention Plan (Erosion Sediment Control Plan) is prepared and implemented for all permitted construction sites. These control measures must be able to prevent soil from being carried into surface water (this includes storm drains) by stormwater runoff. Permit coverage and erosion control measures must be in place prior to any clearing, grading or construction.

LFP0009

Mr. Keller
May 2, 2008
Page 2 of 2

LFP0009-3 More information on the stormwater program may be found on Ecology's stormwater website at: http://www.ecy.wa.gov/programs/wq/stormwater/construction/ . Please submit an application or contact Bryan Neet at the Dept. of Ecology, (509) 575-2808, with questions about this permit.

Sincerely,

Gwen Clear

Gwen Clear
Environmental Review Coordinator
Central Regional Office
(509) 575-2012

495

Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

LFP0010

May 9, 2008

Carl J. Keller – KEC4
Bonneville Power Administration
P.O. Box 3621
Portland, OR. 97208
BPA Regional Administrator

Re: Lyle Falls Fish Passage Improvements Draft Environmental Impact Statement DOE/EIS 0397

Dear Mr. Keller:

The Confederated Tribes and Bands of the Yakama Nation offers the following comments on the draft EIS for Lyle Falls Fish Passage Improvements. The Yakama Nation has a keen interest in seeing the implementation of the proposed action because of the benefit to the anadromous fishery on the Klickitat River. The Yakama Nation supports the proposed improvements to the existing dysfunctional fishway as an effective measure to enable improved upstream migration for listed anadromous and other fish species to habitat above Lyle Falls (at river mile (RM) 2.2) of the Klickitat River. LFP0010-1

The existing fishway was built by the State of Washington in the 1950s to provide a way for fish to migrate around the falls under a range of flow conditions. The fishway is part of a larger set of projects that were designed to increase fishery recruitment to mitigate for the loss of anadromous fish abundance from dam construction in the Columbia River. The mitigation strategy includes enhanced fish passage within the Klickitat Subbasin and increase abundance of adult returns to treaty-reserved fishing places through artificial propagation methods. The existing fishway currently provides only modest improvement in fish passage efficiency over Lyle Falls. Due to design and construction flaws, the fishway impedes upstream fish migration, and is least functional during low flows, when passage conditions are most challenging. Fall Chinook salmon, coho salmon, and to a lesser degree, steelhead trout, are affected by these conditions. Steelhead are listed as "threatened" under the Endangered Species Act (ESA), The Yakama Nation believes that the proposed changes to the fishway will significantly improve passage at Lyle Falls, particularly during extreme high and low flow conditions, allowing improved access to habitat in the upper part of the watershed. Furthermore, the accessory structures will allow for more efficient operation and maintenance of the fishway facilities, thus better promoting the fishway purposes. LFP0010-2

The DEIS presents arguments that certain unavoidable adverse impacts will result from implementation of the proposed action. These include increases to the length of the bypass reach (475 feet) as a result of relocation of the water intake for the fishway, impacts to tribal dip net fishers at Lyle Falls, and impacts to the visual experience of recreationists viewing the facility from the Klickitat Trail, the state highway, and from prospective portage takeout points above the water intake point. We acknowledge that facility improvements

LFP0010-3

Post Office Box 151, Fort Road, Toppenish, WA 98948 (509) 865-5121

LFP0010

LFP0010-3 cont.

constitute changes to the environment, but do not agree that the changes constitute adverse environmental impacts. There is no evidence that the change in the length of the existing bypass reach would result in any identifiable loss of ecosystem function served by the current wetted area. The entire floodway is subject to scouring, bed load accumulation and inundation during seasonal high water conditions. As noted in the DEIS, the necessity for streambed disturbance during maintenance of the current fishway would be reduced in the affected reach. The evidence accordingly indicates an improvement over existing conditions rather than an unavoidable adverse impact.

LFP0010-4

LFP0010-5

The Yakama Nation presently regulates tribal fishers to promote fisheries management objectives. Interruption of fishing is recognized as a necessary constraint in order to promote escapement and natural and artificial propagation in the Klickitat. While we appreciate recreationist interest in observing traditional fishing techniques at Lyle Falls, the purpose of such fishing is to provide for subsistence, ceremonial and economic needs of tribal members. The satisfaction of these needs is directly connected to natural and artificial propagation of salmon and steelhead above Lyle Falls. Improving passage to support system productivity does not produce an overall adverse impact to the dip net fishery. In light of the Yakama Nation's sovereign authority to regulate tribal fishers, it is not appropriate to ascribe interruption of fishing activities to the passage improvements at Lyle Falls.

LFP0010-6

We also appreciate that the US Forest Service has identified outstandingly remarkable values (ORVs) in the lower Klickitat River that warrant protection in accordance with the Wild and Scenic Rivers Act. However, we do not believe that improvements to the existing facilities compromise recreational of scenic values important to the inclusion of the lower river in the national wild and scenic rivers system. As noted, the fishway improvements will support the Lyle Falls traditional tribal fishery, which is part of the basis for inclusion of the reach in the nation system. Effects on instream flow from changes to facility water diversion rates will be indiscernible by anyone other than the hardy few who are willing to risk their lives to kayak over Lyle Falls. There is no evidence of any identifiable threshold instream flow important to recreationists that would be compromised by the additional proposed diversions for fishway operation.

The proposed storage facility is important to the efficiency of maintenance of the improved fishway facility. We acknowledge that the facility would present a change to the current conditions, but do not agree that the facility would constitute any sort of additional adverse effect on recreational experience in the recreational river corridor. Regardless of any methodology that might be employed by the USFS under Section 7 of the Wild and Scenic Rivers Act, the current facility predates the Act, and improvements to the existing facility, including the maintenance shed, would be designed to have less visual impact than the current facility.

LFP0010-7

Funding of the improvements by BPA would assist in fulfilling BPA's obligations to provide off-site mitigation for the effects of the federal Columbia River hydroelectric facilities on fish populations by improving fish passage at Lyle Falls.

The Yakama Nation believes that the proposed actions will provide a suite of significant benefits.

LFP0010

First, properly functioning and effective year-round adult fish passage facilities would comply with current state and federal fish passage standards and criteria. These standards and criteria are intended to promote survival of anadromous salmonids during affected life history stages.

Second, one of the greatest challenges to fisheries scientists in the Klickitat subbasin is the difficulty of reliably collecting and subsequent lack of data regarding the abundance and productivity of salmonids in the river. The addition of a PIT-tag detector and a video monitoring system at Lyle Falls will enhance fisheries monitoring capabilities by enabling enumeration, collection, and monitoring. This data can provide valuable biological baseline information that managers may use to effectively monitor the success of future fishery management actions in the subbasin. The monitoring results will allow for better adaptive management of subbasin resources.

Third, upgrades to the adult trapping facility will improve access to the upper Klickitat River for adult salmonids to make use of under-utilized, high quality spawning and rearing habitat. This increased presence of fish will, in turn, contribute to restoration of system productivity that has been lost during years of depressed numbers of salmon carcasses and the marine-derived nutrients they inject into the system. Restored system productivity can be expected to contribute positively to population reproductive success.

LFP0010-8

Finally, the proposed improvements will enhance the important anadromous fishery in the Klickitat River, and consequently add to the mainstem and ocean fisheries. The DEIS speculates about a possible loss of fitness of naturally spawning fish stocks as a result of improving passage. While the whole purpose of passage improvements is to change the selective pressures faced by returning adult fish, we do not agree that effects on naturally spawning populations from the passage improvements are adverse. The concept of fitness concerns reproductive success and is closely correlated with the environment in which it might be assessed. Improved passage changes the environment in which fish stock life histories are played out, but the possibility that more "athletic" fish will not enjoy a competitive advantage does not translate into an adverse impact from a changed environment. If, as a result of improved passage, abundance of naturally spawning spring Chinook and steelhead increases, we do not see a loss of fitness. In addition, the monitoring facilities proposed for the facility will provide an information base that will allow non-speculative assessment of naturally spawning stock status. Lyle Falls and the Klickitat River represent a crucial fishery to the Yakama Nation. We believe that the proposed improvements will safeguard the runs on which tribal fishers depend, as well as augmenting sport and commercial catch opportunities within and outside of the basin that are an integral part of the local and regional economies.

Again, we appreciate this opportunity to comment. If you have questions, please feel free to contact YN Fisheries Research Scientist, Bill Sharp at (509) 865-5121, ext 6355.

Sincerely,

Phil Rigdon, Deputy Director
Yakama Nation, Natural Resources Program

LFP0012

Washington Department of FISH and WILDLIFE

Region 3 Headquarters
1701 South 24th Ave., Yakima, Washington 98902
Phone: (509) 457-9330, Fax: 575-2474, e-mail: eastejae@dfw.wa.gov

May 14, 2008

Carl J. Keller – KEC-4
Project Environmental Lead
Bonneville Power Administration
P.O. Box 3621, KEC-4
Portland, OR 97208-3621

SUBJECT: WDFW Review of "Lyle Falls Fish Passage Project DEIS- DOE/IIS-0397, March 2008"

Dear Mr. Keller:

Washington Department of Fish and Wildlife (WDFW) staff from Fish Program and Habitat Program have reviewed the Draft Environmental Impact Statement (DEIS) for the Lyle Falls Fish Passage Project. William Weiler, WDFW's Area Habitat Biologist who lives in Lyle, WA near the project site, previously submitted comments on April 4th providing the agency's upland/terrestrial wildlife and wildlife habitat perspective. His comment letter and this letter constitute all of WDFW's comments on the proposed project and DEIS.

The following summarizes agency concerns from an engineering/technical fish passage perspective:

LFP0012-1 1. There is insufficient information to perform a detailed engineering analysis at this time. The review of plans with elevations and fully dimensioned details, along with a hydraulics report on the functionality of the fishway, will be required prior to final WDFW approval. However, we have several concerns from reviewing the conceptual plans in the DEIS.

LFP0012-2 a) The additional work proposed on the downstream fish ladder entrance (adding three new steps, adding auxiliary flow) may have limited success due to the change in flow direction (two, 90° turns), shape and dimensions of pools, and the water surface elevations. The Energy Dissipation Factor (EDF), water depth, and water velocity must be evaluated in each fishway pool to ensure there are no localized turbulence barriers to fish within this newly created area. It appears that flow may pulse and surge in this proposed configuration.

LFP0012-3 b) The downstream fish ladder entrance appears to have a proposed auxiliary flow device, but the flow is dissipated in the first pool and does not jet out into the river. This current design

 LFP0012

LFP0012-3 cont.

will likely have limited attraction flow characteristics. An orifice should be added to address this issue.

LFP0012-4 c) There are concerns with the length of the transportation channel. This is a long path without resting areas for fish to utilize. Can this length be reduced? Can the fish exit sooner? Depending upon water surface elevations, backwater effects, and weir slot elevations, the channel must meet depth and velocity criteria found in WAC 220-110-070 3(b)(ii)(D) table 1 for the full range of fish passage design flows.

LFP0012-5 d) There is concern that the upstream screened attraction water diversion will operate sufficiently. There is insufficient information to determine screen area, and velocities. There also appears to be no mechanical cleaning device. It also appears the sweeping flow for the screen may guide fish into the fishway exit. This will likely cause confusion and result in fish congregating rather than exiting the fishway.

LFP0012-6 e) How will this fishway operate if a 600 cfs water right is not obtained? A change in the water right (change of diversion location and increase to 600 cfs) should be obtained prior to construction of this project.

LFP0012-7 f) Evaluation of the 100-year flood elevation should be performed to ensure there is a "no net rise" in the localized area.

2) As noted in Section 3.6.2.2, the resulting infrastructure after reconstruction will still lie within the floodplain. During the February 1996 flood event, the entire fishway was under approximately 20 feet of water. The scour line from that event is still evident on the left bank of the river across from the fishway. The 1996 event caused significant bedload deposition and damage to the fishway that required considerable resources to repair. WDFW recommends that the final design take into account the frequency and severity of high flow events in order to minimize damage and cost of operation, maintenance and repairs. Maintenance requirements for the attraction water intake fish screen, transportation channel, and auxiliary flow diffuser may be particularly high. Additional design options or operational strategies shall be submitted to WDFW prior to final approval to ensure these fishway components do not become a chronic maintenance concern. LFP0012-8

LFP0012-9 3) There is concern with proposed development within the 100-year flood elevation. The storage building should be designed to minimize flood damage to the structure (building should meet FEMA's "flow-through design" methodology). A maintenance and operation plan shall be required prior to WDFW approval of the final design to ensure this area does not contribute as a source of downstream contamination and debris caused by the structure and/or storage of material and equipment.

LFP0012-10 4) Best Management Plans (BMP) must be developed to ensure the potential harm to fish is minimized during blasting operations. A monitoring and operation plan shall be required prior to final WDFW approval to ensure fish in distress are identified and sufficient actions are taken to minimize the potential for a fish kill.

LFP0012-11 5) Disposal of the rock and debris from the blasting operation shall be disposed of in a WDFW approved (upland) area outside the 100-year flood elevation.

Policy Statement Regarding Lyle Falls Fishway Reconstruction

LFP0012-12 WDFW **strongly supports** the proposed reconstruction of the Lyle Falls No. 5 Fishway as a Yakima/Klickitat Fisheries Project (YKFP) partner, together with the Yakama Nation and Bonneville Power Administration (BPA). The addition of monitoring and anadromous fish broodstock collection facilities at the site is a needed enhancement that will benefit theYKFP's goal of restoring native stocks of naturally reproducing spring chinook and steelhead to levels of abundance and productivity capable of providing sustainable harvest opportunities for tribal and non-tribal fishermen. Successful completion of this project is critical to the YKFP's "Klickitat Basin Master Plan".

WDFW is prepared to work with our YKFP partners to develop reasonable and effective mitigation for any short-term negative impacts of project construction.

Sincerely,

John A. Easterbrooks

John A. Easterbrooks
YKFP Policy Representative
Regional Fish Program Manager – Region 3

Cc: Bill Weiler
Tom Burns
Pat Klavas
John Weinheimer
Bill Sharp (YKFP –YN)
Mel Sampson (YKFP –YN)
Patti Smith (YKFP – BPA)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Central Washington Field Office
215 Melody Lane, Suite 119
Wenatchee, Washington, 98801
Phone: (509) 665-3508 FAX: (509) 665-3509

LFP0013

IN REPLY REFER TO:

May 9, 2008

USFWS Reference: 2008-FA-0016
Hydrologic Unit Code: 17-07-01-06-04
Re: FWS Comments on the Draft Environmental Impact Statement for the Proposed Lyle Falls Fish Passage Project, Klickitat County, Washington

Mr. Carl Keller
Environmental Project Manager
Bonneville Power Administration – DKE-7
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Mr. Keller:

Thank for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the proposed Lyle Falls Fish Passage Project (Project) located in Klickitat County, Washington. The U.S. Fish and Wildlife Service (FWS) has completed its review of the subject DEIS in which the Bonneville Power Administration (BPA) proposes to improve the existing Lyle Falls Fishway. The fishway is owned by the Washington Department of Fish and Wildlife (WDFW) and operated by the Yakama Nation (YN). The improvements would ease fish passage to upstream high quality habitat in the Klickitat Basin and improve capabilities to trap and handle adult fish. The FWS offers the following comments regarding the proposed project.

GENERAL COMMENTS

LFP0013-1 The FWS' management and mitigation goal is to optimize fish passage conditions at the Project for upstream and downstream migrants as necessary to fulfill the objectives of the Federal, regional, and State management plans. This goal includes avoiding and minimizing the loss of fish from the operation and maintenance of the proposed upstream fish passage facility, including associated structures and devices. To meet this goal, the Project should provide an overall survival and passage efficiency rate for upstream migrants that are at the highest level technically and reasonably feasible.

LFP0013-2 The Service's objective is to maintain the full complement of native fish within their historic habitats within the Klickitat River Basin. To accomplish this objective, successful fish passage for fall Chinook salmon, steelhead, Pacific lamprey, and bull trout is needed throughout the duration of the Project. This goal is consistent with the

Keller 2 LFP0013

LFP0013-2 cont.

direction of existing State and Federal agency management plans. These state and Federal plans call for the recovery and long-term sustainability of harvestable native fishery populations, including Pacific lamprey, as a top priority. Accomplishing this goal will require the operation and maintenance of an effective, safe and timely upstream fishways at the Project. Without the continued operation of an effective fishway at the Project, impacts to resident and anadromous species will continue. An effective and well-maintained fishways will also ensure that the Project does not impair future efforts to restore fish production in the Klickitat River Basin and will contribute to the maintenance of fish populations.

Pacific Lamprey

Pacific lamprey are an important traditional food source for the YN and other tribes. While there has been increasing concern over the declining abundance of this species in the Columbia River Basin, little is known about its current status or distribution in the Klickitat River. Pacific lamprey are known to negotiate Lyle Falls, but they do not use the existing fishway because it does not have rounded corners. The subject DEIS discusses that adult Pacific lamprey have been observed as far upstream as river mile 57 in the Klickitat River. The naturally high glacial sediment load in the basin also provides good rearing conditions for juvenile Pacific lamprey.

Pacific lamprey may use excessive energy in negotiating fishways during their upstream migration, hence the impetus to implement future evaluations of Pacific lamprey passage at the Project. Mesa *et al.* (1999) found that the physiological responses of adult Pacific lamprey to exhaustive exercise were immediate, sometimes severe, and short-lived. They estimated the critical swimming speed of adult lamprey as 0.86 m/s at 15°C. Water velocities in fishways at Bonneville Dam can reach 1.8-2.4 m/s (Mesa *et al.* 1999), whereas average velocities at the existing adult fishway at Lyle Falls ranges from 900 cubic feet per second (cfs) to 2,000 cfs. Vella *et al.* (undated) found that in experimental PVC pipe fishways, lamprey passage was low at high water velocities (6-6.5 ft/s) and shallow water depths (1-2 inches) within stepped transition sections. This indicates that Pacific lamprey probably have difficulty negotiating the high water velocities in fishways such as those found at Bonneville Dam. The research by Mesa *et al.* (1999) also indicates that lamprey recover quickly from a single stress. However, the response of lamprey to several bouts of exhaustive stress remains unclear. While the FWS is encouraged that the Project entails the rounding of corners within the new fishway, we suggest that additional passage improvements be considered in the formulation of the subject fishway modification. These would include considering the feasibility of attaching plates over the fishway diffuser gratings, construction of a separate PVC pipe fishway, fishway entrance head reduction at night, or the installation of a Lamprey Auxilliary Passage System.

LFP0013-3

Threatened and Endangered Species

LFP0013-4

Implementation of the proposed Project could impact habitats occupied by federally-listed, proposed and candidate species such as the gray wolf (*Canis lupus*), Canada lynx (*Lynx canadensis*), bull trout (*Salvelinus confluentus*), and Ute-ladies'-tressess (*Spiranthes diluvialis*). These potential impacts need to be considered in the study,

LFP0013-4 cont.

Keller 3 LFP0013

planning, environmental review, and implementation of this project. In addition, some of the activities associated with environmental studies for the Project may involve ground-disturbing activities that could impact federally-listed species. The BPA has an obligation to evaluate impacts to all federally-listed species in all phases of their permitting process pursuant to section 7 of the Endangered Species Act of 1973, as amended. As such, the FWS received the BPA's Biological Assessment for the proposed Project and evaluated the scope and magnitude of effects on threatened and endangered species. While we concurred with the proposed action for threatened and endangered species under the purview of the FWS, we also suggest that all fishway modifications are compatible with all species, including Pacific lamprey, which will utilize the Lyle Falls fishway in the future.

LFP0013-5

SUMMARY COMMENTS

LFP0013-6

We appreciate the opportunity to review this DEIS. The BPA should understand that the FWS is interested in seeing these concerns addressed during the formulation of the proposed Project to prevent unnecessary delays and to assist in the creation of an environmentally acceptable project. After the close of the comment period for the subject DEIS, we suggest the BPA contact the FWS to discuss these concerns in more detail. Consultation and technical assistance requests, questions, comments, documents, and required progress reports should be directed to the Service's Central Washington Field Office, by mail to the address listed on the front page; telephone: (509) 665-3508, extension 14; or via e-mail: Stephen_Lewis@fws.gov.

Sincerely,

Jessica Gonzales
Division Manager

Cc:
Rich Torquemada, Upper Columbia Fish and Wildlife Office, USFWS, Spokane, WA
Estyn Mead, Region 1 Headquarters, USFWS, Portland, OR
Jeff Thomas, Yakima Sub-Office, USFWS, Yakima, WA
Dennis Beich, WDFW, Ephrata, WA
Bob Rose, Yakama Nation, Toppenish, WA

LITERATURE CITED

Mesa, M., J. Bayer, J. Seelye, and L. Weiland. 1999. Swimming performance and exhaustive stress in Pacific lamprey (*Lampetra tridentate*): implications for upstream migration past dams. U.S. Geological Survey. Draft annual report to the U.S. Army Corps of Engineers, Portland District, Portland, OR.

Vella, J., R. Piaskowski, T. Bjornn, L. Stuehrenberg, and R. Ringe. Undated abstract. Evaluation of adult Pacific lamprey passage, swimming behavior, and performance at Bonneville Dam. Idaho Cooperative Fish and Wildlife Research Unit, Moscow, ID.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

LFP0014

May 12, 2008

Reply to
Attn Of: AOO-A

Ref: 06-045-BPA

Carl Keller, Environmental Project Manager
Bonneville Power Administration - KEC-4
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Mr. Keller:

The U.S. Environmental Protection Agency (EPA) has reviewed Draft Environmental Impact Statement (EIS) **for the Bonneville Power Administration Lyle Falls Fish Passage** project located on the lower Klickitat River in Klickitat County, Washington (CEQ No. 20080114). Our review of the draft EIS was conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (CAA). Section 309 specifically directs the EPA to review and comment in writing on the environmental impacts associated with all major federal actions. Under our Section 309 authority, our review of the EIS considers the expected environmental impacts, and the adequacy of the EIS in meeting procedural and public disclosure requirements of NEPA.

According to the draft EIS, the Confederated Tribes and Bands of the Yakama Nation (YN) have requested funding from the Bonneville Power Administration (BPA) to modify the existing Lyle Falls Fishway, which is owned by the Washington Department of Fish and Wildlife (WDFW) but operated by the YN. The US Forest Service (USFS) administers portions of the Klickitat River and its corridor under the National Wild and Scenic Rivers Act (WSR). The WDFW, YN, and USFS are cooperating agencies with BPA in this environmental analysis.

Currently, Lyle Falls prevents some upstream migrating fish from reaching the upper watershed, particularly during low flows. The existing ladder, constructed in the 1950s to provide a way for fish to migrate around the falls under a range of flow conditions, is not functional. Fish species affected by these conditions include fall Chinook salmon, coho salmon, and, steelhead salmon, which are listed as threatened under the Endangered Species Act (ESA). This project is intended to improve fish passage to habitat in the upper part of the watershed. It also will allow BPA to meet its mitigation responsibilities and potentially increase overall fish production in the Columbia Basin by enhancing fish passage into the Klickitat subbasin. Project components include: providing properly functioning and effective year-round adult fish passage facilities; providing facilities to collect, monitor, and enumerate biological information to monitor success of future fishery management actions in the subbasin; and enhancing opportunities for adult salmonids to access the upper Klickitat River and make use of abundant, under-utilized spawning and rearing habitat.

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LFP0014

The draft EIS provides an action and a no action alternative. With Alternative 1, the No Action alternative, the fishway would retain its current configuration and operational practices, and the same fish passage and fish sampling capabilities would be maintained.

Under Alternative 2, the Proposed Action, improvements would include reconstructing and lengthening the fishway, modifying the ladder entrance to facilitate fish access during low flow, upgrading the adult trapping facility, and improving fisheries monitoring capabilities by adding a Passive Integrated Transponder (PIT) tag detector and a video monitoring system. Access road conditions would be upgraded and a permanent work station would be provided for biologists near the fish ladder. Operationally, the Proposed Action would alter the distribution of flow passing through the natural channel and the fishway. In addition, the extent of fishway maintenance would be reduced because less rock and sediment would enter the structure. The existing attraction flow system would be replaced with a new system designed to attract fish to the ladder entrance.

EPA has assigned a rating of LO (Lack of Objections) to the draft EIS. This rating and a summary of our comments will be published in the Federal Register. A copy of the rating system used in conducting our review is enclosed for your reference. Although we do not object to the proposed action, EPA believes there are some issues which warrant additional consideration in the final EIS. These are described below.

Range of Alternatives

As discussed above, the draft EIS evaluates only one action alternative. While the overall impacts of the action alternative have been determined to be either limited to construction, or generally positive, this does not efface the requirement under NEPA to evaluate a reasonable range of alternatives. There may need to be consideration of additional alternatives developed in response to comments on the draft EIS, resulting in other reasonable action alternatives in the final EIS. Considering other alternatives will ensure that the EIS provides the public and the decision-maker with information that pointedly defines the issues and identifies a clear basis for choice among alternatives as required by NEPA. The Council on Environmental Quality (CEQ) recommends that all reasonable alternatives be considered, even if some could be outside the capability or the jurisdiction of the agency preparing the EIS. EPA strongly encourages selection of alternatives that will minimize environmental and resource degradation.

LFP0014-1 *EPA recommends that additional alternatives be considered for inclusion in the final EIS to ensure compliance with NEPA. If additional alternatives are developed, we recommend that information about those alternatives and their associated impacts be provided to project stakeholders for review prior to the release of the final EIS and ROD.*

Socioeconomics, Environmental Justice and Tribal Consultation

LFP0014-2 Currently, there is no discussion in the draft EIS regarding possible minority and/or low-income populations beyond the Native American population that may be impacted by this project. There is also no information provided regarding poverty rates or ethnic diversity or the project versus reference area. Lastly, it is also unclear if the Native American population identified in the socioeconomics sections of the document utilizes the fish species that will be potentially impacted by the project.

3

LFP0014

LFP0014-2 cont.

EPA recommends that the final EIS disclose what efforts were taken to ensure effective public participation, including participation of low income or minority populations, if applicable. In addition, if low income or people of color communities will be impacted by the proposed project, the final EIS should disclose what efforts were taken to meet environmental justice requirements consistent with Executive Order (EO) 12898 Federal Actions to Address Environmental Justice in Minority and Low-Income Population, including a description of the methodology and criteria utilized for identifying environmental justice populations, a comprehensive accounting of all impacts on low income or minority populations, and determination if the impacts to these populations will be disproportionately higher than those on non-low income or minority communities. Lastly, the EIS must demonstrate that environmental justice populations bearing disproportionately high and adverse effects have had the opportunity for meaningful input into the decisions being made about the project.

LFP0014-3

Finally, the draft EIS does not include information concerning the tribal consultation activities that were undertaken or have been planned for this proposed project. There is also no discussion of the requirements of *EO 13175 Consultation and Coordination with Indian Tribal Governments*. Although the YN is a cooperating agency and applicant for this project, requirements of this EO continue and there may be other federally-recognized tribal governments with interest in this project.

EPA recommends that the final EIS include discussion relating to the requirements of EO 13175 and what action have been undertaken or planned to ensure compliance with this EO.

Thank you for the opportunity to review this DRAFT EIS. If you have any questions or would like discuss our findings, please contact Jennifer Curtis of my staff at (907) 271-6324 or curtis.jennifer@epa.gov.

Sincerely,

Christine B. Reichgott, Manager
NEPA Review Unit

Enclosure

LFP0014

ENCLOSURE 1

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

LFP0014

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

LFP0015

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
620 SW Main Street, Suite 356
Portland, Oregon 97232-2036

9043.1
IN REPLY REFER TO:
ER08/451

Electronically Filed

May 27, 2008

Carl Keller
Environmental Project Manager
Bonneville Power Administration – KEC-4
P.O. Box 3621
Portland, Oregon 97208

Dear Mr. Keller:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed Lyle Falls Fish Passage Project (Project) in Klickitat County, Washington. The Department offers the following comments for use in developing the Final Environmental Impact Statement (FEIS) for the project. It should be noted that on May 9, 2008 the U.S. Fish and Wildlife Service's (Service) inadvertently commented directly to Bonneville Power Administration. We have included their comments in this letter and they should be considered as part of the Department's comments.

GENERAL COMMENTS

LFP0015-1 The Service management and mitigation goal is to optimize fish passage conditions at the Project for upstream and downstream migrants as necessary to fulfill the objectives of the Federal, regional, and State management plans. This goal includes avoiding and minimizing the loss of fish from the operation and maintenance of the proposed upstream fish passage facility, including associated structures and devices. To meet this goal, the Project should provide an overall survival and passage efficiency rate for upstream migrants that are at the highest level technically and reasonably feasible.

LFP0015-2 The Service's objective is to maintain the full complement of native fish within their historic habitats within the Klickitat River Basin. To accomplish this objective, successful fish passage for fall Chinook salmon, steelhead, Pacific lamprey, and bull trout is needed throughout the duration of the Project. This goal is consistent with the direction of existing State and Federal agency management plans. These State and Federal plans call for the recovery and long-term sustainability of harvestable native fishery populations, including Pacific lamprey, as a top priority. Accomplishing this goal will require the operation and maintenance of an effective, safe and timely upstream fishways at the Project. Without the continued operation of an effective

LFP0015

LFP0015-2 cont.

fishway at the Project, impacts to resident and anadromous species will continue. An effective and well-maintained fishways will also ensure that the Project does not impair future efforts to restore fish production in the Klickitat River Basin and will contribute to the maintenance of fish populations.

Pacific Lamprey

Pacific lamprey are an important traditional food source for the Yakima Nation (Yakima) and other tribes. While there has been increasing concern over the declining abundance of this species in the Columbia River Basin, little is known about its current status or distribution in the Klickitat River. Pacific lamprey are known to negotiate Lyle Falls, but they do not use the existing fishway because it does not have rounded corners. The subject DEIS discusses that adult Pacific lamprey have been observed as far upstream as river mile 57 in the Klickitat River. The naturally high glacial sediment load in the basin also provides good rearing conditions for juvenile Pacific lamprey.

LFP0015-3

Pacific lamprey may use excessive energy in negotiating fishways during their upstream migration, hence the impetus to implement future evaluations of Pacific lamprey passage at the Project. Mesa *et al.* (1999) found that the physiological responses of adult Pacific lamprey to exhaustive exercise were immediate, sometimes severe, and short-lived. They estimated the critical swimming speed of adult lamprey as 0.86 mls at 15°C. Water velocities in fishways at Bonneville Dam can reach 1.8-2.4 mls (Mesa *et al. 1999),* whereas average velocities at the existing adult fishway at Lyle Falls ranges from 900 cubic feetper second (cfs) to 2,000 cfs. Vella *et al.* (undated) found that in experimental PVC pipe fishways, lamprey passage was low at high water velocities (6-6.5 ft/s) and shallow water depths (1-2 inches) within stepped transition sections. This indicates that Pacific lamprey probably have difficulty negotiating the high water velocities in fishways such as those found at Bonneville Dam. The research by Mesa *et al.* (1999) also indicates that lamprey recover quickly from a single stress. However, the response of lamprey to several bouts of exhaustive stress remains unclear. While the Service is encouraged that the Project entails the rounding of comers within the new fishway, we suggest that additional passage improvements be considered in the formulation of the subject fishway modification. These would include considering the feasibility of attaching plates over the fishway diffuser gratings, construction of a separate PVC pipe fishway, fishway entrance head reduction at night, or the installation of a Lamprey Auxilliary Passage System.

Threatened and Endangered Species

LFP0015-4

Implementation of the proposed Project could impact habitats occupied by federally listed, proposed and candidate species such as the gray wolf *(Canis lupus),* Canada lynx *(Lynx canadensis),* bull trout *(Salvelinus confluentus),* and Ute-ladies' –tressess *(Spiranthes diluvialis).* These potential impacts need to be considered in the study, planning, environmental review, and implementation of this project. In addition, some of the activities associated with environmental studies for the Project may involve ground disturbing activities that could impact federally-listed species. The BPA has an obligation to evaluate impacts to all federally-listed species in all phases of their permitting process pursuant to section 7 of the Endangered Species Act of 1973, as amended. As such, the Service received the BPA's Biological Assessment for the proposed

LFP0015-5

LFP0015

Project and evaluated the scope and magnitude of effects on threatened and endangered species. While we concurred with the proposed action for threatened and endangered species under the purview of the Service, we also suggest that all fishway modifications are compatible with all species, including Pacific lamprey, which will utilize the Lyle Falls fishway in the future.

SPECIFIC COMMENT

Section 3.2.1.1 Hydrology, page 3-8, 4th paragraph

LFP0015-6

The DEIS states that, "USGS flow data summarized in Figure 3-2 is derived from the entire period of record (July 1, 1909 to September 6, 2006) for the Klickitat River near Pitt gage." It would be more correct to state that the data summarized in the figure were derived from streamflow data collected by the USGS at gaging station number 14113000 (Klickitat River near Pitt, WA) for the period of record of July 1, 1909 to September 6, 2006. Data continue to be collected at this USGS streamflow gaging station and are available on a near real-time basis at http://waterdata.usgs.gov/nwis/nwisman/?site_no=14113000

Also note that a peak streamflow of 51,000 cubic feet per second (cfs) at this gaging station was recorded on February 8, 1996, which is greater than the value (40,000 cfs) reported in the DEIS.

We appreciate the opportunity to review and comment on this DEIS. The BPA should understand that the Department is interested in seeing these concerns addressed during the formulation of the proposed Project to prevent unnecessary delays and to assist in the creation of an environmentally acceptable project. After the close of the comment period for the subject DEIS, we suggest the BPA contact the Service to discuss these concerns in more detail. Consultation and technical assistance requests, questions, comments, documents, and required progress reports should be directed to the Service's Central Washington Field Office, by mail to the address listed on the front page; telephone: (509) 665-3508, extension 14; or via e-mail: Stephen_Lewis@fws.gov. If you have any questions concerning the hydrology comment, please contact Lloyd Woosley, Chief of the USGS Environmental Affairs Program, at (703) 648-5028 or at lwoosley@usgs.gov. *If you have any other questions, please contact me at (503) 326-2489.*

Sincerely,

Preston A. Sleeger
Regional Environmental Officer

LITERATURE

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Mesa, M., J. Bayer, J. Seelye, and L. Weiland. 1999. Swimming performance and exhaustive stress in Pacific lamprey *(Lampetra tridentate):* implications for upstream migration past dams. U.S. Geological Survey. Draft annual report to the U.S. Army Corps of Engineers, Portland District, Portland, OR.

Vella, J., R. Piaskowski, Bjornn, L. Stuehrenberg, and R. Ringe. Undated abstract. Evaluation of adult Pacific lamprey passage, swimming behavior, and performance at Bonneville Dam. Idaho Cooperative Fish and Wildlife Research Unit, Moscow, ID.

LFP0016

Memo

To: Bonneville Power Administration

From: Richard Turner
Hatcheries and Inland Fisheries Branch
Salmon Recovery Division
National Marine Fisheries Service

Date: 7/2/2008

Re: Comments to Draft Environmental Impact Statement for the *Lyle Falls Fish Passage Project, to Improve Fish Passage to Habitat in the Upper Part of the Watershed, Located on the Lower Klickitat River, Klickitat Co, WA (20080114)*

The Draft Environmental Impact Statement (DEIS) for the *Lyle Falls Fish Passage Project, to Improve Fish Passage to Habitat in the Upper Part of the Watershed, Located on the Lower Klickitat River, Klickitat County, WA (20080114)* was reviewed and found to be complete and well written.

LFP0016-1 An internal review by an engineer from NOAA Fisheries' Hydro Division found an inconsistency between the proposed action and Federal Design Criteria as described in Table 2-1 (page 2-5). Updated criteria recently posted on NOAA Fisheries' Northwest Region's Website (http://www.nwr.noaa.gov/Publications/Reference-Documents/Passage-Refs.cfm) includes criteria for Transport Channel water velocities (see section 4.4.2.1 Velocity Range page 34) which states "*The transport channel velocities must be between 1.5 and 4 ft/s, including flow velocity over or between fishway weirs inundated by high tailwater.*" In Table 2-1, the values provided for the Modified Fishway list velocities of 0.9 to 1.4 ft/s, which are outside the current criteria. Footnote 6, does not provide enough information to determine if the criteria will be met even if bedload is present, furthermore, the additional bedload may cause the transport channel depth to become out of criteria. This inconsistency needs to be addressed in the final EIS.

In my review of the DEIS I found only a few errors that need to changed or clarified, which are listed below, otherwise the DEIS is complete.

LFP0016-2 Page S-5: First paragraph under Fisheries, the last sentence needs to be changed to the following,

Stocks arriving at this time (non-indigenous coho and fall Chinook, and indigenous summer steelhead) would be the most affected (Table 3-8).

LFP0016-3 Page 2-4: Second full paragraph, in the last sentence needs to have a "c" to spell coho salmon.

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LFP0016-4 Page 3-22: Second full paragraph, the first sentence needs to be changed to the following,

A hatchery program annually releases approximately 100,000 summer steelhead smolts to support sport and tribal fisheries in the basin.

LFP0016-5 Page 3-25: First paragraph under Fish Passage, the other end of the range is missing in the first sentence.

LFP0016-6 Page 3-27: Last paragraph, second to the last sentence in the paragraph is not consistent with the preceding sentences on harvest impacts on spring Chinook, this should be clarified.

LFP0016-7 Page 3-28: Second full paragraph, the last sentence should be changed to reflect that Klickitat fall Chinook stray into the White Salmon River and not the Little White Salmon River.

LFP0016-8 Page 3-39: Second paragraph, first sentence, the "c" is missing in coho.

LFP0016-9 Page 3-40: Second full paragraph, it should be noted here that disease transmission can occur in both directions because disease pathogens are present in wild populations and that transmission to hatchery populations can occur when natural populations are present in the hatchery water supply.

LFP0016-10 Page 3-61: Second paragraph, the citation needs to be corrected (should it be WDFW 2002?) in the second sentence. The third and fourth sentences are inconsistent. If the status of the winter and summer steelhead is unknown then harvest rates cannot be determined. The 76% harvest rate identified in the paragraph is wrong and probably an artifact of the methods used to estimate the escapement of naturally produced summer and winter steelhead. Escapements have been based on the expansion of redd counts which are very difficult to estimate due to high turbid flows during the spawning ground surveys. More recent population estimates using mark-recapture methods provide a more accurate measure of the escapement, and for 2005-06 and 2006-07 return years harvest rates for summer steelhead were estimated to average 4.7% (see final Klickitat Master Plan, Your YN inpress).

LFP0016-11 Page 3-62: First full paragraph, the description of harvest of steelhead in the last part of the paragraph is inconsistent with the information provided regarding harvest on page 3-28. These estimates should be reconciled.