

CITIES OF CERES, MODESTO, AND TURLOCK

Regional Surface Water Supply Project



Project White Paper

January 21, 2011

What is the Project?

For a number of years the Cities of Ceres, Hughson, Modesto, and Turlock have been working together with the Turlock Irrigation District (TID) on development of a Regional Surface Water Supply Project (RSWSP) and associated downstream improvements (i.e. transmission pipelines, storage tanks, and booster pumps), that would pump water from the Tuolumne River, treat it to drinking water standards, and then deliver it to the service area boundaries of the four cities for municipal and industrial uses.

The proposed RSWSP would be located northeast of the City of Hughson, on a 50-acre parcel with about a 20-acre plant foot print, and the remaining 30-acres left as an orchard. The project is envisioned to be completed in four phases. In general, Phase 1 includes preliminary design, water rights review, and environmental review. Phase 2 includes final design, permitting, land purchases, right-of-way acquisitions, legal review, and preparatory financial work. Phase 3 includes final financing work and obtaining construction bids. Phase 4 is construction and start-up.

What is the Project's purpose?

The RSWSP would provide existing water purveyors with a long-term, reliable water source that would correct existing system deficiencies and help keep pace with the projected future development and economic growth of the participating Cities in the south County area (the portion of Stanislaus County south of the Tuolumne River). In general, the proposed RSWSP would provide the following benefits:

- Correct existing supply deficiencies by providing the water needed to keep pace with existing and future demands (developing new wells throughout much of the south County has been largely unsuccessful)
- Eliminate most of the low system pressures problems currently experienced during peak conditions
- Avoid further over-drafting of the groundwater supply
- Improve water quality
- Increase system reliability and create operational flexibility
- Meet SB610 requirements for an assured water supply for a minimum of 20 years

Why is the Project needed?

Additional water is needed in most of the Cities throughout the south County area because the current local groundwater supply is neither sufficient nor reliable to meet existing and/or future demands. The only existing municipal water supply source for areas in the south County is the limited groundwater from the Turlock Subbasin, where a significant amount of the previously existing groundwater supply has been lost due to water quality issues. It is expected that this decrease in reliable groundwater production capacity will, at a minimum, remain the same or continue to decrease as other wells are taken out-of-service due to increasingly stringent water quality regulations. Additionally, the disposal cost for wellhead treatment waste has increased significantly and this cost is anticipated to continue increasing due to regulatory requirements.

Compared to the primary alternative of developing additional water supplies by drilling new wells fitted with wellhead treatment systems, the proposed RSWSP would provide a long-term, reliable source of water for existing customers that will correct current system

deficiencies (i.e. decreased groundwater reliability) and help meet future development needs for the participating Cities. A preliminary assessment indicates that if the Cities in the south County area received treated surface water from the proposed RSWSP, they would have a sufficient water supply even under an extended 5-year drought scenario.

What is the Project’s Background?

A number of years ago the Turlock Irrigation District (TID) solicited the City, as well as other local communities, for potential participation in a RSWSP using TID supplied water from a portion of their historic surface water rights on the Tuolumne River. Specifically, in 1988, TID conducted a comprehensive review of the needs for urban water supplies within its service area. That analysis, and other related studies, was part of the first attempt at developing a RSWSP in the south County area. However, that work ceased in 1992. A renewed effort with an updated project scope began in 2003, and continues today, as the most recent attempt at developing a south County RSWSP. Subsequently, the cities of Ceres, Hughson, Modesto, and Turlock approved a “First Drinking Water Agreement” with TID in 2005 & 2006, securing their participation in the initial stages of the proposed project. The First Drinking Water Agreement discusses the various deal points for the Phase 1, 2, & 3 portions of the work. A subsequent “Water Sales Agreement” would be entered into prior to the Phase 4 period of construction.

The current water delivery requests from the four participating Cities are presented below:

Member Community	Maximum Day Operating Condition (mgd)		
	1st Phase (2015)	2nd Phase (2025)	3rd Phase (Buildout)
City of Ceres	6	12	20
City of Hughson	2	4	4
City of Modesto	6	12	16
City of Turlock	15	15	15
Total Water Delivery	29	43	55

The total quantity of water requested by each of the four participating cities reflects the amount needed to serve the non-groundwater supplied portion of the buildout water demand for each of the agency’s respective General Plan areas.

The preliminary estimates to finish the design, environmental review, acquire the needed right-of-way, complete the other soft cost items, construct the RSWSP (including the transmission pipelines and terminal facilities), and build the raw water pump station is 2-years old and needs to be updated. The estimates of the annual operation, maintenance, and proportional share of the capitalization costs to construct the plant are also 2-years old and need to be updated too. In addition to the RSWSP related costs, each agency will need to install some improvements downstream of the RSWSP’s terminal facilities, such as, distribution pipelines, in order to fully utilize water from the proposed treatment plant. It is estimated that the cost allocation for a RSWSP and related facilities would be split between existing customers (~75%) and future customers (~25%).

What is the Project’s current status?

To date, TID has completed various elements of the project, including a Preliminary Design Report, construction of an infiltration gallery to allow water removal from the Tuolumne River, filtration system pilot testing, and two environmental review documents, as required by the California Environmental Quality Act (CEQA), namely:

- A 2001 Mitigated Negative Declaration which addressed the construction of the infiltration gallery and its associated pipeline and pump station.

- A 2006 Environmental Impact Report which addressed other components of the RSWSP, including the plant and transmission pipelines.

Representatives from the four cities formed a technical advisory committee and have had a number of meetings to determine how best to proceed in evaluating and potentially developing a RSWSP. The committee concluded that forming a Joint Powers Authority (JPA) appears to be the preferred and most feasible method to finance, design, construct, operate, and own a future RSWSP. A draft JPA document has been prepared and addresses the issues of ownership, governance, financing, operation and maintenance, where each participating community would contribute their fair share of the project's cost. Another outcome of the committee's work was the execution of a Cost Sharing Agreement by the four participating cities for development of an Integrated Regional Water Management Plan (IRWMP) for possible grant funding towards the RSWSP. A Consultant has been hired to develop the IRWMP and this work is ongoing.

In general, an IRWMP is a region-wide comprehensive management and planning document that identifies specific projects, such as a RSWSP, that would make the best use of the area's water resources. A RSWSP in the south County area would have a good potential of securing state and/or federal funding and one of the best opportunities is through a Proposition 84 grant, passed in 2006 and administered through the State Department of Water Resources, with \$1 billion in statewide funding. In order to qualify for Proposition 84 funding (for either or both planning and implementation activities), a logically defined region must be formed and an IRWMP developed for that area (currently our region is without an IRWMP). An IRWMP would also be required to qualify for any future grant funding, if voter approved, from the upcoming 2012 "Safe, Clean and Reliable Drinking Water Supply Act". This program is anticipated to appropriate over \$11 billion statewide for various water resource projects.

In January 2011, a Council member-based Steering Committee (advisory to the four Councils) was formed to evaluate and provide policy direction on the next steps in development of a RSWSP. In July 2011, after several monthly meetings, the Steering Committee voted for Joint Powers Authority (JPA) formation. Each of the respective Councils was asked to consider approving the JPA Formation in September 2011. The Cities of Ceres, Modesto, and Turlock approved forming the JPA, with the City of Hughson choosing to become a customer of the JPA due to financial constraints. It is anticipated that the Governing Board of the JPA will hold its first meeting in January 2012.