

Regional Water Quality Control Board  
North Coast Region

Executive Officer's Summary Report  
Thursday, April 19, 2018  
Weed City Council Chambers  
550 Main Street  
Weed, CA 96094

ITEM: 3

SUBJECT: Klamath River Updates: 1) Klamath Basin TMDL Implementation; 2) Klamath Basin Integrated Fish Restoration and Monitoring Plan; and 3) Klamath River Renewal Corporation Dam Removal and Restoration Activities (*Clayton Creager, Regional Water Board*); and 4) Lower Klamath Project Water Quality Certification (*Erin Ragazzi, Parker Thaler, and Marianna Aue, State Water Resources Control Board*).

BOARD ACTION: This is an informational item. No action will be taken by the Regional Water Board.

BACKGROUND: The Regional Water Board has directed staff to provide regular updates on activities to improve water quality and supporting conditions for beneficial uses within the Klamath River Basin. In October 2014 staff provided a comprehensive update to the Regional Water Board with a basin-wide overview describing over thirty example projects from the headwaters to the mouth. This April 2018 update will focus on four ongoing initiatives critical to improving water quality and supporting conditions for beneficial uses throughout the Klamath Basin: 1) key elements of Klamath Basin Total Maximum Daily Load (TMDL) implementation; 2) the Klamath Basin Integrated Fish Restoration and Monitoring Plan; 3) activities being conducted by the Klamath River Renewal Corporation; and 4) the State Water Resources Control Board's development of the Lower Klamath Project Water Quality Certification and companion California Environmental Quality Act analysis.

DISCUSSION: ***Update 1: Klamath Basin TMDL Implementation*** relies on collaboration with watershed stewardship partners throughout the Basin. A priority TMDL action is implementation of water quality improvement projects within the Upper Klamath Basin because achieving water quality standards in the California reaches of the Klamath River will not be possible without sustained reductions in pollutant loading from upper basin sources. Klamath Basin TMDL Implementation is an adaptive management initiative that relies on the Klamath Basin Monitoring Program (KBMP - <http://www.kbmp.net/>) to coordinate actions and basin wide assessments. Continued funding for KBMP is currently a critical concern, which may threaten its ongoing operations. Staff will provide updates on: 1) diffuse source treatment wetland projects in the Wood and Sprague River watersheds; 2) Klamath Hydrologic Settlement Agreement Interim Measure 11 Water Quality Improvement Projects; and 3) the Upper Klamath Basin Watershed Action Team and the Lower Klamath Lake Watershed Stewardship Partnership.

Trout Unlimited (TU) has been contracted to build five Diffuse Source Treatment Wetlands (DSTWs) in the Wood River watershed and an additional six in the Sprague River watershed. The project teams also include participation from The Klamath Tribes, U.S. Fish and Wildlife Service (USFWS), The Klamath Watershed Partnership, among others. The DSTW projects received a strongly positive evaluation when evaluated at the Upper Klamath Basin Water Quality Improvement Techniques Workshop in 2012. A link to their conceptual design is provided as supporting material with this update. The DSTW project is evaluating questions regarding their nutrient removal efficiency, water balance, impact on landowner operations, and biodiversity benefits.

The *Klamath Hydroelectric Settlement Agreement* (KHSA or Agreement) included provisions directing PacifiCorp to implement a series of interim measures to improve conditions for water quality and other ecological functions. The Agreement created the Interim Measure Implementation Committee (IMIC) composed of individuals from a large number of organizations including the Regional Water Board to work with PacifiCorp to develop plans for implementing the interim measures. The IMIC has been working on feasibility studies for water-quality improvement projects (Interim Measure 1) to develop a priority list of projects to be implemented following the Klamath River Renewal Corporation's taking ownership of the Klamath dams. The *Development of a Priority List of Projects: Phase 2 Final Report* (PLP) (see link under supporting materials to this update) was completed in February 2018. The PLP includes a description of priority project categories and a governance proposal for an adaptive management work group to allocate the designated \$5,400,000 funds towards selected water-quality improvement projects in the Upper Klamath Basin. The priority project categories include: 1) Diffuse Source Treatment Wetlands, 2) Riparian Restoration, 3) Large Wetland Restoration, and 4) Agriculture Water Conservation Piping Projects. The proposed IM 11 Adaptive Management Steering Committee includes representatives from the Oregon Department of Environmental Quality (ODEQ), State Water Resources Control Board (SWRCB), and the Regional Water Board. Projects will be selected on an annual basis until the allocated funds are expended. Participation on the Steering Committee fulfills the KHSA requirement of approval of IM 11 projects by ODEQ, SRWCB, and the Regional Water Board.

Regional Water Board staff are also working with stakeholders throughout the Klamath Basin to develop sub-basin watershed stewardship teams. Recently, two new watershed stewardship teams have been established in the Upper Klamath Basin. The Upper Klamath Basin Watershed Action Team (UKBWAT) covers Upper Klamath Lake and its tributary sub-basins (Wood River, Sprague River, and Williamson River). The UKBWAT currently includes representatives from USFWS, ODEQ, the Regional Water Board, The Klamath Tribes (Klamath – Modoc – Yahooskin), Klamath Watershed Partnership, The Nature Conservancy, and Trout Unlimited. This working group has led the development of a draft watershed action plan that identifies water quality improvement and restoration priorities. The watershed action plan is based on the watershed stewardship framework and additional partners will be added to UKBWAT as the plan is implemented and refined through the adaptive management process. The team has adopted the priority project categories identified in the IM-11 PLP and is working on an analysis to identify specific

project sites. The team is also currently developing a coordinated strategic status and trends water-quality monitoring plan.

Because of significant differences in stakeholders, agricultural practices, and watershed conditions, a second watershed stewardship team is being formed for areas below Upper Klamath Lake. In February 2018, ODEQ and Regional Water Board met with prospective team members to discuss the possibility of developing a charter agreement to form a watershed stewardship team for the Lower Klamath Lake area, which includes areas within both the Lost River and upper Klamath River. Meeting participants included the U.S. Bureau of Reclamation, USFWS (Refuge Division), Klamath Water Users Association, and several individual irrigation districts and landowners. All attendees agreed to participate in the development of a watershed stewardship charter. Follow up meetings are being scheduled and additional prospective partners will be invited to participate. A primary work product will be a Lower Klamath Lake Watershed Stewardship Plan, with the goal that the Plan will satisfy key requirements of Regional Water Board and ODEQ TMDLs.

**Update 2:** The U.S. Fish and Wildlife Service has contracted the Pacific States Marine Fisheries Commission to develop a science-based, basin wide ***Integrated Fisheries Restoration and Monitoring Plan (IFRMP)*** (see web link under supporting materials to this update). This Plan is intended to help agencies and tribes with fisheries management jurisdiction to wisely allocate funds and coordinate the most effective fisheries restoration and monitoring work. The IFRMP is scheduled for completion by July 2020 and includes five phases: 1) Reference Conditions and Planning Phase ; 2) Preservation and Mitigation Phase – mitigation from expected elevated concentrations of suspended sediment from dam removal and/or fish passage infrastructure; 3) Recolonization and Range Expansion Phase – temporary interventions to accelerate recolonization; 4) Local Adaptation and Growth Phase – restoration actions implemented and populations are on a sustained growth trajectory; and 5) Restored Ecosystem Functions and Harvestable Population Phase – natural populations exist without reliance on hatcheries. A synthesis report that consolidates information on past studies, plans, restoration projects, and monitoring networks has been completed.

Regional Water Board staff are participating on the IFRMP's Basin-wide Technical Working Group and all three Klamath River Sub-Regional Working Groups (Lower, Mid/Upper, and Upper). The Working Groups, as part of Phase 1, are currently developing the Restoration and Monitoring Plan. The mission, goals, specific objectives, and implementation timeline for the IFRMP are consistent with the Klamath Basin TMDL Implementation Program and close collaboration between the two is expected. Many of the TMDL Implementation Program water-quality improvement projects are being incorporated into the IFRMP as recommended restoration actions. The IFRMP provides the Regional Water Board with another important opportunity to continue to leverage TMDL implementation goals through collaboration with others.

**Update 3: Klamath River Renewal Corporation (KRRC) Dam Removal and Restoration Activities** The Klamath River Renewal Corporation (<http://www.klamathrenewal.org/>) was established in 2016 to restore the Klamath River by taking ownership of four PacifiCorp dams and managing the decommissioning process for these facilities. KRRC's twelve Board members (appointed by Klamath Hydroelectric Settlement Agreement signatories) have built its legal, technical, and operational teams; established governance, financial, and risk management systems; secured long-term funding; commenced the Federal Energy Regulatory Commission (FERC) and state water quality permitting processes; and begun fleshing out the dam decommissioning details. The KRRC continues to make progress towards their goal of taking ownership of four PacifiCorp dams (JC Boyle, Copco No. 1 & 2, and Iron Gate), removal of these dams, restoration of formerly inundated lands, and implementation of required mitigation measures in compliance with all applicable federal, state, and local regulations. KRRC has recently revised the removal date to 2021 with some pre-dam removal construction activities occurring in 2020. Completion of KRRC's goals would contribute significantly towards compliance with key Klamath River TMDL goals, load allocations, and targets. While the transfer of ownership has not been completed, KRRC is making notable progress on several planning elements that must be completed before deconstruction activities begin.

**Update 4) Lower Klamath Project Water Quality Certification:** The State Water Resources Control Board (State Water Board) is the state agency with Clean Water Act Section 401 water quality certification authority for the Klamath River Renewal Corporation's (KRRC) Lower Klamath Project (Project). Additionally, the State Water Board is the California Environmental Quality Act (CEQA) lead agency that is analyzing the proposed Project's effects to environmental resources. As part of the Federal Energy Regulatory Commission (FERC) license surrender process, the KRRC applied to the State Water Board for a water quality certification on September 23, 2016. On December 22, 2016, the State Water Board released a Notice of Preparation (NOP) of an Environmental Impact Report to begin the CEQA process. The NOP's public comment period concluded on February 1, 2017, with receipt of more than 1,300 public comments. The State Water Board is considering all comments in development of its Draft Environmental Impact Report (EIR).

The State Water Board is also developing a draft water quality certification for the Project. Release of the draft EIR and water quality certification for public comment is anticipated for spring/summer of 2018. Additional information related to the State Water Board's water quality certification process is available on the State Water Board's Project webpage at:

[https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/water\\_quality\\_cert/lower\\_klamath\\_ferc14803.shtml](https://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/lower_klamath_ferc14803.shtml)

RECOMMENDATION: N/A

SUPPORTING MATERIALS:

1. Link to Klamath Basin Monitoring Program website: <http://www.kbmp.net/>
2. Link to Final Report: Water Quality Improvement Techniques for the Upper Klamath Basin website: [http://www.stillwatersci.com/case\\_studies.php?cid=68](http://www.stillwatersci.com/case_studies.php?cid=68)
3. Link to Klamath River Hydroelectric Project - Interim Measures Implementation Committee: Interim Measure 11 - Development of a Priority List of Projects: Phase 2 Final Report: [https://www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Hydro/Hydro\\_Licensing/Klamath\\_River/2017-IM11-PLP-Ph1-FinalRpt-June-8.pdf](https://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensing/Klamath_River/2017-IM11-PLP-Ph1-FinalRpt-June-8.pdf)
4. Link to Klamath Basin Integrated Fish Restoration and Monitoring Program website <http://kbifrm.psmfc.org/>
5. Link to Klamath River Renewal Corporation website: <http://www.klamathrenewal.org/>
6. Link to State Water Resources Control Board Lower Klamath Project website: [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/water\\_quality\\_cert/lower\\_klamath\\_ferc14803.shtml](https://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/lower_klamath_ferc14803.shtml)