Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 2 – Project Location, Facilities and Ops	USFWS (Letter Jun 21, 2011), Pgs 17 & 21, Article 401	The document references a minimum flow of 0.5 cfs in the bypassed reach of the E.F. Wallowa River for protection of fish and wildlife in the East Fork Wallowa River. Who required it and how was it determined? Recommend that there is an evaluation as to what is needed currently for fish and channel requirements and for potential future fish needs.	Page 10 of the FERC prepared Environmental Assessment for the current license indicates the U.S. Department of Interior recommended "maintenance of a continuous minimum flow of 0.5 cfs in the bypassed reach below the East Fork Wallowa dam for the protection of existing aquatic and riparian resources". FERC subsequently required a minimum instream flow (MIF) of 0.5 cfs in the bypass reach. It appears that the MIF was established based on an estimated 0.5 cfs dam leakage at the time the new license was issued. PacifiCorp has proposed an instream flow study for the relicensing effort to evaluate available fish habitat at various flows.
PAD – Chapter 2 – Project Location, Facilities and Ops	USFWS (Letter Jun 21, 2011), Pg 17, Article 402	In addition, this would likely protect any potential bull trout spawning activities post-August 30th.	Comment noted.
PAD – Chapter 2 – Project Location, Facilities and Ops	USFWS (Letter Jun 21, 2011), Pg 20, 2.4.3	Recommend adding bull trout to this statement.	Comment noted.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Fish & Aquatics	USFWS (Letter Jun 21, 2011), Pg 33, 3.32	Fish community: Fish listed are salmonids. Other fish probably include dace, sculpins, suckers, shiners and other native non-salmonids. Recommend the entire fish community be documented, not only the salmonids.	PacifiCorp agrees, all fish listed in tables and charts are what has been directly observed or handled to date. When surveys are performed, all captured fish are identified and quantified, regardless of species.

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PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Fish & Aquatics	USFWS (Letter Jun 21, 2011), Pg 33, 3.32, last paragraph	Historically, bull trout were present in the Wallowa River above Wallowa Lake but were believed to be extirpated by the 1950's (Buchanan *et al*. 1997).	Comment noted.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Fish & Aquatics	USFWS (Letter June 21, 2011), Pg 34	Sockeye: Use "extirpated" instead of extinct.	Comment noted.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Wildlife Habitat	USFWS (Letter June 21, 2011), Pg 43	Riparian Habitat: The Forest Service PACFISH/INFISH Riparian Habitat Conservation Area (RHCA) is 300 feet for fish bearing streams, 150 feet for non-fish bearing streams, and 100 feet for intermittent non-fish bearing streams. The West Fork and East Fork Wallowa Rivers are fish bearing so would require the 300 foot RHCA and Royal Purple is non-fish bearing and would require a 150-foot RHCA.	The appropriate riparian buffers (USFS standard) will be applied. The wetland and riparian study will locate and type wetlands and streams so that buffers can be applied accurately.

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PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Wildlife Habitat	USFWS (Letter June 21, 2011), Pg 45	Wildlife Species, Mix Montane Forest: Recommend you add the North American Wolverine (*Gulo gulo luscus*). Also recommend you add Northern Columbia spotted frog (*Rana luteiventris*) to the frogs.	Comment noted and will be incorporated into future project documents.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 46, 3.3.1:	Buchanan *et al*. (1997) report both hatchery Dolly Varden and bull trout (*Salvelinus confluentus*) introduced into Wallowa Lake in the 60's and 70's.	Comment noted.

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PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 47, 3.5.1	Remnant native stock of bull trout in Wallowa Lake is very unlikely. It would have been 31 years ago that they were last stocked in the lake. For a 10-15 year life expectancy, 31 years appears very unlikely.	When PacifiCorp refers to remnant native stock, we are not implying that individuals stocked 31 years ago still exist, but are speaking strictly to progeny from the native stock of bull trout that existed in the area prior to hatchery and out of basin releases into the watershed.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 47	Terrestrial: Recommend adding North American wolverine – Federal candidate species.	The federal listing was from the *"FEDERALLY LISTED, PROPOSED, CANDIDATE SPECIES AND SPECIES OF CONCERN UNDER THE JURISDICTION OF THE FISH AND WILDLIFE SERVICE WHICH MAY OCCUR WITHIN WALLOWA COUNTY, OREGON" pdf obtained from the* U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office and is d*ated 9.11.10.* Commented noted and will be incorporated into future project documents.

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PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 48	Northern Columbia spotted frog: The Northern Columbia Spotted frog that occurs in Wallowa County (and occurs in the Wallowa and Lostine River areas) has been removed from the candidate list. The Great Basin Columbia Spotted Frog distinct population segment remains on the list within its range.	The distinction between subspecies was not included on the *"FEDERALLY LISTED, PROPOSED, CANDIDATE SPECIES AND SPECIES OF CONCERN UNDER THE JURISDICTION OF THE FISH AND WILDLIFE SERVICE WHICH MAY OCCUR WITHIN WALLOWA COUNTY, OREGON" pdf obtained from the* U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office and is d*ated 9.11.10.* Commented noted and will be incorporated into future project documents.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 52	North American Wolverine: Wolverine have been confirmed in the Wallowa Mountains, potentially near the project area, by both tracks and photos. Two individuals were confirmed by tracks on April 17, 2011, and photos document these two wolverines on April 2, and April 13, 2011.	This finding occurred after the PAD was filed with FERC for comments. Commented noted and will be incorporated into future project documents.

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PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Wildlife Habitat	USFWS (Letter June 21, 2011), Pg 55	Bald Eagle: Roost data from April 1992 at Wallowa Lake (T3SR45E sec 20 W1/2 & 7SW) includes BC confluence with West Fork Wallowa River and including and near campground area. The project vicinity may currently be included in the Wallowa Lake Roost area (Isaacs *et al.* 1992) Next at south end of lake has been producing typically 2-3 juveniles per year (Sausen pers. Comm. 2011). Utilize the Service's National Bald Eagle Management Guidelines (USFWS 2007a), in particular page 14; 1 and 4, and page 15: 1, 3, and 4.	The national bald eagle management and BGEPA will be consulted to determine project operations impacts to bald eagles this will be incorporated into future documents.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 55	Gray wolf: On May 5, 2011, the Fish and Wildlife Service published a final rule – as directed by legislative language in the recently enacted Fiscal Year 2011 appropriations bill – reinstating the Service's 2009 decision to delist biologically recovered gray wolf populations in the Northern Rocky Mountains. This covers the eastern third of Oregon, including within the Wallowa Falls Project area.	This rule was published after the PAD was submitted to FERC. Gray wolf listing and management will likely remain controversial. PacifiCorp will continue to monitor the federal status of this species. Regardless, Project operations are unlikely to have any impact (positive or negative) to the gray wolf population.

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PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 55	North American Wolverine: Recent documentation in April 2011 confirmed two individuals in the Wallowa Mountains/Eagle Cap wilderness area. Wolverine may occur in or near project area.	This finding occurred after the PAD was filed. Commented noted and will be incorporated into future project documents.
PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 55	Canada Lynx: This species is federally listed as threatened. The Service considers any lynx in Oregon as dispersers, and stated in our remand notice in 2003 that "There is no evidence that a resident population ever occurred in Oregon." The Service also signed a revised conservation agreement with the Forest Service in 2005 that called for defining occupied lynx habitat. Based on the national lynx surveys done on the three Blue Mountain Forests (Wallowa-Whitman, Umatilla, and Malheur), no occupied habitat was identified. The lynx has been taken off the Oregon county species lists. Without lynx on our species list, agencies are no longer consulting with our office on that species.	Comment noted and lynx will not be included in the biological assessment but will be included in other RTE documentation.

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PAD – Chapter 3 – Description of Existing Environment and Resource Impacts – Rare, Threatened and Endangered Species	USFWS (Letter June 21, 2011), Pg 63	*Silene spadlingii*: The closest known population, and one of our four draft key areas for recovery within the Blue Mountain Basin occurs at the north end of Wallowa Lake on National Park and state lands (USFWS 2007b).	This is well beyond the defined project area or project vicinity. This species prefers grasslands with scattered conifers, and there is low potential of this plant's presence in the Study Area. PacifiCorp will verify it is included in special status plant lists. Commented noted and will be incorporated into future project documents.
PAD – Chapter 4 Fish and Aquatic Resources – Preliminary Issues and Studies List	USFWS (Letter June 21, 2011), Pg 71, 4.1.3	Bull Trout designated critical habitat includes the West Fork and East Fork Wallowa Rivers and downstream (USFWS 2010).	Comment noted.
PAD – Chapter 4 Fish and Aquatic Resources – Preliminary Issues and Studies List	USFWS (Letter June 21, 2011), Pg 73, 4.2.3	Recommend a potential study to determine abundance of brook trout in project area. Since brook trout pose a threat to bull trout through hybridization, competition, and possible predation, feasibility study to determine if there needs to be a population control strategy may be appropriate. If so, we recommend measures be identified to limit downstream migration of brook trout into areas occupied by bull trout. This may need to be analyzed in the instream flow methodology.	All brook trout captured during proposed seasonal electrofishing surveys will be quantified and documented. Based on the results of the proposed surveys, the need for further studies may be discussed. Genetic sampling done on several bull trout collected in 2010 found no hybridization. PacifiCorp will continue to collect bull trout genetic samples during the proposed studies. PacifiCorp does not plan to conduct a feasibility study for a brook trout population control strategy at this time. Studies of this nature lack a project nexus.

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PAD – Chapter 4 Preliminary Issues and Studies List – Wildlife Observations	USFWS (Letter June 21, 2011), Pg 74	Recommend the project address the bald eagle roost/forage area and potential effects associated with projects, including timing of explosives (during maintenance activities), etc. occurring outside of nesting and roosting periods	Commented noted and will be incorporated into future project documents.
PAD – Chapter 4 Preliminary Issues and Studies List – Wildlife Observations	USFWS (Letter June 21, 2011), Pg 74	Recommend surveys for amphibians and, if present, assess the potential effects of reservoir and flow changes on these species.	No protocol surveys for amphibians currently exist. There are a few general amphibian survey methods that will be used within the Study Area. These include use of dip nets and visual inspection to survey for presence/absence of amphibians within the aquatic habitats of the Study Area. The Revised Study Plan provides a detailed description of the methods proposed.
PAD – Chapter 4 Preliminary Issues and Studies List – Wildlife Observations	USFWS (Letter June 21, 2011), Pg 74	Recommend the project be sensitive to amphibians; when electrofishing for fish, check for amphibians in the area, and if present, use lower settings. Settings can be increased when in an amphibian-free stream/reservoir area of the project.	Comment noted.
PAD – Chapter 4 Preliminary Issues and Studies List – Wildlife Observations	USFWS (Letter June 21, 2011), Pg 74	During the site visit on May 11,2011, Gretchen Sausen (Service biologist) photographed an aquatic plant in the EF Wallowa River forebay (on the northeast side) that we recommend be identified to determine if it is a native or an invasive aquatic plant. If identified as an invasive plant, recommend analysis of treatment methods, if necessary.	Comment noted and noxious weeds, both aquatic and terrestrial, will be documented during the noxious weed study.

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Proposed Studies – by ODFW and USFS	USFWS (Letter June 21, 2011)	The Service supports the following studies proposed by ODFW and the Forest Service: The collection and analysis of stream flow information at the project action area and directly upstream.	PacifiCorp confirms that the planned Water Resources Study includes collection and analysis of stream flow information in the project area and directly upstream.
Proposed Studies - Potential studies recommended by the Service:	USFWS (Letter June 21, 2011)	Recommend a study to determine abundance/distribution of brook trout in project area and directly upstream of the EF Wallowa River Forebay. Any hybridization with bull trout (through genetic sampling of brook trout and bull trout) in the project area. Since brook trout pose a threat to bull trout through hybridization, competition, and possible predation, a feasibility study to determine if there needs to be a population control strategy. If so, recommend measures be identified to limit downstream migration of brook trout into area occupied by bull trout. This may need to be analyzed in the instream flow methodology.	All brook trout captured during proposed seasonal electrofishing surveys will be quantified and documented. Based on the results of the proposed surveys, the need for further studies may be discussed. Genetic sampling done on several bull trout collected in 2010 found no hybridization. PacifiCorp will continue to collect bull trout genetic samples during the proposed studies. PacifiCorp does not plan to conduct genetic sampling of brook trout at this time.
Proposed Studies - Potential studies recommended by the Service:	USFWS (Letter June 21, 2011)	Survey the project area, in particular the EF Wallowa River Forebay, for aquatic plants to determine if species are native or invasive, and if invasive, determine a strategy for control.	Comment noted and noxious weeds, both aquatic and terrestrial, will be documented during the noxious weed study.

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Proposed Studies - Potential studies recommended by the Service:	USFWS (Letter June 21, 2011)	Survey the project area for amphibians and if present, assess the potential effects of reservoir and stream flow changes on the populations.	**No protocol surveys for amphibians currently exist. There are a few general amphibian survey methods that will be used within the Study Area. These include use of dip nets and visual inspection to survey for presence/absence of amphibians within the aquatic habitats of the Study Area. The Revised Study Plan provides a detailed description of the methods proposed.**
PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Pgs 9-13	A discussion and table of ownership within the Proposed Project Boundary is needed.	A detailed discussion of land ownership within the proposed Project Boundary will be provided in the Land Use Study Final Technical Report.
PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Appx A, Pg 2	The map shows “Spur to FS Road 1804”, correctly it should be labeled as “FS Trail 1804”.	Comment noted.
PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Appx A, Pg 3	The map shows a doughnut hole and inclusion in the project boundary located in PacifiCorp campground. Is this accurate?	The “doughnut hole” identified in the comment will be removed from future maps of the proposed Project boundary.
PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Current Ops, Pg 13	Please define the term “Project Lands” as it relates to Project Area and Project Vicinity.	The term “Project Lands” refers to all lands within the current and proposed Project boundary. It is synonymous with Project Area. Unless otherwise specified, Project vicinity is defined as all lands and waters within a 2 mile radius of the existing and proposed Project boundaries.

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PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Daily Seasonal & Ramping Rates, Pg 20	**Please identify the specifics on how the forebay flushing occurs. How does the forebay flushing comply with the CWA 401 Certification requirements?**	Per FERC License Article 402, forebay flushing can only occur between May 1 and August 30th for the protection of downstream kokanee eggs and sac fry. For forebay flushing to be possible, inflows to the project need to be low enough that water is not spilling over the diversion dam spillway. Prior to flushing, the forebay and penstock drain valves are opened and the forebay is allowed to drain. Accumulated sediment is then hydraulically flushed downstream with fire hoses connected to portable high pressure fire pumps. Sediment is flushed through the dam low level sluice gate into the bypass reach (East Fork Wallowa River). The current 401 Water Quality Certification letter was issued by the Oregon Department of Environmental Quality (DEQ) on October 1, 1984. The letter simply states that the DEQs earlier certification letter, dated February 22, 1973, certified the project for compliance with applicable water quality standards and that continues to be the agency's position. Water quality sampling has never been conducted during forebay flushing operations.
PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Compliance History, Pg 21	Historic problems in measurement of East Fork Wallowa River bypass flows need to be rectified by installation of a staff gage immediately downstream of the diversion structure to insure accurate flow measurements. Relying on a relationship between forebay elevation and bypass flows could lead to inaccurate bypass flow measurement.	PacifiCorp's planned Water Resources Study includes installation of gages and flow measurements that will include the East Fork Wallowa River bypass reach. Sites and instrumentation are described in the Revised Study Plan for Water Resources.

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PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Compliance History, Pg 21	The historic penstock ruptures and associated erosion of National Forest System (NFS) lands is of concern to the Forest Service. The PAD did not discuss remediation of erosion impacts to NFS lands.	The Information provided below will be included in the Geology and Soils Technical Report as background information. June 6, 1995 rupture: Failure of penstock guy wire anchor resulted in penstock rupture at the lower trestle. The (3 hr) water flow from the rupture caused erosion damage to both PacifiCorp's access trail and USFS Trail #1804. The report does not mention any sediment entering the East Fork Wallowa River from this event. Site restoration included: - Straw bales were hand placed in eroded channels. Straw bales were intended to prevent the transport of additional sediment and slow the velocity of runoff through the damaged area. The section of erosion channel just above the penstock\forebay access trail was filled with boulders and outwash material. Straw and seed was broadcast over this repair and the outwash areas above and below the access trail. Good vegetation cover remained on the outwash area below USFS Trail #1804, so this area was not covered with straw, but was seeded. The erosion on both trails was repaired by side casting boulders that were not used in the erosion repair and borrowing fine material as required from the trail side slopes. The trails were graded and dressed with ¾ inch minus gravel. Water bars were constructed to catch runoff above the repaired sections of trail. September 18, 1996 rupture: Operational error resulted in penstock rupture in a buried section. Water escapement from a ruptured section of penstock (15 min) caused damage to approximately 1/8 of a mile of the forebay access road and the creation of hill-slope gullies from the rupture point down to the East Fork of the Wallowa River below the access road. Immediately following the incident, PacifiCorp placed warning markers at the damaged access road section and placed straw bales within the damaged area to intercept natural drainage and prevent further erosion or transport of soils to the river. CONTINUED NEXT PAGE....

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PAD – Chapter 2.0 Project Location, Facilities and Operation	USFS (Letter June 23, 2011) Compliance History, Pg 21	The historic penstock ruptures and associated erosion of National Forest System (NFS) lands is of concern to the Forest Service. The PAD did not discuss remediation of erosion impacts to NFS lands.	Mr. Marty Gardner of the USFS approved PacifiCorp's October 7, 1996 plans and specifications for repair of the ruptured penstock and site remediation. The recommendations of the USFS Zone Hydrologist, Terry Carlson were incorporated into the remediation design. Site restoration included: - Penstock rupture erosional coulee: Straw cover was broadcast on all eroded areas. The coulee created between the penstock rupture and the access road was filled with large woody debris and covered with a layer of soil and rock graded down from the steep banks of the erosion coulee. Coulees created below the access trail were partially filled with woody debris and soil. Loose straw and straw bales were placed in the drainage channels to retard surface runoff. - Road: the forebay access road was filled, graded and then surfaced with a layer of 3/4 inch minus gravel. The shoulder of the road adjacent to the river was graded down so water would not pool on the road. A log water bar was installed where the road slopes moderated. - Road culvert erosional coulee: Placed large boulders below the culvert outfall and repacked soil around the culvert for stability. Woody material was also placed below the culvert outfall to catch sediment and slow water velocity. September 26, 1999 rupture: Large tree falling on lower penstock trestle guy wire caused two sections of penstock to separate. Water released from penstock separations eroded an approximately 15 foot by 50 foot area of decomposed granite sand and gravel adjacent to the East Fork Wallowa River. PacifiCorp consulted with Mr. Marty Gardner of the USFS to secure necessary approval to repair the penstock and remove identified hazard trees that could further harm the penstock. USFS did not deem it necessary to conduct a site visit. By letter/fax dated

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			October 19, 1999, District Ranger Kendall Clark gave PacifiCorp authorization to proceed with the repair work. Likely due to the granular nature of the material that was eroded during this event, there is no record of erosion mitigation measures taken. In response to this incident 91 hazard trees were removed in 1999 and another 15 were removed in 2000. Additionally, in 2000 a continuously energized solenoid valve was installed at the headgate and the powerhouse control system was modified to automatically close the headgate in the event that voltage is removed from the gate control cable.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Soils, Pg 25	*"The erosion and slump occurring on the upper portion of the forebay access road is likely of the Anatone-Klicker-Rock Outcrop soils type and is subject to the management considerations described above."* It is assumed that the discussion above describes the area where the access road is slumping and eroding into Royal Purple Creek. Hill slope and soil slumping into Royal Purple Creek is of concern to the Forest Service.	This assumption is correct; This area will be investigated in the Geology and Soils Study.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Shorelines and Stream banks, Pg 27	**Are there any channel stability issues where the tailrace channel joins the West Fork Wallowa River?**	The Geology and Soils Study will investigate stability issues at the tailrace channel and its confluence with the West Fork Wallowa River.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Hydrology, Pg 28	The Forest Service concurs with PacifiCorp that the USGS data does not accurately represent the bypass flow at the project diversion on the East Fork Wallowa River. Measurement of bypass flows immediately below the diversion will be necessary for the Forest Service to assess any impacts to NFS lands and resources.	PacifiCorp's Water Resources Study Plan includes installation of gages and flow measurements that will include the East Fork Wallowa River bypass reach just below the diversion. Sites and instrumentation are described in the Revised Study Plan.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Water Quality, Pg 31	Water temperature monitoring will be necessary for compliance with State of Oregon ORS and to meet the requirements for bull trout life history requisites.	PacifiCorp's Water Resources Study Plan includes installation of water temperature sensors at seven sites in the Project vicinity. Water temperature data will be collected throughout the year. Data analysis will include assessment of compliance with state water quality standards, which include water temperature criteria pertinent to bull trout.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Habitat, Pg 32	The PAD not only needs to fully describe the instream and riparian habitats, and vegetative species composition of the bypass reach but also the Project Vicinity (study area) of the reach upstream of the forebay, Royal Purple Creek, and the un-named tributaries into the bypass reach.	The Habitat Survey proposed as a component of the Instream flow study will provide a qualitative inventory of riparian habitat in the lower bypass reach (Instream Flow Study Area). The active channel for all streams within 300 feet of the terrestrial Study Area boundary and bypass channel will be determined and the stream type (fish perennial etc) will be assigned. Portions of the bypass reach and all other streams more than 300 feet from the terrestrial Study Area boundary and outside of the Instream Flow Study Area will not be inventoried. The terrestrial study area boundary is described in the Revised Study Plan.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Fish Community, Pg 33	A data gap of trout species composition and abundance appears in the bypass and above the forebay reach on the East Fork Wallowa River.	PacifiCorp agrees, all available data that has been gathered to date was included within the Pre-Application Document.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Aquatic Invertebrate Community, Pg 34	The Forest Service notes PacifiCorp's data gap and recommends an aquatic invertebrate assessment in the natural and bypassed portions of the East Fork Wallowa River and Royal Purple Creek.	**PacifiCorp proposes to conduct a one-time Rapid Bio-assessment for macro invertebrates in September 2012. A representative riffle will be sampled in the following three locations of the East Fork Wallowa River: 1) above the forebay, 2) in the high gradient portion of the bypass reach above the lower penstock trestle, and 3) in the low gradient portion of the bypass reach below the lower penstock trestle.**
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Wildlife and Botanical Resources, Pg 36	Whether in this section or under the Rare, Threatened and Endangered section, the Forest Service requests that PacifiCorp identify and address the Forest Service Regional Forester's Special Status Species (RFSSS) List for all species listed threatened, endangered and proposed for listing, and sensitive species including invertebrates, vertebrates, fungi, non-vascular plants, and vascular plants; and identify and address the Management Indicator Species (MIS) enumerated in the Wallowa-Whitman National Forest Land and Resource Management Plan (LRMP), as amended.	The Regional Forester's Special Status Species Lists for Sensitive Non-Vascular and Vascular plants for Wallowa-Whitman National Forests has been included as Special Status Plant Study. Species applicable to the project area and based upon the Special Status Plant Study will be included in future documents. Management Indicator Species (MIS) will be included in the Wildlife Study and included in future documentation.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Wildlife and Botanical Resources, Pg 36	Regarding the identified Project vicinity for wildlife resources of a 0.25 mile radius, the Forest Service agrees that for botanical resources (noxious weed surveys, riparian and wetland delineation and mapping, sensitive plant surveys and vegetative cover type mapping) and general wildlife observations the smaller study area is appropriate. However, the Forest Service recommends that for large home range Rare, Threatened and Endangered species the Project vicinity described in Section 2.2 (2.0 mile radius) will be employed.	Comment noted. Descriptions of study methods are provided in the Revised Study Plan for Terrestrial resources. Environmental assessment for rare, threatened, and endangered species will be based on home range and impacts as required.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Wildlife and Botanical Resources, Pg 36	The Forest Service understands that PacifiCorp uses the stated four habitat types as a generality, for the purposes of an introductory discussion, and that it does not correspond to any specific habitat typing system.	PacifiCorp has incorporated PAGs into the vegetation cover type study using the Wallowa-Snake Province, Mid-montane wetland plant associations for the Malheur, Umatilla and Wallowa-Whitman National Forests, and Deep Canyon and Subalpine Riparian and Wetland Plant Associations. Descriptions of study methods and study area are provided in the Revised Study Plan for Terrestrial resources.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Wildlife Habitats, Pg 43	Riparian Habitat: The PAD statement "*Because of the limited amount of riparian habitat, it is unlikely that species strongly associated with riparian habitats would be found within the Project vicinity*" is supposition and species associated with riparian habitats will not be determined until studies are concluded. See Forest Service comments on Recommended Studies – Section 4.2 for studies pertaining to wildlife and botanical species presence/absence and relative distribution.	Comment noted.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Wildlife Habitats, Pg 43	Wetland Habitat: Royal Purple Creek diversion inflow also aids in the development of wetland habitat on the upstream end of the forebay. The wetland associated with the forebay pond is described using USFWS NWI data. No mention is made of the scale that NWI is done (remote sensing), nor the significance (or lack thereof) of a wetland.	Comment noted. The riparian and wetland study will better define the wetland extent and condition. NWI data will be referenced in more detail.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Wildlife Habitats, Pg 43	**Botanical Resources and Invasive Plant Species: In the 1992 botanical survey what is the geographic extent of the Project Area? Great information but it would aid the Forest Service to have a map that delineates the survey area.**	Comment noted and this information will be included in future documentation. Actual survey area was not clearly identified but is referred to as the project area, which would be the existing FERC boundary, not the proposed.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Wildlife Habitats, Pg 43	**The Forest Service agrees in principal with the need to identify and control noxious weeds and other undesirable non native species and that the Project area is relatively weed free, though at risk because of the stated travel ways and recreational use of the area. Also the Forest Service notes that on other visits to the area the noxious weed, Oxeye daisy has been observed in the project vicinity. The Forest Service GIS noxious weed coverage also shows known occurrences of this species at the vicinity of the trailhead and power house. The PAD needs to address (within the Project vicinity) the existence of, or potential for introduction of noxious weeds listed on the 2011 Wallowa County Weed list (A, B, T, & watch list).**	PacifiCorp would like to have access to USFS GIS data on noxious weeds if possible. The oxeye daisy presence will be noted and included in future environmental assessments.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) RTE Aquatic, Pg 46	The Forest Service RFSSS list indicates there are documented or suspected sensitive species located on the Wallowa-Whitman National Forest. It is recommended that the discussion of Aquatic RTE species include the species identified on the RFSSS list.	Comment noted. Aquatic species on the RFSSS list will be addressed in future Project documents.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) RTE Terrestrial, Pg 47	Table 3.5-1 should also include the Forest Service RFSSS list.	The Forest Service RFSSS list has been included in the Wildlife Study and will be included in future documents.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) RTE Terrestrial, Pg 47	The Forest Service suggest that we revisit the ORBIC data as the Forest Service copy of their GIS coverage shows *Botrychium montanum*, *Botrychium minganense* and *Botrychium pinnatum* as being present in the project vicinity, at or near the forebay as well as further up drainage. Table 3.5-2 only lists *Botrychium montanum* as being present. The Forest Service GIS coverage of rare plant occurrences (Region 6 Sensitive species) also shows *Botrychium minganense* as being present adjacent to the forebay. Also, the *Species Present within the ORBIC Project Vicinity* cell for *Botrychium montanum* references the 1993 botanical survey conducted for the Pacific Power forebay access road construction EA. The vascular plant list for this project is contained in Appendix B of the PAD. That list only identifies that a Botrychium species was encountered, but not what species. Thus it is unknown if they found *Botrychium montanum* or one of the other rare or common Botrychium species often found in association with each other.	The ORBIC data cited in the document was for rare, threatened, and endangered species records as of 6.29.10 and within two-mile radius surrounding T3S45E section 29, 32, and 33. Botrychium montanum was the only species record. Page 11 of the BA identifies the Botrychium species located as either minganense, montanum, or pinnatum. Table 3 of the BA identified each of these species as present to determine impacts.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) RTE Terrestrial, Pg 47	PAD Appendix B also lists that *Populus tremuloides* (quaking aspen) was located within the project vicinity. Upland aspen is important wildlife habitat and an uncommon and declining species element in the Blue and Wallowa Mountains. If project operation or maintenance activities have a potential to impact aspen, then that impact will need to be described, and documentation provided as to how this impact is to be minimized, mitigated or avoided.	Comment noted and it will be included in future documentation.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) RTE Terrestrial, Pg 47	Bald Eagle: The Forest Service concurs with the statement that bald eagles are known within the Project area but add reference that the eagles forage on spawning kokanee during the fall and have a high likelihood of roosting in and around PacifiCorp's campground.	Comment noted and it will be included in future documentation.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Recreation and Land Use, Pg 64	The PAD should mention the considerable amount of winter recreation that occurs within the Project Area. This includes use of the forebay access road by backcountry skiers to facilitate access to the Aneroid Basin, both to the private inholdings and for winter camping. Snowshoers also use the Forest Service trail for day outings and occasionally return via the forebay access road because it is less steep and is shorter than using the trail. Locals will use the forebay road because avalanche danger is less severe. Actual amount of use is unknown, but anecdotal evidence suggests that there is winter use nearly every weekend day and on several week days.	Comment noted. PacifiCorp has added a winter trail use component to the Recreation Study Plan and will report on winter recreation use of this trail in the recreation Final Technical Report.

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Recreation and Land Use, Pg 64	The Forest Service keeps records on summer use that originates from the trailhead via mandatory, self-issuing permits. The compliance rate has been studied and is estimated at 85%. Actual summer use of the forebay trail is unknown. A popular guidebook, HIKING OREGON'S EAGLE CAP WILDERNESS by Fred Barstad (2002, Globe/Pequot) states in its description of the East Fork Aneroid trail that "this road may be used as an alternate trail" but warns that it is much steeper than using the actual trail. (Detailed known data was provided in letter) In addition, there is considerable stock use of the area by a local outfitter, Eagle Cap Wilderness Pack Station. Many of these are day rides of one hour or less. In 2010 they reported 177 client days in the Eagle Cap Wilderness. All of these trips began at the USFS managed trailhead adjacent to the Project area.	This data and the more detailed use data provided in the Forest Service Letter of June 23, 2011 will be incorporated into the Recreation Use Study.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Recreation and Land Use, Pg 64	The PAD mentions a user created trail and two wooden benches at the project forebay. The Forest Service has no knowledge of this trail. Are the benches referred to the one homemade bench near the cabin structure? Please provide information on where these are located.	There is a user created trail to from the USFS trail at the dam to the East Fork Wallowa inlet to the forebay, and two primitive wood benches, one adjacent to the storage cabin and one adjacent to where the East Fork Wallowa River enters the forebay.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response	
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Recreation and Land Use, Pg 64	Along with the Forest Service managed West Fork and East Fork trails, the PAD should mention the Chief Joseph Trail which begins approximately a quarter mile along the West Fork trail.	Comment noted. The Chief Joseph trail will be included in future Project documents discussing trail opportunities.	
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Recreation and Land Use, Pg 64	The PAD does not mention the multiple user-created trails that originate from the Pacific Park campground. These climb the hillside and join into the junction of the Chief Joseph Trail and the West Fork Wallowa Trail and appear to be heavily used by visitors as a way to get back easily to the Park. Actual use of this trail "system" is unknown and it is likely that these are uncounted Forest visitors, since they do not fill out wilderness permits from that location.	Comment noted. PacifiCorp has added a "Pacific Park User Trail" component to the Recreation Study Plan and will report on use of this trail in the recreation Final Technical Report.	
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Recreation and Land Use, Pg 64	The PAD states "*Recreational uses of lands within the Project area include…*" The Forest Service suggests that the discussion of these features/uses is more appropriately discussed and analyzed in the context of the 2 mile radius Project Vicinity, rather than in the Project Area as defined in Section 2.2 on page 9.	Comment noted.	Comme
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Recreation and Land Use, Pg 64	It is recommended that PAD maps include trail numbers in addition to trail names so as to correspond with other published map products. Additionally, include the Eagle Cap Wilderness boundary on all maps where that feature is in view.	Future maps showing USFS trails will include USFS-assigned trail numbers and the Eagle Cap Wilderness Boundary where appropriate.	

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PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Aesthetic, Pg 66	The noise from the Project generator is apparent both adjacent to the facility and can be heard for at least a mile along the three trails including within the Eagle Cap Wilderness. The Forest Service disagrees that it is only a modest impact to aesthetic resources. Although most users are passing through the area en-route to a destination, the constant noise is a disruption and a reminder of the sights and sounds of humans.	Comment noted. A question regarding the affect of sound from the Project powerhouse on campers at Pacific Park will be included in the recreation visitor survey proposed in the recreation study plan for Pacific Park.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Aesthetic, Pg 66	The visual impact of the Project is mitigated by the fact that it occurs next to other developments such as roads and a parking lot. The forebay and dam, in particular the spillway catwalk due to the materials used in construction, are a visual intrusion to trail users. When hiking the East Fork trail, the pipeline is visible in several locations and detracts from the natural quality of the area.	Comment noted. Visual and aesthetic conditions of the Project Study Area will be documented in the Aesthetics and Visual Resources Study.
PAD - Chapter 3.0 Existing Environment and Resource Impacts	USFS (Letter June 23, 2011) Cultural Resources, Pg 67	The Forest Service primary interest is to ensure that PacifiCorp and the Commission follow the NHPA Section 106 cultural resource inventory and consultation procedures, involving the Oregon State Historic Preservation Office (SHPO), and the Nez Perce, Umatilla and Colville Tribal Historic Preservation Officers (THPOs).	Comment noted. PacifiCorp will comply with NHPA Section 106 cultural resource inventory and consultation procedures including consultation between FERC, PacifiCorp and the appropriate tribes and agencies.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 70	Geology and Soils: The Forest Service agrees in concept with PacifiCorp's stated issue. However, in addition to the forebay access road, the Forest service suggest the issue be expanded to include the length of the penstock, as ruptures of the pipe have occurred historically and have the potential to affect soils and riparian habitat through erosion.	Comment noted. PacifiCorp will include an assessment of the Project Penstock in the Geology and Soils Study.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 70	Water Resources - Hydrology: The Forest Service agrees in concept with the stated issue. It is very important to establish and maintain a permanent gauging station below the diversion structure.	The Water Resources Study Plan features a gaging program including field reconnaissance to identify locations and equipment necessary to obtain a reliable flow record. Rating curve development will occur in 2012.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 70	It is recommended that "*habitat conditions*" be expanded to include analysis of habitats for both aquatic and terrestrial dependent and associated sensitive plant and animal species.	The wildlife study will do assessment of sensitive species occurrence in the Study Area. Whereas the wetland and riparian and vegetation cover study will determine to extent and type of this habitat in the project area. Descriptions of study methods and study area are provided in the Revised Study Plan for Terrestrial Resources.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 70	The Forest Service also suggests that the stream flow regime can also be expressed in the functional wetted width of the bypass reach and as such influences habitat conditions. Therefore, it is suggested that wetted width is an issue and that a study should be conducted to examine how the wetted width changes through the bypass reach as a result of a reduction instream flow. This information will then be used to identify how the removal of water at the diversion alters those relationships and whether those changes are large enough to affect aquatic and riparian habitats.	The hydraulic data collected for PHABSIM modeling will enable us to calculate wetted width. However, PHABSIM modeling is a more sophisticated method than measuring changes in wetted width, and will provide figures of usable habitat with flow changes (whereas wetted width is only a gross value which does not address whether the increased wetted area actually provides usable habitat for the species of concern).
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 70	Water Resources - Water Quality: The Forest Service agrees with the issue as proposed.	PacifiCorp confirms that the planned Water Resources Study will address the issue as proposed.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 70	Fish and Aquatic The Forest Service agrees with the issues pertaining to macroinvertebrates and redband and brook trout as proposed. With regard to bull trout, the Forest Service agrees with the issue as proposed however the issue should be discussed under its own section - RTE.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 71	Wildlife and Botanical: The Forest Service agrees in concept with the stated issue. However, the statement "*Given the Project's small size and limited geographic footprint, the Project and current operations likely have negligible impacts on wildlife and botanical resources*" is conclusory and should be removed from the issue statement. It is recommended that the issue statement contain language to include sensitive and strategic species from the Forest Service RFSSS and MIS species from the Wallowa-Whitman National LRMP.	Comment noted and will not be included in future documentation. The Forest Service RFSSS and MIS species from the Wallowa-Whitman National LRMP are being included in the both the wildlife and special status plant species.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 71	Rare, Threatened and Endangered: PacifiCorp did not identify an issue for RTE species. With regard to bull trout, the Forest Service agrees with the issue as proposed above in Fish and Aquatic but the issue should be discussed here under the RTE section. It is recommended that PacifiCorp address all potential RTE species in the issue statement including the gray wolf, Canada lynx, and bull trout.	Comment noted. Bull trout will be addressed as an RTE species in future Project documents. Although federally listed species, such as gray wolf or lynx, may be present in the project area. Current Project operations likely have little to no effect on these species. USFWS will not consult on lynx, therefore this species will not be included in any biological assessment and will only be included in the Exhibit E\EA.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 71	Recreation and Land Use: The PAD should include as issues the growing winter use of the area as facilitated by the forebay access road, , and the existence of several braided and eroding social trails that are serving as a funnel for unrecorded visitors from the Pacific Park campground who access the National Forest. The adequacy of recreation opportunities is not an issue that the Forest Service considers to be an impact of this Project. The Forest Service believes that adequate recreation opportunities exist in the area as evidenced by the numerous activities offered by the trail system, the State Park system, the Wallowa Mountain Tramway and other private recreation experiences. Please refer to the Study Requests proposed by the Forest Service.	Comment noted. Consideration and study of these issues have been added to the Recreation Study Plan.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 71	Aesthetic: The Forest Service disagrees with the key issue identified as it seems ambiguous and vague. We suggest that the key issue is determination of soundscape and landscape impacts from the noise of the Project generator and the visual intrusion of the pipeline and forebay structures along the Forest Service trail. Is the noise bothersome to visitors? Does the presence of the pipeline and forebay structures detract from the visitor experience?	Comment noted. PacifiCorp agrees that identification of Project affects to aesthetic resources is appropriate. However, PacifiCorp maintains that an analysis of existing conditions and Project affects and their consistency with established management goals (i.e. visual quality objectives) for the Project area is critical to the identification of appropriate enhancement measures.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 72 USFS	Cultural Resource: The Forest Service agrees that a contemporary and comprehensive inventory of NRHP-eligible cultural resources in the area of potential effect is warranted.	Comment noted.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.1 Issues, Pg 72	Socio-Economic: The Forest Service agrees with the issue as proposed	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 72	**Potential Studies** In response to PacifiCorp's potential studies identified in the PAD and the Commission's SD1, the Forest Service is providing study requests that are in addition to the studies proposed by PacifiCorp. The Forest Service supports implementation of all PacifiCorp proposed studies either agreeing with the study as described or agreeing in concept with the proposed study and recommending additions to affectively assess any potential Project effects to the NFS lands and resources. All studies proposed with the exception of bull trout monitoring have the potential to affect NFS lands and resources. The Forest Service as administrating agency for NFS lands must analyze all potential Project affects to ensure that planning, construction, operations and modifications are consistent with Forest Service resource management direction in applicable land and resource management plans: Wallowa-Whitman National Forest Land and Resource Management Plan, as amended. Management direction for NFS lands and resources is contained in a variety of laws, policies and management plans. **Exhibit I** contains applicable management direction for the resource studies.	Comment noted. PacifiCorp has adopted the USFS study requests into the Recreation Study Plan and will consider USFS management goals and direction in preparing the license application.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 72	Geology and Soils: The Forest Service agrees in concept with the proposed study but recommends that the study area be expanded to include hill slope and soil erosion sites for both the forebay access road and the penstock. As noted in the PAD, the Project penstock has ruptured in the past.	Comment noted. Slope stability along the penstock will be addressed in the Geology and Soils Study.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 72	Hydrology: The Forest Service agrees with the proposed study as described – gaging of Project waters including the two natural inflow points above Royal Purple Creek and East Fork Wallowa River above the diversions, the East Fork Wallowa River bypass reach immediately below the diversion and at the NFS – PacifiCorp property boundary to determine the contribution of accretion flows, and in the Project tailrace.	PacifiCorp confirms that the planned Water Resources Study includes collection and analysis of stream flow information in the project area and directly upstream. Among the five sites to be monitored for flow are two in the East Fork Wallowa River bypass reach: (1) at the upper end of the bypass reach immediately below the diversion (site “BPU”); and (2) at the lower end of the bypass reach above the confluence with the West Ford (site “BPL”). No gaging site is planned specifically at the NFS – PacifiCorp property boundary. If needed, accretion flows for that specific location can be inferred or interpolated from BPU and BPL data, and from additional flow measurements taken in the bypass reach in conjunction with the Instream Flow and Habitat Study.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 72	Water Quality: The Forest Service agrees with the proposed study as described – measure numerous water quality parameters (temperature, dissolved oxygen, total dissolved gas, pH, chlorophyll, conductivity, 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.	PacifiCorp confirms that the planned Water Resources Study includes collection and analysis of water temperature, dissolved oxygen, total dissolved gas, and turbidity. PacifiCorp proposed to collect data on pH, chlorophyll, conductivity, and selected heavy metals in the Pre-Application Document because such data has been typically collected in the past for hydroelectric project licensing (PacifiCorp 2011). However, upon further consideration of the FERC Scoping Document 2 (FERC 2011), PacifiCorp has concluded that data on pH, chlorophyll, conductivity, and selected heavy metals is unnecessary because these parameters are not a concern in this pristine watershed and have no specific nexus to Project operations.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 73 – Fish and Aquatic Resources	Aquatic and Riparian Habitat Survey: The Forest Service agrees in concept with the proposed study for Aquatic and Riparian Habitat. In addition to the proposal, the Forest Service recommends expanding the study area to include a sample reach of the East Fork Wallowa River upstream of the project to evaluate the affects of the reduced bypass flows on aquatic and riparian habitat, and channel stability using the USDA Forest Service Region 6 Stream Inventory Handbook.	We will measure and model the effects of diversion-related changes in flow within the bypass only. We disagree that a habitat survey upstream of the project will provide useful information for evaluating flow changes within the bypass, and the Forest Service has provided no rational explaining the usefulness of this data. We assume that the Forest Service is interested in a comparison between the two reaches. However, the channel geomorphology is substantially different between the study area in the bypass and the reach upstream of the project, and the two cannot be reliably compared.

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PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 73– Fish and Aquatic Resources	Water Flow Evaluation: The Forest Service agrees in concept with the proposed study to evaluate available instream habitat in the bypass reach of the East Fork Wallowa River. It is recommended that the study area be expanded to include a sample reach of the East Fork Wallowa River upstream of the project to compare reaches above and below the project, and to evaluate the any potential effects of the reduced bypass flows on aquatic resources (fish, macroinvertebrates, wetted width and riparian vegetative communities and habitat). The Forest Service recommends use of the Instream Flow Incremental Methodology for this study.	We agree with the USFS recommendation of IFIM for the study. We disagree with performing the study upstream of the project, because this reach is not affected by the project. We assume that the Forest Service is interested in a comparison between the two reaches. However, the channel geomorphology is substantially different between the study area in the bypass and the reach upstream of the project, and the two cannot be reliably compared.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 73 – Fish and Aquatic Resources	Analysis of Macroinvertebrates: The Forest Service agrees in concept with the proposed study for one seasonal (spring, summer and fall) sample of stream macroinvertebrates. It is recommended that the study area be expanded to include a sample reach of the East Fork Wallowa 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.	**PacifiCorp proposes to conduct a one-time Rapid Bio-assessment for macro invertebrates in September 2012. A representative riffle will be sampled in the following three locations of the East Fork Wallowa River: 1) above the forebay, 2) in the high gradient portion of the bypass reach above the lower penstock trestle, and 3) in the low gradient portion of the bypass reach below the lower penstock trestle.**

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PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 73 – Fish and Aquatic Resources	Evaluation of Fish Use in Project Waters: The Forest Service agrees in concept with the proposed study to evaluate seasonal (spring, summer, fall) presence/absence, species composition, relative abundance and spatial and temporal distribution of fish in the Project tailrace and bypassed East Fork Wallowa River. It is recommended that the study area be expanded to include a sample reach of the East Fork Wallowa River upstream of the project to evaluate the affects of the reduced bypass flows on the fisheries resource.	Given the diverse habitat available upstream of the project (lakes, ponds, marshy areas, braided stream), PacifiCorp does not believe that surveying a small section directly upstream of the project will be an adequate representation with which to compare to the high gradient sections downstream of the project, thus yielding little or no data with which to garner an accurate comparison of fish use for the two areas. PacifiCorp does not plan to expand the study area to include a sample reach of the East Fork Wallowa River upstream of the Project.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 73 – Fish and Aquatic Resources	Bull Trout Use: The Forest Service agrees with the proposed study.	Comment noted.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 74 – Wildlife and Botanical Studies	The Forest Service agrees with PacifiCorp's proposal to define the study area for wildlife and botanical resources to the 0.25 mile radius around the Project works.	Page 71 of the PAD identifies the study area as equal to the project area. The project vicinity was 0.25 miles as defined in the PAD on page 36 and used basically to identify habitats and species near the project area. It was originally thought this would be used for vegetation cover type study limits, but when the forest service requested PAG type analysis the Study Area limits were downsized to compensate for the level of detail requested. Descriptions of currently proposed study methods and study area are provided in the Revised Study Plan for Terrestrial Resources.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 74 – Wildlife and Botanical Studies	Vegetation Cover Type Mapping: The Forest Service agrees in concept with the proposed study. The Forest service recommends that all vegetation stand types within the defined Project Vicinity be delineated along distinct vegetation changes and or natural landscape breaks. Vegetation types should be determined to the most specific applicable stand type using the following three plant association guides: ***Plant Associations of the Wallowa-Snake Province (Johnson and Simon 1987) - R6-ECOLTP- 255A-86.*** ***Mid-Montane Wetland Plant Associations of the Malheur, Umatilla and Wallowa-Whitman*** ***National Forests (Crowe and Clausnitzer 1997) – R6-NR-ECOL-TP-22-97.*** ***Deep Canyon and Subalpine Riparian and Wetland Plant Associations of the Malheur, Umatilla and Wallowa-Whitman National Forests (Wells 2006) – PNW-GTR-682.***	The PAGs will be used but only for the Study Area, not the project vicinity. To determine a PAG it would require ground level assessment from each area. Many of these areas are on rugged peaks that are inaccessible. Also the cost to conduct this analysis versus the knowledge gained ratio is high. Descriptions of study methods and study area are provided in the Revised Study Plan for Terrestrial resources.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 74 – Wildlife and Botanical Studies	Noxious Weed Surveys: The Forest Service agrees with the proposed study. However, it is recommended that noxious weed species and locations be noted when conducting other studies. See the attached recommended list and occurrence forms. **Attachment 1 -** 2011 Wallowa County Noxious Weed list and **Attachment 2 is t**he Wallowa Noxious Weed Occurrence documentation form.	Both attachments will be included in Noxious Weed Study and many studies will be conducted simultaneously, but all anecdotal noxious weed encounters will be documented.

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PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 74 – Wildlife and Botanical Studies	Riparian and Wetland Delineation and Mapping: The Forest Service agrees with the proposed study. The Forest Service recommends that all wetlands delineated under the proposed study also be typed such that they too correspond with the 3 plant association guides listed above for cover type mapping and with the USFWS classification.	All lands within the Study Area will be vegetation cover typed according to the above listed PAG and wetlands will also follow the USFWS classification system. Descriptions of study methods and study area are provided in the Revised Study Plan for Terrestrial resources.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 74 – Wildlife and Botanical Studies	Sensitive Plant Surveys: The Forest Service agrees with the proposed study. The Forest Service will require that PacifiCorp use the Forest Service survey protocol and element occurrence procedures. **Attachment 3** is the Inventory Methodology recommend by the Forest Service. **Attachment 4** is the Wallowa-Whitman National Forest sensitive and strategic species list distilled from the Region 6 RFSSS list. **Attachment 5** is a pre-field review of sensitive plant species that are most likely to be found in the Project vicinity. **Attachments 6 and 7** are the TES survey protocol and field forms, and the element occurrence procedures.	These procedures are incorporated into the special-status plant study.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 74 – Wildlife and Botanical Studies	Wildlife Observations: The Forest Service agrees with the proposal to conduct non-RTE wildlife observations anecdotally while implementing the botanical studies.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 74 – Recreation and Land Use	The Forest Service agrees with the proposed studies. Attached find two additional specific studies: Pacific Park User Trail and Winter Recreation.	Comment noted. PacifiCorp has adopted the USFS study requests into the Recreation Study Plan.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 75 – Aesthetic and Scenic Resources	The Forest Service suggests that the key issue for aesthetics and scenic resources is a determination of soundscape and landscape impacts from the noise of the Project generator and the visual intrusion of the pipeline and forebay structures along the Forest Service trail. As such, it is recommended that the proposed study be modified to address these key issues.	Comment noted. PacifiCorp agrees that identification of Project affects to aesthetic resources is appropriate. However, PacifiCorp maintains that an analysis of existing conditions and Project affects and their consistency with established management goals (i.e. visual quality objectives) for the Project area is critical to the identification of appropriate enhancement measures.
PAD – Chapter 4.0 Preliminary Issues and Studies List	USFS (Letter June 23, 2011) 4.2 Potential Studies, Pg 75 – Cultural Resources	The Forest Service agrees with the proposed studies as described for Inventory of Historic Buildings and Structures, Pedestrian Survey of Archaeological Sites:, and Traditional Properties. All cultural resources recorded during this undertaking and those already known to exist within the area of potential effects are to be evaluated according to NHPA guidelines for national register potential, and in consensus with SHPO whether determined eligible or not eligible for listing on the National Register of Historic Places.	Comment noted. Cultural resources recorded during this undertaking and those already known to exist within the area of potential effects will be evaluated according to NHPA guidelines.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request - Pacific Park User Trail	USFS (Letter June 23, 2011)	Currently, campers at the Park have created an unofficial trail system that allows them to bypass the USFS trail and access the Eagle Cap Wilderness. The exact number of visitors is unknown since they bypass the permit system at the trailhead. This study would provide this information and allow the USFS to incorporate these visitor numbers into capacity and planning studies. Study Area **-** The trail system leading from the Park in Section 29.	Comment noted. PacifiCorp has adopted the USFS-Pacific Park Trail study request into the Recreation Study Plan.
Study Request - Winter Recreation Use Study	USFS (Letter June 23, 2011)	This study would determine actual visitor use of the forebay road in the winter months. Specifically it would measure winter use of the forebay access trail as measured just beyond where it intersects with the USFS East Fork Wallowa Trail # 1804 using a beam traffic counter.	Comment noted. PacifiCorp has adopted the USFS-Winter Trail Use study request into the Recreation Study Plan.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.1 Study Description and Objectives	PacifiCorp is proposing to conduct a recreation use and needs analysis study. In addition to the issues outlined in the PAD, NPS recommends studying the recreation trends and opportunities for scenic view points and walking trails in the project area. As stated in the PAD, walking was a relevant project area high priority activity identified in the Oregon State Comprehensive Outdoor Recreation Plan (SCORP). In addition, FERC regulations call for applicants to investigate existing and future potential recreation use (18 CFR 4.51). Recreation use and demands need to be looked at over the term of a new license. The needs analysis should include an assessment of the capacity of the project to include opportunities to create or enhance walking trails and scenic viewpoints.	PacifiCorp will include an evaluation of all recreation opportunities and needs, including trails, as part of the Recreation Study demand and needs analyses. However, as noted by the USFS in their comment letter dated June 23, 2011, there are a number of trail opportunities in the Project vicinity including the forebay access road, and trail opportunities are generally considered adequate. Therefore, PacifiCorp is not proposing to conduct a specific detailed desktop analysis of trail opportunities and alternatives with an associated map as proposed by NPS. PacifiCorp suggests a more appropriate focus of the recreation study is the determination of use of existing Project-related trails and identification of appropriate management measures for those trails.
PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.2 Study Area.	The study area includes the project area with emphasis on lands and waters adjacent to the project boundary.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.3 Resource Management Goals	The NPS has authority to consult with the FERC and applicants concerning a proposed project's effects on outdoor recreation resources under the Federal Power Act (18 CFR 4.38(a), 5.4 I (t)(4)-(6), and 16.8(a»; the Outdoor Recreation Act (Pub Law 88-29) and the National Park Service Organic Act (39 Stat. 535). It is the policy of the NPS to represent the national interest regarding recreation, and to assure that hydroelectric projects subject to re-licensing recognize the full potential for meeting present and future public outdoor recreation demands, while maintaining and enhancing a quality environmental setting for those projects. Investigating opportunities for walking trails is consistent with NPS policy and FERC guidelines to identify future potential recreation needs.	Comment noted.
PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.4 Relevant Public Interest	FERC requirements state that hydroelectric projects license applications must be consistent with comprehensive plans including the SCORP. Trails have been found to be in demand in the Oregon State SCORP.	The Project currently provides trail opportunities commensurate with the size of the Project and is therefore consistent with the SCORP.

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PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.5 Existing Information	The PAD contains existing information on recreation use and opportunities in the project area. The SCORP identifies the demand for walking trails across ethnic and age groups. However, information is needed to determine the potential capacity that the project has to enhance walking opportunities and viewpoints.	The Project currently provides trail opportunities commensurate with the size of the Project and is therefore consistent with the SCORP.
PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.6 Nexus to Project	The Federal Energy Regulatory Commission compares hydroelectric project recreation plans with the relevant comprehensive plans including SCORP. SCORP identifies the need for trails and paths for walking. As stated above, the SCORP identifies the demand for trails. However information is needed to determine the potential capacity the project has to enhance trail opportunities and viewpoints. As part of the relicensing effort, a comprehensive look at recreation needs should be conducted per FERC guidance to evaluate existing and potential future recreation needs (18 CFR 4.51).	PacifiCorp will include an evaluation of all recreation opportunities and needs, including trails, as part of the Recreation Study demand and needs analyses. However, as noted by the USFS in their comment letter dated June 23, 2011, there are a number of trail opportunities in the Project vicinity including the forebay access road, and trail opportunities are generally considered adequate. Therefore, PacifiCorp is not proposing to conduct a specific detailed desktop analysis of trail opportunities and alternatives with an associated map as proposed by NPS. PacifiCorp suggests a more appropriate focus of the recreation study is the determination of use of existing Project-related trails and identification of appropriate management measures for those trails.

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PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.7 Study Methodology	This study can be conducted in the context of the Recreation Use and Needs Analysis Study described in the PAD. The methodology described in the needs analysis can generally be followed with the following additions. For the trail opportunities, the demand has been shown through the SCORP. Under the capacity component, identify potential opportunities to add or improve walking opportunities. This could be done through a table-top review of maps taking into account land ownership, slope, viewpoints, vegetation, and other factors. Potential routes and/or enhancements can be "penciled" on the maps. Field review can verify conditions and help identify opportunities (routes, viewpoints) and barriers (cliffs, wetlands).	PacifiCorp will include an evaluation of all recreation opportunities and needs, including trails, as part of the Recreation Study demand and needs analyses. However, as noted by the USFS in their comment letter dated June 23, 2011, there are a number of trail opportunities in the Project vicinity including the forebay access road, and trail opportunities are generally considered adequate. Therefore, PacifiCorp is not proposing to conduct a specific detailed desktop analysis of trail opportunities and alternatives with an associated map as proposed by NPS. PacifiCorp suggests a more appropriate focus of the recreation study is the determination of use of existing Project-related trails and identification of appropriate management measures for those trails.
PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.8 Final Product	The final product would include a report potentially incorporated into the needs analysis report. The report should include a list of opportunities and alternatives as appropriate and rough cost estimates. A map should be included identifying potential trail route(s), enhancements, viewpoints, and proposed trail standard.	PacifiCorp will include an evaluation of all recreation opportunities and needs, including trails, as part of the Recreation Study demand and needs analyses. However, as noted by the USFS in their comment letter dated June 23, 2011, there are a number of trail opportunities in the Project vicinity including the forebay access road, and trail opportunities are generally considered adequate. Therefore, PacifiCorp is not proposing to conduct a specific detailed desktop analysis of trail opportunities and alternatives with an associated map as proposed by NPS. PacifiCorp suggests a more appropriate focus of the recreation study is the determination of use of existing Project-related trails and identification of appropriate management measures for those trails.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD - Recreation Use and Needs Analysis: Evaluating Viewpoints and Trail Opportunities	NPS (Letter June 20, 2011) - 1.9 Level of Effort and Cost	This study would be conducted in the context of the needs analysis. Additional work would include evaluating the capacity of the project to include viewpoint and trail opportunities.	PacifiCorp will include an evaluation of all recreation opportunities and needs, including trails, as part of the Recreation Study demand and needs analyses. However, as noted by the USFS in their comment letter dated June 23, 2011, there are a number of trail opportunities in the Project vicinity including the forebay access road, and trail opportunities are generally considered adequate. Therefore, PacifiCorp is not proposing to conduct a specific detailed desktop analysis of trail opportunities and alternatives with an associated map as proposed by NPS. PacifiCorp suggests a more appropriate focus of the recreation study is the determination of use of existing Project-related trails and identification of appropriate management measures for those trails.
PAD – Section 2.4.3 Daily and Seasonal Ramping Rates	ODFW (Letter June 23, 2011) – Pg 4	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.	In response to a FERC Additional Information Request, PacifiCorp filed detailed information regarding “forced outages and ramping with FERC on August 8, 2011. Under all generating unit trip conditions, with the exception of a loss of voltage to the headgate control cable, ‘low penstock pressure indication’ or an unanticipated malfunction at the headgate (e.g. lightening strike), water continues to flow, at approximately six cfs, past the turbine into the powerhouse tailrace channel. Any forced outages that resulted in a headgate closure are highlighted in blue on Attachment A of the FERC filing. Once the headgate closes at the forebay it takes approximately two hours for the tailrace channel to completely dewater and it will remain dewatered until the headgate is manually opened and the unit is brought back online. The duration of each outage is indicated in the August 8 filing-Attachment A by ‘Outage Start’ and ‘Outage End’. Since the headgate control modifications in 2000, approximately 31 headgate closures have been recorded due to forced outages.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Section 2.4.6 Project Compliance History	ODFW (Letter June 23, 2011) – Pg 5	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 Information provided below will be included in the Geology and Soils Technical Report as background information. On September 26, 1999, a large tree fell on a penstock/trestle guy wire at the upper end of the lower trestle causing two sections of penstock pipe to separate. Remedial actions made in response to this incident included the inspection of the penstock alignment for hazard trees and the removal of ninety-one hazard trees in November 1999 and fifteen hazard trees in January 2000. The extended (8hr) duration of the discharge from the ruptured penstock was likely due to a faulty and/or undersized trip solenoid valve at the headgate hydraulic cylinder. As reported to FERC in a filing dated August 8, 2011, an automated control system was installed at the Project in 1996 and the headgate control system was further modified in 2000 to address penstock failures. In 2000 a properly sized continuously energized solenoid valve was installed at the headgate and the powerhouse control system was modified to automatically close the headgate in the event that voltage is removed from the gate control cable. The continuously energized solenoid is considered more “fail-safe” than the type in place at the time of the failure. If voltage is removed from the cable due to a loss of power or damage to the wiring, the solenoid valve is designed to release the oil from the cylinder whereby the weight of the headgate will cause it to drop to the closed position. Additionally a pressure relay at the powerhouse senses any change in penstock pressure. If penstock pressure drops to approximately 430 pounds per square inch (psi), an alarm will be relayed to a hydro control operator, located at the Hydro Control Center in Ariel, Washington, who can make adjustments to correct a problem without headgate closure. Any drop in penstock pressure below approximately 375 psi, such as a penstock rupture, triggers an automated signal to the headgate causing it to close and

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Section 2.4.6 Project Compliance History	ODFW (Letter June 23, 2011) – Pg 5	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.	CONTINUED... **automated signal to the headgate causing it to close and the unit to trip offline and lock out.** In an email to PacifiCorp from ODFW (Brad Smith and Bill Knox) dated October 7, 1999, ODFW reported that the event resulted in approximately 10-30 cubic yards of material being washed into the stream. However, ODFW also reported "We checked kokanee spawning sites downstream (of the failure) and again found little evidence of sediment accumulation. Based on our observations, we felt the incident will have a little impact on kokanee egg survival".
PAD – Section 2.4.7 Description of New Facilities	ODFW (Letter June 23, 2011) – Pg 5	Applicant indicates 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.	PacifiCorp currently operates a staff gage below the dam that reliably records compliance with the minimum instream flow requirements of the current license. PacifiCorp is not proposing specific new facilities or capital upgrades at this time. PacifiCorp expects that new facilities and capital upgrades, if required, will be determined and implemented as an outcome of issuance of a new FERC license.
PAD – Section 3.3.2 Fish and Aquatic Resources – Fish Community	ODFW (Letter June 23, 2011) – Pgs 5 & 6	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)).	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Section 3.3.3 Fish and Aquatic Resources – Aquatic Invertebrate Community	ODFW (Letter June 23, 2011) – Pg 6	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)).	**PacifiCorp proposes to conduct a one-time Rapid Bio-assessment for macro invertebrates in September 2012. A representative riffle will be sampled in the following three locations of the East Fork Wallowa River: 1) above the forebay, 2) in the high gradient portion of the bypass reach above the lower penstock trestle, and 3) in the low gradient portion of the bypass reach below the lower penstock trestle.**
PAD – Section 3.4.1 Wildlife and Botanical Resources – Wildlife Habitats	ODFW (Letter June 23, 2011) – Pgs 6 & 7	ODFW requests more information regarding the quality of riparian habitat along its (PacifiCorp's) 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.	The Habitat Survey proposed in the Instream Flow Study will provide a qualitative inventory of riparian habitat of the bypass reach in this area. The land use study will include a review of land uses in this area.
PAD – Section 3.4.1 Wildlife and Botanical Resources – Wildlife Habitats	ODFW (Letter June 23, 2011) – Pgs 6 & 7	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 ones).	Noted. PacifiCorp welcomes ODFW's input for developing habitat suitability curves for both bull trout and kokanee
PAD – Section 4.0 Preliminary Issues and Studies List	ODFW (Letter June 23, 2011) – Pg 8	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.	PacifiCorp agrees, and intends to conduct the evaluation using a PHABSIM approach.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
PAD – Section 4.1.3 Fish and Aquatic Resources	ODFW (Letter June 23, 2011) – Pg 8	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.	If warranted, provisions for a second year of data collection are included in the Revised Study Plans if an insufficient amount of data is collected in the first year.
PAD – Section 4.3 Relevant Resource Management Plans	ODFW (Letter June 23, 2011) – Pg 8	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.	Comment noted and the gray wolf management plan will be referenced as applicable in future documentation.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request - Collect and Analyze Stream Flow Information	ODFW (Letter June 23, 2011) – Pgs 11 & 12	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.	This comment will be fully addressed in the course of implementing the gaging program as described in the Water Resources Study Plan. PacifiCorp has initiated a gaging program including field reconnaissance to identify locations and equipment necessary to obtain a reliable flow record. Data collection will begin in winter of 2011-2012. Rating curve development will be done in the spring-summer of 2012. PacifiCorp is presently required by FERC to evaluate compliance with minimum bypass flows, and files annual reports documenting compliance.
Study Request - Collect and Analyze Stream Flow Information	ODFW (Letter June 23, 2011) – Pg 12	The historical hydrologic information for the Project is incomplete. 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.	This comment will be fully addressed in the course of implementing the gaging program as described in the Water Resources Study Plan. PacifiCorp has initiated a gaging program including field reconnaissance to identify locations and equipment necessary to obtain a reliable flow record. Data collection will begin in winter of 2011-2012. Rating curve development will be done in the spring-summer of 2012. PacifiCorp is presently required by FERC to evaluate compliance with minimum bypass flows, and files annual reports documenting compliance.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request - Collect and Analyze Stream Flow Information	ODFW (Letter June 23, 2011) – Pgs 12 & 13	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.	Comment noted.
Study Request - Collect and Analyze Stream Flow Information	ODFW (Letter June 23, 2011) – Pg 13	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.	PacifiCorp will consult USGS and/or OWRD standards for stream gaging. Initially, we will use basic methods (rated Leveloggers + staff plates) and will abide by available standards for this methodology.
Study Request - Collect and Analyze Stream Flow Information	ODFW (Letter June 23, 2011) – Pg 13	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.	PacifiCorp will consult USGS and/or OWRD standards for stream gaging. Initially, we will use basic methods (rated Leveloggers + staff plates) and will abide by available standards for this methodology.
Study Request – Geology and Soils	ODFW (Letter June 23, 2011) – Pg 13	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.	PacifiCorp has incorporated this study into its study plan.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Geology and Soils	ODFW (Letter June 23, 2011) – Pgs 13 & 14	The scope of analysis should include effects on the East Fork Wallowa River, the tailrace channel, 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.	PacifiCorp has revised the Geology and Soils Study Plan to include a qualitative discussion of the following: an overview of systemic geomorphic processes form the Project forebay to Wallowa Lake, a discussion of the Project's potential sediment contribution in the context of the larger basin geomorphology, the potential sedimentation to affect aquatic habitat in the lower East Fork Wallowa River and Wallowa River from the confluence of the East Fork and West Fork to Wallowa Lake, and seasonal changes in sediment transport capacity.
Study Request – Geology and Soils	ODFW (Letter June 23, 2011) – Pg 14	Information is lacking regarding the effects of erosion and penstock failures on water quality and aquatic habitat.	The current proposed habitat survey will provide information on the condition of aquatic habitat in the East Fork bypass reach. The proposed Water Quality Study-monitoring of sediment sluicing will provide information on how short term sedimentation events affect water quality and aquatic habitat.
Study Request – Geology and Soils	ODFW (Letter June 23, 2011) – Pgs 14 & 15	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).	PacifiCorp recognizes there have been affects in the past to the East Fork bypass reach as a result of penstock failures. A Best Management Practices protocol approach for penstock failures and forebay sluicing has been developed to avoid these events in the future. A review of this approach and identification of potential improvements will be included in the license application.
Study Request – Geology and Soils	ODFW (Letter June 23, 2011) – Pg 15	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.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Geology and Soils	ODFW (Letter June 23, 2011) – Pg 15	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.	PacifiCorp proposes to complete the study in one year.
Study Request – Water Quality	ODFW (Letter June 23, 2011) – Pg 15	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.	PacifiCorp confirms that the planned Water Resources Study includes collection and analysis of water temperature, dissolved oxygen, total dissolved gas, and turbidity. PacifiCorp proposed to collect data on pH, chlorophyll, conductivity, and selected heavy metals in the Pre-Application Document because such data has been typically collected in the past for hydroelectric project licensing (PacifiCorp 2011). However, upon further consideration of the FERC Scoping Document 2 (FERC 2011), PacifiCorp has concluded that data on pH, chlorophyll, conductivity, and selected heavy metals is unnecessary because these parameters are not a concern in this pristine watershed and have no specific nexus to Project operations.
Study Request – Water Quality	ODFW (Letter June 23, 2011) – Pg 16	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).	PacifiCorp acknowledges that water quality data in the Project area is limited. However, regional information is available to characterize the overall water quality in the Wallowa River watershed, which is considered excellent due to the relatively pristine location and physical conditions of the watershed area. The planned Water Resources Study will provide substantive additional water quality information to support analyses for the new FERC license.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Water Quality	ODFW (Letter June 23, 2011) – Pgs 16 & 17	**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.**	PacifiCorp's planned Water Resources Study includes collection of water quality data to support an assessment of compliance with state water quality standards, which include criteria pertinent to protection of aquatic resources.
Study Request – Water Quality	ODFW (Letter June 23, 2011) – Pg 17	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.	PacifiCorp's planned Water Resources Study will utilize established and well-accepted methods and instrumentation for collection of hydrology and water quality data. The planned Water Resources Study will provide substantive hydrology and water quality information to support analyses for the new FERC license and an application to ODEQ for 401 certification.
Study Request – Water Quality	ODFW (Letter June 23, 2011) – Pg 17	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.	PacifiCorp's planned Water Resources Study will obtain water temperature and dissolved oxygen during a one-year study period, with the possibility of additional sampling during a second year. Following the first year of data collection, PacifiCorp will summarize the data (in an initial study report) and discuss with interested stakeholders (at the initial study plan meeting) if certain parameters warrant additional monitoring during a second year. The decision to conduct further monitoring will be based on, but not limited to, compliance with state water quality standards, and the representativeness of meteorological and flow conditions during the year.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Aquatic & Riparian Habitat Survey	ODFW (Letter June 23, 2011) – Pg 17	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.	The study will focus on the lower portion of the bypass reach (below the falls), where the greatest amount of usable habitat is located. The bypass reach above the falls is fairly inaccessible to surveyors, and completely inaccessible to upstream fish passage. It has a very high gradient that likely provides very little habitat. We disagree that a habitat survey is warranted upstream of the project, as this area is not affected by project operations. A habitat survey and evaluation of the Project tailrace is not warranted since the tailrace is primarily a power production facility and is not managed to provide aquatic habitat.
Study Request – Aquatic & Riparian Habitat Survey	ODFW (Letter June 23, 2011) – Pg 18	Limited information exists concerning aquatic and riparian habitat in the Project area as described in Section 3.3.1 of the PAD.	This comment should be fully addressed with the habitat survey, planned as a component of the in-stream flow study.
Study Request – Aquatic & Riparian Habitat Survey	ODFW (Letter June 23, 2011) – Pg 18	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.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Aquatic & Riparian Habitat Survey	ODFW (Letter June 23, 2011) – Pg 19	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.	We will await ODFW's recommendation. We will plan to use USDA-FS protocols until further recommendation is provided.
Study Request – Aquatic & Riparian Habitat Survey	ODFW (Letter June 23, 2011) – Pg 19	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.	We will await ODFW's recommendation. We will plan to use USDA-FS protocols until further recommendation is provided.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 20	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.	Comment noted. We will use a PHABSIM approach to measure and model habitat changes with flow changes in the lower reach of the East Fork bypass.
Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 20	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.	We agree with this comment.
Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 20	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.	Direct observations and a model will be used to evaluate project effects on aquatic resources in the lower reach of the bypass only, as the river upstream of the project is not affected by operations. The substantial differences in channel geomorphology upstream of the project and in the lower bypass reach are not conducive to a valid comparison.
Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 20	This study will incorporate information from the Hydrology Study and the Aquatic and Riparian Habitat Study.	Comment noted.

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Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 21	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.	We agree. Information for flow release recommendations is one of the objectives of the instream flow study.
Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pgs 21 & 22	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.	We agree. Information for flow release recommendations is one of the objectives of the instream flow study.
Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 22	ODFW recommends use of the Instream Flow Incremental Methodology (IFIM) for this study.	PacifiCorp will use a PHABSIM approach to IFIM.
Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 22	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.	Comment noted. PacifiCorp will consult with stakeholders on methods and flow proposals.

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Study Request – Relationship Between Streamflow and Aquatic Habitat	ODFW (Letter June 23, 2011) – Pg 22	ODFW does [sic, recte not] support the alternative methods proposed in the PAD because they were not designed for assessing flow on relatively small, high gradient, mountain streams.	We intend to use methods appropriate for the size and gradient characterized by the lower reach of the East Fork bypass.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Stream Macroinverte-brates	ODFW (Letter June 23, 2011) – Pg 23-24	The study requirement is to sample stream macroinvertebrates for one season (spring, summer and fall) using stream kick-net or Server 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 Wallowa River upstream of the project to compare the reaches above and below the project and evaluate any potential effects of the reduced bypass flows on aquatic macroinvertebrates. No specific information is available for the macroinvertebrate community inhabiting the natural and bypassed portions of the East Fork Wallowa River and Royal Purple Creek (PAD Section 3.3.3). The Project is operated by withdrawing water from the East Fork Wallowa 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.	**PacifiCorp proposes to conduct a one-time Rapid Bio-assessment for macro invertebrates in September 2012. A representative riffle will be sampled in the following three locations of the East Fork Wallowa River: 1) above the forebay, 2) in the high gradient portion of the bypass reach above the lower penstock trestle, and 3) in the low gradient portion of the bypass reach below the lower penstock trestle.**

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Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pg 25	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.	Comment noted.
Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pg 25	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.	Comment noted. PacifiCorp is currently proposing to use only 13mm duplex PIT tags.
Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pg 25	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.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pg 26	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.	PacifiCorp agrees, thus the identified and proposed studies to further evaluate fish use of the Project.
Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pgs 26 & 27	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))	PacifiCorp agrees.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pg 27	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.	Comment noted.
Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pg 27	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.	If warranted, provisions for a second year of data collection where included in the proposed study plans if an insufficient amount of data is collected in the first year.
Study Request – Evaluation of Fish Use	ODFW (Letter June 23, 2011) – Pg 28	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.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 28	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.	General wildlife surveys are included in the Revised Study Plan for Terrestrial Resources.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 29	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.	Comment noted.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 29	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.	No protocol surveys for amphibians currently exist. There are a few general amphibian survey methods that will be used within the Study Area. These include use of dip nets and visual inspection to survey for presence/absence of amphibians within the aquatic habitats of the Study Area. The Revised Study Plan provides a detailed description of the methods proposed.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 29	The maintenance road and penstock are Project facilities. Maintenance and operation of Project facilities may result in disturbance to wildlife or impacts to habitat.	Comment noted.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 29	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.	General wildlife surveys are included in the Revised Study Plan for Terrestrial Resources.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 29	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.	Both the field survey dates for botanical, noxious weed, and wildlife study are clearly identified in the Revised Study Plan for Terrestrial Resources.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pgs 29 & 30	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.	General amphibian survey methods will be used within the Study Area. These include use of dip nets and visual inspection to survey for presence/absence of amphibians within the aquatic habitats of the Study Area. Botanical and noxious weeds surveys will be conducted in aquatic habitats. The Revised Study Plan for Terrestrial Resources provides a detailed description of the methods proposed.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 30	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.	Comment noted. These methods are included in the Revised Study Plan for Terrestrial Resources.

Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	PacifiCorp Response
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 30	Record evidence of mammals by documenting tracks, scats, burrows, and remains. Sample rocks, logs, and vegetative litter for concealed amphibians.	Comment noted. These methods are included in the Revised Study Plan for Terrestrial Resources.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 30	Survey the forebay and aquatic habitat for aquatic amphibians both visually and by using hand nets to capture, identify, and release larvae and adults.	General amphibian survey methods will be used within the Study Area. These include use of dip nets and visual inspection to survey for presence/absence of amphibians within the aquatic habitats of the Study Area. Amphibians encountered during the aquatic species presence\absence (electroshocking) study will be recorded.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 30	Consult with ODFW regarding the appropriate timing to conduct wildlife surveys.	The Revised Study Plan for Terrestrial Resources provides a description of the timing of wildlife surveys proposed.
Study Request – Wildlife Observations	ODFW (Letter June 23, 2011) – Pg 30	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 samples with definitive sampling periods and appropriate sampling effort.	General wildlife surveys for both terrestrial and aquatic habitats are included in the Revised Study Plan for Terrestrial Resources.