

# **COVER SHEET**

**FEDERAL ENERGY REGULATORY COMMISSION**

**FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR THE LEWIS RIVER PROJECTS**

**Docket Nos. P-2071-000, et al.**

**Appendix A  
Staff Response to Comments on the Draft EIS  
Pages A-1 to A-27  
FEIS**

## **APPENDIX A**

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### STAFF RESPONSE TO COMMENTS ON THE DRAFT EIS

The Commission issued the draft EIS on September 23, 2005, and the U.S. Environmental Protection Agency's notice of availability of the draft EIS was issued on September 30, 2005. Comments on the draft EIS were due on November 23, 2005. The following entities filed comments pertaining to the draft EIS.

<b><u>Commenting Entity</u></b>	<b><u>Date of Letter</u></b>
American Rivers	November 23, 2005
Cowlitz Indian Tribe	November 23, 2005
Cowlitz PUD	November 22, 2005
National Marine Fisheries Service	November 21, 2005
PacifiCorp	November 23, 2005
Swiftview Owners Group	November 21, 2005
Three Rivers Recreational Area	November 21, 2005
U.S. Department of the Interior	November 17, 2005
U.S. Department of Agriculture – Forest Service	November 21, 2005
U.S. Environmental Protection Agency	November 21, 2005
Washington Department of Fish and Wildlife	November 16, 2005
Washington State Department of Ecology	November 22, 2005
Confederated Tribes and Bands of the Yakama Nation	November 23, 2005

In this appendix, we summarize the comments received, provide responses to those comments, and indicate, where appropriate, how we have modified the text of the final EIS. The comments are grouped by topic for convenience.

#### **General**

**Comment:** Several commenters note that the Commission has generally recommended comprehensive settlement agreements, and that failure by the Commission to fully adopt the Lewis River SA could threaten the delicate balance of the agreement, which currently

addresses all stakeholder issues. They recommend that the agreement be turned into new licenses for the projects, without modification, and to assist in that process the stakeholders have participated in the preparation of draft license articles, which have been filed with the Commission by the applicants.

**Response:** While the Commission continues to recommend comprehensive settlement agreements as the best way to resolve issues associated with relicensing, some settlement agreements, such as in this proceeding, have provisions that are outside of the Commission's jurisdiction, and therefore are not recommended as conditions of any licenses that may be issued. For the Lewis River SA, there were some measures that we concluded did not have a clear nexus to the projects, should be the responsibility of other government agencies, or were unclear about what the specific measure would be and how it would be related to the projects. Therefore, these measures were not recommended as potential license conditions. Even though these provisions may not be included in the licenses, we believe that they could be successfully implemented outside of the licenses, as part of the legally-binding document (the SA) among the parties.

We will review and consider the draft license articles prepared by the parties, when we prepare articles for any licenses that may be issued for the Lewis River Projects.

**Comment:** Several of the commenters provided a series of detailed but non-substantive comments and corrections for the draft EIS. These commenters noted that the Commission draft EIS was based in large part on the applicants' PDEA and supplemental PDEA, which were prepared by the applicants without the direct involvement of many of the other parties to the SA, which may have resulted in some inaccuracies being carried over to the draft EIS. Other commenters, particularly PacifiCorp and Cowlitz PUD, provided additional details and clarifications for sections of the draft EIS that had been summarized by staff (particularly the description of the SA measures) in an attempt to reduce the size of the draft EIS, but still present the major provisions of the SA.

**Response:** We have carefully reviewed these comments, corrections, and clarifications, and have made corrections to the final EIS where appropriate.

### **Need for Power**

**Comment:** American Rivers commented that the final EIS should include an analysis of how potential new energy sources (wind, geothermal, solar and hydrogen fuel cells) relate to the assertion that this project only displaces non-renewable energy sources.

**Response:** Our opinion that combustion turbines fueled by natural gas would be the most likely resource to replace the project power is based on the probability that the project would be used to displace fossil-fueled generation. Combustion turbines are the most rapidly growing form of fossil-fueled generation. It is unlikely that renewable

generation resources would replace hydropower as long as there are more economical fossil-fueled generators available to off load.

## **Water Resources**

**Comment:** WDOE suggests using the Water Quality Adaptive Management Plan (WQAMP), developed by PacifiCorp, in the final EIS analysis of water quality. WDOE believes the WQAMP contains useful information about how to address turbidity during construction, oil spill prevention, and adaptive management of the gas entrainment problem during ramp-up and ramp-down.

**Response:** PacifiCorp did not file a WQAMP with the Commission, and thus was not available to staff, nor was this specific plan mentioned as part of this relicensing effort. Regardless, PacifiCorp did propose to develop a water quality monitoring plan to monitor for exceedances from state water quality criteria, and we recommend that as a condition of any licenses issued.

**Comment:** WDOE questions the language on pages 2-40 and 3-33 of the draft EIS, which states that water quality standards are being met at each project; however, several documented numeric water quality criteria exceedances do occur in the project area. WDOE notes that additional numeric exceedances are likely to occur in the future as a result of project operations. WDOE recommends that language be added to the final EIS indicating that the objective of water quality management plans should include how present and potential future problems would be corrected.

**Response:** On page 3-33 in the draft EIS, we had indicated that water quality meets the criteria most of the time, and noted the exceedances of the TDG standard. We have modified the language in section 3.3.2.2 of the final EIS to indicate that water quality standards are met in general, making it clear that the criteria are not met absolutely. We also have added discussion of the potential effects of the SA provisions on future TDG levels, and recommend that water quality management plans be developed in consultation with interested parties and filed with the Commission for approval.

**Comment:** WDOE states that the discussion on TDG is insufficient and that the final EIS should contain a more comprehensive discussion of TDG, applicable water quality criteria, and monitoring requirements. Specifically, the final EIS should address the likelihood of TDG production during spill events when the hydraulic capacity of the facilities is exceeded. Additionally, the final EIS should consider the landscape and character of the receiving waters below the dams when discussing TDG and the potential for state water quality criteria exceedances.

**Response:** We have added additional analysis to section 3.3.2.2 of the final EIS to address the potential for elevated TDG levels during spill events.

**Comment:** WDOE indicates that the discussion on DO is insufficient in the draft EIS and that DO levels at the lower depths of Yale and Merwin reservoirs were found to be below 8 mg/L, which if passed downstream would violate the state standards for Class A waters. WDOE, however, states that DO levels below Merwin have continued to meet water quality standards, but that further monitoring should be required to verify that DO levels remain high.

**Response:** The draft EIS adequately characterizes the DO regime within Yale and Merwin reservoirs during the summer, when DO levels would likely be at their lowest. We base this characterization on the one year of water quality monitoring data (1999 to 2000) available for Merwin, and two years of data available for Yale (1996-97). We agree that DO levels recorded downstream of Merwin dam during this period did not violate the state standards for Class A waters. Furthermore, the applicants have proposed, and staff recommends adopting a water quality monitoring plan that would include monitoring sites in the tailraces of each dam, to ensure that state standards are being met. The monitoring plan would also monitor the proposed instream flow releases below Swift dam, to monitor compliance with state and SA criteria.

**Comment:** WDOE commented that the draft EIS contains insufficient information regarding temperature and that the final EIS should contain a more detailed discussion on temperature and applicable water quality criteria. Specifically, WDOE states that the temperature regime in the reservoirs, the temperatures downstream of the dams, and the consequences of the new flow regime on temperatures below Swift No. 1 need to be discussed.

**Response:** The draft EIS adequately characterizes the temperatures in the reservoirs, downstream of the dams, and any seasonal fluctuations, based on the monitoring data described in the above response. Furthermore, we discuss the proposed flows in the Swift bypassed reach and any potential effects on water temperatures within the reach. However, we have added language to section 3.3.2.2 to describe the monitoring that the applicants propose to perform, associated with the proposed flow releases, to assess compliance with state criteria.

**Comment:** WDOE makes several comments related to flows in the Swift bypassed reach. Specifically, WDOE comments that: 1) flows should be continuously monitored and flow information made available to the public; 2) the final EIS needs to recognize the benefits of a second constructed channel to convey water from the channel at the base of Swift No. 1 into the first pool below the Swift spillway; 3) the final EIS should discuss potential need for gravel augmentation in the bypassed reach; and 4) the final EIS should address the need and rationale for monthly flow numbers into the bypassed reach.

**Response:** We have recommended that flows be monitored under the proposed water quality monitoring plan, which would include reporting results to the Commission, which in turn would make results available to the public. The habitat benefits of providing

releases to the Lewis River bypassed reach via a second constructed channel are discussed in section 3.3.3.2. That section also notes that gravels in the reach would be affected by spillage events from Swift dam, although there is insufficient information available to determine if gravel augmentation would be required now or in the future. Compliance with the required minimum flows would be documented as part of the water quality monitoring plan.

**Comment:** WDOE clarifies the status of the water quality standards and corrects the language on page 3-17 of the draft EIS.

**Response:** We have updated the language to be consistent with how WDOE evaluates water quality with state criteria.

**Comment:** WDOE comments that the applications for 401 Water Quality Certification, dated February 3, 2005, and described in the draft EIS are outdated. The applicants have been asked by WDOE to withdraw and reapply for their Certification, and the new date should be presented in the final EIS.

**Response:** We have made the recommended change in the final EIS. PacifiCorp and Cowlitz PUD withdrew their initial applications and filed new applications for 401 Certifications at the Lewis River projects on December 2, 2005. We also note that WDOE has published draft 401 Certifications for the four Lewis River Projects for public comment ([http://www.ecy.wa.gov/programs/wq/ferc/wq\\_certs.html](http://www.ecy.wa.gov/programs/wq/ferc/wq_certs.html)). We have included that information and a review of the draft 401 Certifications in section 3.3.2.2 of the final EIS.

**Comment:** WDOE suggests adding the italicized language to the bullet on page 3-117 of the draft EIS so that it would read “Development of monitoring plans *and fixing problems* that address TDG and other state water quality standards would help insure adequate water quality conditions for listed fish in the project waters.”

**Response:** To the best of our knowledge the SA does not include the language requested by WDOE, and because that section of the draft EIS describes various provisions of the SA, we did not make the suggested change in the final EIS. The applicants, however, would be required to maintain state standards under conditions of their Water Quality Certifications.

**Comment:** EPA comments that the final EIS should summarize the requirements of the 401 Water Quality Certificate and Water Quality Monitoring Plan.

**Response:** The 401 Water Quality Certification is a separate process administered by the state, and final certification has not been issued. However, WDOE has published draft 401 Certifications for the four Lewis River Projects for public comment, and we have included a review of the draft 401 Certifications in section 3.3.2.2 of the final EIS.

**Comment:** Interior notes that in table 3.3.2-1 the period of record for the various gaging stations are not provided, and some periods would reflect the construction of the dams and corresponding flow modifications. Interior recommends adding the period of record information to the table.

**Response:** We agree with Interior and have added this information to table 3.3.2-1 in the final EIS.

**Comment:** PacifiCorp, in commenting on the draft EIS analysis of high runoff procedures, states that it does not know precisely how pre-releases would affect storage in the reservoirs and suggests alternative language to present a more accurate description of potential operations.

**Response:** We have adjusted the description of project operations in section 3.3.2.2, *Water Resources*, in the final EIS to better describe pre-releases operations.

**Comment:** PacifiCorp and the Cowlitz Tribe commented that the source of water for the Swift bypassed reach minimum flow is not directly from within Swift No. 1 reservoir, but from the Swift No. 2 canal. Water in the canal has passed through the Swift No. 1 powerhouse and originates from within Swift No. 1 reservoir at about 122 feet below full pool.

**Response:** Section 3.3.2.2, *Water Resources*, of the final EIS has been updated to clarify this point.

**Comment:** PacifiCorp comments that the discussion on page 3-35, that continuous flows would be released from Swift No. 1 into the Swift No. 2 canal is inaccurate, and that passing a continuous flow from Swift No. 1 to the Swift No. 2 canal is not feasible. PacifiCorp suggests this sentence be deleted and that the discussion be modified to indicate that TDG problems can be solved with upgrades to the Swift air entrainment system, similar to what occurred at the Yale Project.

**Response:** We have clarified the text in section 3.3.2.2, *Water Resources*, to reflect PacifiCorp's comments.

**Comment:** PacifiCorp comments that the attraction flows analyzed on page 3-35 for the Merwin fish collection facility are intended to be similar to what is currently used; that is, water is pumped from the tailrace to provide attraction flows. Therefore, temperature differentials would not exist due to attraction flows.

**Response:** We have added a sentence to section 3.3.2.2, *Water Resources*, to address the mechanics of where and how the attraction flows would be provided.

**Comment:** PacifiCorp suggests incorporating by reference the cumulative effects analysis provided in the PDEA and SPDEA for the discussion on pages 3-37 to 3-38.



**Response:** The discussion in section 3.3.2.2 is adequate to summarize the cumulative effects on water quality. This section need not be exactly the same as what the applicants filed in the license applications.

**Comment:** PacifiCorp states that the recommendation that each of PacifiCorp's licenses require a weather radio transmitter to notify the public of flood events is inconsistent with section 12.6 of the SA, which requires only that PacifiCorp reimburse NOAA National Weather Service for the installation and maintenance of a weather radio transmitter at Davis Peak. PacifiCorp also points out that NOAA and PacifiCorp signed a Memorandum of Understanding for this transmitter on August 23, 2003, and NOAA has already constructed and currently operates the transmitter, using the National Weather Service frequency that is unavailable to PacifiCorp.

**Response:** We have corrected the final EIS to reflect the details of the Memorandum of Understanding between PacifiCorp and NOAA National Weather Service, and have made our recommendation on this issue consistent with the SA. However, we also recommend that should NOAA propose to shut down the operation of the weather radio transmitter in the future, that PacifiCorp must file a plan with the Commission on how it would continue the operation of the transmitter.

## **Aquatic Resources**

**Comment:** Several commenters have expressed concern about Commission staff's recommendation that the In Lieu Fund not be included as a condition of the licenses. They believe that it is a key element in the adaptive management framework of the SA that allows an alternative approach to anadromous fish restoration, should the originally-planned approach not be successful, and that it should be a requirement of the license because failing to do so would substantially shift the delicate balance of the SA, and could result in the abandonment of the SA by certain parties, should it become financially advantageous in the future. They believe that it would be more difficult to enforce this provision of the SA if it is not a condition of the licenses. Furthermore, they state that the Commission's involvement is a key prerequisite to any mitigation measures under the Fund, and that the involvement of other agencies in selecting mitigation measures does nothing to diminish the Commission's role in approving the final list of recommended measures, as outlined in section 7.6.2 of the SA. The parties also indicate that the SA provision for Review of New Information (section 4.1.9), which has not been rejected by Commission staff, is the process leading up to the decision to implement the In Lieu Fund. Either both the In Lieu Fund and the Review of New Information provisions should be included in the licenses, or neither should be in the licenses.

**Response:** As indicated above under "General" comments, the Commission can only regulate entities within its jurisdiction (such as licensees), and has no jurisdiction over the National Marine Fisheries Service or the U.S. Fish and Wildlife Service (the Services), who are the two agencies that would ultimately decide whether the In Lieu Fund should

be implemented. In addition, the Commission can not delegate its regulatory authority over licensees to another agency. That is the underlying staff concern related to the In Lieu Fund – that the decision to implement this recommended measure would be made by other agencies, without any involvement or approval by the Commission. The other issue is that, although the SA provides a list of the potential measures that could be implemented under the Fund, there is no certainty as to which of the measures would actually be implemented, or whether those measures would have a clear nexus to the projects.

The commenters on the draft EIS did not offer any new information on what measures would be funded under the In Lieu Fund, but clarified that section 4.1.9 of the SA provides the process for making the decision to implement the Fund. Under that section the licensee would inform the Commission of any determination by the Services that one or more of the fish passage facilities should not be built, and that PacifiCorp should provide funds for projects in lieu of fish passage, as set forth in section 7.6. Section 7.6 describes funding levels for the In-Lieu Fund, and methods for proposing, reviewing and selecting the alternative measures. Section 7.6 also requires the licensees to submit an annual report of proposed mitigation measures to the Commission; however, the section contains no language that provides for Commission approval of the measures, as some of the commenters suggest there is.

Based on the commenters' clarification of section 4.1.9, however, it appears that section could also provide the mechanism for Commission approval of the decision to implement measures in lieu of fish passage. That would alleviate our concern that implementation of measures in lieu of fish passage would not have a clear nexus to the projects or proceed without Commission approval. Therefore, if fish passage is not feasible or inappropriate and the licensees propose to implement measures in lieu of fish passage, we are recommending that the licensees file, for Commission approval, a report that presents the rationale for how the decision to forego fish passage was made, and a plan that describes the administrative procedures for determining which specific measures in lieu of fish passage would be implemented. The plan should describe how those measures would provide a demonstrated benefit to resources affected by project structures or operations and how they would meet the objective of achieving benefits to anadromous fish populations equivalent to or greater than benefits that would have occurred if passage had been provided. We are also recommending Commission approval of all plans and measures in lieu of fish passage that are proposed, before they are implemented, and that all proposed measures demonstrate a clear nexus to the projects or project effects. The licensees should annually develop and submit for Commission approval a plan that describes all plans and measures proposed for funding in the following year. This plan could be prepared as part of the annual report required by section 7.6 of the SA.

Thus, while we are recommending the intent of the In Lieu Fund, that is, implementation of measures necessary to protect and enhance Lewis River salmonid populations in lieu

of fish passage, we are not recommending that the \$30 million earmarked for the Fund by the SA be included as a license condition, because of the unknown nature of what measures would be implemented, or their costs.

**Comment:** Several commenters disagree with the Commission staff determination that the Aquatics Fund should be subject to Commission approvals for any projects implemented under the Fund, and that the Fund only be used for projects within the project boundary or specifically tied to project structures or operations. They believe that Commission approval of every project will significantly impede the effectiveness of the fund, and that the Commission has approved similar funds on other recently-licensed projects. They also urge the Commission to allow a broader application of the Fund throughout the Lewis River Basin, because of the wide-ranging effects of the projects on anadromous fish populations throughout the basin.

**Response:** Measures to be funded by the Aquatics Fund must mitigate for project effects, or have a clear nexus to the project. Section 7.5 of the SA states that measures under the Fund “may include, *without limitation* [emphasis added], projects that enhance and improve wetlands, riparian, and riverine habitats; projects that enhance and improve riparian and aquatic species connectivity that may be affected by the continued operation of the Projects; and projects that increase the probability for a successful reintroduction program.” Further, section 7.5.3.1 of the SA states that the licensees shall evaluate resource projects with the objectives of (1) benefiting fish recovery throughout the North Fork Lewis River, with priority to federally ESA-listed species; (2) supporting reintroduction of anadromous fish throughout the basin; and (3) enhancing fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River. That section also states that, for the purposes of section 7.5, the North Fork Lewis River refers to the portion of the Lewis River from its confluence with the Columbia River upstream to the headwaters, including tributaries, except the East Fork of the Lewis River. We find this language to be overly broad, and as written may allow expenditures on measures that do not mitigate for the effects of the projects or have a project nexus.

Furthermore, similar to the project selection process described for the In-Lieu Fund, we find no specific requirements in section 7.5 that the licensees seek Commission approval for project selection. We recommend that all aquatic enhancement plans and proposed resource projects be submitted to the Commission for approval before they are implemented, to ensure that these measures have a clear nexus to the projects or mitigate for project effects. We agree with the commenters, however, that Commission approval of each project proposed under the Fund may be cumbersome and result in schedule delays. Therefore, we recommend that the strategic plan and the annual report describing proposed resource projects (as required by section 7.5.3.2 of the SA) be filed with the Commission for approval, so that approval can be made on a suite of projects, instead of individually.

**Comment:** Several commenters expressed concern about the Commission staff's recommendation that the gravel study and subsequent monitoring below Merwin dam be excluded from the license. They stated that, contrary to statements in the PDEA and draft EIS that stated gravels below Merwin dam appear to be stable and that they adequately support current levels of spawning (citing McIssac 1990), that in truth this area has not yet been adequately studied. The study proposed in the SA would be designed to provide baseline information on abundance, size-distribution, and spatial distribution of the spawning gravels below Merwin dam so that potential project effects could be assessed and monitored over the term of the new license. A component of the initial study would be to determine circumstances or conditions that would trigger a need for actions that might be necessary to maintain levels of spawning habitat at current levels. The study would also identify measures that could be implemented to accomplish such maintenance.

**Response:** We appreciate the discussions held with the agencies regarding this issue during the 10(j) teleconference on December 7, 2005. During that teleconference we received further clarification of what information is available regarding this issue, as well as more information on the scope and intent of the gravel monitoring proposed in the SA. We are satisfied that the information to be collected is necessary to monitor the potential effects of project operations on gravels below Merwin dam, and potentially implement actions to maintain existing spawning habitat by augmentation, if adverse effects are documented. We recommend that the gravel monitoring and augmentation program be included in any new license terms.

**Comment:** NMFS requests that the draft EIS be modified to accurately reflect the SA's fish passage plan, and its guiding vision of migration of anadromous salmon past each dam, free to select their own spawning grounds, and free as possible from human interference during migrations.

**Response:** We incorporate language about the vision of the SA Fish Passage Plan into section 2.1.3.7 of the final EIS.

**Comment:** NMFS and American Rivers expressed concerns that the draft EIS states that implementation of the SA will have an overall beneficial effect on aquatic species, or will mitigate for project effects. Their concern is that the term "beneficial to the species" implies a benefit, even when compared to natural conditions, while the mitigation proposed in the SA will instead reduce the effects of the projects on anadromous species and other affected resources. They also express concern that the statements of beneficial effects are not accurate when applied to the environmental baseline that will be used during ESA consultation for listed species.

**Response:** Our use of the phrase "beneficial" refers to the net benefits to be realized to aquatic resources when compared to existing conditions, which is the baseline used for our analysis in the draft EIS. Our analysis shows that implementation of the proposed

mitigation measures would result in an improvement in habitat conditions and fish passage over existing conditions. Such improvements would mitigate for project effects, benefit populations affected by the projects, and, as such, would consequently be beneficial to existing populations of fish in the project areas.

**Comment:** Several commenters did not agree with the use of Ecosystem Diagnosis and Treatment (EDT) modeling results on pg. 3-62 of the draft EIS as a tool for predicting fish production potential, as was presented in the draft EIS. Rather, they state it is a tool that can be used to compare relative fish abundance under various habitat conditions. Further, they believe that with fish passage facilities in place in the project areas that the potential abundance of coho, spring Chinook salmon, and steelhead is far greater than the numbers indicated by EDT modeling and presented in the draft EIS.

**Response:** We understand that the EDT analysis is not meant to be used as an absolute predictor of salmonid abundance. The results presented in the draft EIS were the results of modeling historical habitat conditions (from the 1930's) compared to current habitat conditions, and included estimates of the numbers of fish the current habitat could support if fish passage were implemented. The draft EIS acknowledges that the data included in tables 3.3.3-8 and 3.3.3-9 are estimates. Lacking more specific information to assess the commenters' assertion that the potential abundance of coho, spring Chinook and steelhead would be far greater than the numbers indicated by EDT modeling, we are comfortable in our analysis of this issue. However, we have added a footnote to the discussion in section 3.3.3.2 of the final EIS that NMFS, American Rivers, and the Cowlitz Tribe believe that implementation of the fish passage and habitat measures in the SA would result in populations greater than those predicted by the EDT analysis.

**Comments:** NMFS disagrees with how the project effects were described in the culvert passage discussion on page 3-68 of the draft EIS. They believe that correcting culvert passage problems that affect North Fork Lewis River populations, but that may be outside the project boundary, would help to mitigate effects of the projects on those populations.

**Response:** As we have previously stated, we will support any measures, including culvert passage improvements that have a clear nexus to the projects.

**Comment:** NMFS disagrees with draft EIS statements (page 3-75) characterizing the criteria screens that were evaluated as: 1) unprecedented, 2) creating significant operational difficulties due to debris handling, and 3) performing no better than the proposal by the applicants. NMFS cites the example of screens installed at Rocky Reach dam, which have nearly a 6,000-cfs capacity that could, through a simple design modification, be constructed to accommodate 10,000 cfs without operational difficulty. NMFS also states that since there was no real screen proposal as part of the SA, and no assessment of expected biological performance of any downstream passage system as they have yet to be selected or designed, that it is not possible to conclude in the draft EIS

that performance of such a system would be any better than other systems now proposed by the applicants.

**Response:** The fish screens constructed at Rocky Reach dam accommodate up to 6,000 cfs, which is just over half of the flow that would be required at the Lewis River Projects. Reservoir fluctuations at Rocky Reach typically range between elevations 703 to 707 feet (4-foot range), much less than at the Lewis River Projects (from 4 up to 40 feet). We do not believe that it would be a ‘simple design modification’ to adapt the screens at Rocky Reach for use on the Lewis River due to the many differences between the dams. However, we do agree with NMFS that there is little information with which to quantify the biological performance of the exclusionary screens, and have revised the statement in the section on fish passage (section 3.3.3.2) that implied a quantitative comparison of biological performance of screens and other downstream passage methods. Nevertheless, we agree with the applicant’s decision to eliminate fish screens from consideration for implementation at the project.

**Comment:** NMFS and PacifiCorp state that there is scant mention of the Phase I and II Status Checks and corresponding additional measures, if necessary, in the Staff Recommendations (page 5-19), and that it appears that there is no proposal to include this in the licenses.

**Response:** We recommend the provisions of the SA that include the Status Checks as terms and conditions of any licenses issued (see page 5-1 of the final EIS). We have also revised the text in section 5.1 of the final EIS to indicate that we are recommending Status Checks.

**Comment:** Forest Service comments that the statement in the draft EIS (page 3-66) that placement of LWD immediately below the dams would be the best area to target for LWD placement, may not always be true due to the constraints of hydrology in those areas. Forest Service believes that the LWD program outlined in the SA that allows for placement of LWD elsewhere in the Lewis River sub-basin would also benefit aquatic habitats and species.

**Response:** We agree that LWD placement elsewhere in the Lewis River sub-basin could benefit aquatic habitats and species. However, we believe that options for placement of LWD in reaches below the project dams should be assessed first, and, where reasonable and feasible, should provide LWD habitat in those areas below the dams where it is currently lacking and where it can be tied to direct project effects.

**Comment:** The Forest Service questions the rationale for the draft EIS statement that the current flow regime has resulted in more wetted habitat area in the Lewis River downstream of Merwin dam during the summer and early fall than prior to construction of the projects, by wetting more potential habitat, including more side-channel habitat. The Forest Service believes that this wetted area does not make up for over 40 miles of

riverine habitat that was inundated by construction of the projects, which resulted in a net decrease in available habitat for fish in the Lewis River Basin.

**Response:** We did not state or intend to imply in the draft EIS that the wetted habitat below the Merwin dam resulting from the minimum flow compensates for all lost habitat resulting from inundation that occurred when the projects were constructed. However, the more stable flow regime in summer and early fall results in more wetted habitat when compared to flows that existed prior to the construction of the dams, which were more variable, depending on the water year type. However, for our analysis in the EIS, the baseline is the current flow regime below Merwin dam, prior to implementation of any changes in the regime associated with the SA.

**Comment:** American Rivers believes the entire discussion of Fish Distribution and Abundance should be informed by the work of the NMFS' Technical Review Teams for the Lower Columbia Region. The reports are available online at [http://www.nwfsc.noaa.gov/trt/viability\\_report.htm](http://www.nwfsc.noaa.gov/trt/viability_report.htm)

**Response:** Our existing discussion, with some corrections and updates, adequately describes the existing fisheries in the Lewis River. The report referenced by American Rivers was written to describe measurable and objective attributes of viable salmon populations and ESUs such that delisting criteria can be specified and evaluated. The document describes population-level viability criteria for productivity, abundance, juvenile outmigrants, diversity, habitat, and spatial structure. As such, the criteria are meant as a means to evaluate populations and guide actions that would ultimately lead listed populations towards recovery, although the document does not specify what such actions should be. The draft EIS and final EIS acknowledge the role the Lewis River Projects have had on current salmonid populations, and propose measures that it is hoped would lead towards an increase in affected populations over current levels. The evaluation of whether the proposed measures ultimately succeed at moving populations to a point where they can be de-listed is beyond the scope of the analysis of this final EIS for relicensing the Lewis River Projects.

**Comment:** American Rivers comments that the draft EIS fails to address any of the elements of the hatchery programs included in sections 8.1, 8.2, 8.2.6, or 8.3.2.4 of the SA, and that discussion of these measures should be included in the final EIS.

**Response:** More discussion of the hatchery program measures that are included in the SA has been added to section 3.3.3.2 of the final EIS. However, much of the approach to managing hatchery-related measures described in the SA is an adaptive management process. Actions in the future would be guided by input from the parties to the SA, and therefore, the lack of specific measures to evaluate, necessarily limits the discussion that can be included in the final EIS.

**Comment:** Cowlitz PUD comments that the description of the upstream passage facility above Yale Lake should be rewritten to ensure consistency with the SA language, and to reflect the joint obligation for the upstream passage facilities by Cowlitz PUD and PacifiCorp.

**Response:** The measure has been reworded in section 2.1.3 of the final EIS to clarify the joint obligation of the licensees.

**Comment:** Cowlitz PUD comments that the description of the modular surface collector at Swift No. 1 does not reflect the SA language and instead assigns responsibility for installing downstream fish passage facilities at Swift No.1. While the PUD has agreed to prepare and implement elements of a Monitoring and Evaluation Plan that will occur within the Swift No. 2 project boundary, PacifiCorp will be responsible for other elements of that plan.

**Response:** The measure has been reworded in section 2.1.3 of the final EIS to clarify the obligation of the licensees as outlined in the SA.

**Comment:** Cowlitz PUD suggests revising pg 3-107 of the draft EIS to reflect the Aquatic Coordination Committee (ACC) identification of selection criteria and four potential sites for the juvenile acclimatization ponds, although they also write that one of the sites has already been rejected. They also comment that the description of the monitoring and evaluation plans does not accurately reflect their obligations under the terms of the SA, as their participation in some of the measures is voluntary and outside of the terms of the SA.

**Response:** It is not necessary to include an analysis of the selection criteria and the potential sites for the acclimatization ponds in the final EIS, because no specific site is yet proposed. Once a final site is selected, it would then be the subject of analysis for permitting and for Commission approval. We are unable to analyze voluntary measures taken by Cowlitz PUD that are outside of the scope of this relicensing.

**Comment:** Cowlitz PUD comments that, as written, the description of the conservation covenants for bull trout may be interpreted to mean they are responsible for their own bull trout covenant (Devils Backbone Conservation Covenant) as well as PacifiCorp's covenants.

**Response:** We have modified Table 2.1-4 of the final EIS to reflect that Cowlitz PUD is not responsible for managing PacifiCorp's conservation covenants for bull trout.

## **Terrestrial Resources**

**Comment:** Cowlitz PUD states that the description (in multiple locations in the draft EIS) of the habitat acquisition and protection fund for the Swift No. 1 and 2 projects, and the habitat acquisition and enhancement fund for the Lewis River basin, appears to assign



to Swift No. 2, the responsibility for up to \$9.7 million in funding for wildlife habitat acquisition. Under the SA, Cowlitz PUD has an obligation to establish and maintain a tracking account for the “Swift No. 1 and Swift No. 2 Land Acquisition Habitat Protection Fund.” However, Cowlitz PUD does not have any obligation to provide funding to the account or to any other terrestrial habitat fund.

**Response:** The draft EIS does not recommend that Cowlitz PUD assume the responsibility for the \$9.7 million of funding for wildlife habitat acquisition (see table 4.2-5 in the *Developmental Analysis* section of the final EIS for a detailed accounting of the costs attributed to the Swift No. 2 Project). The descriptions, however, are revised for clarity in sections 2.1.3 and 4.2.8 of the final EIS.

**Comment:** Cowlitz PUD notes that it owns all of the lands covered under its WHMP, including the lands in its Devil’s Backbone Conservation Covenant. Under the SA, Cowlitz PUD does not have an obligation to purchase land or easements.

**Response:** The final EIS has been revised to remove the words “via easement” from the sentence in question (page 3-101, last paragraph, second sentence of the draft EIS).

**Comment:** Cowlitz PUD notes that it currently manages its property for natural succession, to the benefit of a broad range of wildlife species, but that the draft EIS has incorrectly described its proposed management practices for its wildlife lands under the SA, by saying that it would allow natural succession to continue. Under the SA, Cowlitz PUD would develop and implement a Wildlife Habitat Management Plan covering a total of 525 acres to benefit a broad range of wildlife species on its project works and Devil’s Backbone properties.

**Response:** Section 3.3.4.2 of the final EIS has been revised to clarify the current and proposed Cowlitz PUD wildlife management practices.

**Comment:** In commenting on page 5-30 of the draft EIS (Cumulative Effects Summary) Cowlitz PUD notes that there will not be any residential or recreational development on Cowlitz PUD project lands. If Cowlitz PUD constructs any roads on its wildlife lands, those roads would be for the purpose of implementing the WHMP.

**Response:** The discussion in question is a general description of cumulative effects in the entire basin, not just development on Cowlitz PUD lands. As such, the discussion is correct. However, we have added some clarification to section 5.2 to indicate that not all project lands would be affected by all types of development.

**Comment:** Cowlitz PUD states that it does not have an obligation to acquire any wildlife habitat lands. As described in Cowlitz PUD’s Swift No. 2 Application for New License and consistent with the May 2003 Order Amending New Licenses, 87 acres of Cowlitz PUD’s Devil’s Backbone lands are covered under the Devil’s Backbone

Conservation Covenant and are already included in the Swift No. 2 project boundary. Under the SA, Cowlitz PUD has agreed to manage the remainder of its Devil's Backbone property for wildlife under its Wildlife Habitat Management Plan. Therefore, the resource benefits of this property will be protected and it is not necessary to include this land in the project boundary.

**Response:** Any lands managed pursuant to a license condition, or if used for "project purposes," should be included in the project boundary, regardless of existing management agreements by the applicant.

**Comment:** The Cowlitz Tribe, in commenting on the effects of project operations, notes that the draft EIS describes that flows below Merwin have resulted in "a more stable riparian community." It states that riparian stability is not a benefit, and that riparian zones and floodplains are severely simplified and their productivity is impaired by the hydrologic 'stabilization' resulting from dams.

**Response:** The draft EIS does not identify riparian stability as a benefit. Instead, it simply states (section 3.3.4.2) that the current riparian community is more established below Merwin dam, because the projects have acted to reduce the magnitude and frequency of some flood flows, although extreme high-flow events would continue to occur and affect riparian vegetation. In our description of the proposed flow releases in the Lewis River bypassed reach, we in fact note that, "The variable nature of the flows could also benefit riparian communities by providing a greater plant species diversity."

**Comment:** PacifiCorp notes that a sentence on page 2-19 of the draft EIS states that PacifiCorp voluntarily manages most land within the boundary of the Swift No. 1 and Yale for the benefit of wildlife. Please revise this sentence to read: "PacifiCorp voluntarily manages its entire ownership, both inside and outside the project boundaries, for the benefit of wildlife."

**Response:** PacifiCorp's suggested revision is overly broad. It is our understanding that the lands containing the actual project facilities are not managed for the specific benefit of wildlife, although we agree that limiting development on those lands may be beneficial to wildlife.

**Comment:** PacifiCorp notes that in draft EIS table 2.1-4, under "Habitat Management," the proposed measure to "Develop and implement a WHMP on project lands using HEP as a baseline" is identified to begin "prior to issuance of new licenses." This is not consistent with the intent of the SA. PacifiCorp and the Terrestrial Coordination Committee (TCC) are making significant progress on the WHMP. PacifiCorp (per section 10.8.1 of the SA) has been meeting with the TCC since January of 2005 to establish the goals and objectives for the WHMP. As of this date, these goals and objectives have not been completed. Once these goals and objectives are complete, the remainder of the WHMP will be written for approval by the TCC and submitted to the

Commission. It is anticipated that the WHMP will be completed within 6 months *after* issuance of the license for the Merwin Project.

**Response:** Table 2.1-4 of the final EIS has been revised to correct this information.

**Comment:** PacifiCorp does not believe that lands acquired and/or managed under the land acquisition funds and the WHMPs should be brought into the FERC project boundary.

**Response:** Any lands managed pursuant to a license condition, or if used for “project purposes,” should be included in the project boundary, regardless of existing management agreements by the applicant.

### **Recreational Resources**

**Comment:** WDFW comments that the proposal in the draft EIS to exclude the existing lower river fishing access sites from the new licenses came as a surprise. The measure as proposed would continue to provide the same boat launch and shore fishing access sites that were provided in response to a license article in the existing Merwin license. The only change from existing conditions is to provide sanitation facilities (outhouses) and picnic tables. During the relicense discussions, the lower river fishing access sites were considered as part of the existing “baseline” condition. The SA proposes to continue maintaining the fishing access sites that were developed as part of the earlier license, so they will continue providing the opportunity for salmon and steelhead fishing in the river below Merwin dam. In recognition of the need to modernize past sanitation practices, the agreement includes new outhouses at the sites to protect water quality and human health. WDFW recommends that the Commission not apply the limitations of project boundary as a way to abandon existing measures that address project resources and effects.

**Response:** The Commission’s jurisdiction over recreational sites and funding is contained to activities within the project boundary. Recreational use of sites downstream of the project is not directly tied to project operations. As these sites are outside of the project boundary, and there is not a nexus between these sites and the project, we do not recommend including funding for these measures in any new license for the project.

**Comment:** PacifiCorp and the Forest Service state that the visitor’s center is not part of the licensed projects or necessary to carry out project purposes. To the contrary, the SA parties were explicit in designating non-project lands outside the project boundaries for this purpose (SA section 13.2.4.1). In addition, while the visitor’s center could be used to curate cultural artifacts, it is certainly not required for that purpose as an alternative facility for that purpose is identified in the SA.

**Response:** As proposed in the SA, the visitor information facility would be developed immediately adjacent to the projects, would provide public information about recreational

opportunities at the projects, and it would be owned and maintained by PacifiCorp. The projects are the primary recreational attraction in the vicinity of Cougar and, as acknowledged in the Joint Explanatory Statement, the visitor center would provide benefits to project visitors. As proposed, there is a clear nexus with the projects and we continue to recommend in the final EIS that the visitor information facility be included in the project boundary.

**Comment:** PacifiCorp and the Forest Service state that FR 90 serves many public purposes, including access to private homes and public lands. The SA parties do not intend that the licensees would have any obligation for the maintenance of FR 90 beyond annual funding to assist in these maintenance needs (the utility portion represents approximately 10 percent of the estimated cost of periodic maintenance), nor would the licensees be performing any maintenance themselves. The Commission can require the licensees to participate in funding the maintenance, but whether the road is inside the project boundary or not, only the Forest Service can perform the maintenance.

**Response:** In the draft EIS, we found that the road has a direct nexus to the project because it provides the sole access to project recreational facilities along Swift Creek reservoir and is used by the licensee to access project works for O&M purposes. We also noted that FR 90 has a physical nexus with the project in that key portions of the road are in very close proximity to and runs parallel to the length of the Swift Creek reservoir and project works. We concluded that adding the road to the project boundary would not affect land ownership and would not necessarily obligate the licensee to be fully responsible for O&M of the road. However, based on the comments filed on the draft EIS, it is more apparent that FR 90 is primarily a multi-purpose road with many more uses than just to access the project facilities. Therefore, we are no longer recommending that portions of the road be included within the project boundaries. Based on the decision that the road should not be considered a project facility, we are also no longer recommending that the licensee provide funding for maintenance of the road, as a condition of the license.

**Comment:** Forest Service states that there is no reason for requiring sections of Forest Road 90 to be added to the project boundaries for Swift No. 1 and No. 2 projects. The sole obligation of PacifiCorp and the Cowlitz PUD (collectively, the utilities) with regard to FR 90 under the SA, is to provide annual funding amounts to the Forest Service for their share of the estimated maintenance needs for FR 90. The utilities' share is only a small portion of the total estimated annual and periodic maintenance needs for FR 90, amounting to only approximately 10 percent of the estimated annual and periodic maintenance requirements of FR 90 over time (Roland 2003). Periodic maintenance costs increase substantially with the presence of two bridges that cross major drainages and another bridge that is needed to cross the power canal for the Swift No. 2 project (Joint Explanatory Statement [JES] for the SA 2004, pg. 35). However, under the SA, the utilities' do not have any obligation for the maintenance of FR 90 beyond annual

funding to assist in these maintenance needs. Nor would the utilities be performing any of the maintenance themselves. FR 90 receives a substantial amount of use that is not for project purposes (JES, Pg. 35, Forest Service Filing, Encl. 1). While FR 90 does provide the primary access to the Swift No. 1 and Swift No. 2 projects, as well as to project-related recreation facilities adjacent to Swift Creek Reservoir and elsewhere, Forest Service is responsible for conducting maintenance on the road. The road is constructed on lands for which the Forest Service holds an easement, conveying authority to construct and maintain the road, but without real property interest. Commission staff's requirement to add the applicable section of FR 90, presumably beyond that which is already included within the project boundary (e.g. Swift No. 2) into the project boundaries accomplishes no purpose. The Commission can require the utilities to provide the funding amounts identified in the SA, but whether the road is inside a project boundary or not, only the Forest Service can accomplish the overall maintenance needs by utilizing those funds provided by the utilities, in combination with other maintenance funds.

**Response:** Please see our above response to the previous comment.

**Comment:** Forest Service disagrees with Commission staff that other measures in the SA are sufficient to address project-related dispersed camping use of NFS lands. Dispersed camping occurs on NFS lands both at the upper end of Swift Creek Reservoir and particularly north of Yale Reservoir. Some of this dispersed camping use is project-related (JES pg. 24), and these dispersed sites are being used on peak use weekends when PacifiCorp campgrounds are full around the reservoirs, as well as at other times. The Recreation Needs Analysis (EDAW 2001) identifies that 5 to 10 percent of the participants in the survey at undeveloped dispersed recreation sites in the vicinity of the projects reported that their main destination was associated with specific project reservoirs, with Yale Lake being the highest (10 percent). Some campers prefer to use dispersed campsites over developed campgrounds, either for additional privacy or just personal preference. Since dispersed camping on NFS lands is free, there also seems to be an increase in use of these areas once PacifiCorp started to collect fees at their campgrounds. Whether the dispersed camping is over-flow from PacifiCorp campgrounds or an aversion to paying fees for camping at project facilities, there is a project nexus for this use. Provisions contained in the SA, while improving the overall developed camping facilities to meet increased demand, do not resolve the need to protect NFS lands from project-related dispersed camping use. As the SA provisions for expansion and improvements at both Beaver Bay and Cougar campgrounds (SA, pg. 89) are scheduled for later in the license term (year 13 or when a trigger is reached, respectively), they do not address those current situations where they are at or near capacity on peak-use weekends (draft EIS, pg. 3- 132). The improvements will also not address the aversion of some campers to paying for camping next to the reservoir, when they can utilize a dispersed campsite without paying a fee and then return to the project reservoirs to recreate. As both Beaver Bay and Cougar campgrounds will remain closed during the November elk season, this will also continue to displace some hunters who

will utilize dispersed campsites on NFS lands. The parties' interest to resolve the effects of the projects related to both recreation uses and opportunities led to the inclusion of this measure as a part of the overall recreation package, and the effects of the projects are not addressed on NFS lands in the absence of this measure. This measure would enable the Forest Service to better manage the dispersed camping use in these areas over the next license term.

**Response:** The Forest Service makes an argument for establishing a nexus with the projects, for the dispersed campsites. However, that nexus is not strong enough for us to recommend that the licensee provide funding to the Forest Service for the dispersed camping. Although there could be some short-term shortages in available campsites in the interim period before the future facilities are built, there is no need to mitigate for all shortages that may occur during this period. It may be appropriate to fund any such sites that may be within the project boundary, but there is insufficient information in the record to indicate where the sites are located, and by their nature as being "dispersed," there may not be a total accounting of where many of the sites are located. If funding is required, any dispersed sites covered by the funding should be included in the project boundary, because these sites would be considered part of the project purposes. However, because many of these sites may not be well known or mapped in any way, or can be tied directly to the projects, we do not recommend funding for the dispersed sites at this time.

**Comment:** Forest Service comments that the parties intend that the SA and the Recreation Resource Management Plan (RRMP) be consistent as to the measures described, with the only difference between the RRMP and the SA being the timing as provided in section 11.2 of the SA.

**Response:** We agree that the RRMP should be generally consistent with the SA, and we recommend such consistency in the final EIS.

**Comment:** Forest Service states that the SA and RRMP-proposed measures regarding overnight uses in the area of the projects should accommodate most of the projected overnight use over the next license term. This, however, is based on the inclusion of all of these PME measures into the new licenses.

**Response:** We are recommending in the final EIS that most of the PME measures in the SA be included as conditions of any new licenses, but not all the measures were recommended because they did not have a nexus with the projects, or certain measures should be the responsibility of other agencies. However, not all the measures are required to accommodate overnight visitation to the area.

**Comment:** Forest Service states that while there may not be a "physical nexus" between most of the recreational sites downstream of the Merwin project, there is a direct project nexus. The projects have effects downstream of Merwin dam by altering the timing and

magnitude of river flows and preventing sediment and LWD originating upstream of the projects from reaching the lower river. These effects also influence the recreation uses on this portion of the Lewis River, and although not associated with “displaced” recreational use from the projects above, nevertheless have a nexus to the projects.

**Response:** There are no data in the record to support the premise that project operations affect downstream recreational use or that relicensing the projects would change recreational use from existing conditions. There are no substantial changes in proposed project operations that would alter recreational use patterns at the downstream recreational sites.

**Comment:** The Forest Service agrees the site improvements and improved management strategies within and adjacent to the projects would offset any cumulative adverse effects of increased dispersed recreational use, as long as all of the measures in the SA related to dispersed recreational use are analyzed in the final EIS.

**Response:** We have analyzed all of the recreational measures proposed in the SA and have recommended that most of those measures be included as conditions of any new licenses. We agree that the proposed recreational enhancements would offset any cumulative adverse effects.

**Comment:** Forest Service indicates that the statement on Page 3-150 of the draft EIS, “The Forest Service prohibits commercial harvest and restricts wildlife habitat management activities,” should be clarified to state that commercial timber harvest is prohibited in the Monument and wilderness areas, but is not prohibited everywhere on NFS lands.

**Response:** We updated section 3.3.7.1 of the final EIS to reflect this clarification.

**Comment:** The Forest Service agrees with the SA provisions to assist the Forest Service in the reconstruction of the Canal Bridge and annual O&M costs for maintaining FR 90, and recognizes the project’s direct and indirect effects on Forest Service-managed roads. This suggests that a similar analysis is applicable for the PME measure of providing funding to the Forest Service for management of dispersed campsites on NFS lands.

**Response:** We are no longer recommending funding to the Forest Service for FR 90, because the road appears to be more of a multi-purpose road. Funding to the Forest Service for the Canal Bridge, however, is appropriate because the Canal Bridge has a direct nexus to the Swift No. 2 Project and is located within the project boundary. The bridge provides passage over the Swift No. 2 power canal, and without the bridge FR 90 would end at the canal. For the dispersed campsites, however, some may be close to the projects, but others may not be directly tied to the projects in location, or are associated with project recreational usage.

**Comment:** The Three Rivers Recreation Area requests that during the recreational season from Memorial Day weekend to Labor Day weekend the dam operators be required to maintain reservoir levels within five feet of full pool. In the event of a low water year [as defined by FERC not the licensees], and if downstream conditions dictate lower pool levels, the pool levels in each of the three Lewis River reservoirs be lowered at the same rate. They state that water levels on Swift Reservoir barely provide adequate levels to launch boats or keep private docks floating.

**Response:** The applicant does not propose any measures that would substantively change the way Swift Creek reservoir is managed during the summer months. Currently, summer elevations are generally constant, with median monthly elevations near full pool of about 997 feet msl and daily fluctuations typically less than 1 foot. PacifiCorp also proposes to lengthen boat ramps on Swift Creek reservoir to help improve boat access to the reservoir during the winter flood-control drawdown, which would improve recreational access and opportunities for residents as well as visitors to the Swift Creek reservoir. We have added additional discussion of this issue in section 3.3.6.2 of the final EIS, and conclude that current reservoir operations are adequate to support boating during the primary recreation season (summer), and that lengthening the boat ramps would allow boating during the deeper reservoir drawdowns.

## **Socioeconomics**

**Comment:** Interior comments that the staff-recommended alternative excludes the funding of any full time fish and wildlife law enforcement officer dedicated to the project area. Protecting bull trout would be a high priority for this position, and Interior argues that increased recreational pressure on bull trout is directly related to the ongoing presence of the projects. A stronger law enforcement presence would help protect bull trout from poaching, ensure that fishing regulations are followed, and discourage activities that could harm bull trout or bull trout habitat. They also believe this measure would protect anadromous fish once they are reintroduced, and would increase the likelihood of a successful reintroduction.

WDFW states that the draft EIS on page 5-27 incorrectly concludes that the law enforcement funding would not be directed exclusively towards project resources. That conclusion is inconsistent with the language of the comprehensive SA. The Cowlitz Indian Tribe also supports the comments provided by other parties that funding for law enforcement should be included as a license condition.

**Response:** In the draft EIS, we state that the proposed additional funding for law enforcement could result in improved protection of bull trout and other aquatic and terrestrial species in the project areas. However, as proposed in the SA and described in the Joint Explanatory Statement, the funding to WDFW would be for the direct cost of one FTE law enforcement officer to augment the law enforcement activities provided by the State as part of their responsibility. There is no language in either document that



would indicate that the law enforcement would be contained to project related law-enforcement activities. Section 13.2.1.2 of the SA, indicates that “Such contracts will be to augment land- and marine-based traditional law enforcement activities and patrols in the North Fork Lewis River Basin, provided by state and local government, as part of their responsibilities to protect public health, safety, welfare, and natural resources. Such enforcement activities will be limited to the Project vicinity in the North Fork, provided that some WDFW patrols may be necessary to protect reintroduced species during their migration in the mainstem of the Lewis River.” This appears to be a broad geographical area extending to the base of Mt. Adams and Mt. St. Helens, covering many thousands of acres. We do not find anything in the record to indicate that recreational use of the project is causing adverse affects on the entire North Fork Basin. The applicants pay substantial property taxes for lands within the project areas. The counties, state and federal agencies use these taxes to meet their responsibilities to protect public health, safety, welfare, and natural resources. While we encourage the applicants to continue to work with WDFW and the counties to improve law enforcement in the project vicinity, without a clear nexus to project related effects, we do not recommend that the Commission include this measure in any licenses issued for the projects.

**Comment:** WDFW comments that the draft EIS includes some misconceptions regarding the law enforcement provisions of the SA that should be corrected. On page 5-27, the draft EIS incorrectly reports that “PacifiCorp proposes to continue funding law enforcement...at existing levels and provide additional funds...to support...three additional marine and land based law enforcement officers.” The draft EIS should be corrected to reflect the language of the SA. The enforcement funding provisions in the SA take the place of previous agreements regarding enforcement funding. Another misrepresentation in the draft EIS involves the similar treatment of funding recommendations for enforcement and fire and emergency services. This is a concern because funding for law enforcement is in the SA, whereas fire and emergency services is covered in a separate agreement between PacifiCorp and local officials.

**Response:** We updated the text in sections 2.2.5, 3.3.7.2, and 5.1.5 of the final EIS to reflect this clarification.

## **Developmental Analysis**

**Comment:** Cowlitz PUD clarified that the Upstream Release Structure will be constructed just downstream of the Swift No. 1 Powerhouse, entirely within the Swift No. 1 Project boundary. Cowlitz stated this measure would be a joint obligation of both PacifiCorp and Cowlitz PUD and that the implementation schedule includes an interim flow schedule followed by a 12-month adjustment period.

**Response:** As we discussed at the draft EIS Meeting for the Lewis River Projects on October 27, 2005, two different licensees cannot both be responsible for a flow release

structure located in one or the other's project boundary. Based on the above Cowlitz PUD clarification, we modified the schedule for the measure in the Developmental Analysis for the final EIS. Given that the Upstream Release Structure would be located in the Swift No. 1 Project boundary, we recommend that the Commission assign operational responsibility to PacifiCorp. The releases made from the canal drain would be made within the Swift No. 2 boundary, and we recommend that the Commission assign operational responsibility for this measure to Cowlitz PUD. Because both utilities are taking on operational responsibility for bypass flows, we reassign the costs for those flows in the final EIS, to reflect the agreement on the cost sharing for energy losses that was included in the SA. Regardless of external voluntary cost sharing agreements, however, each licensee would be solely responsible for measures within their respective project boundaries or appurtenant to their project facilities, for the purpose of license compliance.

**Comment:** PacifiCorp notes that in table 4.2-1, under "Develop and implement a WHMP on all suitable project lands using HEP as a baseline," this measure is indicated as having an annualized cost of \$104,200. Section 10.8.2.1 of the SA states that PacifiCorp will provide annual funding for implementation of the WHMP based on the current acreage and type of interest in the land: \$27/acre for fee simple ownership and \$13.50/acre of other interests including conservation easements or similar interests. Based on PacifiCorp's current ownership (10,457 acres), annual funding of the WHMP would initially be \$282,339 (in 2003 dollars). This level of funding would increase as interests in land are acquired with acquisition funds (approximately \$12.2 million) throughout the license period. Assuming that this funding would be utilized equally for both fee simple acquisitions (at \$4,000/acre) and conservation easements (at \$2,000/acre), approximately 4,575 acres of land would be acquired for management under the WHMP with these funds throughout the license period. Using the funding scale above, funds for implementation of the WHMP would then be \$364,689 (2003 dollars).

**Response:** Although we requested detailed O&M costs in our requests for additional information, PacifiCorp only provided a summary cost of O&M measures by discipline. We relied on the Developmental Analysis provided in section 4.2.9 of PacifiCorp's Supplemental PDEA dated November 2004, wherein it was stated that the annual O&M cost associated with the WHMP would be \$200,000, including \$100,000 for reapplication of the HEP midway through the new license. We revised our Developmental Analysis in the final EIS to reflect the above discussion, resulting in an annualized cost of \$366,600 (2005 dollars) for funding the WHMP. Note that since these land acquisitions and matching contributions are phased in over time, the annualized value is less than the ultimate annual contribution.

**Comment:** PacifiCorp, in commenting on table 4.1-5 in *Developmental Analysis*, states that staff omitted \$6.991 million in Merwin capital items supplied by its AIR response dated March 28, 2005.

**Response:** We counted 16 items in the AIR response dated March 28, 2005, totaling \$38.136 million. Our table also includes 16 items totaling \$38.136 million, including the \$6.991 million in Merwin capital items. PacifiCorp later confirmed that its comment about the omission of \$6.991 million was in error, and that we had correctly accounted for the Merwin future capital items.<sup>47</sup> We did inadvertently switch the book depreciation rate for Merwin with that for Swift and have corrected this in the final EIS.

**Comment:** PacifiCorp comments that in table 4.2-4, the timing for hatchery upgrades actually begins in year one and goes through year 4.

**Response:** We have revised the timing in the Developmental Analysis of the final EIS to year 2, in order to more accurately reflect the midpoint of the year 1 through 4 cash flows.

**Comment:** PacifiCorp comments that in table 4.2-5, the timing for the Swift No. 2 upstream collector and Swift No. 1 surface collector should be reversed, with the downstream collector occurring in years 2 through 4.

**Response:** We have reversed the timing on these two measures and recomputed the annualized cost in the Developmental Analysis of the final EIS.

**Comment:** Cowlitz PUD and PacifiCorp, in commenting on the Developmental Analysis, state the reduced energy generation resulting from minimum flows in the bypassed reach would total 5,235 MWh, with 1,361 MWh being Cowlitz PUD's share for the Swift No. 2 Project, and the balance allotted to PacifiCorp's Swift No. 1 Project.

**Response:** See our response to Cowlitz PUD's first comment on the Developmental Analysis, above.

**Comment:** Cowlitz PUD, in commenting on table 4.2-5 of the Developmental Analysis, notes that the timing for the Swift No. 2 upstream collection facility (year 1) and Swift No. 1 downstream surface collector (year 15) should be reversed.

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<sup>47</sup> Record of phone communication. Mark Killgore, The Louis Berger Group, Inc., with Frank Shrier, Relicensing Manager, PacifiCorp, and Stan Satter, Economist, PacifiCorp. Communication to discuss developmental analysis comments on the draft EIS for the Lewis River Project. January 11, 2006.

**Response:** We have reversed the timing on these two measures and recomputed the annualized cost in the Developmental Analysis of the final EIS.