

PROJECT NAME: **Hinckley Surface Water Treatment Plant Upgrades**
PROJECT ADDRESS: Crafton Avenue
PROJECT RELEASE DATE: 8/4/09
PROJECT COST: \$1,607,889
COMPLETION DATE: 2012
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PROJECT DESCRIPTION AND PUBLIC BENEFIT:

Hinckley is owned and operated by the City and has a maximum rated capacity of 14.5 mgd. The plant has two primary sources of raw water: Santa Ana River water (SAR) and water from the SWP. SAR water is characterized by low concentrations of organics but has variable and sometimes a very high turbidity. This source has the lowest cost and therefore it is the City's goal to maximize this source. SWP water often has lower turbidity level but can experience increased levels of organics which results in the difficulty meeting future regulations. This water source is more expensive but is required during dry periods when sufficient SAR water is not available to meet customer demands.

The City prefers to treat SAR water source at Hinckley due to its high quality and low cost. Depending on the availability of the SAR and SWP supplies, the City has the ability to treat 100-percent of either or a blend of the two sources. The existing treatment process at Hinckley consists of flash mix, three-stage flocculation, sedimentation, and self-backwashing filters. Primary and residual distribution is achieved with free chlorine. Treated water is then delivered to the City's distribution system via the existing Agate Reservoir. Currently, the required contact time (CT) is being met with combination of prechlorination and the use of Agate reservoir.

It is the City's objective to continue to meet all current and foreseeable water quality regulations, including the EPA Stage II Disinfection/Disinfection By-Products (D/DBP) Regulations, which requires full compliance including operational treatment systems by October 2012, in a cost-effective manner. Additionally, designed facilities must meet the requirements of the California Department of Public Health (DPH).

A preliminary design report (PDR) prepared by Carollo Engineers lists recommendations for improvements to Hinckley to provide for treatment of SWP water and compliance with the upcoming DBP regulations based on their jar testing and studies.

In addition, a package treatment unit equipment with a capacity sufficient to meet the ultimate design of the modifications and current and future needs at the plant is included as part of the project. The unit will be used to recycle the filter washwater.