



Central Valley Project Water Temperature Modeling Platform Project

Modernization of Systemwide Water Temperature Modeling and Analytics

The Central Valley Project (CVP) Water Temperature Modeling Platform (WTMP) Project is a project initiated by US Department of the Interior, Bureau of Reclamation (Reclamation) to modernize analytical tools that support activities and decision making for water temperature management in CVP reservoirs for fishery species protection in downstream river reaches.

Project Focus

The focus of the WTMP project is to by December 2023, enhance modeling capabilities to predict summer and fall water temperature prediction through facilities operations specifically designed for temperature management such as the Shasta Dam Temperature Control Device and Folsom Dam Temperature Shutters with effective performance measure reporting functions. The following requirements were identified for the WTMP:

- Conform to professional standards of care in analytical tool development and applications for reservoir-river system water temperature management,
- Be used consistently for both CVP real-time operations, and seasonal and long-term planning purposes, and
- Accommodate future technological advancements in analytical modeling for reservoir-river system water temperature management.

The scope of the WTMP project will include the water temperature management areas of the Sacramento, American, and Stanislaus river systems; each with unique infrastructure setting and water temperature management challenges.

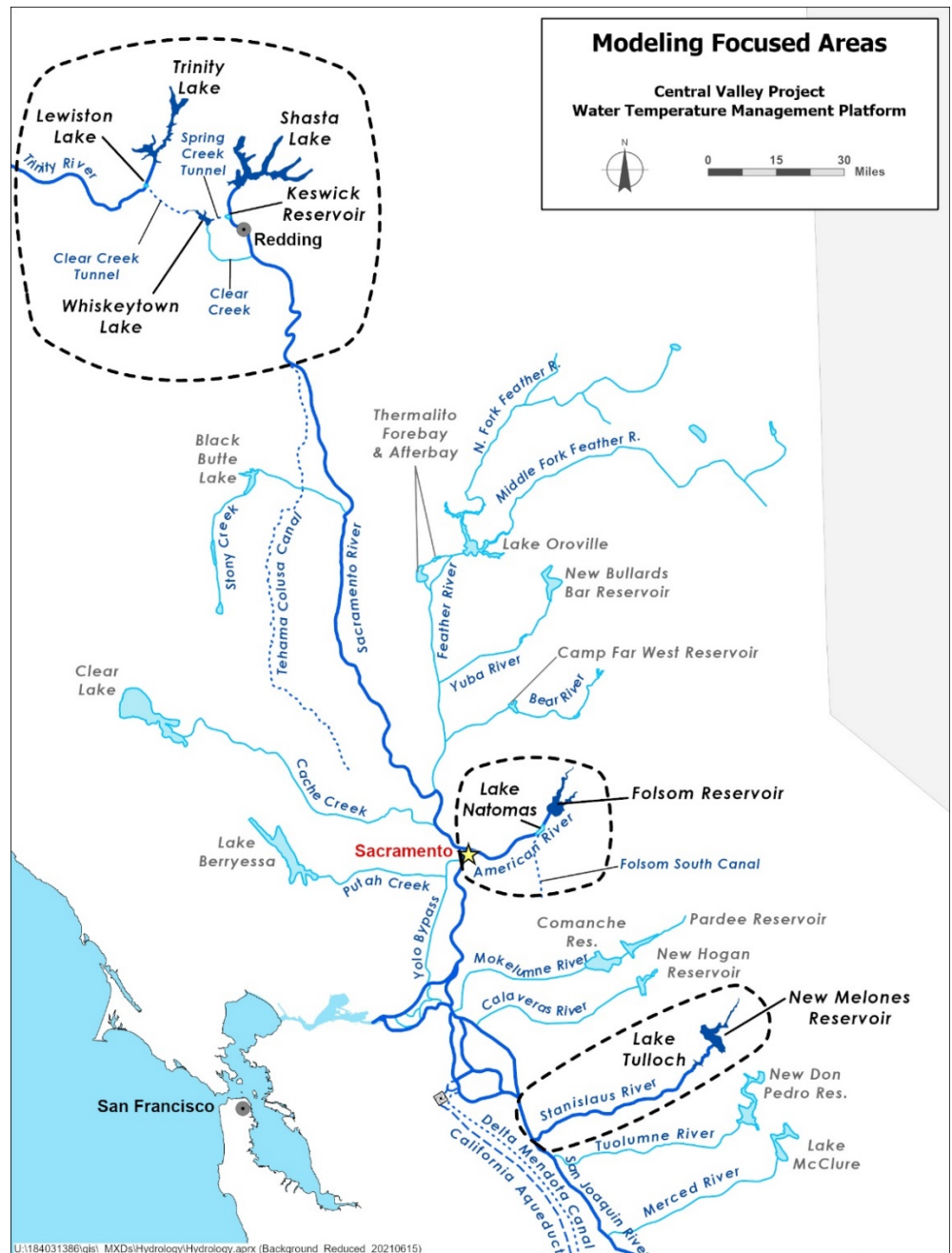
Project Development

The WTMP Project is an important undertaking by Reclamation supported by the Bay Delta Office, the Central Valley Project Operations Office, and the Planning Office of the California-Great Basin Region. This effort not only addresses the water temperature model needs for continued CVP operation and fishery species protection, but also provides significant opportunities for organization capacity building.

The WTMP development will build on Reclamation's recent success of the collaborative development of the CE-QUAL-W2 model for the Shasta and Keswick reservoirs, which was concluded in 2021. Among the stakeholder involvement and outreach activities, Reclamation will organize a Model

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Technical Committee (MTC) to support a collaborative approach for model development, similar to that of the Shasta-Keswick model development experience. The MTC is a technically focused forum open to stakeholders with varying backgrounds and interests to foster a collaborative and transparent process for WTMP development. Detailed discussions on model selection, preparation, calibration and application are planned for the MTC throughout the project development process. Discussion topics will also include proper inferences of modeling results and associated uncertainty, as well as their use in decision making for water temperature management. The MTC could be a foundation for a potential user group for water temperature modeling if there is an interest after the project completion.



Reclamation is working with the Delta Stewardship Council to establish a peer review process for the WTMP project. The external, independent peer review is to examine critical assumptions and technical approach to modeling and platform development and the resulting applications. The peer review process will further benefit the resulting analytical tools

and provide additional transparency and rigor to the model development process.

More Information

Please contact us at mppublicaffairs@usbr.gov, or visit our website at <https://www.usbr.gov/mp/bdo/index.html>