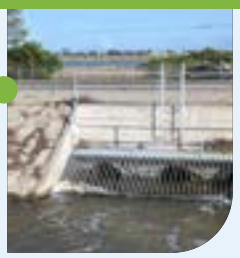
Optimization of Existing Water Supplies and Coordination with New Projects

Location:

Throughout Oxnard and Pleasant Valley basins.

Project Description:

Locations, depths, and rates of groundwater extraction can be modified to increase sustainable yield and help mitigate seawater intrusion near the coast; conjunctive-use projects for agricultural water supply can be expanded; new projects would be scaled to maximize efficiency and coordination with existing water supply sources.



CURRENT STATUS

Modeling of surface and groundwater has been integrated with United's updated Daily Surface Water Distribution Model to evaluate different optimization scenarios.

Conveyance facilities can be designed and constructed in a relatively short time (two to five years) after selection of key new water supply projects.

Recent modeling by United indicates that the EBB Water project (see that flyer) will achieve many of the benefits of optimization of existing water supplies, shifting some of the yield improvements to EBB Water. The benefits and yield of both projects have been revised accordingly, and the estimated cost for optimization has been lowered.

BENEFITS/YIELD

- Approximately 2,000 to 4,000 acre-feet per year (AFY) of additional sustainable yield from the Oxnard and Pleasant Valley basins (combined) is estimated to be possible through optimization of existing and planned projects, while mitigating seawater intrusion near the coast as identified in the Fox Canyon Groundwater Management Agency's Groundwater Sustainability Plans (GSPs) for the Oxnard and Pleasant Valley basins.
- The range in increased sustainable yield depends in large part on which new projects are selected for implementation. A key benefit of optimization is the relatively low energy required to pump groundwater, resulting in lower costs and greenhouse gas emissions compared to some other potential sources of supply.

United Water
CONSERVATION DISTRICT

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October 2024

United Water CONSERVATION DISTRICT

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Estimated Cost:

Assume $5 million to $50 million for construction of new “in-fill” conveyance pipelines or ditches to expand surface water deliveries and drill new water supply wells, depending on scale of optimization; annual maintenance for pipelines is minimal, annual energy costs for pumping groundwater are expected to be comparable to current pumping costs.

Current/Potential Partners:

Fox Canyon Groundwater Management Agency, Pleasant Valley County Water District, Pumping Trough Pipeline users group

Current/Potential Funding Sources:

- None yet; timing and specific need are uncertain