

# **NORTH UMPQUA HYDROELECTRIC PROJECT**

**FERC P-1927**

**Protection, Mitigation, and Enhancement Measures**



**2012 Annual Report**

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## Executive Summary

PacifiCorp Energy (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 2012.

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 nine regularly 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 November 14, 2012.

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 2012.

In 2012, 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 for the first time since 1951. In 2013, repair of the primary screen is scheduled to address damage that resulted from a high-flow event in December.
- The Slide Creek tailrace barrier (SA Section 4.1.1f) was completed in 2011. Minor modifications were made in 2012 to improve the safety and efficiency of operations. Flow balancing is scheduled to be completed in 2013, during the spring high runoff period.
- Fish passage at Fish Creek (SA Section 4.3.2) was completed with the installation of fish screens in 2008, but improvement was needed to increase sweeping velocity across the T-screens and reduce debris loading. Following agency consultation, the shape of the fish screen pool was modified to improve the facility. The mechanical components of the screen cleaning system were also upgraded and the control system was reprogrammed for efficient operation.
- Monitoring of enhanced anadromous fish habitat (SA Sections 7.2-8.3) continued in 2012. A final report summarizing seven years of the Gravel Augmentation Program was completed and filed with FERC and the monitoring and maintenance plans were revised, documenting the future of the program. For the Slide Creek bypass reach habitat project, final work that began in 2002 was completed; a report will be filed with FERC in 2013. For the Soda Springs habitat creation project, substantial maintenance was completed to repair three log weirs and provide 800 CY of additional spawning gravel.

- Creation of a wetland near the Stinkhole pond was created, and three additional sites were identified for wetland enhancement in future years (SA Section 11.5).
- A Remediation and Monitoring Plan (SA Section 14.3) was completed with the consulting agencies as a result of a waterway failure at Flume 12. Implementation of the plan included off-site mitigation in the Soda Springs bypassed reach to further enhance habitat for anadromous fish. Impact and response reaches were identified in the Lemolo 2 bypassed reach, and monitoring was conducted, with a report submitted to the Technical Working Group. Continued monitoring is scheduled for future years.
- Research continued at East Fork Rock Creek, as part of a long-term study that will guide future use of funding to provide for aquatic resources in the Rock Creek basin (SA Section 19.1).
- Five-year rolling action plans were again developed in 2012, as part of ensuring compliance with various 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. Regularly scheduled RCC meetings continue 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 2011) 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 2012 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**  
**2012 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
Ed Meyer	National Marine Fisheries Service, Portland, 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
Monte Garrett	PacifiCorp Energy, Portland, Oregon

## 2.3 RCC Meetings

During the reporting period, the RCC conducted eleven regularly scheduled meetings to finalize study plans, discuss implementation objectives for PM&E Measures, and facilitate the overall Settlement Agreement implementation. In addition to these regularly scheduled meetings, an annual work planning session was held in January to review past efforts, improve efficiency going forward, and review project work plans (including the SA 19.3 Mitigation Fund projects) for the coming year. 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](http://www.pacifiCorp.com/content/dam/pacifiCorp/doc/Energy_Sources/Hydro/Hydro_Licensing/North_Umpqua_River/RCC_Ground_Rules.pdf)

Meeting summaries are drafted for RCC meetings. The draft summaries are distributed to the RCC members for review and comment. At a subsequent meeting, after corrections have been made as appropriate and when work in progress is completed, 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#>.

- The RCC approved Weekly Bros. as the contractor for the 2012 SA 8.3 Soda Springs fish habitat maintenance work. They also approved using SA 8.3 funding to pay for the balance of the project (beyond the \$50,000 that PacifiCorp is providing).
- The Flume 12 Remediation Plan was finalized.
- The RCC approved the SA 7.2 Revised Gravel Augmentation Implementation and Monitoring Plan.
- Weekly Bros. was awarded the contract for the Slide Creek tailrace barrier gravel removal project. By September, the project was completed.
- The RCC approved use of up to \$5,000 from the SA 19.2 fund for Stillwater Sciences to turn the draft SA 19.2 Baseline Conditions Report into a final report.
- Mark Brown (Intermountain Digital) continued his work on the last part of the North Umpqua project video. It will be a big picture of the entire program and will highlight completion of the Soda Springs fish passage project as well as many other efforts.
- The RCC approved the USDA-FS proposal to reduce flows below minimum in the Lemolo 1 bypass reach for pedestrian bridge repairs.
- The last three remaining wetlands to be enhanced were determined to be 1) Clearwater flood plain (below Stump Creek) in 2014, 2) Lake Creek Elk Creek in 2015, and 3) Stump Lake potholes (above Stump Lake dam) in 2016.
- The annual public tour was held on November 14.
- The RCC approved a proposal to change the SA 19.2 long-term monitoring Study Plan interim monitoring dates due to the Soda Springs fish passage project performance evaluations not expected to be completed until mid-2014. The interim period will now be 2014-2025 and the post-passage period 2026-2038.

- The Soda Spring fish passage project was substantially complete by the end of November. Throughout the construction process that began in 2010, design and operational aspects of the facilities were reviewed during RCC meetings to ensure that the completed facilities would meet the intent of the settlement agreement.
- The RCC preliminarily approved expenditures of “up to \$10K” from the SA 19.2 Fund, for maintenance/repair of the electrofishing boat.

## **SECTION 3.0 PROTECTION, MITIGATION, AND ENHANCEMENT MEASURES**

This section presents 2012 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

		YEAR														
SA Section	PM&E	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024+
4.0 FISH PASSAGE MEASURES																
4.1.1(e)	Soda Springs Fish Ladder Construction	x	x	●												
4.1.1(f)	Slide Creek Tailrace Barrier Design	●														
4.1.1(f)	Slide Creek Tailrace Barrier Construction	x	●													
4.1.2(d)	Soda Springs Downstream Screen Construction	x	x	●												
4.1.2(f)	Soda Springs Downstream Passage Construction	x	x	●												
4.3.3	Toketee Trashrack Modification	●														
5.0 INSTREAM FLOWS																
5.1	Implement Table 2 Flows			●												
5.4	Lemolo 2 Full Flow Reach		●													
5.6	ODFW Holding Ponds Water Supply	●	●	●												
6.0 RAMPING																
6.1	Lemolo 2 Full Flow Reach Installation	x	●													
6.2.1	Slide Creek Ramping Monitoring Plan	●														
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	●	●	●												
6.9	Slide Creek Emergency Bypass Valve Evaluation and Implementation	●	●													
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	●	●	●												

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

Key	
	Due Date
x	In Progress
•	Complete

		YEAR														
SA Section	PM&E	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024+
9.5	Fish Salvage during Shutdowns	●	●	●												
10.0 AQUATIC RESOURCES																
10.6	Reconnecting Aquatic Connectivity Sites	x	x	x												
11.0 TERRESTRIAL RESOURCES																
11.5	Stinkhole Wetland	x	●													
11.5	Lemolo/Forebay Expansion Area	●														
11.5	Wetland Areas: #6, #7, & #8			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																
14.4.2	High Priority Erosion Sites: Clearwater and Lemolo	●														
14.4.3	Medium Priority Erosion Sites (27)	x	x	x												
14.5	Erosion Monitoring	●	●	●												
15.0 TRANSPORTATION																
15.1	Transportation Management Plan Implementation	●	●	●												
15.2	PPL Roads to USDA-FS Standards	●	●	●												
15.3	Cost Sharing for Joint Roads and Maintenance	●	●	●												
15.4	Road Decommissioning	●														
15.5	Bridges - Inspections/Maintenance	●	●	●												
15.5.1	Bridge Maintenance Cost Sharing	●	●	●												
15.6	Fish Culvert Upgrades	x	●													
15.6	100-Year Flood Culvert Upgrades	x	x	x												
15.6	Culvert Maintenance on PPL Use Roads	●	●	●												
16.0 AESTHETICS																
16.1	Aesthetics Management Plan Implementation	●	●	●												
16.4	Transmission Line Mitigation (11 Sites)															
17.0 RECREATION																
17.2	Recreation O&M Funding	●	●	●												

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

Key	
	Due Date
x	In Progress
●	Complete

		YEAR														
SA Section	PM&E	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 +
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 (MOU) Funding	●	●													
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 evaluation	Construction was completed and facilities were functional by November 30. Performance testing is scheduled for 2013-2014.
4.1.1(f)	Slide Creek Tailrace Barrier & Bypass Design /Construct  Refer to SA Section 6.9 for Bypass project	2011 – complete construction  2013 – complete evaluation	Minor modifications were made to improve safety and efficiency of operations. Hydraulic balancing is planned for 2013.
5.1	Instream Flow Increases in Project Bypass Reaches	2005	A thermal modeling exercise was completed to consider allowance of continued diversion below the minimum flow requirement in the Fish Creek bypass reach.
5.5	Instream Flow Monitoring	2002-2038	Monitoring and reporting continued as required in the Plan.
6.4	Wild and Scenic Ramping Restrictions	2001-2038	Ramping restrictions have been followed within equipment limitations per the Flow Monitoring Plan.
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 the experimental gravel pulse built in 2004 was completed. The implementation and monitoring plans were combined and revised for long-term use.
7.3	Passage of Woody Debris at Soda Springs and Slide Creek Dams	2002-2038	Passage of woody debris continued according to the plan.



SA Section	PM&E	Due Date	Current Status
8.2.1-8.2.2	Slide Creek Bypass Reach Habitat Project Implementation/ Monitoring	2002 - 2038	The second and final year of planned detailed monitoring was completed and a report was filed with FERC. Going forward, monitoring will continue at 5-year intervals.
8.3.2-8.3.3	North Umpqua River Habitat Restoration/ Creation Implementation/ Monitoring	2004-2038	Annual monitoring occurred according to the plan. Substantial maintenance occurred this year. The habitat continues to be used by substantial numbers of salmon and steelhead. An annual report was submitted to the RCC.
9.1	Funding for Production of Rainbow Trout for Stocking	2004-2038	PacifiCorp provided \$19,190.37 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.
10.3	Reconnection of Clearwater River	2005	The facility is operating as designed and evaluation by the ODFW is complete.
10.6	Aquatic Connectivity	Priority 2 sites – 2016	Three aquatic connection sites were constructed. A schedule of implementation has been developed with a completion date in 2016. The first of the sites termed "outage sites," plus two complicated sites will be constructed in 2013. Additional sites will be added as permitting and budget allow. Plans and specifications have been completed for all planned sites.

SA Section	PM&E	Due Date	Current Status
11.5	Wetland Development	2006-2016	The three remaining wetland enhancement sites were identified in consultation with ODFW and USFWS. The Clearwater Floodplain and Stump Lake Pothole enhancements are scheduled for design in 2013 with construction following in 2014. The Lake Creek Elk Camp enhancement is scheduled for construction in 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 both the USDA-FS and the BLM in December.
13.1	Power Pole Modification	2001-2038	No power pole modifications were needed this year.
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-powerline program activities occurring within the Project area was submitted to the USDA-FS in January.
14.5	Erosion Control Monitoring	2001-2038	Erosion sites were monitored and an annual report was produced and distributed to the agencies in December.
14.2	Canal Shutoff and Drainage Systems	2007-2010	Fish Creek, constructed in 2008, continues to receive improvements to its communication system.

SA Section	PM&E	Due Date	Current Status
			Further upgrades and testing occurred this year with more planned for 2013.
14.4	Erosion Site Remediation	2016	Erosion site remediation was completed at Site FC-13 (a site added due to erosion created by discharge water from the culvert coming off Hwy 138 and eroding the hillside down slope of the culvert.) The CW2-14 culvert identified in 2011 as needing cleaning was completed.
15.1 – 15.4	Transportation Management Plan Implementation	2004-2038	The Transportation Management Plan continues to undergo implementation. Culvert inspections and maintenance are being performed annually. The 5-year RAP was developed in consultation with the USDA-FS and the BLM. The road maintenance cost share amount was \$181,883; of which PacifiCorp's share was \$48,301.
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. The Deer Creek bridge (U-15) structural modifications were completed, bringing the bridge back up to the original load ratings. Bridges are scheduled for inspection in 2013 as part of the biennial inspection program.
15.6	Fish Passage and Q100 Culvert Upgrades	2005-2016	All fish passage projects on PacifiCorp-exclusive roads have been completed. The last remaining Q100 culvert upgrade on PacifiCorp-exclusive roads (culvert no. 1035) is scheduled for 2013 to coincide with related aquatic connectivity projects. PacifiCorp

SA Section	PM&E	Due Date	Current Status
			continues to fund the USDA-FS culvert upgrades on jointly maintained roads.
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 \$177,633 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 \$10,235 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 \$383,808 to the USDA-FS. These funds were used for recreation facility capital improvement projects.
17.9	Public Information	2004-2038	PacifiCorp provided \$9,173 to the USDA-FS.
17.10	Recreation Monitoring	2004-2038	PacifiCorp provided \$9,173 to the USDA-FS.

SA Section	PM&E	Due Date	Current Status
	Recreation Monitoring (Periodic Surveys)	2007, 2012, 2017, 2022, 2027, and 2032	PacifiCorp provided \$16,817 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.
19.2	Long-Term Monitoring and Predator Control	2004-2038	PacifiCorp deposited \$127,935.81 Long-term monitoring and predator study work proceeded according to the study plan.
19.3	Mitigation Fund	2004-2038	PacifiCorp deposited \$319,839.51 into the USDA-FS account.
19.4	Oversight Costs	2005-2020	PacifiCorp provided \$207,256 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 routine monthly meetings. Technical working groups also met, as 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 are described below by Settlement Agreement section.

#### Slide Creek Tailrace Barrier (SA Section 4.1.1f)

Minor modifications were made to improve the safety and efficiency of operations. These included regrading the river channel and cleaning substrate from the foundation, modifying deck gratings, grounding the deck and fencing, and troubleshooting the baffle vane motors. Flow balancing is scheduled to be completed in 2013, during the spring high runoff.

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

Construction was completed on the entire fish passage facility and it was operated through an 8-day test run period during October and then a 22-day commissioning period during November. The facility was considered complete and in service by November 30. Adult salmon were observed spawning upstream of the dam during November and December for the first time since 1951. A high flow and debris event on December 2 caused damage to the primary fish screen and forced it out of service. Repairs are scheduled to be completed in 2013.



#### Fish Passage at Fish Creek (SA Section 4.3.2)

The fish screen was in service except during the low-flow period when several improvements were made. Following agency consultation, the shape of the fish screen pool was modified to increase the sweeping hydraulics past the T-screen. The mechanical components of the screen cleaning system were upgraded and the control system was reprogrammed for efficient operation. These enhancements are expected to improve debris management and fish passage.



### Anadromous Fish Habitat Enhancement (SA Sections 7.2-8.3)



Monitoring continued to document the characteristics and use by anadromous salmonids of the habitats created and maintained by the Gravel Augmentation Program and the two Habitat Enhancement Programs. For the Gravel Augmentation Program, a final report was filed with the FERC, summarizing seven years of monitoring the gravel pulse experiment. The monitoring and maintenance plans were revised and combined and also filed with the FERC, documenting the future of the program. For the Slide Creek bypass reach habitat project, the second and final set of detailed field measurements were

made to document the results of the habitat work begun in 2002 (report due in 2013). For the Soda Springs habitat creation project, annual monitoring occurred and substantial maintenance was completed to repair three log weirs and add 800 CY of spawning gravel.

### Reconnecting Aquatic Sites (SA Section 10.6-10.7)

A combination of original and alternative aquatic reconnection sites have been selected for completion over an 11-year period of the new license. Past efforts have been coordinated to also provide crossings over waterways for big game and other small wildlife. These combination bridges provide both terrestrial and aquatic connectivity. Three complicated aquatic connection sites were constructed this year.



Enhancement of Wetland Species Diversity (SA Section 11.5)

Planting of the Stinkhole Wetland Enhancement Project site was finalized. The three final wetland enhancement sites were selected in collaboration with the USDA-FS and ODFW. The Clearwater Floodplain and Stump Lake Potholes wetland enhancement sites will be designed in 2013 and constructed in 2014. The Lake Creek Elk Camp wetland enhancement is scheduled for construction in 2016.



*The Stinkhole wetland enhancement exhibits significant growth in its first year post-construction.*



*The Ranawapiti wetland enhancement three years after construction.*



*Pacific Treefrog  
Stinkhole Wetland*



*Western Toad  
Stinkhole Wetland*



*Cascades Frog  
Ranawapiti Wetland*



### Vegetation Management Plan (SA Section 12.1)

Progress continues on implementation of the Vegetation Management Plan (VMP). Noxious weed surveys, conducted at three year intervals, were completed this year. Noxious weed treatments are being conducted on both BLM and USDA-FS lands on an annual basis. Both the noxious weed training program and the horticultural invasive species program were implemented and will continue on an annual basis per the VMP. The VMP 5-year RAP was presented to both the USDA-FS and the BLM in December.

### Flume 12 Remediation (SA 14.3)

A Remediation and Monitoring Plan was approved by the consulting agencies. Remediation was completed, including an off-site mitigation contribution toward anadromous fish habitat. Impact and response reaches were identified and monitoring occurred in both reaches per plan, with a report submitted to the Technical Working Group.

### Erosion-Site Remediation (SA Section 14.4)

Remediation of erosion sites continues to progress in advance of the schedule set forth in the Settlement Agreement. Work has been completed at 70 total sites, of which 53 have been remediated, 6 require remediation, and 19 require annual monitoring. Two sites (LM2-24 and FC-13) were remediated. FC-13 was a High Risk slide site and included a new culvert and fill material. All of the sites rated as High Risk have now been remediated. Erosion site inspections continue to be conducted annually.

### Transportation Management Plan (SA Section 15.1)

Progress continues on the implementation of the Transportation Management Plan. The USDA-FS and PacifiCorp continued to jointly share the costs associated with road and bridge maintenance. Bridge maintenance and culvert replacements were completed this year as scheduled. Bridge deferred maintenance is scheduled to be completed in 2013.

### Tributary Enhancement Program (SA Section 19.1)



Habitat enhancements continued this year, including log and boulder placements, side channel improvements, and a log-seeding experiment. Monitoring continued to help document baseline conditions and enhancement benefits. Conservation easements continued to be explored. Construction on the Rock Creek fish ladder was completed, with the ladder coming into service during the summer.

### Long-Term Monitoring and Predator Control Study Program (SA 19.2)

This year, an interim year, there was no field work planned or completed. The previous years of baseline data were synthesized into a “baseline conditions” final report to help guide post-passage monitoring.

### Mitigation Fund (SA 19.3)

Since 2004, PacifiCorp has been making annual payments into a Mitigation Fund, to be used on federal lands throughout the North Umpqua River basin. 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 and final recommendations are made by the BOD. The Forest Supervisor of the Umpqua National Forest makes the final decision on project selections.

## **3.1.2 Plans and Reports**

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

<b>Plan/Report</b>	<b>SA Section and/or License Article</b>	<b>Date</b>
Soda Springs Spawning Habitat Annual Report	SA 8.3	January 2012
Annual Avian Protection Report	SA 13.4	January 2012
Lemolo Reservoir Management Report	SA 9.0	January 2012
Annual Threatened and Endangered Species and Bald Eagle Monitoring Report	License Articles 411 & 412	February 2012
Gravel Augmentation Program, Implementation and Monitoring Plans (Revised)	SA 7.2	May 2012
Erosion Control Plan Annual Report	SA 14.5	October 2012
Historic Properties Annual Report	License Article 414	December 2012

## **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**

<b>Date Filed</b>	<b>License Article</b>	<b>Settlement Agreement Section</b>	<b>Description</b>	<b>Status/ Comments</b>
5/31/11	Appendix B	USDA-FS 4(e) Cond. 17	Request for Extension of Time to file Survey and Manage Species Plan (to 6/30/12)	Approved 1/6/12
2/13/12	411 & 412	USDA-FS 4(3) Cond. 16	2011 Threatened and Endangered Species and Bald Eagle Monitoring Report	Acknowledged 2/3/12
5/1/12 & 6/21/12	Appendix B	USDA-FS 4(e) Cond. 17 & USDI-BLM 4(e) Cond. 10	Survey and Manage Species Plan	Approved 7/9/12
5/24/12	401	7.2	Gravel Augmentation Program, Revised Implementation and Monitoring Plans	Approved 12/19/12
6/22/12	401	21.4.2	2011 Resource Coordination Committee Annual Report	Acknowledged 6/22/12
12/17/12	414	18.1 & 18.2	2012 Historic Properties Annual Report/Action Plan	Acknowledged 12/18/12

## **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
2012	Opening Balance			\$36,578.88
2012	Annual Escalation (as per SA 22.4.4)		\$881.93	\$37,460.81
2012	Expenditures	\$0.00		
2012	Total Expenditures	\$0.00		\$37,460.81
2012	Ending Balance			\$37,460.81

## Fiduciary Reporting

### SA Section 8.3 North Umpqua River Habitat Restoration/Creation Project

Date	Item	Expenditures	Funding	Balance
2012	Opening Balance			\$223,460.18
2012	Annual Escalation (as per SA 22.4.4)		\$5,387.68	\$228,847.86
2012	Expenditures			
	Weekly Bros.			
	Soda Springs Habitat	(\$28,000.00)		
2012	Total Expenditures	(\$28,000.00)		\$200,847.86
2012	Ending Balance			\$200,847.86

## Fiduciary Reporting

### SA Section 19.1 Tributary Enhancement Program Fund

Date	Item	Expenditures	Funding	Balance
2012	<b>Opening Balance</b>			<b>\$1,951,359.83</b>
2012	Annual Funding*		\$0	\$1,951,359.83
2012	Expenditures			
	<b>Knife River Materials</b>			
	Boulders/delivery	(\$158,248.93)		
	<b>Kevin Saylor</b>			
	Root wads/large wood placement	(\$41,309.00)		
	<b>Willard Marshall Trucking</b>			
	Log hauling	(\$11,900.00)		
2012	Total Expenditures	(\$211,457.93)		\$1,739,901.90
2012	Investment Earnings		\$82.55	\$1,739,984.45
2012	<b>Ending Balance</b>			<b>\$1,739,984.45</b>

\* The 2011 annual payment completed the funding obligation for the 19.1 program.

## Fiduciary Reporting

### SA Section 19.2 Long Term Monitoring/Predator Control Fund

Date	Item	Expenditures	Funding	Balance
<b>2012</b>	<b>Opening Balance</b>			<b>\$35,734.54</b>
2012	Annual Funding (\$100K escalated)		\$127,935.81	\$163,670.35
2012	Expenditures			
	<b>Stillwater Sciences</b>			
	Long Term Monitoring Baseline Report; Photographic basemap development	(\$33,068.25)		
2012	Total Expenditures	(\$33,068.25)		\$130,602.10
2012	Interest Earned		\$5.84	\$130,607.94
<b>2012</b>	<b>Ending Balance</b>			<b>\$130,607.94</b>



## Fiduciary Reporting

### SA Section 19.3 Mitigation Fund

Date	Item	Expenditures	Funding	Balance
2012	<b>Opening Balance</b>			<b>\$2,364,377.74</b>
2012	Annual Funding (\$250,000 escalated)		\$319,839.51	\$2,684,217.25
2012	Expenditures			
	<b>Mitigation Projects</b>			
	Steamboat Fall Fish Ladder - Phase 3 Construction			
	Aquatic Invasive Species Surveys of PacifiCorp Impoundments			
	Fish Creek Road and Culvert Analysis and Needs Survey			
	Lonely Oak - Forage Restoration			
	Spring Peeper Pond			
	Wetland Planning			
	Lemolo Canal Foot-Print Erosion Control-Revegetation			
	Medicine Creek Ecosystem (Vegetation) Restoration			
	Lemolo Lake Tui Chub Removal and Monitoring			
	Soda Springs Raceway Decommissioning			
	2012 Lemolo Water Quality Public Health, Invasive Species			
	Canton Creek False Brome Removal			
	Copeland Creek LSR Stand Improvement			
	Steamboat Headwaters and Big Bend LSR Stand Improvement			
	Macroinvert Study NUR, Stmbt, Calf, Copeland			
	Ragged Ridge Fuels Reduction			
	Calf Creek Instream Restoration			
	Instream Structure Evaluation			
	Road Decommissioning (3831-005, 008, 009)			
	Longs Creek Culvert Design – Terrestrial Species Survey			
	Rock Creek			
	White Mule Creek Culvert Construction Supplement			
	Copeland Creek High Risk Culvert Replacement			

	Copeland Creek Storm Proofing			
	Middle North Umpqua & Steamboat Creek Terrestrial Habitat Restoration			
	Evaluation of Lamprey Upstream of Soda Springs Dam			
	Lemolo Reservoir Fishery Monitoring Project			
	Lemolo Lake Water Quality Investigation, Prevention, Public Health			
	Stinkhole Western Pond Turtle Mortality Reduction			
	Kelly Creek Fish Passage - funds transferred to BLM			
	McComas Creek Fish Passage			
	Lemon Butte Vegetation Management			
	Macroinvertebrate Study on Selected NUR Tribs			
	Long Creek Fish Passage Culvert			
	Canton Creek False Brome Removal			
	Instream Restoration and Riparian Planting – Steamboat Creek			
	Steamboat Fish Ladder Monitoring			
	Strategic Plan Completion/Program Management			
2012	Total Expenditures	(\$1,394,715.50)		\$1,289,501.75
2012	Interest Earned		\$846.08	\$1,290,347.83
<b>2012</b>	<b>Ending Balance</b>			<b>\$1,290,347.83</b>

## **SECTION 5.0 CONCLUSION**

The 2012 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. This collaborative approach provided an effective framework for realizing benefits of the Settlement Agreement in a highly valued watershed.

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. The Soda Springs fish passage project was completed on schedule, and final evaluations are expected to be completed by the end of 2014.

Major accomplishments during the reporting period included 1) completion of the Soda Springs fish passage project, including final studies and reporting of habitat enhancement programs prior to reintroduction of anadromy; 2) documentation of spawning salmon upstream of Soda Springs for the first time in 60 years; 3) completion of modifications to the Fish Creek downstream passage facility to improve performance; 4) identification of new wetland sites to be created/enhanced by 2016; and 5) completing 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.

We have high expectations for 2013, emphasizing repair of the Soda Springs fish screen, biological evaluation of the fish passage facilities, and hydraulic evaluation of the Slide Creek tailrace barrier. The RCC and technical working groups will now focus attention on the successful operation of the facilities pursuant to the intent of the Settlement Agreement. Other projects scheduled for 2013 include construction of aquatic site reconnections, planning for creation of wetlands near the Clearwater 1 dam, 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.