

NORTH UMPQUA HYDROELECTRIC PROJECT

FERC Project No. P-1927

Protection, Mitigation, and Enhancement Measures



2014 Annual Report



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Executive Summary

PacifiCorp is implementing Protection, Mitigation, and Enhancement (PM&E) Measures on the North Umpqua Hydroelectric Project (Project) identified in the June 13, 2001 Settlement Agreement (Settlement Agreement, or SA) and the Federal Energy Regulation Commission (FERC) license (FERC P-1927) issued on November 18, 2003. The license was considered final on October 18, 2005, as defined in the Settlement Agreement. This milestone initiated full implementation of PM&E Measures identified in the Settlement Agreement. This annual report documents PacifiCorp's project and fiduciary activities from January to December 2014.

Representatives from the four federal and three state agencies that signed the Settlement Agreement, in addition to PacifiCorp, function as the Resource Coordination Committee (RCC), which facilitates implementation of the Settlement Agreement. During the reporting period, the RCC conducted four quarterly scheduled meetings that involved opportunities for public participation. As in past years, the RCC again sponsored an on-site public tour of ongoing implementation projects on October 8, 2014.

The PM&E Measures follow a schedule outlined in the Settlement Agreement. License PM&E Measures for this reporting year are those due between January and December 2014.

In 2014, key accomplishments included:

- Consistent with the schedule approved by FERC on September 1, 2011, the Soda Springs fish passage facilities (SA Sections 4.1.1 - 4.1.2) were completed on November 30, 2012. Adult salmon were observed spawning upstream of the dam during November and December 2012 for the first time since 1951. The fish ladder was in operation throughout 2014 with the exception of two maintenance events lasting several days each. Hundreds of adult steelhead, salmon, and trout were observed using the fish ladder to access upstream waters. The fish screen was also in operation throughout 2014 but with longer maintenance and upgrade outages, first in January to install pressure relief panels, and then in early April and late December to perform maintenance after debris events caused the pressure relief panels to open. Precautionary High Flow Procedures and automated operations were developed to reduce the likelihood and magnitude of fish screen damage during high flow events. No major damage from high flow events was experienced in 2014. Hydraulic and biological performance evaluations commenced in 2014, with most of the hydraulic work completed on the fish ladder.
- Monitoring of anadromous fish habitat enhancements (SA Sections 7.2 - 8.3) was completed according to the approved plans. In November, 1,000 cubic yards of spawning gravel was added via sluice pipe immediately upstream of the SA 8.3 habitat structures, and was distributed naturally downstream by subsequent high flow events.
- Seven aquatic connectivity sites (SA Sections 10.6 - 10.7) were constructed in 2014, including four sites on the Clearwater 2 waterway and three sites on the Lemolo 2

waterway. These sites are successfully passing flows and providing uninterrupted aquatic habitat connectivity between habitats upstream and downstream of Project waterways.

- The Stump Lake Potholes wetland enhancement site, the sixth of eight SA-required wetland enhancements (SA Section 11.5), was constructed in October 2014. The USDA-FS completed initial planting efforts in November 2014. Designs for the Fireswamp wetland were approved by the ODFW and USDA-FS in December 2014.
- ODFW hydropower mitigation biologists continued implementation of habitat enhancement plans in the mainstem of Rock Creek near East Fork Rock Creek (SA Section 19.1). Enhancement included installation of large logs and boulders and reconnection and improvement of several side channels. ODFW staff also assisted BLM personnel in the placement of boulders and logs on the mainstem Rock Creek for a total combined, continuous 1.2-mile reach of enhanced habitat. Within the 1.2-mile section of restored reach, spring Chinook salmon spawning surveys tallied 29 total redds. Based on the previous year's spawning surveys, the newly placed habitat provided 24 additional hydraulic micro-habitats suitable for spring Chinook salmon spawning.
- Five-year rolling action plans were again developed in 2014, as part of ensuring compliance with various resource management plans that provide long-term guidance for cooperative management of multiple resources within the Project area (SA Section 21.1).

The RCC met in January to plan actions for the year, as specified in the Resource Coordination Plan. This forum is conducted annually to coordinate the Parties' collaborative efforts in meeting the intent of the Settlement Agreement. Three additional, regularly-scheduled RCC meetings continued to oversee current and future PM&E Measures.

SECTION 1.0 INTRODUCTION

Located on the west side of the Cascades mountain range in southern Oregon, the North Umpqua Hydroelectric Project consists of eight dams that have a combined capacity to generate 194 megawatts of power. The project was constructed between 1947 and 1956.

In the early 1990s, as the expiration of the first FERC license approached, PacifiCorp initiated the relicensing application preparation process with FERC. In June 2001, the relicensing process culminated in the development and signing of the North Umpqua Hydroelectric Project Settlement Agreement. The Settlement Agreement identifies annual reporting requirements that range from fiduciary reporting to narrative description of actions. This annual report represents a calendar year timeframe (January to December 2014) and contains the following reporting requirements:

- SA Section 7.2.3 (amended) Gravel Augmentation Program Funding and Accounting: Written annual report describing the amounts deposited and disbursed.
- SA Section 8.3.5 (amended) North Umpqua River Habitat Restoration/Creation Project Funding and Accounting: Written annual report describing the amounts deposited and disbursed.
- SA Section 19.1.1.3 Tributary Enhancement Program Funding and Accounting: Written annual report describing the amounts deposited and disbursed.
- SA Section 19.3.1 Mitigation Fund Annual Reporting: Written annual report describing the amounts deposited and disbursed.
- SA Section 21.4.2 Environmental Coordinator Reports: An annual report on the activities of the RCC and on the implementation of the PM&E Measures.

1.1 Background

On June 13, 2001, PacifiCorp filed a Settlement Agreement pursuant to FERC Rule 602, 18 Code of Federal Regulations §385.602, to resolve issues concerning the relicensing of the North Umpqua Hydroelectric Project (FERC P-1927). Parties to the Settlement Agreement include PacifiCorp, the USDA Forest Service (USDA-FS), the USDI Fish and Wildlife Service (USFWS), the USDI Bureau of Land Management (BLM), the National Marine Fisheries Service (NMFS), the Oregon Department of Environmental Quality (ODEQ), the Oregon Department of Fish and Wildlife (ODFW), and the Oregon Water Resources Department (OWRD), referred to collectively as the “Parties.” As required by statute, FERC conducted a National Environmental Policy Act (NEPA) process that concluded with a Final Environmental Impact Statement (FEIS) issued in March 2003. Based on the findings of the FEIS, FERC

developed articles for a new license for the North Umpqua Hydroelectric Project. FERC formally issued the new license on November 18, 2003, designating a term of 35 years.

Under the provisions of the Settlement Agreement, the license is not final until all administrative and judicial appeals are exhausted. The license was appealed to the Ninth U.S. Circuit Court of Appeals on May 21, 2004. On September 1, 2005, the Court ruled the case in favor of FERC, USDA-FS, and PacifiCorp. The license was therefore considered final on October 18, 2005.

Copies of the Settlement Agreement and the FERC license are available from FERC upon request or on the PacifiCorp Web site at: <http://www.pacificorp.com/es/hydro/hl/nur.html#>.

1.2 Resource Coordination Committee

SA Section 21 establishes a process to facilitate coordination and decision-making concerning implementation of Settlement Agreement measures. To accomplish this objective, SA Section 21.1 provides for the creation of the Resource Coordination Committee (RCC) consisting of representatives from the signing Parties. The purposes of the RCC, discussed in detail in SA Section 2.0, are to 1) facilitate coordination and consultation on plans developed by PacifiCorp for the implementation of PM&E Measures; 2) coordinate the implementation of PM&E Measures and ongoing monitoring requirements by PacifiCorp; 3) establish appropriate procedures for conducting activities; and 4) establish subcommittees to accomplish these objectives.

1.3 Report Organization and Review

The 2014 North Umpqua Hydroelectric Project Annual Report provides the following information:

Section 1.0 Introduction

Section 2.0 Resource Coordination Committee

Section 2.1 RCC Roles and Responsibilities

Section 2.2 RCC Members

Section 2.3 RCC Meetings

Section 3.0 Protection, Mitigation, and Enhancement Measures

Section 3.1 Implementation of PM&E Measures

Section 3.2 FERC License Actions

Section 4.0 Fiduciary Reporting

Section 5.0 Conclusion

SECTION 2.0

RESOURCE COORDINATION COMMITTEE

This section provides an overview of RCC roles and responsibilities according to the Settlement Agreement and as subsequently implemented. It also presents a summary of RCC meetings held during the reporting period, including major discussion points, decisions, and action items associated with each meeting.

2.1 RCC Roles and Responsibilities

The purpose and role of the RCC, as defined in SA Section 21.1, is to facilitate coordination and implementation of PM&E Measures. The RCC also looks at implementation requirements, and through collaboration and sharing of information, works to achieve desired results. Specifically excluded from RCC responsibility and authority is the administration of the Tributary Enhancement Program and Mitigation Fund set forth in SA Section 19. However, responsible Parties may consult with the RCC concerning measures conducted pursuant to this program and fund.

The structure and process of the RCC is intended to provide a forum to address time-sensitive matters, give early warning of problems, and coordinate member organization actions, schedules, and decisions to save time and expense. As described in the Settlement Agreement, the RCC must endeavor to conduct its business by consensus. However, in the event of disagreements, the Parties may refer disagreements to appropriate policy-level decision-makers. Decisions of the RCC may not usurp the authority of individual Parties or specific governmental agencies identified in the Settlement Agreement as having approval authority regarding specific PM&E Measures.

The RCC is responsible for the following measures pursuant to the Settlement Agreement:

- Facilitate coordination of the implementation of the Resource Coordination Plan (RCP), including ongoing operations and maintenance (SA Section 21.1).
- Coordinate the implementation of PM&E Measures and ongoing monitoring requirements by PacifiCorp (SA Section 21.1).
- Coordinate responses and evaluations specifically assigned to the RCC (SA Sections 8.2.2, 8.3.3, 12.2, 14.3.3, 14.5, 17.8, 19.2.1 and 22.5.2, and SA Amendment Section 7.2).
- Facilitate coordination and consultation on plans developed by PacifiCorp (SA Section 21.1).
- Review and comment on the draft annual report of RCC activities and implementation of PM&E Measures (SA Section 21.4.2).

- Serve as a common point of contact for public information regarding Settlement Agreement implementation.

The following measures are specifically excluded from RCC responsibility:

- Administration of the Tributary Enhancement Program through ODFW's Memorandum of Understanding (SA Section 19.1).
- Administration of the Mitigation Fund through USDA-FS (SA Section 19.3).
- Approval of plans and actions regarding specific PM&E Measures assigned to individual organizations for resource protection (SA Section 21.2).

The RCC defined discrete goals and functional responsibilities to enhance its effectiveness:

- Interpret the Settlement Agreement: Apply provisions to on-the-ground planning and implementation.
- Monitor implementation of the Settlement Agreement as a whole to provide a wider view than one agency's perspective.
- Avoid surprises and errors through effective communication.
- Track progress: Serve as the interface for the Parties as implementation takes place.
- Identify policy issues: As policy issues arise, work collectively to define and clarify the issues and options for transmittal to the executive members of the Parties.
- Provide public information: Serve as a point of information regarding Settlement Agreement implementation with a collective voice.
- Promote efficiency: Share information among organizations; communicate changes in policy, procedure, or regulation; consult before decision-making; and share technical resources.
- Implement the Settlement Agreement collaboratively to ensure that all Parties' interests continue to be valued throughout the new license term.
- Effectively communicate its progress through the development of a Web site at: <http://www.pacificorp.com/es/hydro/hl/nur.html#>.

2.2 RCC Members

The Parties have each appointed a member and an alternate to the RCC. The members are shown in Table 2.2-1. The RCC members work with a designated caucus within their respective organizations.

TABLE 2.2-1
2014 Resource Coordination Committee Members

| RCC Member | Organization |
|----------------|--|
| Pam Sichting | USDA Forest Service, Umpqua National Forest, Roseburg, Oregon |
| Jim Thrailkill | USDI Fish and Wildlife Service, Roseburg, Oregon |
| Anne Shirley | USDI Bureau of Land Management - Roseburg District, Roseburg, Oregon |
| Jim B. Muck | NOAA Fisheries West Coast Region, Roseburg, Oregon |
| Dave Harris | Oregon Department of Fish and Wildlife, Roseburg, Oregon |
| Chris Stine | Oregon Department of Environmental Quality, Eugene, Oregon |
| Craig Kohanek | Oregon Water Resources Department, Salem, Oregon |
| Todd Olson | PacifiCorp, Portland, Oregon |

2.3 RCC Meetings

During the reporting period, the RCC conducted four meetings to review work plans, discuss implementation objectives for current and future PM&E Measures, and facilitate the overall Settlement Agreement implementation. The formal ground rules established and adopted by the RCC provide the functional framework for this collaborative approach. These ground rules are provided on the PacifiCorp Web site at:

http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensing/North_Umpqua_River/RCC_Ground_Rules.pdf

Meeting summaries are drafted and distributed to the RCC members for review and comment. After corrections have been made as appropriate, the RCC approves the summaries by

consensus. Meetings are open to the public for comment, and any comments received are added to the meeting summaries.

This section provides highlights of items discussed at RCC meetings during the reporting period. Detailed meeting summaries are provided on the PacifiCorp Web site at: <http://www.pacificorp.com/es/hydro/hl/nur.html#>.

- Mark Brown (Intermountain Digital) completed his work on the North Umpqua “Continuum” project video. It is a comprehensive view of the entire Protection, Mitigation, and Enhancement Measures program and highlights completion of the Soda Springs fish passage project as well as many other efforts.
- The last phase of the required 401 Water Quality Certification special studies was completed in July. The program now moves into an annual monitoring and reporting phase (Soda Springs water quality station and flow gage sites network), along with periodic pH 5-year interval monitoring at the Lemolo 1 forebay.
- The RCC approved use of \$18,500 from the SA 19.2 fund for Stillwater Sciences to proceed with the development of the Predator Control Program Monitoring and Adaptive Management Plan, for re-initiation of field work in 2015 and beyond.
- The RCC approved use of \$81,871.77 from the SA 8.3 fund for 1,000 cubic yards of gravel augmentation downstream of the Soda Springs fish ladder.
- The annual public tour was held on October 8, 2014.

SECTION 3.0 PROTECTION, MITIGATION, AND ENHANCEMENT MEASURES

This section presents 2014 progress of PM&E Measures defined in the North Umpqua Settlement Agreement and the FERC license. A summary of all documents submitted to FERC and their current status is also presented.

The Parties have agreed to modify the schedule of PM&E Measures, when necessary. In such instances, the Parties convene and modify Settlement Agreement implementation dates if all Parties are in agreement that such modifications are warranted. Delays in implementation are typically needed only to further refine plans for the action in order to ensure greater success.

3.1 Implementation of PM&E Measures

The schedule for all PM&E Measures and their status is presented in Table 3.1-1. The status of the PM&E Measures specific to the timeframe of this report is presented in Table 3.1-2.

During the report period, Settlement Agreement and license actions focused on planning, monitoring, construction projects, and engineering designs. All Parties have worked cooperatively toward meeting Settlement Agreement schedule commitments.

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**TABLE 3.1-1
Protection, Mitigation, and Enhancement Measures
Implementation Schedule**

| Key | |
|-----|-------------|
| | Due Date |
| x | In Progress |
| ● | Complete |

| SA Section | PM&E | YEAR | | | | | | | | | | | | | | |
|---|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024+ |
| 5.0 INSTREAM FLOWS | | | | | | | | | | | | | | | | |
| 5.6 | ODFW Holding Ponds Water Supply | ● | ● | ● | ● | ● | | | | | | | | | | |
| 6.0 RAMPING | | | | | | | | | | | | | | | | |
| 6.2.1 | Slide Creek Ramping Monitoring Plan Implementation | | | | ● | ● | | | | | | | | | | |
| 6.4 | Wild & Scenic Ramping Restrictions | ● | ● | ● | ● | ● | | | | | | | | | | |
| 6.5 | Bypass Reach Ramping Restrictions | ● | ● | ● | ● | ● | | | | | | | | | | |
| 6.6 | Project Maintenance - Appendix D Schedule | ● | ● | ● | ● | ● | | | | | | | | | | |
| 6.7 | Emergency Shutdown Ramp Restrictions | ● | ● | ● | ● | ● | | | | | | | | | | |
| 7.0 RESTORATION OF FLUVIAL PROCESSES | | | | | | | | | | | | | | | | |
| 7.2 | Gravel Augmentation Program | ● | ● | ● | ● | ● | | | | | | | | | | |
| 7.3 | Passage of Woody Debris | ● | ● | ● | ● | ● | | | | | | | | | | |
| 7.4 | Passage of Sediment (if high flows present) | ● | ● | ● | ● | ● | | | | | | | | | | |
| 8.0 MAINSTEM HABITAT ENHANCEMENT | | | | | | | | | | | | | | | | |
| 8.3.5 | Soda Springs Funding and Accounting | ● | ● | ● | ● | ● | | | | | | | | | | |
| 9.0 RESERVOIR AND FOREBAY MANAGEMENT | | | | | | | | | | | | | | | | |
| 9.1 | Stocking of Rainbow Trout Funding | ● | ● | ● | ● | ● | | | | | | | | | | |
| 9.3 | Management of Lemolo Lake Reservoir | ● | ● | ● | ● | ● | | | | | | | | | | |
| 9.5 | Fish Salvage during Shutdowns | ● | ● | ● | ● | ● | | | | | | | | | | |
| 10.0 AQUATIC RESOURCES | | | | | | | | | | | | | | | | |
| 10.6 | Reconnecting Aquatic Connectivity Sites | x | x | x | x | x | | | | | | | | | | |
| 11.0 TERRESTRIAL RESOURCES | | | | | | | | | | | | | | | | |
| 11.5 | Wetland Areas: #6, #7, & #8 | | | x | x | x | | | | | | | | | | |
| 12.0 VEGETATION MANAGEMENT | | | | | | | | | | | | | | | | |
| 12.1 | Vegetation Management Plan Development and Implementation | ● | ● | ● | ● | ● | | | | | | | | | | |
| 12.2 | Noxious Weed Control | ● | ● | ● | ● | ● | | | | | | | | | | |
| 13.0 AVIAN PROTECTION | | | | | | | | | | | | | | | | |
| 13.4 | Records & Database Management System | ● | ● | ● | ● | ● | | | | | | | | | | |
| 14.0 EROSION & SEDIMENT CONTROL | | | | | | | | | | | | | | | | |
| 14.4.3 | Medium Priority Erosion Sites (27) | x | x | x | x | x | | | | | | | | | | |
| 14.5 | Erosion Monitoring | ● | ● | ● | ● | ● | | | | | | | | | | |
| 15.0 TRANSPORTATION | | | | | | | | | | | | | | | | |
| 15.1 | Transportation Management Plan Implementation | ● | ● | ● | ● | ● | | | | | | | | | | |

**TABLE 3.1-1
Protection, Mitigation, and Enhancement Measures
Implementation Schedule**

| Key | |
|-----|-------------|
| | Due Date |
| x | In Progress |
| ● | Complete |

| SA Section | PM&E | YEAR | | | | | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024+ |
| 15.2 | PPL Roads to USDA-FS Standards | ● | ● | ● | ● | ● | | | | | | | | | | |
| 15.3 | Cost Sharing for Joint Roads and Maintenance | ● | ● | ● | ● | ● | | | | | | | | | | |
| 15.5 | Bridges - Inspections/Maintenance | ● | ● | ● | ● | ● | | | | | | | | | | |
| 15.5.1 | Bridge Maintenance Cost Sharing | ● | ● | ● | ● | ● | | | | | | | | | | |
| 15.6 | 100-Year Flood Culvert Upgrades | x | x | x | x | x | | | | | | | | | | |
| 15.6 | Culvert Maintenance on PPL Use Roads | ● | ● | ● | ● | ● | | | | | | | | | | |
| 16.0 AESTHETICS | | | | | | | | | | | | | | | | |
| 16.1 | Aesthetics Management Plan Implementation | ● | ● | ● | ● | ● | | | | | | | | | | |
| 17.0 RECREATION | | | | | | | | | | | | | | | | |
| 17.2 | Recreation O&M Funding | ● | ● | ● | ● | ● | | | | | | | | | | |
| 17.7 | Law Enforcement Funding | ● | ● | ● | ● | ● | | | | | | | | | | |
| 17.8 | Recreation - Capital Improvements | ● | ● | ● | ● | ● | | | | | | | | | | |
| 17.9 | Public Information Funding | ● | ● | ● | ● | ● | | | | | | | | | | |
| 17.10 | Annual Monitoring Funding | ● | ● | ● | ● | ● | | | | | | | | | | |
| 18.0 CULTURAL | | | | | | | | | | | | | | | | |
| 18.1 | Historic Properties Management Plan Implementation | ● | ● | ● | ● | ● | | | | | | | | | | |
| 18.3/18.6 | Site Discovery/Monitoring | ● | ● | ● | ● | ● | | | | | | | | | | |
| 18.4 | Protection, Restoration, and Recovery | ● | ● | ● | ● | ● | | | | | | | | | | |
| 19.0 MITIGATION | | | | | | | | | | | | | | | | |
| 19.1.1 | Tributary Enhancement Account - Use of Funds | ● | ● | ● | ● | ● | | | | | | | | | | |
| 19.2 | Long-Term Monitoring/Predator Control Funding | ● | ● | ● | ● | ● | | | | | | | | | | |
| 19.2.1 | Long-Term Monitoring/Predator Control Disbursements | ● | ● | ● | ● | ● | | | | | | | | | | |
| 19.3.3 | Federal Mitigation Funding | ● | ● | ● | ● | ● | | | | | | | | | | |
| 19.4.1 | Monitoring and Oversight | ● | ● | ● | ● | ● | | | | | | | | | | |
| 21.0 COORDINATION & DECISION-MAKING | | | | | | | | | | | | | | | | |
| 21.1 | Resource Coordination Committee | ● | ● | ● | ● | ● | | | | | | | | | | |
| 21.1 | Resource Coordination Plan - Developed and Implemented | ● | ● | ● | ● | ● | | | | | | | | | | |
| 21.4.2 | Annual Report | ● | ● | ● | ● | ● | | | | | | | | | | |
| 21.5 | Site Specific Plan Development | ● | ● | ● | ● | ● | | | | | | | | | | |

**TABLE 3.1-2
Protection, Mitigation, and Enhancement Measures Status**

| SA Section | PM&E | Due Date | Current Status |
|------------|---|---|--|
| 4.1 | Fish Passage at Soda Springs Dam Design/Construct/Evaluate/Operations and Maintenance | 2012 – complete construction 2014 – complete repairs 2017 – Complete evaluation | Construction was completed and facilities were functional by November 30, 2012. In 2014, the fish ladder remained in service all year and passed hundreds of adult steelhead and salmon. The fish screen was in service most of the year. Performance evaluations commenced this year. The first Operation and Maintenance Annual Report was drafted for RCC review for subsequent filing with FERC in 2015. |
| 4.1.1(f) | Tailrace Barriers | 2007 – Complete construction on Soda Springs 2011 – Complete construction on Slide Creek | Construction was completed on schedule. Hydraulic balancing followed. The biological evaluation was added, and began in 2014. |
| 5.1 | Instream Flow Increases in Project Bypass Reaches | 2005-2038 | New-license-required minimum flows continue to be provided and managed within required ramp rate allowances. |
| 5.5 | Instream Flow Monitoring | 2002-2038 | Monitoring and reporting continued as required in the Plan. |
| 6.2.1 | Slide Creek Ramping Monitoring Plan Implementation | 2013-2020 | A pilot field study was done in October 2013 to refine study methods. Study conditions (aggressive load following operations) did not occur during most of 2014, so field study was not pursued. |
| 6.4 | Wild and Scenic Ramping Restrictions | 2001-2038 | Ramping restrictions have been followed within equipment limitations per the Flow Monitoring Plan. |

| SA Section | PM&E | Due Date | Current Status |
|-------------|---|-------------------------|---|
| 6.5, 6.6 | Bypass Reach Ramping Restrictions | 2001-2038 | Ramping restrictions and reporting requirements have been followed per the Flow Monitoring Plan. |
| 7.2 | Gravel Augmentation Program (as per SA Amendment No. 1) | 2002-2038 | Monitoring of augmentation sites continued per the Plan. |
| 7.3 | Passage of Woody Debris at Soda Springs and Slide Creek Dams | 2002-2038 | Passage of woody debris continued according to the Plan. |
| 8.2.1-8.2.2 | Slide Creek Bypass Reach Habitat Project Implementation/Monitoring | 2002 - 2038 | Monitoring continued according to the Plan. |
| 8.3.2-8.3.3 | North Umpqua River Habitat Restoration/Creation Implementation/Monitoring | 2004-2038 | Annual monitoring occurred according to the Plan. An annual report was submitted to the RCC. Maintenance included the addition of 1,000 cubic yards of spawning gravel at a cost of \$81,872. |
| 9.1 | Funding for Production of Rainbow Trout for Stocking | 2004-2038 | PacifiCorp provided \$22,052 to the ODFW. |
| 9.3 | Lemolo Reservoir Management Plan and Limits on Drawdown Rate and Elevations | 2001-2038 | Water levels and drawdown rates were monitored according to the Flow Monitoring Plan. Lake management and consultation proceeded according to the Lemolo Reservoir Management Plan. |
| 9.5 | Salvage of Fish During Maintenance Shutdowns | 2001-2038 | Advance notice of maintenance shutdowns and the salvage and liberation of fish continued as required. |
| 10.6 | Aquatic Connectivity | Priority 2 sites – 2016 | Seven aquatic connectivity sites were constructed in 2014. A total of seven sites are planned for construction in 2015. Four of these seven sites require dewatering and |

| SA Section | PM&E | Due Date | Current Status |
|------------|---|-----------|---|
| | | | excavation below the flume and will have fully engineered designs completed on or about June 2015. The final ten aquatic connectivity sites are planned for construction in 2016. |
| 11.5 | Wetland Development | 2006-2016 | The Stump Lake Pothole wetland enhancement site was constructed in October 2014. The Fireswamp wetland design was approved in 2014, and the site is planned for construction in 2015. Design development and consultation for the Lake Creek Elk Camp wetland site will begin in 2015 to meet the planned implementation deadline of 2016. |
| 12.1 | Vegetation Management Plan Implementation | 2004-2038 | The Vegetation Management Plan (VMP) is being implemented. Noxious weed treatments are being conducted on both BLM and USDA-FS lands on an annual basis. The noxious weed training program was developed and implemented and will continue on an annual basis per the VMP. The horticultural invasive species program was also developed and implemented and will continue as necessary to satisfy VMP requirements. The 5-year rolling action plan (RAP) was presented to and approved by both the USDA-FS and the BLM in December 2014. The three-year interval noxious weed surveys will be conducted in 2015. |
| 13.1 | Power Pole Modification | 2001-2038 | Transmission structures were replaced and installed on transmission lines within the FERC boundary in 2014, to achieve NERC compliance requirements for under-clearance. |
| 13.4 | Records Database Management System | 2001-2038 | PacifiCorp continues to maintain a database for management of birds on power lines. An annual report summarizing avian-power line |

| SA Section | PM&E | Due Date | Current Status |
|--------------|---|--|--|
| | | | program activities occurring within the Project area was submitted to the USDA-FS in February. |
| 14.2 | Canal Shutoff and Drainage Systems (CSDS) | 2007-2010 | Fish Creek CSDS, constructed in 2008, continues to receive improvements to its communication system. Installation of fiber optic and power cables along the canal alignment, scheduled for June 2015, will provide reliable communications and prepare the site for final testing. |
| 14.4 | Erosion Site Remediation | 2016 | Erosion site remediation was completed at the SC-2 site. |
| 14.5 | Erosion Control Monitoring | 2001-2038 | Erosion sites were monitored and an annual report was produced and distributed to the agencies in December. |
| 15.1 – 15.4 | Transportation Management Plan Implementation | 2004-2038 | The Transportation Management Plan continues to undergo implementation. The 5-year RAP was developed in consultation with the USDA-FS and the BLM. The total cost of road maintenance on roads jointly-maintained by USDA-FS and PacifiCorp was \$165,822, of which PacifiCorp's share was \$27,343. |
| 15.5, 15.5.1 | Bridge Inspections, Maintenance; and Cost Sharing | Biennial - Inspections 2015 – Non-critical Bridge Maintenance 2005-2038 – Cost Sharing | Major progress has been made toward completion of non-critical bridge maintenance and deferred maintenance tasks by 2015. All of the North Umpqua bridges were inspected in 2014 as part of the biennial inspection program. Twenty-four of the bridges were inspected and new load ratings were developed and completed in 2014. The U-29 Cottage Bridge West will be replaced in 2015. |

| SA Section | PM&E | Due Date | Current Status |
|------------------|---|--|--|
| 15.6 | Fish Passage and Q100 Culvert Upgrades | 2005-2015 | All fish passage and Q100 culvert upgrades on PacifiCorp-maintained roads have been completed. The two remaining USDA-FS-owned culverts (6520 at Soda Springs and 6535 Below Soda Springs Plant) on jointly-maintained roads are scheduled for replacement in 2015. PacifiCorp will pay the required cost-share of these replacements for work performed by USDA-FS. |
| 16.1, 16.3, 16.4 | Visual Resources (Aesthetics) Management Plan | 2005-2038 | The Visual Resources (Aesthetics) Management Plan is final and undergoing implementation. The 5-year RAP is developed annually in December. |
| 17.1 | Recreation Resources Management Plan Implementation | 2004-2038 | The Recreation Resources Management Plan is final and implementation occurs through the 5-year RAP process. The RAP is updated annually, approved by the USDA-FS and identified actions are then completed. Detailed descriptions of planned and completed actions are presented in the RAP attachments. |
| 17.2 | Campground Operations and Maintenance | 2004-2038 | PacifiCorp provided \$124,551 to the USDA-FS. These funds are to be used for the operation and maintenance expenses for campground facilities on or near PacifiCorp project waters. |
| 17.7 | Law Enforcement | 2004-2038 | PacifiCorp provided \$10,398 to the USDA-FS for land-based law enforcement support at recreation facilities in the FERC project boundary. |
| 17.8 | Capital Improvements | 2002-2015; future years will be monitoring-dependent | PacifiCorp provided \$51,988 to the USDA-FS. These funds were used for recreation facility capital improvement projects. |

| SA Section | PM&E | Due Date | Current Status |
|------------|--|--|---|
| 17.9 | Public Information | 2004-2038 | PacifiCorp provided \$8,344 to the USDA-FS. |
| 17.10 | Recreation Monitoring Recreation Monitoring (Periodic Surveys) | 2004-2038 2007, 2012, 2017, 2022, 2027, and 2032 | PacifiCorp provided \$8,344 to the USDA-FS. |
| 18.1 | Cultural Resources (Historic Properties) Management Plan Implementation | 2006-2038 | The Historic Properties Management Plan and Historic Structures Plan are both finalized and undergoing implementation. The 5-year RAP is updated annually in consultation with the USDA-FS, the BLM, and the SHPO. Detailed descriptions of planned and completed actions are presented in the RAP attachments. |
| 18.6 | Cultural Resources Monitoring | 2001-2038 | PacifiCorp continues to coordinate ground-disturbing activities with the USDA-FS, the BLM, and the SHPO to assure ongoing monitoring and protection of historic properties. |
| 19.1 | Tributary Enhancement Program | 2004-2038 | Per the ODFW Memorandum of Understanding, work continues on fish habitat enhancements and fish passage improvements. |
| 19.2 | Long-Term Monitoring and Predator Control | 2004-2038 | PacifiCorp deposited \$129,969.81 into the designated fund. Long-term monitoring and predator study work proceeded according to the study plan as refined by the technical working group (TWG). |
| 19.3 | Mitigation Fund | 2004-2038 | PacifiCorp deposited \$1,624,622.67 into the USDA-FS account. A USDA-FS Mitigation Fund Board of Directors (BOD) annually evaluates proposals and selects mitigation projects to be implemented with this funding. Project rankings are completed by the USDA-FS hydropower project review group |

| SA Section | PM&E | Due Date | Current Status |
|------------|-----------------|-----------|--|
| | | | and final recommendations are made by the BOD. The Forest Supervisor of the Umpqua National Forest makes the final decision on project selections. |
| 19.4 | Oversight Costs | 2005-2020 | PacifiCorp provided \$210,551.10 to the ODFW for the funding of two full-time ODFW personnel to help oversee and monitor work associated with the ODFW MOU. |
| 21.4.1 | RCC | 2001-2038 | The RCC continued to facilitate the implementation of PM&Es. It held an annual planning session, one public tour, and quarterly meetings. TWGs also convened if and when necessary, to address detailed consultation issues. |

3.1.1 Major Accomplishments

During the reporting period, PacifiCorp continued progress on implementing PM&E Measures in compliance with the Settlement Agreement. Major accomplishments in 2014 are described below by Settlement Agreement section.

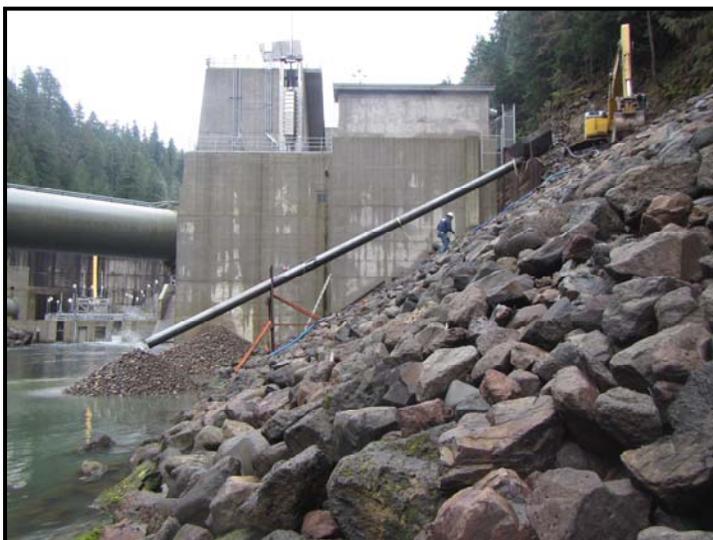
Anadromous Fish Passage at Soda Springs Dam (SA Section 4.1)

The fish ladder was in operation the majority of the year with the exception of a couple of maintenance events lasting several days each. The fish screen was also in operation the majority of the year but with longer maintenance and upgrade outages. The fish screen outages occurred in January, to install pressure relief panels, and in early April and late December to perform maintenance after debris events caused the pressure relief panels to open. The North Intake was opened with the fish screens during portions of July and August to protect the screens from failure while cleaning systems and other components underwent upgrades and maintenance. Precautionary High Flow Procedures and automated operations were developed to reduce the likelihood and magnitude of fish screen damage. No major damage was sustained this year.

Hydraulic and biological performance evaluations commenced this year, with most of the hydraulic work completed on the fish ladder. The first Soda Springs Fish Passage Facility Operation and Maintenance Annual Report was drafted for RCC review. This report covers 2014 activities and will be submitted to the FERC in January 2015. PacifiCorp continued operation and upgrades to the fish ladder video monitoring system. The ODFW continued to analyze the video to enumerate upstream passage of adult salmon and steelhead, along with trout.

Biological monitoring of fish behavior at both the Soda Springs and Slide Creek tailrace barriers was initiated this year. The purpose is to determine whether the existing hydraulic conditions are providing adequate fish protection, as intended.

Anadromous Fish Habitat Enhancement (SA Sections 7.2 - 8.3)



Monitoring was completed according to the respective Plans. In November, 1,000 cubic yards of spawning gravel was added via sluice pipe immediately upstream of the SA 8.3 habitat structures, and was distributed naturally downstream by subsequent high flow events.

Aquatic Connectivity Sites (SA Sections 10.6 and 10.7)

Seven aquatic connectivity sites were constructed in 2014, including four sites on the Clearwater 2 waterway and three sites on the Lemolo 2 waterway. These sites are successfully passing flows and providing uninterrupted aquatic habitat connectivity between habitats upstream and downstream of Project waterways.



Enhancement of Wetland Species Diversity (SA Section 11.5)

The Stump Lake Potholes wetland enhancement site, the sixth of eight SA-required wetland enhancements, was constructed in October. The USDA-FS completed initial planting efforts in November, and supplemental planting is planned prior to spring 2015. Designs for the Fireswamp wetland were approved by the ODFW and USDA-FS in December 2014, and construction and planting of the site are planned for fall 2015.



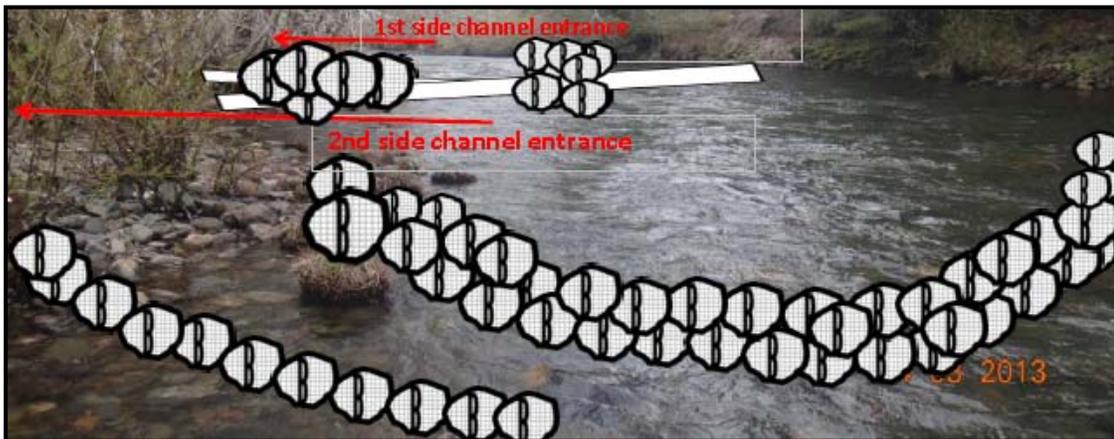
Tributary Enhancement Program (SA Section 19.1)

Implementation of habitat enhancements and other program work by ODFW staff continued, including:

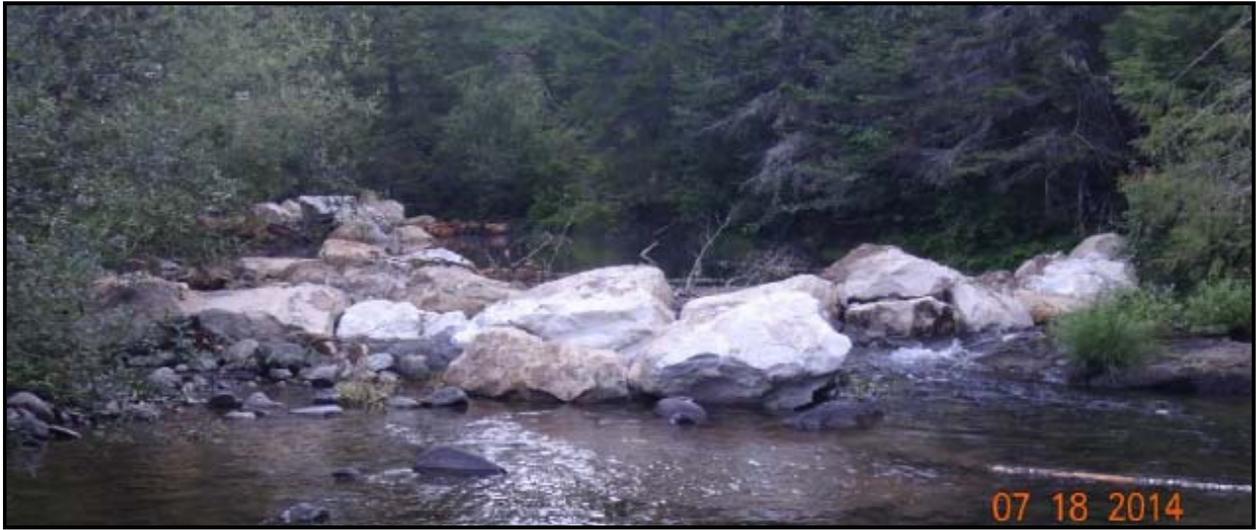
- *Rock Creek Mainstem* - ODFW hydropower mitigation biologists placed a total of 330 large 5'- 6' boulders and 35 (40'- 60') logs in a 3/8 mile section of the mainstem Rock Creek near the East Fork of Rock Creek. Several side channels totaling 300 meters were reconnected and improved as part of the project. ODFW staff also assisted BLM personnel in the placement of boulders and logs on the mainstem Rock Creek. Combining the two projects created a continuous reach of enhanced habitat that covered 1.2 river miles.



Site #1 pre-design -- looking upstream



Site #1 design



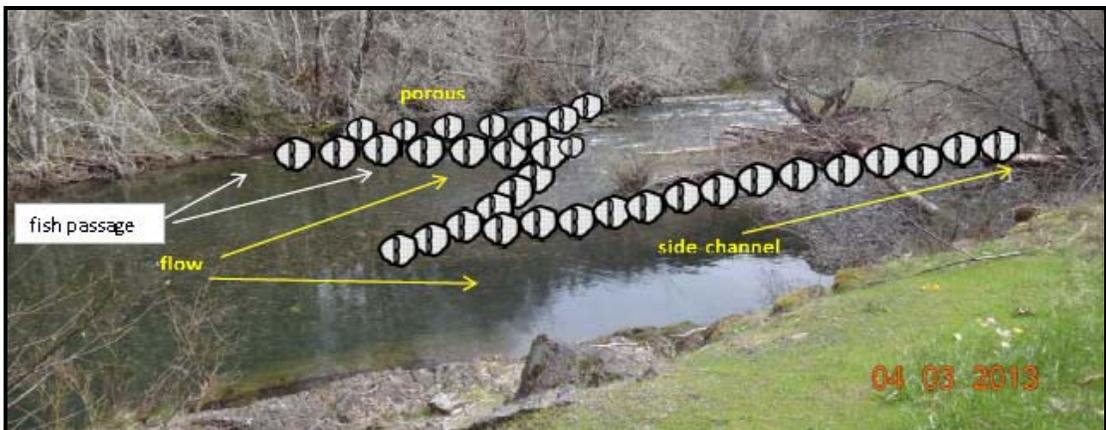
Completed site #1



Aerial view of completed site #1



Site #2 pre-design -- looking downstream



Site #2 design



Completed site #2

Within the 1.2 mile section of restored reach, spring Chinook salmon (CHS) spawning surveys tallied 29 total redds. Based on the previous year's spawning surveys, the newly placed habitat provided 24 additional hydraulic micro-habitats suitable for CHS spawning. The remaining five redds were observed in the tail-outs of last year's pools, indicating that the new habitat has already been successful in addressing some of the limiting factors related to CHS in mainstem Rock Creek.

- *Spawning Surveys* - Adult Coho and Steelhead spawning surveys continued in most reaches previously enhanced, as well as in reaches that are designated for implementation in 2015 and 2016 (Harrington Creek & Mainstem Rock Creek) for pre/post comparisons.
- *Flex Logs* - An estimated 20 truckloads of logs ranging from 4"- 24" diameter were "tossed" into tributaries upstream of structures that were placed over the past several years by a self-loading log truck. Based on the previous year's results these "flex" logs have proven to be an extremely effective and inexpensive method of "seeding" those reaches with additional complexity. The logs are donated by landowners (leftover logs not taken to the mill from logging sites). Depending on availability, the "flex logs" will become a seasonal event.
- *Wapiti Creek Manual Riparian Conversion/Enhancement* - Wapiti Creek is a tributary of the North Fork of East Fork Rock Creek. Adult redd surveys were conducted and restoration designs were completed with implementation scheduled for late summer 2015. The project came about when Forest Investment Associates (FIA) decided to harvest some secluded units and ODFW expedited the project based on the limited window of opportunity. There is limited access to this private section of Wapiti Creek because of marshy conditions in the riparian areas and access to the creek by heavy equipment is not recommended. The project was designed with little mechanical disturbance which includes manual tree falling of overgrown riparian alders in specific configurations into the creek. The timing of the project will coincide with the replanting of the newly harvested unit and additional softwood species will be planted to complete the riparian conversion.
- *Rock Creek Diversion Dam and Fish Ladder* - A new juvenile bypass mechanism was installed to replace and alleviate the problems associated with a gate that was not functioning properly. This will increase the ability to make adjustments during various flow stages. Habitat improvements were also made below the juvenile bypass spillway to facilitate juvenile out-migrant survival. Further improvements are scheduled for 2015 to the adult exit and water intake and sorting hatchery adults should start in the spring.
- *Adult Salmonid Snorkel Survey* - Adult summer salmonid snorkel surveys continued this year for comparison of pre/post sorting operations that are scheduled for next year. These surveys will provide species composition and abundance when 100 percent of the hatchery fish are sorted to help quantify ODFW's goal of starting a new "wild" population of naturally spawned CHS.

- *Lamprey* - An adult Pacific Lamprey was discovered in August near river mile 6.5. A one month old adult Pacific Lamprey redd was discovered in early October at river mile 8.5, approximately half way up the mainstem Rock Creek.

In addition, two new muscle beds were discovered near river mile 5.5 and 6.5, each covering about 50-60 square feet of substrate. Muscle beds are an indicator of good water quality and symbiotic with both adult lamprey and larval lamprey. One area has already been protected using instream design methods and the other has been designed for protection and enhancement scheduled for 2016.

- *Harrington Creek 2014-2016* - Designs completed this year were used successfully to procure financial grants for the purchase, hauling, staging and implementation of materials for 2015 summer instream work period. Further improvements are scheduled for 2016 include the replacement of a culvert and addition of logs and boulders to the last remaining 1.0 mile section of Harrington Creek.
- *Monitoring* - ODFW continues to partner with the local watershed council (Partnership for Umpqua Rivers) to supplement mitigation dollars to provide continued coverage of the basin well into the future.

3.1.2 Plans and Reports

The following plans and reports were completed and/or revised:

| Plan/Report | SA Section, License Article, or FERC Order | Date |
|---|--|---------------|
| Soda Springs Spawning Habitat Annual Report | SA 8.3 | January 2014 |
| Lemolo Reservoir Management Report | SA 9.0 | January 2014 |
| Annual Avian Protection Report | SA 13.4 | February 2014 |
| Annual Threatened and Endangered Species and Bald Eagle Monitoring Report | License Articles 411 & 412 | February 2014 |
| Erosion Control Plan Annual Report | SA 14.5 | October 2014 |
| Flow Monitoring Report (WY2011) | SA 5,6 | November 2014 |
| Historic Properties Annual Report | License Article 414 | December 2014 |

3.2 FERC License Actions

The FERC license contains actions that are required in addition to those actions in the Settlement Agreement. Table 3.2-1 summarizes the FERC License requirements that were fulfilled during this reporting period.

**Table 3.2-1
FERC License Actions Status**

| Date Filed | License Article | Settlement Agreement Section | Description | Status/ Comments |
|------------|-----------------|------------------------------|--|-----------------------|
| 2/12/14 | 411 & 412 | USDA-FS 4(3) Cond. 16 | 2013 Threatened and Endangered Species and Bald Eagle Monitoring Report | Acknowledged 2/12/14 |
| 5/2/14 | 401 | 4.1.1 and 4.1.2 | Request for extension of time to file final Soda Springs fish passage facilities hydraulic and biological evaluations report (<i>to 3/1/17</i>). | Approved 6/5/14 |
| 6/9/14 | 401 | 21.4.2 | 2013 Resource Coordination Committee Annual Report | Acknowledged 6/9/14 |
| 12/17/14 | 414 | 18.1 & 18.2 | 2014 Historic Properties Annual Report/Action Plan | Acknowledged 12/17/14 |

SECTION 4.0 FIDUCIARY REPORTING

Consistent with Settlement Agreement fiduciary reporting requirements, this section provides account information for the following actions and fulfills the requirement to annually report the amounts deposited into and disbursed from each account:

- SA Section 7.2.3 (amended) Gravel Augmentation Program
- SA Section 8.3.5 (amended) North Umpqua River Habitat Restoration/Creation Project
- SA Section 19.1.1.3 Tributary Enhancement Program
- SA Section 19.3.1 Mitigation Fund

The Settlement Agreement does not require annual reporting for SA Section 19.2 Long-Term Monitoring and Predator Control Fund. Since this was likely an oversight, the account information for this fund is also provided in this section.

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Fiduciary Reporting

SA Section 7.2 Gravel Augmentation Program

| Date | Item | Expenditures | Funding | Balance |
|-------------|--------------------------------------|---------------------|----------------|--------------------|
| 2014 | Opening Balance | | | \$38,072.28 |
| 2014 | Annual Escalation (as per SA 22.4.4) | | \$537.32 | \$38,609.60 |
| 2014 | Expenditures | \$0.00 | | |
| 2014 | Total Expenditures | \$0.00 | | \$38,609.60 |
| 2014 | Ending Balance | | | \$38,609.60 |

Fiduciary Reporting

SA Section 8.3 North Umpqua River Habitat Restoration/ Creation Project

| Date | Item | Expenditures | Funding | Balance |
|-------------|--|-----------------|------------|---------------------|
| 2014 | Opening Balance | | | \$204,126.29 |
| 2014 | Annual Escalation (as per SA 22.4.4) | | \$2,880.86 | \$207,007.15 |
| 2014 | Expenditures | | | |
| | | | | |
| | Stillwater Sciences | | | |
| | Habitat restoration/creation project monitoring plan and baseline habitat survey | \$(4,244.14) | | |
| | Weekly Bros. | | | |
| | Soda Springs gravel augmentation | \$(81,871.77) * | | |
| | | | | |
| 2014 | Total Expenditures | \$(86,115.91) | | \$120,891.24 |
| | | | | |
| 2014 | Ending Balance | | | \$120,891.24 |

* The RCC approved using the SA 8.3 Fund for the 2014 SA 7.2 Soda Springs gravel augmentation.

Fiduciary Reporting
SA Section 19.1 Tributary Enhancement Program Fund

| Date | Item | Expenditures | Funding | Balance |
|------|--|---------------|----------|-----------------------|
| 2014 | Opening Balance | | | \$1,679,389.50 |
| 2014 | Expenditures | | | |
| | | | | |
| | Kevin Saylor | | | |
| | Site/riparian addition and repair; boulder removal; and gabian and rip-rap hauling | \$(14,225.00) | | |
| | Philip Strader | | | |
| | Extra-large excavator for loading extra-large boulders | \$(5,000.00) | | |
| | United Rentals | | | |
| | Backhoe/Loader Rental | \$(3,862.23) | | |
| | Willard Marshall Trucking | | | |
| | Log hauling | \$(1,000.00) | | |
| | | | | |
| 2014 | Total Expenditures | (\$24,087.23) | | \$1,655,302.27 |
| | | | | |
| 2014 | Investment Earnings | | \$181.48 | \$1,655,483.75 |
| 2014 | Ending Balance | | | \$1,655,483.75 |

Fiduciary Reporting

SA Section 19.2 Long Term Monitoring/Predator Control Fund

| Date | Item | Expenditures | Funding | Balance |
|-------------|---|--------------|--------------|---------------------|
| 2014 | Opening Balance | | | \$237,329.96 |
| 2014 | Annual Funding (\$100K escalated) | | \$129,969.81 | \$367,299.77 |
| 2014 | Expenditures | | | |
| | | | | |
| | NW Bend Boats | | | |
| | Electrofishing boat repairs | (\$632.59) | | |
| | Smith-Root | | | |
| | Electrofishing boat repairs | (\$772.00) | | |
| | Stillwater Sciences | | | |
| | Predator Control Program Monitoring and Adaptive Management Plan development; provision of spawning survey field maps | (\$7,661.90) | | |
| | | | | |
| 2014 | Total Expenditures | (\$9,066.49) | | \$358,233.28 |
| | | | | |
| 2014 | Interest Earned | | \$39.61 | \$358,272.89 |
| 2014 | Ending Balance | | | \$358,272.89 |

Fiduciary Reporting

SA Section 19.3 Mitigation Fund

| Date | Item | Expenditures | Funding | Balance |
|-------------|---|----------------|----------------|-----------------------|
| 2014 | Opening Balance | | | \$1,218,844.10 |
| 2014 | Annual Funding (\$1,250,000 escalated) | | \$1,624,622.67 | \$2,843,466.77 |
| | | | | |
| 2014 | Expenditures | | | |
| | | | | |
| | Mitigation Projects | | | |
| | Harrington Creek Instream | | | |
| | Pass Creek Restoration | | | |
| | Canton Creek False Brome | | | |
| | Lemolo Water Quality Proposal Investigation, Invasive Species Prevention, and Public Health Protection | | | |
| | Lemolo Reservoir Tui Chub Trapping and Creel Survey | | | |
| | Lamprey Mapping | | | |
| | Culvert 6520 Replacement | | | |
| | Program Management | | | |
| | | | | |
| 2014 | Total Expenditures | (\$388,500.00) | | \$2,454,966.77 |
| | | | | |
| 2014 | Interest Earned | | \$713.57 | \$2,455,680.34 |
| 2014 | Ending Balance | | | \$2,455,680.34 |

SECTION 5.0 CONCLUSION

The 2014 Annual Report underscores a productive year made possible through the dedication of Parties to the Settlement Agreement and their respective staff, PacifiCorp's implementation team members, and the public.

The RCC ground rules and protocols for interagency teamwork and communication have provided an effective framework for watershed management consistent with the goals of the Settlement Agreement. Parties worked cooperatively toward meeting Settlement Agreement commitments during the report period and projects were completed on schedule.

Of particular note, the Soda Springs fish passage facilities were operational throughout 2014, with the exception of limited maintenance outages, and hundreds of steelhead and salmon were observed using the fish ladder during the year. Hydraulic and biological evaluations of the fish passage facilities commenced in 2014 as planned.

Other major accomplishments during the reporting period included initiation of biological monitoring of fish behavior at the Soda Springs and Slide Creek tailrace barriers; continued enhancement of anadromous fish habitat via placement of spawning gravel below Soda Springs dam; successful construction of seven aquatic connectivity sites; construction of the Stump Lake wetland enhancement site; and completion of annual Rolling Action Plans and associated tasks for ongoing programs to manage vegetation, erosion, transportation, aesthetics, recreation, and cultural resources in the North Umpqua Project area.

Looking forward to 2015, emphasis will be placed on the continued successful operation and evaluation of the Soda Springs fish passage facilities, tailrace barriers at Soda Springs and Slide Creek, and other new facilities pursuant to the intent of the Settlement Agreement. Other projects scheduled for 2015 include construction of aquatic site reconnections along the Fish Creek and Lemolo 2 waterways, construction of the Fireswamp wetland enhancement site, and additional recreation enhancements. As in past years, long-term monitoring and off-site mitigation will continue in the North Umpqua basin as part of the implementation program to protect, mitigate, and enhance natural resources in this highly valued watershed.