

Electronically filed June 20, 2024

Debbie-Anne A. Reese, Acting Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

**Subject: North Umpqua Hydroelectric Project (FERC No. P-1927)
2023 Annual Report**

Dear Acting Secretary Reese:

Pursuant to the November 18, 2003 License Order and Section 21.4.2 of the June 21, 2001 Settlement Agreement (Agreement) for the North Umpqua Hydroelectric Project (FERC No. P-1927), attached for filing is the *2023 Annual Report*. Section 21.4.2 of the Agreement requires the preparation, in consultation with the Resource Coordination Committee (RCC), of a detailed annual report on the activities of the RCC and on the implementation of protection, mitigation, and enhancement measures during the previous year. The filing of such reports is required annually by the effective date of the Agreement through the project license term.

The enclosed annual report was prepared in consultation with the RCC and includes activities conducted during the 2023 calendar year. On May 3, 2024, the draft report was sent out to the RCC for 30-day review. All comments received were addressed and incorporated into the final report. A copy of the consultation record is enclosed.

This letter and its enclosures have been filed electronically. The security classification of each component in this submittal is shown in the enclosure table. Copies have also been transmitted to those cited below. If you have any questions concerning these documents, please contact Steve Albertelli at (541) 776-6676 or steve.albertelli@pacificorp.com.

Sincerely,



William C. Shallenberger
Vice President, Renewable Resources

WCS:SBA:DS

Encl:	Letter – Public
	2023 North Umpqua Annual Report – Public
	RCC Consultation – Public

eFile:	Debbie-Anne A. Reese, Acting Secretary via eFile at www.ferc.gov	eMail:	Michael Korn (BLM) mkorn@blm.gov
eMail:	Michelle McMullin (NOAA) michelle.mcmullin@noaa.gov	eMail:	Valarie Thompson valerie.thompson@deq.oregon.gov
eMail:	Jason Brandt (ODFW) jason.r.brandt@odfw.oregon.gov	eMail:	Craig Kohanek (OWRD) Ron.C.Kohanek@oregon.gov
eMail:	Jed Hancock (USDA-FS) jedidiah.hancock@usda.gov	eMail:	Frank Weaver (USFWS) frank_weaver@fws.gov

NORTH UMPQUA HYDROELECTRIC PROJECT

FERC No. P-1927

Protection, Mitigation, and Enhancement Measures



2023 Annual Report



June 2024

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Background	1
1.2 Resource Coordination Committee	2
1.3 Report Organization and Review	2
2.0 RESOURCE COORDINATION COMMITTEE	3
2.1 RCC Roles and Responsibilities	3
2.2 RCC Members	5
2.3 RCC Meetings	5
3.0 PROTECTION, MITIGATION, AND ENHANCEMENT MEASURES	6
3.1 Implementation of PM&E Measures	6
3.1.1 Noteworthy Accomplishments	13
3.1.2 Plans and Reports	23
3.2 FERC License Actions	24
4.0 FIDUCIARY REPORTING	25
5.0 CONCLUSION	28

LIST OF FIGURES

Figure 1. Attendees of the RCC Public Tour listen to Steve Albertelli (center) describe the Protection, Mitigation, and Enhancement measures related to the Slide Creek bypassed reach of the North Umpqua River from the bridge overlooking it, October 2023.	2
Figure 2. The annual RCC public tour group pose for a photo in front of the scenic columnar basalt cliff at Soda Springs powerhouse, October 2023.	4
Figure 3. Soda Springs tailrace barrier diffusing the flow and precluding adult salmon and steelhead from the turbulent tailrace (note operator in safety-yellow jacket standing near hoist), December 2023.	6
Figure 4. One of many bright, wild spring Chinook salmon smolts sampled while passing Soda Springs Dam on their way to the ocean (October 2023).	12
Figure 5. A hatchery-origin summer steelhead that passed Soda Springs Dam twice during 2023 – once upstream in the fish ladder, and this time downstream through the fish screen and into the Fish Evaluation Building in September 2023.	12
Figure 6. FIA-owned land before the Archie Creek Fire. Loose boulders were hidden beneath the forest canopy (compare Figure 7).	13
Figure 7. FIA-owned land after the Archie Creek Fire. Thousands of loose boulders from cliff collapse, landslide, and/or ancient earthquake were exposed by the fire damage.	14
Figure 8. Much of the cliff face collapsed while an excavator was loading loose boulders into dump trucks in the field below.	14
Figure 9. McComas Creek culvert and road decommissioning for erosion and sediment control. ...	15
Figure 10. Mace Creek box culvert before (left) and after (right) treatment, illustrating the fish passage improvements.	15
Figure 11. Large debris flow and LWD from East Fork Rock Creek accumulated into a large log jam at the confluence with mainstem Rock Creek.	17

Figure 12. Boulder structures on left dissipating high flow energy while also diverting some water into a large side-channel and the floodplain providing juvenile refugia habitat (flow from left to right of frame).	18
Figure 13. Before and after flood and debris flow images demonstrating boulder structures performing as designed post-fire in upper Rock Creek.	18
Figure 14. Massive upslope failure on Stoney Creek plugged a culvert and resulted in observable turbidity impacts to the mouth of the North Umpqua River west of Roseburg.	19
Figure 15. The impact of Stoney Creek landslide-induced turbidity at the mouth of Stoney Creek where it enters upper-Rock Creek (left) and a view of mainstem Rock Creek below the Stoney Creek confluence at the East Fork Rock Creek confluence (right).	19
Figure 16. A large alluvial fan depositing gravel into East Fork (left) and a smaller alluvial fan dumping into middle East Fork (right).	20
Figure 17. Tributary A's lower section, which was completely scoured by a significant debris flow.	21
Figure 18. Tributary A debris flows jumped the road culvert and impacted habitat structures in upper-East Fork Rock Creek.	21
Figure 19. A PacifiCorp crew cleaning sticks and debris from the fish ladder at Fish Creek Dam, September 2023.	22
Figure 20. PacifiCorp hydrologist Yutaka Hagimoto measures water velocities to calculate flow in Fish Creek near its confluence with the North Umpqua River, June 2023.	23
Figure 21. PacifiCorp mechanics inspecting the fish screen at Soda Springs Dam while dewatered for planned maintenance, August 2023.	24
Figure 22. A PacifiCorp crew, led by Aquatic Scientist Rich Grost, salvage fish from the wintery Clearwater 1 canal during a planned maintenance outage in April 2023.	26
Figure 23. Biologists from Oregon Department of Fish and Wildlife prepare to float the North Umpqua River to count spawning salmon and redds after launching their catarafts near Soda Springs powerhouse.	26
Figure 24. Biologists from Meridian Environmental prepare to launch their electro-fishing raft to sample fish in Clearwater 2 forebay, August 2023.	28
Figure 25. Crews perform a FERC-required inspection of the low-level spill valve at Lemolo 1 Dam, which required RCC approval to modify instream flow requirements downstream of the dam for several days (October 2023).	29
Figure 26. Even a Swiss Army Knife screwdriver is barely thin enough to enter the gaps of the Soda Springs fish screen and dislodge the tiny gravel trapped therein (August 2023).	30

LIST OF TABLES

Table 1. 2023 Resource Coordination Committee Members	5
Table 2. PM&E Measures Implementation Schedule	7
Table 3. PM&E Measures Status	9
Table 4. Plans and Reports Submitted in 2023	23
Table 5. FERC License Actions Status	24
Table 6. SA 8.3 North Umpqua River Habitat Restoration/Creation Project	25
Table 7. SA 19.1 Tributary Enhancement Program Fund	25
Table 8. SA 19.2 Long Term Monitoring/Predator Control Fund	27
Table 9. SA 19.3 Mitigation Fund.....	27

On the cover: With the fish ladder entrance visible behind them, representatives from most of the RCC agencies line up along the handrail atop Soda Springs Dam during a tour in July 2023. (Photo by Rich Grost).

1.0 INTRODUCTION

Located on the west side of the Cascade Mountain Range in southern Oregon, the North Umpqua Hydroelectric Project (Federal Energy Regulatory Commission (FERC) Project No. P-1927; Project) consists of eight dams and power plants 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 process with FERC. In June 2001, the relicensing process resulted in the development and signing of the North Umpqua Hydroelectric Project Settlement Agreement (Settlement Agreement or SA). The Settlement Agreement identifies annual reporting requirements ranging from fiduciary reporting to narrative descriptions of actions. This annual report documents a calendar year (January 2023 through December 2023) and fulfills reporting requirements of the following Settlement Agreement sections:

- 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; and
- SA Section 21.4.2 Environmental Coordinator Reports—Written annual report on the activities of the RCC and on the implementation of the Protection, Mitigation, and Enhancement (PM&E) Measures.

1.1 Background

On June 13, 2001, PacifiCorp filed a Settlement Agreement pursuant to FERC Rule 602 (Title 18 Code of Federal Regulations § 385.602) to resolve issues concerning the relicensing of the Project. Parties to the Settlement Agreement include PacifiCorp; the United States Department of Agriculture, Forest Service (USDA-FS); the United States Department of Interior (USDI), Fish and Wildlife Service (USFWS); the USDI, Bureau of Land Management (BLM); the National Marine Fisheries Service (NMFS; now known as National Oceanic and Atmospheric Administration (NOAA) Fisheries); the Oregon Department of Environmental Quality (ODEQ); the Oregon Department of Fish and Wildlife (ODFW); and the Oregon Water Resources Department (OWRD), collectively referred to 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 new license articles for the Project. FERC formally issued the new license on November 18, 2003, designating a license 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 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: <https://www.pacificorp.com/energy/hydro/north-umpqua-river.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 2023 North Umpqua Hydroelectric Project Annual Report provides information on RCC roles, responsibilities, members, and meetings; PM&E Measure implementation; FERC license actions; and fiduciary reporting.



Figure 1. Attendees of the RCC Public Tour listen to Steve Albertelli (center) describe the Protection, Mitigation, and Enhancement measures related to the Slide Creek bypassed reach of the North Umpqua River from the bridge overlooking it, October 2023.

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. Through collaboration and sharing of information, the RCC works to achieve desired results of implementation requirements. Specifically excluded from RCC responsibility and authority is the administration of the SA Section 19.1 Tributary Enhancement Program and SA Section 19.3 Mitigation Fund, administered by ODFW and USDA-FS, respectively. However, responsible Parties may consult with the RCC concerning measures conducted pursuant to the 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:

- coordinating implementation of the Resource Coordination Plan (RCP), including ongoing operations and maintenance (SA Section 21.1);
- coordinating implementation of PM&E Measures and ongoing monitoring requirements by PacifiCorp (SA Section 21.1);
- coordinating 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 No. 1);
- coordinating and consulting on plans developed by PacifiCorp (SA Section 21.1);
- reviewing and commenting on the draft annual report of RCC activities and implementation of PM&E Measures (SA Section 21.4.2); and
- serving 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); and
- 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, including the following:

- interpreting the Settlement Agreement through provisions for on-the-ground planning and implementation;
- monitoring implementation of the Settlement Agreement as a whole to provide a wider view than one agency's perspective;
- avoiding surprises and errors through effective communication;
- tracking progress as the interface for the Parties during implementation;
- identifying policy issues by working collectively to define and clarify the issues and options for transmittal to the executive members of the Parties;
- providing public information regarding Settlement Agreement implementation with a collective voice;
- promoting efficiency through sharing of information among organizations; communicating changes in policy, procedure, or regulation; consulting before decision-making; and sharing technical resources;
- implementing the Settlement Agreement collaboratively to ensure that all Parties' interests continue to be valued throughout the new license term; and
- communicating its progress through the development of a website at:
<https://www.pacificorp.com/energy/hydro/north-umpqua-river.html>.



Figure 2. The annual RCC public tour group pose for a photo in front of the scenic columnar basalt cliff at Soda Springs powerhouse, October 2023.

2.2 RCC Members

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

Table 1. 2023 Resource Coordination Committee Members

RCC Member	Organization
Jedidiah Hancock	USDA Forest Service, Umpqua National Forest, Roseburg, Oregon
Frank Weaver	USDI Fish and Wildlife Service, Roseburg, Oregon
Michael Korn	USDI Bureau of Land Management - Roseburg District, Roseburg, Oregon
Michelle McMullin	NOAA Fisheries West Coast Region, Portland, Oregon
Jason Brandt	Oregon Department of Fish and Wildlife, Roseburg, Oregon
Chris Stine ¹	Oregon Department of Environmental Quality, Eugene, Oregon
Craig Kohanek	Oregon Water Resources Department, Salem, Oregon
Steve Albertelli	PacifiCorp, Medford, 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 website at:

<https://www.pacificorp.com/energy/hydro/north-umpqua-river.html>

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 website at

<https://www.pacificorp.com/energy/hydro/north-umpqua-river.html>:

- The RCC approved the following expenditures, funding proposals, and other requests:
 - The proposed, annual budget for SA 19.2 Long Term Monitoring and Predator Control Program implementation in 2023;
 - USDA-FS's request to divert up to one cfs of water from Fish Creek to the Fish Creek Forebay via the Fish Creek waterway for potential wildland firefighting efforts during the 2023 fire season; and
 - PacifiCorp's request for a temporary, not to exceed 5 days, 30 cfs reduction in minimum flow within the Lemolo 1 bypassed reach in mid-October to conduct inspection and maintenance of the valve that discharges the minimum instream flow to the bypassed reach under normal operations.

¹ Chris Stine retired from ODEQ on July 14, 2023 and was backfilled on the RCC by various, interim ODEQ representatives. Parul Baranwal was identified as the new, permanent ODEQ representative to the RCC on November 29, 2023.

3.0 PROTECTION, MITIGATION, AND ENHANCEMENT MEASURES

This section presents a progress report of PM&E Measures defined in the North Umpqua Settlement Agreement and FERC License implemented during calendar year 2023. A summary and status report of all License and Settlement Agreement related documents submitted to FERC is also presented.

3.1 Implementation of PM&E Measures

The implementation schedule for remaining PM&E Measures is presented in Table 2. PM&E measures that are not ongoing and/or were completed in prior years have been removed from the table. The current status of the PM&E Measures is presented in Table 2.

During 2023, Settlement Agreement and license actions focused on implementing management and monitoring plans and operating and maintaining existing PM&E Measures. All Parties have worked cooperatively toward meeting Settlement Agreement schedule commitments.



Figure 3. Soda Springs tailrace barrier diffusing the flow and precluding adult salmon and steelhead from the turbulent tailrace (note operator in safety-yellow jacket standing near hoist), December 2023.

Table 2. PM&E Measures Implementation Schedule

		Key											
		Due Date											
		Complete											
		YEAR											
SA Section	PM&E	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 +
6.0 RAMPING													
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	•	•	•	•	•	•	•	•	•	•	•	
8.0 MAINSTEM HABITAT ENHANCEMENT													
8.2	Spawning Habitat in Slide Creek Bypass Reach - Monitoring (Every 5 years or after 5-year-recurrence high flow events; next planned event is 2027)					•					•		
8.3	Spawning Habitat in Soda Springs Bypass Reach – Monitoring, Maintenance, Funding	•	•	•	•	•	•	•	•	•	•	•	
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	•	•	•	•	•	•	•	•	•	•	•	
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													
14.5	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	•	•	•	•	•	•	•	•	•	•	•	
15.5	Bridges - Inspections/Maintenance	•	•	•	•	•	•	•	•	•	•	•	
15.5.1	Bridge Maintenance Cost Sharing	•	•	•	•	•	•	•	•	•	•	•	
15.6	Culvert Maintenance - PPL Use Roads	•	•	•	•	•	•	•	•	•	•	•	

Key	
	Due Date
•	Complete

		YEAR											
SA Section	PM&E	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 +
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 Program and 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. PM&E Measures Status

SA Section	PM&E Measure	Due Date	Current Status
4.1	Fish Passage at Soda Springs Dam Operations and Maintenance	2012-2038	The fish passage facilities were operated as designed and intended. The agencies reviewed the annual O&M report and it was filed with FERC the following January. Fish passage continued to be monitored and reported annually as part of the SA 19.2 Long-term Monitoring Program.
5.1	Instream Flow Increases in Project Bypass Reaches	2005-2038	License-required minimum flows were provided and managed within required ramp rate allowances to the greatest extent possible.
5.5	Instream Flow Monitoring	2002-2038	Monitoring and reporting continued as required in the Flow Monitoring Plan, with the USGS contracted to manage the stream gages and related data. Annual water year reports were produced and provided based on the provision of publication-grade data from the USGS to PacifiCorp.
6.2.1	Slide Creek Ramping Monitoring Plan Implementation	2013-2020	An interim final monitoring report was produced by the technical working group (TWG) and filed with the FERC in 2021. The report indicated that salmon and steelhead do use the Slide Creek Full-flow Reach of the North Umpqua River for spawning, hence any resumption of daily load shaping operations will follow the flow regulation of changing load no more than 510 cfs per hour (equivalent to one-unit flow at Toketee powerhouse) as specified within the Settlement Agreement. If PacifiCorp resumes daily load-shaping releases PacifiCorp will consult with the TWG to monitor the effects of ramping on fish use within the Full-flow Reach.
6.4	Wild and Scenic Ramping Restrictions	2001-2038	Ramping restrictions and reporting requirements were followed per the Flow Monitoring Plan.
6.5-6.6	Bypass Reach Ramping Restrictions	2001-2038	Ramping restrictions and reporting requirements were followed per the Flow Monitoring Plan.
7.2 (and SA Amendment No. 1)	Gravel Augmentation Program	2002-2038	Monitoring of augmentation sites continued per the Gravel Augmentation Plan, with reports provided at 5-year intervals. The report covering the five-year period from 2017 through 2021 was submitted to the RCC in May 2022. The next report covering 2022-2026 is planned for completion in 2027.
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, with reports provided at 5-year intervals. The report covering the five-year period from 2018 through 2022 was submitted to the RCC early in 2023. The next report covering 2023-2027 is planned for completion in early 2028.
8.3.2-8.3.3	North Umpqua River Habitat Restoration/ Creation Implementation/Monitoring	2004-2038	Annual monitoring occurred according to the Plan, with an annual report submitted to the RCC the following January.
9.1	Funding for Production of Rainbow Trout for Stocking	2004-2038	PacifiCorp provided \$24,584.22 to ODFW in 2023 for the production of rainbow trout.
9.3	Lemolo Reservoir Management Plan and Limits on Drawdown Rate and Elevations	2001-2038	Reservoir management, consultation, and reporting occurred according to the Lemolo Reservoir Management Plan. Water levels and drawdown rates were managed and monitored according to the Flow Monitoring Plan.

SA Section	PM&E Measure	Due Date	Current Status
9.5	Salvage of Fish During Maintenance Shutdowns	2001-2038	Advance notice of planned maintenance shutdowns was made to the appropriate agencies, and salvage and liberation of fish was permitted and implemented as required.
12.1	Vegetation Management Plan Implementation	2004-2038	The Vegetation Management Plan (VMP) continues to undergo implementation. Noxious weed treatments were conducted on USDA-FS lands in 2023. Noxious weed training occurred per the Plan, and implementation of the horticultural invasive species program continued as necessary to satisfy VMP requirements. The 5-year rolling action plan (RAP) was developed in consultation with the USDA-FS and BLM.
13.1	Power Pole Modification	2001-2038	Two deteriorating transmission structures were replaced with avian-safe construction on transmission lines within the FERC boundary in 2023.
13.4	Records Database Management System	2001-2038	The database for management of birds on power lines was maintained. An annual report summarizing avian-power line interactions occurring within the Project area was submitted to the USDA-FS in January 2023.
14.2	Canal Shutoff and Drainage Systems (CSDS) Operation and Maintenance	2007-2038	The CSDS on the Clearwater 2, Fish Creek, and Lemolo 2 waterways were operated and maintained consistent with SA requirements.
14.5	Erosion Control Monitoring	2001-2038	Erosion sites were monitored, and an annual report was produced and distributed to the agencies in September 2023.
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 BLM. The total cost of road maintenance on roads jointly maintained by the USDA-FS and PacifiCorp in 2023 was \$238,867, of which PacifiCorp's share was \$55,776.
	Cost Sharing	2007-2038	
15.5, 15.5.1	Bridge Inspections, Maintenance	Annual & Biennial Inspections	Cost-sharing continued for bridges on jointly-maintained hydro roads. Fracture-critical bridges are inspected annually as part of the annual inspection program.
	Cost Sharing	2005-2038	
16.1, 16.3, 16.4	Visual Resources (Aesthetics) Management Plan	2005-2038	The Aesthetics Management Plan continued to undergo implementation. The 5-year RAP was provided to the USDA-FS and BLM.
17.1	Recreation Resources Management Plan Implementation	2004-2038	The Recreation Resource Management Plan continued to undergo implementation. The 5-year RAP was developed and updated in consultation with the USDA-FS. Identified actions were completed.
17.2	Campground Operations and Maintenance	2004-2038	PacifiCorp provided \$110,351 to the USDA-FS in 2023 for campground operations and maintenance.
17.7	Law Enforcement	2004-2038	These funds are no longer collected by the USDA-FS for pass-through to Douglas County Sheriff's Office (DCSO). PacifiCorp executed a 5-year funding agreement with DCSO in December 2021, and annual payment was made to DCSO in 2023 consistent with that agreement.
17.8	Capital Improvements	2002-2015; future years' funding will be monitoring-dependent	No funding was provided to the USDA-FS in 2023 for capital improvements to recreation facilities.

SA Section	PM&E Measure	Due Date	Current Status
17.9	Public Information	2004-2038	PacifiCorp provided \$11,111 to the USDA-FS in 2023 for public information projects.
17.10	Recreation Monitoring Recreation Monitoring (Periodic Surveys)	2004-2038 2007, 2012, 2017, 2022, 2027, and 2032	PacifiCorp provided \$11,111 to the USDA-FS in 2023 for routine recreation monitoring.
18.1	Cultural Resources (Historic Properties) Management Plan Implementation	2006-2038	The Historic Properties Management Plan and Historic Structures Plan continue to undergo implementation. The 5-year RAP was updated in consultation with the three affected Tribes, ² USDA-FS, BLM, and SHPO.
18.6	Cultural Resources Monitoring	2001-2038	PacifiCorp coordinated ground-disturbing activities with the three affected Tribes, USDA-FS, BLM, and SHPO to assure ongoing monitoring and protection of historic properties.
19.1	Tributary Enhancement Program	2004-2038	Per the ODFW Memorandum of Understanding, work continued on fish habitat enhancements and fish passage improvements.
19.2	Long-Term Monitoring and Predator Control	2004-2038	PacifiCorp deposited \$163,894.82 into the designated fund in 2023. The RCC continued to manage expenses from this fund. Long-term monitoring and predator control study work proceeded according to the Long-Term Monitoring and Predator Control Study Plan, refined as necessary by the TWG as approved by the RCC.
19.3	Mitigation Fund	2004-2038	PacifiCorp deposited \$2,048,685.20 into the USDA-FS-administered mitigation fund account in 2023. 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.
19.4	Oversight Costs	2005-2038	PacifiCorp provided \$265,509.60 in 2023 to ODFW for the funding of ODFW personnel to monitor the SA 19.1 program and oversee on-site PM&Es.
21.4.1	RCC	2001-2038	The RCC continued to facilitate the implementation of PM&Es. It held remote quarterly meetings in 2023, along with a well-attended, in-person annual public tour on October 4, 2023. The TWGs continued to address detailed consultation issues and provide recommendations to the RCC.

² Three affected Tribes are the Cow Creek Band of the Umpqua Tribe of Indians, The Confederated Tribes of the Grand Ronde Community, and the Confederated Tribes of Siletz Indians.



Figure 4. One of many bright, wild spring Chinook salmon smolts sampled while passing Soda Springs Dam on their way to the ocean (October 2023).



Figure 5. A hatchery-origin summer steelhead that passed Soda Springs Dam twice during 2023 – once upstream in the fish ladder, and this time downstream through the fish screen and into the Fish Evaluation Building in September 2023.

3.1.1 Noteworthy Accomplishments

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

Tributary Enhancement Program (SA Section 19.1)

Implementation of habitat enhancements was delayed due to permitting issues, but other program work by ODFW's hydropower staff continued in 2023 and included:

- *Rock Creek Mainstem and Tributaries Enhancement* – ODFW hydropower (hydro) staff were unable to implement instream fish habitat enhancements because of permitting issues. However, hydro staff continued prepping for 2024 basin-wide instream enhancements by mining, grouping, loading, hauling, and staging 1,562 boulders donated by private industrial timber landowner Forest Investment Associates (FIA). ODFW located the loose and semi-loose boulders on upland property in the Rock Creek Watershed that was significantly impacted in the Archie Creek Fire of 2020 (Figure 6), which exposed thousands of boulders that had previously rolled downhill from the cliff-face above (Figure 7 and Figure 8).



Figure 6. FIA-owned land before the Archie Creek Fire. Loose boulders were hidden beneath the forest canopy (compare Figure 7).



Figure 7. FIA-owned land after the Archie Creek Fire. Thousands of loose boulders from cliff collapse, landslide, and/or ancient earthquake were exposed by the fire damage.



Figure 8. Much of the cliff face collapsed while an excavator was loading loose boulders into dump trucks in the field below.

- *Rock Creek Mainstem* – ODFW staged a total of 1,015 boulders at 20 sites along 5 miles of stream length.
- *McComas Creek* – ODFW hydro staff worked upslope from the mainstem of Rock Creek to limit future erosion and sediment input by replacing two undersized culverts and decommissioning five other culverts in small, unnamed tributaries of McComas Creek, the first large tributary to Rock Creek (Figure 9).



Figure 9. McComas Creek culvert and road decommissioning for erosion and sediment control.

- *East Fork Rock Creek* – ODFW hydro staff did not conduct any instream habitat enhancements due to a delay in permitting. However, ODFW staged 547 boulders at 20 sites along 2.5 miles of stream for the 2024 instream work season.
- *Mace Creek* – ODFW alleviated fish passage problems at a box culvert road crossing by placing boulders just downstream of a 22 inch drop to collect materials and reduce the jump height. ODFW also placed additional large woody debris (LWD) downstream of the boulder structure to capture more LWD and dissipate the flow (Figure 10).



Figure 10. Mace Creek box culvert before (left) and after (right) treatment, illustrating the fish passage improvements.

- *Harrington Creek Restoration Monitoring Report* – ODFW hydro staff continues to monitor fish habitat enhancements in Harrington Creek. Previously implemented enhancements are holding up incredibly well despite the impacts of the fire. ODFW is planning additional planting of two-year-old evergreen species, which are being grown from seeds, for 2026 in areas damaged by the fire. ODFW is allowing hardwood species to regenerate on their own. In addition, ODFW purchased a new Onset HOBO water quality station to monitor water quality following habitat enhancements and to replace one that was damaged in the fire.
- *Adult Salmonid Snorkel Surveys in Rock Creek Mainstem* – ODFW did not conduct snorkel surveys for adult salmonids in 2023 because of low adult return numbers and the continuous sorting and trapping of adult fish at the Rock Creek diversion dam. A few fish made it over the diversion dam during a pre-sorting, high-water event. ODFW observed a total of four adult salmonids in spawning surveys: one spring Chinook salmon and three summer steelhead.
- *Monitoring* – ODFW hydro staff continue to document the changes in instream structure movement and the effectiveness of these structures in dissipating significant flows and reducing hydraulic energy during high flow, fall and winter freshets through basin-wide monitoring efforts. Pre-fire, the majority of instream boulder and LWD fish habitat enhancement structures were especially effective at energy suppression. Instream structures facilitated gravel deposition and formed point-bars, allowing young willows and other hardwood species to establish. Immediately following the fire in Fall 2020, 20 emergency LWD jams were placed instream to help offset forecasted post-fire debris flows. Full trees with root wads were utilized to create those jams, and they functioned extremely well, even during post-fire, high flow events.

However, a significant rain on snow event in December led to the first anticipated post-fire debris flow in Rock Creek. Water levels quickly rose with the rising temperatures and melting snow, sending a debris torrent downstream from the confluences of Surprise Creek, Wapiti Creek, and North Fork of East Fork Rock Creek into East Fork Rock Creek. Gathering speed and LWD materials, the debris torrent displaced several downstream LWD structures, scoured some substrate down to bedrock where enhancements were not implemented, and deposited LWD into large jams (Figure 11).



Figure 11. Large debris flow and LWD from East Fork Rock Creek accumulated into a large log jam at the confluence with mainstem Rock Creek.

Conversely, instream boulder habitat enhancement structures, placed pre- and post-fire, continued to perform incredibly well despite the significant debris flows. The boulder structures helped suppress and divert high flows into floodplains which provided high-water refugia for juvenile salmonids and other fish species, and the boulder structures collected a large amount of salmonid spawning gravels (Figures 12 and 13).



Figure 12. Boulder structures on left dissipating high flow energy while also diverting some water into a large side-channel and the floodplain providing juvenile refugia habitat (flow from left to right of frame).



Figure 13. Before and after flood and debris flow images demonstrating boulder structures performing as designed post-fire in upper Rock Creek.

Several significant post-fire rain events of over two inches, which was the amount of precipitation predicted to be the trigger for slides on steep, burned slopes, occurred in the Rock Creek basin. There were over 30 landslides of varying sizes in the Rock Creek basin. Figures 14 through 16 illustrate some of the major landslides with the most impact to upland and aquatic natural resources. Figures 17 through 20 show a massive, upslope failure in Stoney Creek, an upper-Rock Creek tributary. ODFW observed turbidity impacts from that slide all the way to the mouth of the North Umpqua River, west of Roseburg.



Figure 14. Massive upslope failure on Stoney Creek plugged a culvert and resulted in observable turbidity impacts to the mouth of the North Umpqua River west of Roseburg.



Figure 15. The impact of Stoney Creek landslide-induced turbidity at the mouth of Stoney Creek where it enters upper-Rock Creek (left) and a view of mainstem Rock Creek below the Stoney Creek confluence at the East Fork Rock Creek confluence (right).

Significant amounts of substrate have been deposited post-fire at the mouths of a number of unnamed tributaries creating large alluvial fans. Though they appear to be destructive, those alluvial fans can be an incredible source of new instream substrate and salmonid spawning gravels which will hopefully be collected on downstream habitat enhancement structures (Figure 16).



Figure 16. A large alluvial fan depositing gravel into East Fork (left) and a smaller alluvial fan dumping into middle East Fork (right).

Though some long-term benefits are likely to occur with the deposit of gravels at the mouths of some of the smaller Rock Creek tributaries, ODFW has observed significant detrimental impacts from debris flows on larger tributaries, including on Tributary A on upper-East Fork Rock Creek (Figure 17). An approximately one-mile-long debris flow significantly altered Tributary A's streambed and adjacent riparian area, along with part of upper-East Fork of Rock Creek (Figure 18).



Figure 17. Tributary A's lower section, which was completely scoured by a significant debris flow.



Figure 18. Tributary A debris flows jumped the road culvert and impacted habitat structures in upper-East Fork Rock Creek.

Future monitoring of post-fire impacts needs to continue to assess the long-term damage to existing habitat enhancement structures and the potential need for extra boulder enhancements to mitigate the effects of the debris flows.

- *Rock Creek Riparian Management Area (RMA) Plantings* – ODFW purchased new conifer seeds from IFA Nurseries to grow 20,000, two-year old seedlings which will be planted along 9 miles of RMA in the Rock Creek basin to increase stream shading and future LWD input. Hardwood species are regenerating naturally, and weed suppression crews will continue yearly efforts for 2-years post-planting.

Restoration Resources – Restoration efforts in the Rock Creek watershed wouldn't be possible at the scale ODFW is undertaking without the non-industrial and industrial landowners who granted access and contributed resources. Forest Investment Associates, Roseburg Resources, Sierra Pacific Industries (formerly Seneca Jones), and Lone Rock Resources continue to partner

with the ODFW Hydropower Program to ensure ODFW and other restoration partners can provide benefits to fish and wildlife in as much stream area as possible in the Rock Creek watershed. Lastly, ODFW expresses their gratitude to Santos Reforestation Inc. for their hard work suppressing scotch broom, blackberry, and other exotic RMA vegetation species and for their attention to detail when planting new seedlings.

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

Long-term monitoring of fish movement and populations affected by Soda Springs fish passage is currently in the “interim period” and continues with a limited scope per the Study Plan, as a collaborative effort between ODFW and PacifiCorp. Efforts this year concentrated on routine monitoring of fish use of the fish passage facilities, with a secondary focus on redd surveys and predator control. A detailed report is provided to the RCC annually. Upstream passage of adult salmonids was monitored continuously via the video system at the Soda Springs fish ladder, where the upstream passage of anadromous fish averages approximately 1,500 adult salmon and steelhead annually. During 2023, the counts of upstream-migrating adult steelhead were especially low (consistent with regional trends), while the count of coho salmon was a record high. The count of Chinook salmon was also high, with an especially high percentage of hatchery-origin fish (continuing a trend first observed in 2022). Downstream passage of juvenile fish through the fish screen was monitored one to three nights per week at the Soda Springs Fish Evaluation Building, where the number of juvenile fish sampled has ranged up to approximately 50,000 fish annually. Redd surveys helped describe the distribution of fish and the relative use of the available spawning habitats. Predator control efforts focused on predator removal and maintenance of the riverbed array Passive Integrated Transponder tag antennae. PacifiCorp and ODFW plan to continue these activities in 2024.



Figure 19. A PacifiCorp crew cleaning sticks and debris from the fish ladder at Fish Creek Dam, September 2023.

3.1.2 Plans and Reports

The following plans and reports were completed and/or revised and submitted during 2023:

Table 4. Plans and Reports Submitted in 2023

Plan/Report	SA Section, License Article, or FERC Order	Month Completed
Soda Springs Spawning Habitat Annual Report	SA 8.3	January
Lemolo Reservoir Management Annual Report	SA 9.0	January
Soda Springs Fish Passage Operation and Maintenance Annual Report	SA 4.1.1	January
Annual Avian Protection Report	SA 13.4	January
Annual Threatened and Endangered Species and Bald Eagle Monitoring Report	License Articles 411 & 412	February
Resource Coordination Committee Annual Report	SA 21.4.2	June
Long-term Monitoring and Predator Control Study Annual Report	SA 19.2	May
Erosion Control Plan Annual Report	SA 14.5	September
Historic Properties Annual Report	License Article 414	December
Flow Monitoring Plan Annual Report – Water Year 2022	SA 5.5, 6.6	November
Soda Springs Water Quality Annual Report – by Water Year	401 WQ Certification	March



Figure 20. PacifiCorp hydrologist Yutaka Hagimoto measures water velocities to calculate flow in Fish Creek near its confluence with the North Umpqua River, June 2023.

3.2 FERC License Actions

The FERC license contains actions that are required in addition to those actions in the Settlement Agreement. Table 5 summarizes the FERC License requirements that were fulfilled during this reporting period.

Table 5. FERC License Actions Status

Date Filed	License Article(s)	Settlement Agreement Section(s)	Description
1/27/23	401	4.1	2022 Soda Springs Fish Passage Facility Operations and Maintenance Annual Report
2/1/23	411 & 412	USDA-FS 4(e) Condition 16	2022 Threatened and Endangered Species and Bald Eagle Monitoring Report
6/24/23	401	21.4.2	2022 Resource Coordination Committee Annual Report
12/18/23	414	18.1 & 18.2	2023 Historic Properties Annual Report/Action Plan

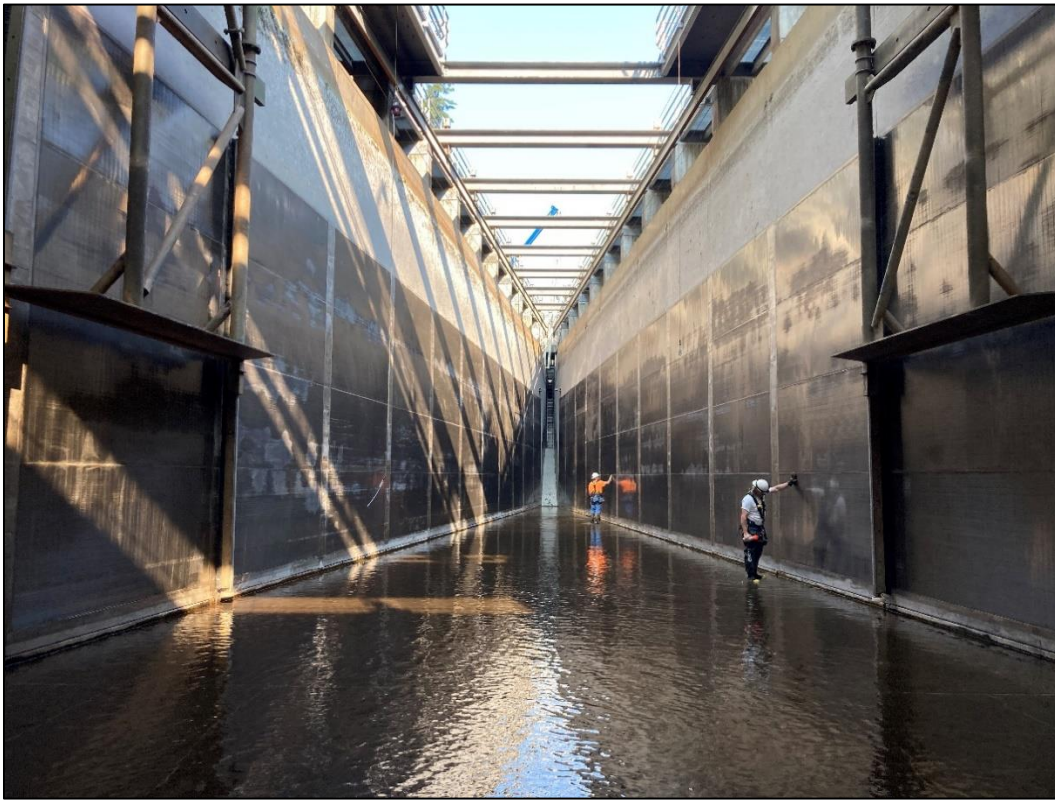


Figure 21. PacifiCorp mechanics inspecting the fish screen at Soda Springs Dam while dewatered for planned maintenance, August 2023.

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 of the following accounts:

- SA Section 8.3.5 (amended) North Umpqua River Habitat Restoration/Creation Project;
- SA Section 19.1.1.3 Tributary Enhancement Program; and
- SA Section 19.3.1 Mitigation Fund.

The SA 7.2.3 (amended) Gravel Augmentation Program account, previously reported herein, was fully expended in 2020 and will no longer be reported.

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.

Table 6. SA 8.3 North Umpqua River Habitat Restoration/Creation Project

Date	Item	Expenditures	Funding	Balance
2023	Opening Balance			\$5,387.05
2023	Annual Escalation (per SA 22.4.4)		\$390.58	\$5,777.63
2023	Expenditures			
	PacifiCorp			
	• Staff labor	(\$1,809.00)		
	Total Expenditures	(\$1,809.00)		\$3,968.63
2023	Ending Balance			\$3,968.63

Table 7. SA 19.1 Tributary Enhancement Program Fund

Date	Item	Expenditures	Funding	Balance
2023	Opening Balance			\$542,851.63
2023	Expenditures			
	Kevin Saylor			
	• Rock Creek maintenance and cleanup • Equipment mobilization • Staging, loading, and hauling • Culvert blockage removal and repair	(\$54,860.00)		
	ODFW			
	• Labor on Rock Creek Basin restoration activities (includes \$7,500.50 for 2022, invoiced in 2023)	(\$30,002.00)		
	Seven Oaks Nursery			
	• Plantings	(\$251.62)		
	Total Expenditures	(\$85,113.62)		\$457,738.01
2023	Investment Earnings		\$26,451.35	\$484,189.36
2023	Ending Balance			\$484,189.36



Figure 22. A PacifiCorp crew, led by Aquatic Scientist Rich Grost, salvage fish from the wintery Clearwater 1 canal during a planned maintenance outage in April 2023.



Figure 23. Biologists from Oregon Department of Fish and Wildlife prepare to float the North Umpqua River to count spawning salmon and redds after launching their catarafts near Soda Springs powerhouse.

Table 8. SA 19.2 Long Term Monitoring/Predator Control Fund

Date	Item	Expenditures	Funding	Balance
2023	Opening Balance			\$75,982.03
2023	Annual Funding (\$100K escalated)		\$163,894.82	\$239,876.85
2023	Expenditures			
	ODFW			
	Biological Science Assistant (BSA)	(\$130,500)		
	PacifiCorp			
	Staff Labor and Expenses	(\$4,151.00)		
	Stillwater Sciences			
	PIT Antennae Management	(\$1,522.75)		
	Total Expenditures	(\$136,173.75)		\$103,703.10
2023	Investment Earnings		\$10,025.97	\$113,729.07
2023	Ending Balance			\$113,729.07

Table 9. SA 19.3 Mitigation Fund

Date	Item	Expenditures	Funding	Balance
2023	Opening Balance			\$1,916,569.98
2023	Annual Funding (\$1,250,000 escalated)		\$2,048,685.20	\$3,965,255.18
2023	Expenditures			
	Mitigation Projects			
	Harmful Algae Bloom Surveillance and Water Quality Monitoring of Lemolo and Diamond Lake			
	Water Quality Monitoring			
	Invasive Crayfish Monitoring-North Umpqua Watershed			
	Fish Watch			
	BLM Mitigation Fund Projects 2024-2026			
	Terrestrial Habitat Improvements			
	North Umpqua Diamond Lake Electroshocker Purchase			
	Upper Cavitt Creek Road Decommissioning Phase 2			
	Collaborative Oak-Pine Ecosystem Restoration			
	Total Expenditures	(\$1,371,955.78)		\$2,593,299.40
2023	Interest Earned		\$178.54	\$2,593,477.94
2023	Ending Balance			\$2,593,477.94

5.0 CONCLUSION

2023 was the twentieth anniversary of the new license and another successful year of PM&E implementation and RCC coordination. The Parties collaborated to facilitate ongoing operation and maintenance of the Project and implementation of PM&E measures. PacifiCorp expresses their sincere thanks to the Parties for their cooperation on behalf of PacifiCorp's customers and the natural resources of the North Umpqua Basin. Members of the public, non-governmental organizations, and agency personnel continue to express interest in the RCC's efforts as evidenced by the most well-attended public tour in the license term occurring in 2023.

The full suite of date-certain PM&E Measures are in place on the Project and will continue to be operated and maintained throughout the License term for the benefit of natural resources in the Project area and beyond. The on-going, successful operation and maintenance of the Soda Springs fish passage facilities continues to be a focus of the implementation program. More than two thousand salmon were observed using the fish ladder during the year.

Other major accomplishments during the reporting period included continuation of the long-term monitoring and predator control program, and completion of annual Rolling Action Plans for ongoing programs to manage vegetation, erosion, transportation, aesthetics, recreation, and cultural resources in the North Umpqua Project area.



Figure 24. Biologists from Meridian Environmental prepare to launch their electro-fishing raft to sample fish in Clearwater 2 forebay, August 2023.

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.



Figure 25. Crews perform a FERC-required inspection of the low-level spill valve at Lemolo 1 Dam, which required RCC approval to modify instream flow requirements downstream of the dam for several days (October 2023).

In 2024, emphasis will be placed on the continued successful operation, evaluation, and maintenance of PM&E Measures, including the Soda Springs fish passage facilities, pursuant to the intent of the Settlement Agreement. 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.



Figure 26. Even a Swiss Army Knife screwdriver is barely thin enough to enter the gaps of the Soda Springs fish screen and dislodge the tiny gravel trapped therein (August 2023).

**North Umpqua 2023 Annual Report
RCC Consultation**

From: Weaver, Frank <frank_weaver@fws.gov>

Sent: Tuesday, June 4, 2024 7:25 AM

To: Smith, Debbi (PacifiCorp) <Debbi.Smith@pacificorp.com>; Albertelli, Steve (PacifiCorp) <Steve.Albertelli@pacificorp.com>; Michelle McMullin – NOAA <michelle.mcmullin@noaa.gov>; Jason Brandt – ODFW <jason.r.brandt@odfw.oregon.gov>; Craig Kohanek – OWRD <Ron.C.Kohanek@water.oregon.gov>; Jed Hancock – USDA-FS <jedidiah.hancock@usda.gov>; Korn, Michael J <mkorn@blm.gov>; Parul Baranwal – ODEQ <parul.baranwal@deq.oregon.gov>; Valarie Thompson – ODEQ <valerie.thompson@deq.oregon.gov>

Subject: [INTERNET] Re: [EXTERNAL] FOR RCC REVIEW: Draft NUI 2023 Annual Report

THIS MESSAGE IS FROM AN EXTERNAL SENDER.

Look closely at the **SENDER** address. Do not open **ATTACHMENTS** unless expected. Check for **INDICATORS** of phishing. Hover over **LINKS** before clicking. [Learn to spot a phishing message](#)

Morning Debbi,

Apologies for the late review. FWS has no comments.



Frank Weaver
777 NW Garden Valley Blvd
Roseburg, Oregon 97471
541/957-3471 Office
503/260-1247

From: Korn, Michael J <mkorn@blm.gov>

Sent: Monday, June 3, 2024 3:52 PM

To: Michelle McMullin - NOAA Federal <michelle.mcmullin@noaa.gov>; Smith, Debbi (PacifiCorp) <Debbi.Smith@pacificorp.com>

Cc: BARANWAL Parul * DEQ <Parul.BARANWAL@deq.oregon.gov>; BRANDT Jason R * ODFW <jason.r.brandt@odfw.oregon.gov>; Albertelli, Steve (PacifiCorp) <Steve.Albertelli@pacificorp.com>; KOHANEK Ron C * WRD <Ron.C.KOHANEK@water.oregon.gov>; Jed Hancock – USDA-FS <jedidiah.hancock@usda.gov>; Weaver, Frank <frank_weaver@fws.gov>; THOMPSON Valerie * DEQ <Valerie.THOMPSON@deq.oregon.gov>

Subject: [INTERNET] Re: [EXTERNAL] Re: FOR RCC REVIEW: Draft NUI 2023 Annual Report

THIS MESSAGE IS FROM AN EXTERNAL SENDER.

Look closely at the **SENDER** address. Do not open **ATTACHMENTS** unless expected. Check for **INDICATORS** of phishing. Hover over **LINKS** before clicking. [Learn to spot a phishing message](#)

Hi Debbi, no edits from BLM.

From: Michelle McMullin - NOAA Federal <michelle.mcmullin@noaa.gov>
Sent: Monday, June 3, 2024 2:23 PM
To: Smith, Debbi (PacifiCorp) <debbi.smith@pacificorp.com>
Cc: BARANWAL Parul * DEQ <parul.baranwal@deq.oregon.gov>; BRANDT Jason R * ODFW <Jason.R.BRANDT@odfw.oregon.gov>; Albertelli, Steve (PacifiCorp) <Steve.Albertelli@pacificorp.com>; KOHANEK Ron C * WRD <Ron.C.KOHANEK@water.oregon.gov>; Jed Hancock – USDA-FS <jedidiah.hancock@usda.gov>; Korn, Michael J <mkorn@blm.gov>; Weaver, Frank <frank_weaver@fws.gov>; THOMPSON Valerie * DEQ <Valerie.THOMPSON@deq.oregon.gov>
Subject: [EXTERNAL] Re: FOR RCC REVIEW: Draft NUI 2023 Annual Report

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello, no comments from NOAA. Thank you,

Michelle LaRue McMullin
Fishery Biologist, Oregon Coast Branch, West Coast Region
Division Manager, Oregon Washington Coastal Office, West Coast Region
ECO Regional Coordinator, West Coast Region
NOAA Fisheries | U.S. Department of Commerce
Office: 503.395.0150
<https://www.fisheries.noaa.gov/region/west-coast>
[Sign up for West Coast Region public notices & newsletters](#)

she/her/they [Why this is important](#)



From: BARANWAL Parul * DEQ <Parul.BARANWAL@deq.oregon.gov>
Sent: Monday, June 3, 2024 11:44 AM
To: Smith, Debbi (PacifiCorp) <Debbi.Smith@pacificorp.com>
Cc: BRANDT Jason R * ODFW <Jason.R.BRANDT@odfw.oregon.gov>; Albertelli, Steve (PacifiCorp) <Steve.Albertelli@pacificorp.com>; Michelle McMullin – NOAA <michelle.mcmullin@noaa.gov>; KOHANEK Ron C * WRD <Ron.C.KOHANEK@water.oregon.gov>; Jed Hancock – USDA-FS <jedidiah.hancock@usda.gov>; Mike Korn – USDI-BLM <mkorn@blm.gov>; Frank Weaver – USFWS <frank_weaver@fws.gov>; THOMPSON Valerie * DEQ <Valerie.THOMPSON@deq.oregon.gov>
Subject: [INTERNET] Re: FOR RCC REVIEW: Draft NUI 2023 Annual Report

THIS MESSAGE IS FROM AN EXTERNAL SENDER.

Look closely at the **SENDER** address. Do not open **ATTACHMENTS** unless expected. Check for **INDICATORS** of phishing. Hover over **LINKS** before clicking. [Learn to spot a phishing message](#)

Hi Debbi,

There are no comments from DEQ for this report.

Thank you.

-Parul



Parul Baranwal
Water Quality Project Manager, 401 Hydropower
Oregon Department of Environmental Quality
800 SE Emigrant Ave, Suite 330, Pendleton,
OR 97801, United States of America
Cell: 971-269-6016
Pronouns: She/her/hers

From: Hancock, Jedidiah - FS, OR <jedidiah.hancock@usda.gov>

Sent: Wednesday, May 29, 2024 2:14 PM

To: Smith, Debbi (PacifiCorp) <Debbi.Smith@pacificorp.com>

Cc: Albertelli, Steve (PacifiCorp) <steve.albertelli@pacificorp.com>; Craig Kohanek – OWRD <Ron.C.Kohanek@water.oregon.gov>; michelle.mcmullin@noaa.gov; Jason Brandt – ODFW <jason.r.brandt@odfw.oregon.gov>; mkorn@blm.gov; Frank Weaver – USFWS <frank_weaver@fws.gov>; Parul Baranwal – ODEQ <parul.baranwal@deq.oregon.gov>; Valerie Thompson – ODEQ <valerie.thompson@deq.oregon.gov>

Subject: [INTERNET] RE: [External Email]FOR RCC REVIEW: Draft NUI 2023 Annual Report

THIS MESSAGE IS FROM AN EXTERNAL SENDER.

Look closely at the **SENDER** address. Do not open **ATTACHMENTS** unless expected. Check for **INDICATORS** of phishing. Hover over **LINKS** before clicking. [Learn to spot a phishing message](#)

No edits for USFS.

Thanks all!



Jed Hancock
Hydropower Program Manager

Forest Service
Umpqua National Forest

c: 541-650-1703
jedidiah.hancock@usda.gov

34963 Shoreview Drive
Cottage Grove, OR 97424

www.fs.fed.us



Caring for the land and serving people

From: Smith, Debbi (PacifiCorp)

Sent: Friday, May 3, 2024 5:31 PM

To: Albertelli, Steve (PacifiCorp) <Steve.Albertelli@pacificorp.com>; Michelle McMullin – NOAA <michelle.mcmullin@noaa.gov>; Jason Brandt – ODFW <jason.r.brandt@odfw.oregon.gov>; Craig Kohanek – OWRD <Ron.C.Kohanek@water.oregon.gov>; Jed Hancock – USDA-FS <jedidiah.hancock@usda.gov>; Mike Korn – USDI-BLM <mkorn@blm.gov>; Frank Weaver – USFWS <frank_weaver@fws.gov>; Parul Baranwal – ODEQ <parul.baranwal@deq.oregon.gov>; Valarie Thompson – ODEQ <valerie.thompson@deq.oregon.gov>

Subject: FOR RCC REVIEW: Draft NUI 2023 Annual Report

Attachment: 2023 NUI Annual Report_20240503.docx

The Draft 2023 North Umpqua Annual Report has been attached for your review. Please edit using track-changes and return to me no later than June 2, 2024.

Please let me know if you have any questions.

Thank you,
Debbi Smith
Sr. Hydro Project Coordinator
PacifiCorp
O: (801) 220-4632
M: (801) 688-3615
Debbi.Smith@PacifiCorp.com