



Oregon

John A. Kitzhaber, MD., Governor

Department of Fish and Wildlife

Hydropower Program
3406 Cherry Avenue NE
Salem, OR 97303
(503) 947-6090
FAX (503) 947-6070
www.dfw.state.or.us/

June 23, 2011

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

VIA ELECTRONIC FILING



Subject: Wallowa Falls Hydroelectric Project (FERC 308)
Comments on Preliminary Application Document and Scoping
Document; and Study Requests

Dear Secretary Bose:

The Oregon Department of Fish and Wildlife is filing the attached comments on the Preliminary Application Document, comments on the Scoping Document, and study requests in response to the Federal Energy Regulatory Commission's *Notice of Intent to File License Application, Filing of Pre-application Document (PAD), Commencement of Pre-filing Process, and Scoping: Request for Comments on the PAD and Scoping Document, and Identification of Issues and Study Requests*, dated April 22, 2011 for the above reference project.

Sincerely,

Ken Homolka
Hydropower Program Leader

Service List (P-308)
C (electronic mail):
Mike Gerdes- USFS
Hydropower Coordinator- ODFW La Grande
Marilyn Fonseca- ODEQ
Gretchen Sausen- FWS
Gary Miller- FWS
Mary Grainey- OWRD

**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

PacifiCorp Energy)	FERC 308-005
)	
Notice of Intent to File License Application,)	
Filing of Pre-application Document (PAD),)	
Commencement of Pre-filing Process, and)	Wallowa Falls
Scoping: Request for Comments on the PAD)	Hydroelectric Project
and Scoping Document, and Identification)	
of Issues and Study Requests)	

**OREGON DEPARTMENT OF FISH AND WILDLIFE
COMMENTS ON PRE-APPLICATION DOCUMENT, COMMENTS ON
SCOPING DOCUMENT 1, AND
STUDY REQUESTS**

INTRODUCTION

PacifiCorp Energy (Applicant) plans to file an application with the Federal Energy Regulatory Commission (“FERC” or “Commission”) for a new license for the Wallowa Falls Hydroelectric Project (Project). The current license will expire on February 28, 2016. The Project is located in Wallowa County, Oregon, on the East and West Forks of the Wallowa River and Royal Purple Creek. The Project was constructed in 1921 and the original license was issued on June 27, 1924 for a period of 50 years. Two additional licenses were issued by the Commission since that time. The current license was issued on August 28, 1986, for a period of 30 years and expires on February 28, 2016.

The project consists of the following facilities: (1) a 9-foot-long, 2-foot-high concrete diversion dam, having a 1-foot-wide spillway, with a crest elevation of 5,838 feet on Royal Purple Creek; (2) a 240-foot-long, 8-inch-diameter partially-buried polyvinylchloride (PVC) pipeline discharging flows into the de-silting pond, 200 feet upstream of the East Fork Wallowa River dam; (3) an 18-foot-high, 125-foot-long, buttressed rock-filled timber crib dam with impervious gravel and asphalt core, having a 30-foot-wide spillway, with a crest elevation of 5,795 feet on the East Fork Wallowa River; (4) a 0.2-acre de-silting pond with no usable storage; (5) a 5,688-foot-long steel penstock varying in diameter from 18 inches to 16 inches; (6) a powerhouse containing a single impulse turbine/generating unit with a rated capacity of 1,100 kW; (7) an approximately 100-foot-long tailrace; (8) a 20-foot-long, 7.2-kilovolt (kV) transmission line which connects to Wallowa Falls substation; (9) an access road constructed from the dam to the powerhouse; and (10) appurtenant facilities.

The Project is operated as a run-of-river project. The Project diverts flows from Royal Purple Creek and the East Fork Wallowa River for power generation. The East Fork dam impounds the East Fork Wallowa River to create a 0.2-acre de-silting pond. A small diversion dam on Royal Purple Creek diverts up to 1 cubic feet per second (cfs) of flow through a partially buried PVC pipeline to the de-silting pond. Up to 16 cfs of water (15 cfs maximum from East Fork Wallowa River and 1 cfs from Royal Purple Creek) enters the steel penstock and flows 5,688 feet to the powerhouse. Water flows through the single impulse turbine

and exits the project through a tailrace that discharges flows into the West Fork Wallowa River.

The bypassed reach of the East Fork Wallowa River is approximately 1.7-miles-long from the East Fork dam to its confluence with the West Fork Wallowa River. The existing license requires a continuous minimum instream flow release to the bypassed reach of 0.5 cfs or the natural inflow to the reservoir, whichever is less, as measured immediately downstream from the dam. The East Fork dam was rebuilt in 1994 and a low-level outlet pipe was installed in the penstock intake structure to provide the required minimum flow release.

The Applicant filed its Notice of Intent to File License Application for a New License and Commencing Pre-filing Process on February 23, 2011.

Staff from the Oregon Department of Fish and Wildlife (ODFW) attended the Project site visit held on September 16, 2010 and the Commission's Daytime Scoping Meeting held on May 24, 2011 in Enterprise, Oregon.

COMMENTS ON PRE-APPLICATION DOCUMENT

The PAD provides the basic information that is relevant to the Project proposal that is currently available, and it will assist ODFW to identify issues and additional information needs. ODFW's main interest in Project relicensing is to

ensure that any ongoing impacts are identified and mitigated, new impacts are avoided, and to ensure the Project is consistent with Oregon's Wildlife Policy (ORS496.012) and other statutes, rules, guidelines, and plans.

Section 2.4.3 explains that the project is not operated with any specific daily or seasonal ramping rates. ODFW believes it is important to understand the frequency and magnitude of ramping in the tailrace and bypass reach from planned and unplanned project shutdowns. The frequency of past shutdown events should be readily available for analysis. Information on the magnitude of current ramping will need to be collected during relicensing when maintenance shutdowns or other events are initiated. This information will assist in evaluating the effects of current project operations on bull trout spawning, incubation, and rearing.

Section 2.4.6 describes the Project compliance history, mainly relating to minimum flow monitoring and operational events. The Applicant indicates that accurate monitoring of the minimum flow release in the bypass has been complicated. The Applicant has focused its efforts on the upper bypass site and found that staff gage rating shifts, loss of equipment, and remoteness make it difficult to obtain accurate flow data below the dam.

In addition, this section describes four significant operational events that occurred between 1995 and 2003. These events caused bank erosion and

turbidity, or dewatering of the tailrace. ODFW is concerned that after installing an automatic intake gate closure to accomplish automatic shutdown, the gate failed to close during an event in 1999, resulting in approximately eight hours of discharge from the ruptured penstock.

The Applicant indicates in Section 2.4.7 that it is not planning to install new facilities or implement capital upgrades; however, ODFW will recommend (1) installing a reliable facility for monitoring minimum flow in the bypass, and (2) upgrading the automatic intake gate closure in the forebay to current standards to prevent malfunction.

Section 3.3.2 is a good summary of the available information for the fish community in the Project area. ODFW agrees that the information is limited regarding fish abundance, timing, distribution, and species composition. Additional information will be necessary to evaluate the potential for project effects on the fish community. Most of the current knowledge is based on fish stocking reports, recent fish salvages in the tailrace, and snorkel surveys conducted in 2010. More fisheries information is available for the lower bypass reach and tailrace area than the upper bypass reach and forebay. At this time ODFW does not have additional fisheries information to offer regarding abundance, distribution, and species composition; however, ODFW is providing its fish timing information for the Wallowa River (Table 1). Additional information that FERC requires includes a description of the temporal and spatial distribution

of fish and any associated trends with respect to species and life stage composition; standing crop; age and growth data; timing of spawning; and the extent and location of spawning, rearing, feeding, and wintering habitat(18 CFR 5.6(d)(3)(iii)(I)(iv)(C)).

Section 3.3.3 identifies that no specific information is available for the macroinvertebrate community in the East Fork Wallowa River and Royal Purple Creek. ODFW agrees with the Applicant's proposal in the PAD to conduct an analysis of stream macroinvertebrates in the tailrace and East Fork Wallowa River, recognizing that the Applicant has since indicated that it is planning to rescind its proposal. Obtaining information on macroinvertebrates is a FERC requirement for the PAD (18 CFR 5.6(d)(3)(iii)(I)(iv)).

Section 3.4.1 describes wildlife habitats including riparian habitat. Riparian habitat is important for aquatic species as well. Because the lower bypass reach of the East Fork Wallowa River likely provides habitat for bull trout, and Applicant's lands extend along a part of the lower reach, ODFW requests more information regarding the quality of riparian habitat along its property (approximately in the NE corner of the SE ¼ of section 29) and a description of the land-uses that may affect the riparian habitat including the residences.

Table 1. Wallowa River fish timing table for non-anadromous fish.

Wallowa R - Non-Anadromous Species
Timing Unit ID: 10310

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Comments
Adult Fluvial or Adfluvial Migration													
Rainbow Trout													
Kokanee													
Bull Trout													
Adult Spawning													
Rainbow Trout													
Kokanee													
Bull Trout													
Adult/Sub-Adult Rearing													
Rainbow Trout													
Kokanee													
Bull Trout													
Egg Incubation through Fry Emergence													
Rainbow Trout													
Kokanee													
Bull Trout													
Juvenile Rearing													
Rainbow Trout													
Kokanee													
Bull Trout													
Juvenile/Sub-Adult Migration													
Rainbow Trout													
Kokanee													
Bull Trout													

Represents periods of peak use based on professional opinion.
 Represents lesser level of use based on professional opinion.
 Represents periods of presence, either with no level of use OR uniformly distributed level of use indicated

Based on professional opinion, 70% of the life-stage activity occurs during the time frame shown as the peak use period.

Based on professional opinion, 30% of the life-stage activity occurs during the time frame shown as the lesser use period.

Documents

1. Reference # 52459

This document was created on 11/10/2003.

Input to this data was contributed by

- Bill Knox, ODFW
- Brad Smith, ODFW

ODFW has found shade, gravel in low gradient habitat units, bank erosion (negative association), fine sediment (negative association), large wood pieces and volume to be important descriptors of bull trout habitat (Dambacher and Jones).

Section 4.0 includes the Applicant's preliminary issues and study list. The list of preliminary issues generally includes the range of topics that FERC

requires an applicant to address. The preliminary issues list should also include the need to reassess the current instream flow requirement to ensure it provides habitat for bull trout, kokanee, and rainbow trout.

ODFW generally supports the Applicant's list of proposed studies, but will provide more specific information later in this filing under "Study Requests". The Applicant indicated at the Commission's Scoping Meeting on May 24, 2011 that it intended to conduct and complete its studies within one year. ODFW does not believe it will be possible to collect adequate information for some of the proposed studies within one year. Evaluating fish use of the tailrace and bypass reach is unlikely to yield useful information in one year, especially when attempting to capture, tag, and monitor PIT tagged fish. In addition, collecting adequate information to describe the temporal and spatial distribution of fish and any associated trends with respect to species and life stage composition; standing crop; age and growth data; timing of spawning; and the extent and location of spawning, rearing, feeding, and wintering habitat will be difficult with only one year of data.

Section 4.3 discusses relevant resource management plans. ODFW is planning to file its Wolf Management Plan with the Commission to have it considered as a comprehensive plan pursuant to Section 10(a)(2)(A) of the Federal Power Act (FPA). We believe the Wolf Management Plan would be applicable to the Project area.

COMMENTS ON SCOPING DOCUMENT 1

Section 3.4 discusses several alternatives to the proposed action which have been eliminated from detailed study. The three alternatives were eliminated because “no party” has sought or suggested that they should be considered. There have not been any opportunities to provide comments and recommendations until the current opportunity, therefore it appears to be pre-decisional to remove these alternatives from consideration at this time. In addition, the opportunity to file motions to intervene is not offered until after the license application is filed with the Commission. Until that opportunity is offered there are few recognized “parties” to this proceeding that could suggest that these alternatives be considered.

Section 4.1.1 would typically list resources that could be cumulatively affected. The preliminary staff analysis suggests that there are no resources that would be cumulatively affected. At the Commission’s May 24, 2011 Scoping Meeting, ODFW provided information regarding potential efforts to structurally modify the Wallowa Lake Dam, which would allow for an increase in the elevation of Wallowa Lake. Modifications to the dam that involved excavation or replacement of 30 percent by structure volume would be considered “major replacement” and would trigger Oregon’s fish passage law (ORS 509.585). Modification of the dam is a reasonably foreseeable future action during the period of the new license for the Project. In the event that upstream fish passage

is provided at the dam, sockeye salmon could be reintroduced to Wallowa Lake, which would likely spawn in Project affected stream reaches. The area fisheries resources should be considered in the cumulative effects analysis.

Section 4.1 needs to be modified to include a description of Geographic Scope and Temporal Scope. ODFW recommends that the geographic scope be defined as the entire East Fork Wallowa River, West Fork Wallowa River, and the mainstem Wallowa River, including Wallowa Lake and the mainstem below the dam; and the temporal scope be defined as 30¹ years, which is the likely term of the new FERC license for this Project under the Applicant's relicensing proposal.

Section 4.2.1 proposes to address effects of project operations and maintenance on soil erosion, particularly along the upper portion of the East Fork dam access road. ODFW recommends that this section include analysis of the effects of penstock failures and the timing of forebay maintenance sluicing. ODFW has collected information from statewide bull trout surveys that show bank erosion and fine sediment has a negative association with bull trout presence (Dambacher and Jones).

Section 4.2.2 proposes to analyze the potential effects of Project operations on water quality, habitat for rainbow trout and bull trout, and dewatering of bull trout redds in the tailrace. ODFW recommends that any

¹ *Mead Corp.*, 72 FERC ¶ 61,027 at p. 61,077 (1995)

analysis of fish resources also include potential effects on kokanee, in addition to rainbow trout and bull trout. This section should also analyze the effects of penstock failures on fish and habitat in the East Fork Wallowa River, the tailrace channel, the West Fork Wallowa River below its confluence with the tailrace channel, and the mainstem Wallowa River from the confluence with the East and West forks to Wallowa Lake. The effects evaluated should include sedimentation, bank erosion, up and down ramping rates, and dewatering of redds.

STUDY REQUESTS

ODFW's study requests are formatted to follow the requirements of 18 CFR Section 5.9(b) as presented in Appendix A of Scoping Document 1.

Study: Collect and Analyze Stream Flow Information

1. Obtain accurate flow information to determine seasonal project inflow and discharge, document compliance with current minimum flow requirements and compliance with future minimum flow requirements, determine rate of accretion along the bypass reach, and document currently ungauged tributary contribution to bypass reach flow. The information will be useful for conducting the instream flow study, analyzing instream flow data, and to assist with establishing instream flow requirements and compliance

- points. The information to be obtained is stream flow data in cubic feet per second at various locations within the project affected area and above the diversion dam.
2. This information will assist ODFW in making decisions regarding aquatic resources in the Project area. ODFW is the state agency with jurisdiction over fish and wildlife in Oregon. See ORS 496.012; the Fish and Wildlife Coordination Act at 16 U.S.C. § 661 and 662; the Federal Power Act at 16 U.S.C. § 803 and 811.
 3. NA
 4. The Applicant has included the available hydrology information in its PAD in Section 3.2.1. The historical hydrologic information for the Project is incomplete. The East Fork Willowa River above the Project diversion has never been gaged. Information in the PAD suggests that monitoring minimum flow requirements has been complicated (see Section 2.4.6), and the relationship between the minimum flow release and actual flow in the lower bypass reach is not understood.
 5. By operating the Project, the Applicant has direct control of the amount of flow diverted, discharged, and maintained in the bypass reach. The study results will provide information for the instream flow study, thereby

- assisting with establishing instream flow requirements and compliance points.
6. ODFW recommends that the study methodology should be consistent with standards established by the U.S. Geological Survey (USGS) or the Oregon Water Resources Department (OWRD). Following standards developed by water resource agencies is consistent with accepted practice in the scientific community, and these standards are often implemented at other hydroelectric projects.
 7. Accepted methods for collecting stream flow data are well documented. ODFW believes the Applicant can collect meaningful information with a reasonable level of effort and cost by implementing current technology. ODFW will consider proposed alternative study methods if data of similar quality and quantity to USGS and OWRD methods can be collected and used for analysis.

Study: Geology and Soils

1. Conduct a risk and needs assessment of the forebay access road and penstock to identify long-term surficial soil erosion, slumping potential, impacts to fish habitat, and water quality. The scope of analysis should include effects on the East Fork Willowa River, the tailrace channel, the

West Fork Wallowa River below its confluence with the tailrace channel, and the mainstem Wallowa River from the confluence with the East and West forks to Wallowa Lake

2. ODFW is the state agency with jurisdiction over fish and wildlife in Oregon. See ORS 496.012; the Fish and Wildlife Coordination Act at 16 U.S.C. § 661 and 662; the Federal Power Act at 16 U.S.C. § 803 and 811. ODFW will file recommendations with the Commission to protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat) affected by the operation and management of the Project.
3. NA
4. The PAD describes the overall geological formations and soils in the Project area in Section 3.1. The Project's compliance history, including penstock failures is described in Section 2.4.6. Information is lacking regarding the effects of erosion and penstock failures on water quality and aquatic habitat.
5. The maintenance road and penstock are project facilities that are maintained and operated by the Applicant. The Project has a direct effect on the geology and soils of the area and fish habitat. The issue may be

considered to have potential cumulative effects when considered with forebay sluicing of sediments and natural debris flow events (e.g. BC Creek on the West Fork Wallowa River).

6. ODFW is not proposing a specific methodology. The Applicant is proposing the concept of this study, so we believe they will develop a study proposal that includes methods that are consistent with generally accepted practice in the scientific community.
7. ODFW believes this study can be completed during the first year of studies. ODFW is open to reviewing alternative studies if proposed by the Applicant.

Study: Water Quality

1. Operation of the Project may affect water quality. The study should measure water quality parameters including temperature, dissolved oxygen, total dissolved gas, pH, chlorophyll, conductivity, and turbidity within the two natural inflow points above Royal Purple and East Fork Wallowa diversions, the bypass reach of the East Fork Wallowa River, the Project forebay, and the Project tailrace. A special emphasis will be placed on temperature and dissolved oxygen measurements during the

May – October time-frame. Conduct a one-time assessment of selected heavy metals.

2. This information will assist ODFW in making decisions regarding aquatic resources in the Project area. ODFW is the state agency with jurisdiction over fish and wildlife in Oregon. See ORS 496.012; the Fish and Wildlife Coordination Act at 16 U.S.C. § 661 and 662; the Federal Power Act at 16 U.S.C. § 803 and 811. ODFW will file recommendations with the Commission to protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat) affected by the operation and management of the Project.
3. NA
4. Limited information exists concerning water quality in the Project area and surrounding vicinity. The only water quality information currently available exists as hourly water temperature readings recorded in the Project tailrace in 2006-2008, and 2010; and from the Project forebay in 2010 (PAD Section 3.2.3).
5. By operating the Project, the Applicant has direct control of the amount of flow diverted, discharged, and maintained in the bypass reach. Project impacts to water quality, particularly temperature and dissolved oxygen,

would impact fish habitat and fish populations. The Applicant will be required to operate the project to meet state water quality standards for protecting aquatic resources.

6. The Applicant is proposing this study. ODFW believes the Applicant will develop a study proposal that includes methods that are consistent with generally accepted practice in the scientific community, and standards accepted by the Oregon Department of Environmental Quality (ODEQ) for §401 certification.
7. The Applicant should collect at least two years of temperature and dissolved oxygen data. Temperature can be monitored remotely, with data recorders, at a minimal cost. ODFW will consider proposed alternative study methods if approved by ODEQ

Study: Aquatic and Riparian Habitat Survey

1. The Project is operated by withdrawing water from the East Fork Wallowa River, thereby reducing streamflow in the bypass reach and affecting aquatic habitat. The study should quantify and evaluate all fish habitat within the Project tailrace, bypass reach of the East Fork Wallowa River, and a sample reach of the East Fork Wallowa River above the forebay for the habitat attributes and methods described in the USDA-FS Region 6

Stream Inventory Handbook, as potentially modified based on ODFW recommendations.

2. This information will assist ODFW in making decisions regarding aquatic resources in the Project area. ODFW is the state agency with jurisdiction over fish and wildlife in Oregon. See ORS 496.012; the Fish and Wildlife Coordination Act at 16 U.S.C. § 661 and 662; the Federal Power Act at 16 U.S.C. § 803 and 811. ODFW will file recommendations with the Commission to protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat) affected by the operation and management of the Project.
3. NA
4. Limited information exists concerning aquatic and riparian habitat in the Project area as described in Section 3.3.1 of the PAD.
5. By operating the Project, the Applicant has direct control of the amount of flow diverted, discharged, and maintained in the bypass reach. The study results will provide information for the instream flow study, thereby assisting with establishing instream flow requirements and compliance points.

6. Because bull trout are found in the project area, ODFW will need to ensure that several key bull trout habitat associations are adequately surveyed. At this time, ODFW is uncertain whether the USDA-FS Region 6 Stream Inventory Handbook protocols adequately survey these key habitats. ODFW has found shade, gravel in low gradient habitat units, bank erosion (negative association), fine sediment (negative association), large wood pieces and volume to be important descriptors of bull trout habitat (Dambacher and Jones). If the Region 6 level 2 protocols can provide a level of detail consistent with ODFW's protocol, then we can agree to use the USDA-FS protocols. If ODFW's protocols will provide more detail on gradient, habitat type, secondary channels, depth in fast water units, and shade, then ODFW will recommend using its protocols as an alternative.

7. The Applicant's proposal to use the protocols described the USDA-FS Region 6 Stream Inventory Handbook may be adequate; however, as described above ODFW may recommend using its survey protocols as an alternative. ODFW recommends additional discussion with the stakeholders to determine the most appropriate survey protocol.

**Study: Relationship Between Streamflow and Aquatic
Habitat**

1. The Project is operated by withdrawing water from the East Fork Wallowa River, thereby reducing streamflow in the bypass reach and affecting aquatic habitat. The study should determine the relationship between streamflow and aquatic habitat to develop recommendations for minimum streamflow in the bypass reach of the East Fork Wallowa River. The Applicant will measure stream depth and velocity over a range of streamflows at representative habitat transects, classify substrate, and consult with the agencies to establish habitat suitability for several aquatic species and life stages. The study will incorporate a sample reach of the East Fork Wallowa River upstream of the project to compare reaches above and below the project to evaluate project effects on aquatic resources. This study will incorporate information from the Hydrology Study and the Aquatic and Riparian Habitat Study.

2. This information will assist ODFW in making decisions regarding aquatic resources in the Project area. ODFW is the state agency with jurisdiction over fish and wildlife in Oregon. See ORS 496.012; the Fish and Wildlife Coordination Act at 16 U.S.C. § 661 and 662; the Federal Power Act at 16 U.S.C. § 803 and 811.

3. NA
4. The current FERC license for the Project includes a minimum flow requirement of 0.5 cfs; however, ODFW is not aware of any biological data to provide supporting rationale for this amount. ODFW's review of correspondence for the 1985 relicensing proceeding suggests that the 0.5 cfs flow requirement was based on maintaining "historical minimum releases" that were maintained through seepage from the dam. The intent of the minimum flow was "...for the protection of existing aquatic and riparian resources."

The East Fork Wallowa River above the Project diversion has never been gaged. Information in the PAD suggests that monitoring minimum flow requirements has been complicated (see Section 2.4.6), and the relationship between the minimum flow release and actual flow in the lower bypass reach is not understood. Limited information exists concerning aquatic and riparian habitat in the Project area, as described in Section 3.3.1 of the PAD. Additional information is required to provide evidence for recommending a flow release that protects aquatic resources.

5. Streamflow in the bypass reach of the East Fork Wallowa River is directly affected by operation of the Project. Ensuring that a protective minimum

flow is released may result in changes to Project operation and generation.

6. ODFW recommends use of the Instream Flow Incremental Methodology (IFIM) for this study. IFIM is a methodology to determine instream flows for fish and other aquatic life, developed by the U.S. Fish and Wildlife Service. IFIM has been widely used at hydroelectric projects to provide a basis for developing streamflow requirements. IFIM is consistent with accepted practice in the scientific community and is established in Oregon Administrative Rule 635-400-0000 as preferred method for supporting recommendations and applications for instream flows.

7. The IFIM generally requires a high level of effort to (1) coordinate with stakeholders, (2) collect field data, (3) enter and analyze the data, and (4) develop flow proposals with stakeholders. ODFW participated in a site reconnaissance stream survey on May 11, 2011. ODFW does support the alternative methods proposed in the PAD because they were not designed for assessing flow on relatively small, high gradient, mountain streams.

Study: Stream Macroinvertebrates

1. Macroinvertebrate populations can be affected by rapid changes in streamflow, manipulations in streamflow, habitat degradation, and changes in water quality. The study requirement is to sample stream macroinvertebrates for one season (spring, summer and fall) using stream kick-net or Serber Sampler to quantify species composition and relative abundance. The Applicant's proposed study area should be expanded to include a sample reach of the East Fork Willowa River upstream of the project to compare the reaches above and below the project and evaluate the any potential effects of the reduced bypass flows on aquatic macroinvertebrates.
2. ODFW will file recommendations with the Commission to protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat) affected by the operation and management of the Project. ODFW's recommendations apply to any member of the animal kingdom, including invertebrates (18 CFR 4.30(9)(ii)).
3. N.A.

4. No specific information is available for the macroinvertebrate community inhabiting the natural and bypassed portions of the East Fork Willowa River and Royal Purple Creek (PAD Section 3.3.3).
5. The Project is operated by withdrawing water from the East Fork Willowa River. Macroinvertebrate populations can be affected by rapid changes in streamflow, manipulations in streamflow, habitat degradation, and changes in water quality. Fish productivity and growth can be dependent on an adequate food supply, which includes macroinvertebrates. If the Project causes adverse impacts to macroinvertebrate populations, modification to Project operations may be required.
6. ODFW supports the Applicant's proposed methodology and schedule, with the level of effort expanded to include a sample reach of the East Fork Willowa River upstream of the project. ODFW believes the Applicant will develop a study proposal that includes methods that are consistent with generally accepted practice in the scientific community
7. The Applicant is proposing the methodology. ODFW will consider alternative proposals if the same quality of information will be collected.

Study: Evaluation of Fish Use

1. Operation of the Project has the potential to affect stream reaches and the tailrace in various ways including base flows, flow fluctuations, water quality, as well as quality and quantity of fish habitat. The study requirement is to conduct electro-fishing and snorkel surveys to develop an understanding of seasonal fish presence/absence, species composition, relative abundance, and spatial and temporal distribution in the project area. If feasible, the Applicant should capture and tag bull trout in Wallowa Lake with half-duplex PIT tag (13mm or 23mm, depending on fish size). In addition, all bull trout of appropriate size captured in the Project area or vicinity should be tagged with half-duplex PIT tags as directed by ODFW. The Applicant will install PIT arrays within the tailrace, several locations within the East Fork Wallowa River, and potentially in the mainstem Wallowa River to obtain information on migratory patterns and survival.

2. This information will assist ODFW in making decisions regarding aquatic resources in the Project area. ODFW is the state agency with jurisdiction over fish and wildlife in Oregon. See ORS 496.012; the Fish and Wildlife Coordination Act at 16 U.S.C. § 661 and 662; the Federal Power Act at 16 U.S.C. § 803 and 811. ODFW will file recommendations with the Commission to protect, mitigate damages to, and enhance, fish and

wildlife (including related spawning grounds and habitat) affected by the operation and management of the Project.

3. NA
4. The existing information is summarized in Section 3.3 of the PAD. The existing information is not adequate to describe the temporal and spatial distribution of fish and any associated trends with respect to species and life stage composition; standing crop; age and growth data; timing of spawning; and the extent and location of spawning, rearing, feeding, and wintering habitat(18 CFR 5.6(d)(3)(iii)(I)(iv)(C)). Bull trout have only recently detected in the Project area and little information is available regarding their use of the Project area and the potential effects of the Project on their population.
5. The Project is operated by withdrawing water from the East Fork Wallowa River. Fish populations can be affected by rapid changes in streamflow, manipulations in streamflow, habitat degradation, and changes in water quality. If the Project causes adverse impacts to fish spawning and rearing, modification to Project operations may be required. The information collected by this study will be necessary to develop a description of the temporal and spatial distribution of fish and any associated trends with respect to species and life stage composition;

standing crop; age and growth data; timing of spawning; and the extent and location of spawning, rearing, feeding, and wintering habitat(18 CFR 5.6(d)(3)(iii)(I)(iv)(C))

6. ODFW supports the Applicant's proposed methodology. ODFW believes the Applicant's proposed methods are consistent with generally accepted practice in the scientific community and ODFW's recommendations at other hydroelectric projects. The Applicant indicated, at the Commission's Scoping Meeting on May 24, 2011, that it intended to conduct and complete its studies within one year. ODFW does not believe it will be possible to collect adequate information for some of the proposed studies within one year. Evaluating fish use of the tailrace and bypass reach is unlikely to yield useful information in one year, especially when attempting to capture, tag, and monitor PIT tagged fish. In addition, collecting adequate information to describe the temporal and spatial distribution of fish and any associated trends with respect to species and life stage composition; standing crop; age and growth data; timing of spawning; and the extent and location of spawning, rearing, feeding, and wintering habitat will be difficult with only one year of data. ODFW's recommends that the Applicant collect information over at least two years to fulfill this study request.

7. The Applicant is proposing the methodology. ODFW will consider alternative proposals if the same quality of information will be collected; however, as stated above, at least two years of information will need to be collected.

Study: Wildlife Observations

1. Conduct general wildlife surveys and collect baseline information to describe the occurrence, distribution, and relative abundance of wildlife resources associated with the Project and the likely impacts of ongoing Project operation to wildlife resources. Comply with FERC requirements to include a discussion of the wildlife resources in the vicinity of the Project and in downstream areas potentially affected by the project
2. This information will assist ODFW in making decisions regarding wildlife resources in the Project area. ODFW is the state agency with jurisdiction over fish and wildlife in Oregon. See ORS 496.012; the Fish and Wildlife Coordination Act at 16 U.S.C. § 661 and 662; the Federal Power Act at 16 U.S.C. § 803 and 811. ODFW will file recommendations with the Commission to protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat) affected by the operation and management of the Project.

3. NA
4. Currently there is limited information regarding the wildlife resources that exist within the project area (PAD 4.1.4). The Oregon Biodiversity Information Center List of Rare, Threatened and Endangered, Candidate, or Special Status Wildlife Species in Wallowa County is presented in Table 3.5-1 of the PAD.
5. The Project is operated by withdrawing water from the East Fork Wallowa River. Amphibian populations can be affected by rapid changes in streamflow, manipulations in streamflow, habitat degradation, and changes in water quality. The maintenance road and penstock are Project facilities. Maintenance and operation of Project facilities may result in disturbance to wildlife or impacts to habitat.
6. The Applicant is proposing to record wildlife observations anecdotally while conducting botanical surveys. ODFW does not believe that this study methodology is consistent with generally accepted practice in the scientific community. The schedule and intensity for conducting the botanical surveys is not described in the PAD which creates uncertainty regarding the adequacy of the effort and appropriate timing for making wildlife observations. In addition, none of the botanical surveys are focused on aquatic habitats, therefore some amphibians may not be

detected, making assessment of the potential effects of reservoir and flow changes on these species impossible. ODFW recommends that the Applicant conduct visual surveys for terrestrial wildlife within the defined radius around the project works, aquatic habitats, and selected areas that have a high probability of containing TES species. Visual observations should be conducted by foot surveys to document the occurrence of birds, mammals, amphibians, and reptiles. Record evidence of mammals by documenting tracks, scats, burrows, and remains. Sample rocks, logs, and vegetative litter for concealed amphibians. Survey the forebay and aquatic habitat for aquatic amphibians both visually and by using hand nets to capture, identify, and release larvae and adults. Consult with ODFW regarding the appropriate timing to conduct wildlife surveys.

7. The Applicant's proposed methods are not specifically focused on collecting information about wildlife. The primary purpose of the Applicant's study methods are to obtain information about botanical resources, and if wildlife happens to be observed, make a record of the observation. The Applicant's proposed methodology also omits conducting wildlife surveys in aquatic habitats. ODFW believes an approach focused specifically on making observations will be more likely to achieve the study objectives. The level of effort necessary under ODFW's proposed alternative study will be greater, but will ensure specific

habitats are sampled with definitive sampling periods and appropriate sampling effort.

Literature Cited

Dambacher, J.M. and Kim K. Jones. Stream habitat of juvenile bull trout populations in Oregon and benchmarks for habitat quality. Oregon Department of Fish and Wildlife, Research Section. Corvallis, Oregon.
Mackay, W. C., M. K. Brewin, and M. Monita. 1997 Friends of the Bull Trout Conference Proceedings. 353-360.

**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

PacifiCorp Energy)	FERC 308-005
)	
Notice of Intent to File License Application,)	
Filing of Pre-application Document (PAD),)	
Commencement of Pre-filing Process, and)	Wallowa Falls
Scoping: Request for Comments on the PAD)	Hydroelectric Project
and Scoping Document, and Identification)	
of Issues and Study Requests)	

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have made service of the foregoing OREGON DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE PRE-APPLICATION DOCUMENT AND SCOPING DOCUMENT NO. 1, AND STUDY REQUESTS – *Wallowa Falls Hydroelectric Project - Oregon - FERC Project No. 308-005* upon the parties designated on the official service list compiled by the Secretary in this proceeding:

DATED June 23, 2011.



Ken Homolka
Oregon Department of Fish and Wildlife
Hydropower Program Leader
3406 Cherry Ave
Salem, Or 97303
503-947-6090