

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
Thursday, January 30, 2014
5550 Skylane Boulevard, Suite A
Santa Rosa, California

ITEM: 6

SUBJECT: Update on Shasta River TMDL Waiver implementation and Watershed Stewardship including development of an adaptive management Monitoring Plan (Andrew Baker, Clayton Creager, Adriane Garayalde, Bob Klamt)

BOARD ACTION: Informational item. No action will be taken by the Regional Water Board.

BACKGROUND: This informational item is based on previous requests from the Regional Water Board members for updates on the status of the Shasta TMDL Waiver (Order No. R1-2012-0083); program and a TMDL monitoring plan. These activities are now part of a larger pilot watershed stewardship framework which provides us with the opportunity to present an integrated activity update. The Klamath Basin Monitoring Program (KBMP) has undertaken the development of watershed stewardship reports for all sub-basins within the Klamath Basin as part of KBMP's communication strategy. The Shasta Valley RCD requested to undertake the initial watershed stewardship report. Since the watershed stewardship report includes information on stewardship projects and activities (e.g., TMDL Waiver ranch plans) and adaptive management monitoring (e.g., monitoring plan), the RCD and Board staff identified the pilot watershed stewardship report as a means to fulfill both tasks within an integrated framework. This approach is also consistent with the direction provided by the Board that Regional Water Board staff should, where possible, develop and implement collaborative adaptive management frameworks to achieve Regional Water Board objectives. Therefore, this update includes information on the status of the Shasta TMDL Waiver program, monitoring plan for the Shasta River, and the pilot watershed stewardship approach. Because the Shasta Valley RCD is currently the local lead for the stewardship framework partnership, Adriane Garayalde the Shasta Valley RCD Executive Director, is included in the presentation panel.

The Action Plan for the Shasta River Temperature and Dissolved Oxygen Total Maximum Daily Loads (hereinafter the Shasta River TMDL Action Plan or Action Plan) was adopted by the Regional Water Board on June 28, 2006 (Order No R1-2006-0052) and amended into the Water Quality Control Plan for the North Coast Region (Basin Plan) on January 26, 2007 following approval by the United States Environmental

Protection Agency. On October 4, 2012 the Regional Water Board adopted the Shasta River TMDL Conditional Waiver of Waste Discharge Requirements (Order R1-2012-0083) which includes a strategy for prioritizing landowner engagement, criteria for plan submittal, and a description for progressive enforcement.

DISCUSSION:

The Shasta River TMDL Waiver program implementation strategy, as discussed previously with the Board, is based on watershed location priorities. This is supported by the watershed stewardship framework, which has divided the watershed into hydrologic reaches and identifies water quality priorities, stewardship actions, monitoring station locations, and water quality assessments based on stream / river reaches agreed upon by participating stewardship partners. There are sixteen watershed stewardship partners participating in the stewardship framework with outreach to several other organizations.

As part of the TMDL Waiver implementation Regional Water Board and Shasta Valley Resource Conservation District staff has engaged 33 ranches located in priority reaches, twenty-seven of these ranches have completed ranch plans. Seven of the ranches that have completed plans are located in the highest priority area above Hwy A12. Currently, 31 ranches have qualified to be covered under the Shasta River TMDL Waiver. There are additional ranches that are working towards meeting Waiver requirements. Additional ranch evaluations will be occurring in 2014, based on a prioritized list.

The project team has also compiled geographic information system data layers for several classes of stewardship projects including: tailwater return flow reduction, small impoundment removal, riparian fencing, and riparian planting. The stewardship project team has compiled existing water temperature and dissolved oxygen data and performed an assessment of existing conditions and trends in six reaches from Dwinnell Dam downstream to the Klamath River. While the analysis is not specific to causes and effects, it provides a basis for observing improvements in water quality conditions. The stream reach analysis results suggest that water temperature conditions are moderately supportive of salmonids within four of six reaches of the Shasta River and are relatively unchanged over the last three years. We do not have sufficient data for the last three years to assess the water temperature conditions in the Shasta River canyon down to the Klamath River. Water temperature conditions in the large cold water source, Big Springs Creek, have steadily improved in the last five years due to the efforts of The Nature Conservancy, and are having a positive influence on downstream areas in the mainstem Shasta River. Dissolved oxygen in the Shasta River was observed to be below the Basin Plan minimum of 7 mg/L more than 30 percent of the time in

some areas, with frequent occurrences into lethal ranges in the middle and lower reaches. The project team is working with the watershed stewardship partners to develop a comprehensive monitoring plan that will provide the information necessary to refine our evaluation of progress towards improved water quality conditions that provide full support for all beneficial uses. No resources have been solely dedicated to the completion of the Shasta River Watershed Stewardship Plan. The Watershed Stewardship Plan includes the water quality analysis results and the stewardship monitoring appendix, among other topics. Completion requires additional input and review of all participating partners. However, Regional Water Board staff and other watershed stewardship partners are committed to completing all aspects of the Watershed Stewardship Plan before the next field monitoring season begins, which is April of 2014.

**SUPPORTING
DOCUMENTS:**

1. Shasta River TMDL Waiver (Order No. R1-2012-0083)
2. Fact Sheet

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