

EXECUTIVE SUMMARY

This document is the Staff Report that supports and explains the Action Plan for the Scott River Watershed Sediment and Temperature Total Maximum Daily Loads (Scott River TMDL Action Plan). The Scott River TMDL Action Plan is proposed as an amendment to the Basin Plan.

The Scott River watershed comprises approximately 520,184 acres (813 mi²) in Siskiyou County, California. The Scott River is tributary to the Klamath River.

Section 303(d) of the Clean Water Act requires states to compile a list of impaired water bodies that do not meet water quality standards. The Clean Water Act also requires states to establish total maximum daily loads (TMDLs) for such waters. The Scott River is listed under Section 303(d) as impaired by elevated sediment levels and elevated water temperatures. Adoption and approval of the Scott River TMDL Action Plan will establish the TMDLs and will satisfy the requirements of Section 303(d). The goal of the Scott River TMDL Action Plan is to achieve the TMDLs, achieve sediment and temperature water quality standards, and protect the beneficial uses of water in the Scott River watershed.

Excessive sediment loads and elevated water temperatures have impaired many designated beneficial uses of the Scott River and its tributaries. Several of the primary beneficial uses impaired are those uses associated with the cold water salmonid fishery. Salmonid populations in the Scott River watershed have declined significantly from historic levels and coho salmon are listed as threatened under the state and federal Endangered Species Acts. Excessive sediment loads and elevated water temperatures have resulted in the non-attainment of water quality objectives for sediment, suspended material, settleable material, and water temperature.

In regards to excessive sediment loads:

- Available data on instream sediment conditions in the mainstem Scott River through Scott Valley show a consistent pattern of sediment impairment, though with indications of improving trends for some parameters.
- Available data on instream sediment conditions in Shackleford-Mill, Etna, French, and Sugar creeks show mixed conditions, with some parameters exceeding desired conditions, some meeting desired conditions, and some with stable or improving trends in fine sediment values.
- Available data on instream sediment conditions in Tompkins, Boulder, and Canyon creeks generally indicate sediment impairment.

In regards to elevated water temperatures:

- Summer temperature conditions do not support suitable salmonid rearing habitat in the mainstem of the Scott River and the East Fork of the Scott River.
- Summer temperature conditions do not support suitable salmonid rearing habitat in the lower reaches of Kelsey, Shackleford, Kidder, Patterson (west side), French, Wildcat, Etna, and Big Carmen creeks and the upper reaches of Moffett Creek and Sissel Gulch.

The sediment source analysis identifies the various sediment delivery processes and sources in the Scott River watershed and estimates delivery from these sources. Sources include landslides, large and small discrete streamside features, soil creep, and roads. The largest human-caused sediment sources are from streamside features and are the result of multiple interacting human activities. Results also show that the current sediment delivery is 167% of the natural sediment delivery in the Scott River watershed. The sediment TMDL is set at 125% of natural sediment delivery, which equals 560 tons of sediment per square mile per year.

The temperature source analysis identifies the various water heating and cooling processes and sources of elevated water temperatures in the Scott River watershed. The source analysis found that the primary human-caused factor affecting stream temperatures is increased solar radiation resulting from reductions of shade provided by vegetation. Groundwater inflows are also a primary driver of stream temperatures in the Scott Valley. Diversions of surface water lead to relatively small temperature impacts in the mainstem Scott River, but have the potential to affect temperatures in smaller tributaries, where the volume of water diverted is large relative to the total flow. Microclimate alterations also have the potential to impact stream temperatures.

The temperature TMDL for the Scott River watershed is the “adjusted potential effective shade” conditions (as defined in the Glossary) for the date of the summer solstice. The temperature TMDL is focused on the heat loads that arise from changes in shade and streamside vegetation. Other controllable factors influenced by human activities (i.e., changes in stream flow, microclimates, and channel geometry) are not included in the TMDL at this time, due to lack of information.

In order to attain the sediment and temperature TMDLs, achieve the sediment and temperature related water quality standards, and protect the beneficial uses of water in the Scott River watershed, specific implementation actions need to be taken. The implementation actions are designed to encourage and build upon on-going, proactive restoration and enhancement efforts, and to comply with the state’s *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*. Should any of the implementation actions fail to be implemented by the responsible party or should the implementation actions prove to be inadequate, the Regional Water Board shall take appropriate permitting and/or enforcement actions.

The implementation actions address:

- sediment waste discharges;
- roads at the private, county, and state levels;
- ground-disturbing activities;
- dredge mining;
- water temperature and vegetation;
- water use;
- flood control and bank stabilization;
- timber harvest;
- activities on U.S. Forest Service land;
- activities on U.S. Bureau of Land Management land;
- grazing; and

- cooperation with the Siskiyou Resource Conservation District, Scott River Watershed Council, Natural Resources Conservation District, University of California Cooperative Extension and California Department of Fish and Game.

Monitoring is necessary to determine if implementation actions are being undertaken, if TMDLs are being attained, if water quality objectives are being met, and if beneficial uses are being protected. Monitoring (e.g., implementation monitoring, upslope effectiveness monitoring, instream effectiveness monitoring, and compliance and trend monitoring) may be required in conjunction with existing and/or proposed human activities that will likely result in sediment waste discharges or elevated water temperatures. Additionally, Regional Water Board staff shall develop a compliance and trend monitoring plan within one year of the date the Scott River TMDL Action Plan takes effect.

Reassessment is necessary for the long-term success of the Scott River TMDL Action Plan. The Regional Water Board will conduct an extensive and focused reassessment after the Scott River TMDL Action Plan has been in effect for ten years, or sooner, if the Regional Water Board determines it necessary. Regional Water Board staff will report to the Regional Water Board at least yearly on the status and progress of implementation actions. For actions that rely on encouragement of existing efforts that address water quality impairments, the Regional Water Board will conduct a formal assessment of the proven or expected effectiveness of these efforts within five years of approval of the TMDL Action Plan.

This Staff Report, the Scott River TMDL Action Plan, and the adoption and approval process are fully compliant with the California Environmental Quality Act (CEQA). The adoption of the Scott River TMDL Action Plan will not have a significant adverse impact on the environment.

Because the Scott River TMDL Action Plan relies on encouragement of existing efforts and on existing water quality regulation, adoption of the Action Plan will not have any incremental economic impacts. Economic impacts of existing water quality regulations addressing sediment and temperature impairments are presented in this report for informational purposes. Positive economic impacts of complying with existing water quality regulations include benefits related to fishing, flooding, properly functioning ecosystems, recreation, remediation activities, residential land prices, and water conveyance and storage facilities. Negative economic impacts of complying with existing water quality regulations include costs related to roads and sediment waste discharges, dredge mining implementation actions, temperature and vegetation implementation actions, water use implementation actions, flood control and bank stabilization actions, implementation actions for the United States Forest Service and the Bureau of Land Management, and grazing implementation actions. The estimated costs of complying with existing water quality regulation can be justified because of economic benefits and legal obligations to protect water quality and beneficial uses.

The public has had many opportunities to comment on and participate in the development of the Scott River TMDL Action Plan and this Staff Report. The Scott River TMDL Technical Advisory Group (TAG) has provided input and advice to Regional Water Board staff. Staff have responded to many comments and questions raised by the TAG. A public scoping meeting was held to solicit public comments. Status updates and presentations have been made to the

Regional Water Board and members of the public. There will be many more opportunities for public input and comment throughout the adoption and approval process.