

Farm Water Watch



Published for agricultural irrigation customers of the Coachella Valley Water District

◆ Winter 2012

Coachella Canal delivery system expansion studied

Coachella Valley Water District is studying whether it's feasible to expand the system bringing Colorado River water into the region.

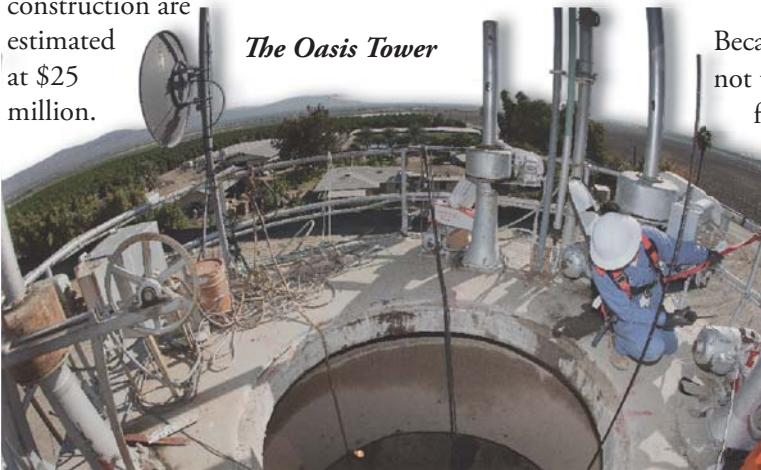
If approved, the Oasis area expansion would be the largest farming irrigation project in the valley in seven decades.

"We are a long way from breaking any ground," said General Manager-Chief Engineer Steve Robbins. "But feedback in public meetings we hosted indicates growers support determining whether such a big project is feasible, especially with respect to financial obligations."

About 30,000 acre-feet of groundwater could be saved annually by ensuring a sufficient supply of Colorado River water is available to meet year-round irrigation needs of growers now using mostly groundwater in Oasis area.

The project as proposed features 20 miles of pipeline (seven miles of 36- to 72-inch, 13 miles of 18- to 24-inch), three reservoirs and four pumping stations.

Preliminary costs for the design and construction are estimated at \$25 million.



The Oasis Tower

About 6,700 acres within Improvement District 1 (ID1) would benefit from the new, improved system.

Up to 2,600 acres of farmland next to ID1, all of which pumps groundwater for crop irrigation, would have access to canal water for the first time, creating the potential to save up to an additional 12,000 acre-feet of water in the aquifer year after year.

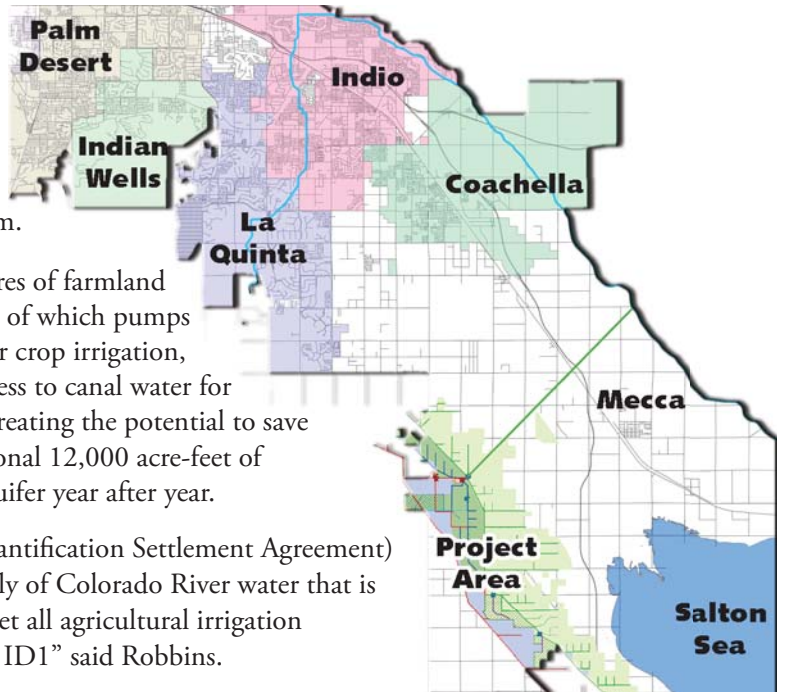
"The QSA (Quantification Settlement Agreement) provides a supply of Colorado River water that is sufficient to meet all agricultural irrigation demand within ID1" said Robbins.

"The QSA also provides that we can deliver Colorado River to land adjacent to ID1 when a clear benefit to the improvement district can be identified."

Originally, design of the Coachella Canal had it continuing for several miles in a southeastern direction, into and through Oasis until it reached the Salton Sea.

Because Oasis land was not thought suitable for farming at the time, the Bureau of Reclamation shortened the canal.

Lake Cahuilla was added to the canal's end in 1969 for more efficiency.



A 78-inch, 6.5-mile pipeline was built from the canal to laterals in the area along with the large baffle stand known as the Oasis Tower, which is designed to create enough head pressure to allow delivery of water to farms not otherwise served.

The delivery system currently cannot meet demand on certain days in the summer months, so customers use both canal water and groundwater.

Under review is the use of reservoirs with sufficient capacity to fill all of the irrigation orders for the area.

Pumping stations at each reservoir would enhance system reliability in meeting demand by all current and future canal water customers all of the time.

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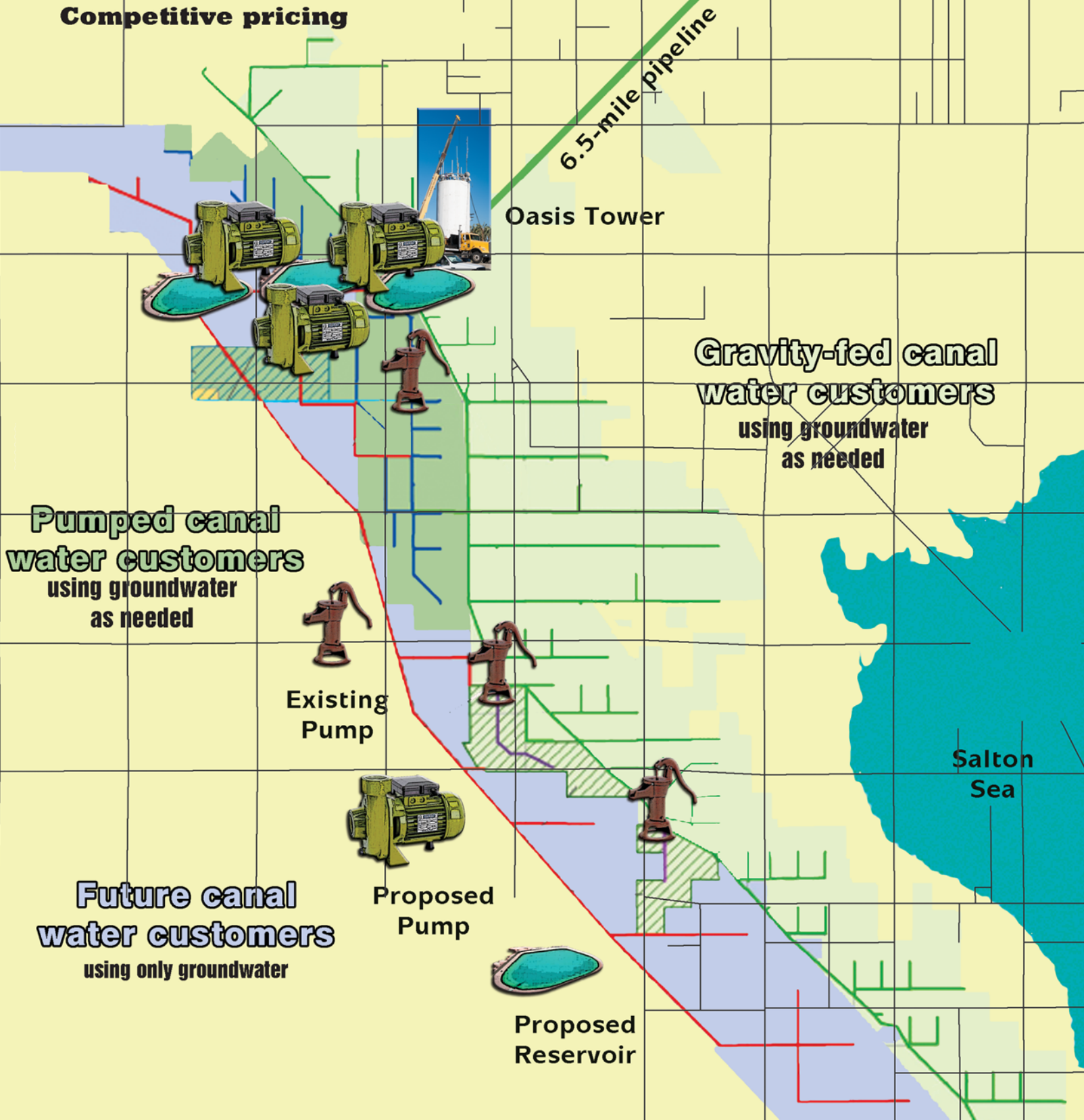
Benefits of expanding Colorado River water delivery system in Oasis area:

30,000 to 42,000 acre-feet of groundwater saved annually

Potential for additional groundwater replenishment

More reliable, efficient canal water deliveries

Competitive pricing



6.5-mile pipeline

Oasis Tower

Gravity-fed canal water customers using groundwater as needed

Pumped canal water customers using groundwater as needed

Existing Pump

Proposed Pump

Future canal water customers using only groundwater

Proposed Reservoir

Salton Sea

Canal

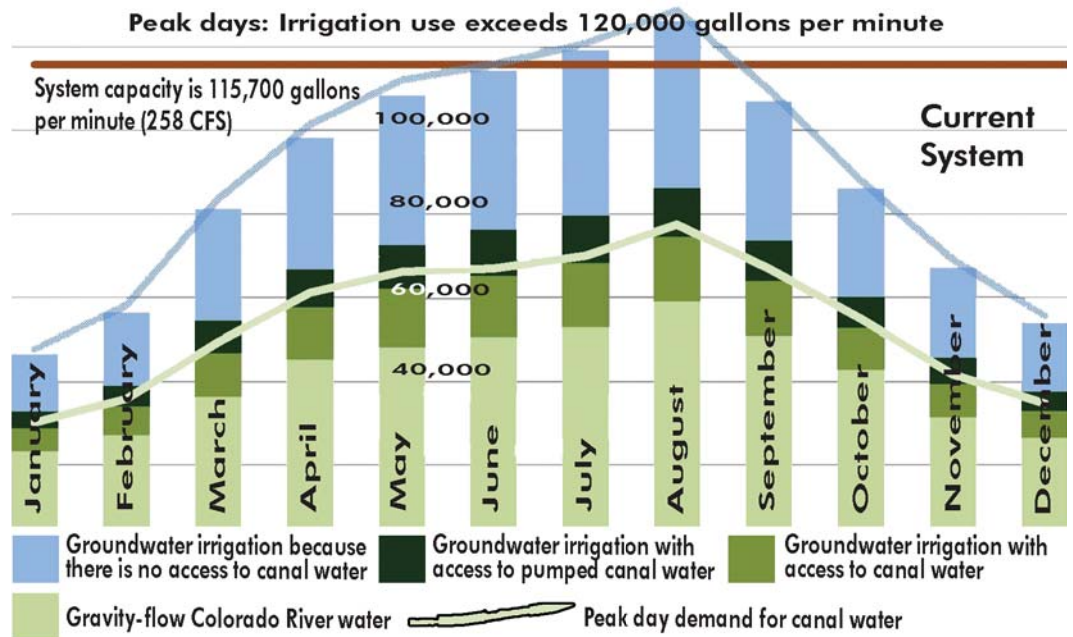
Canal

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A variety of funding options are under consideration. These include an assessment district and a variable rate structure that reflects levels of benefits provided by proposed system improvements. In addition to the capital improvement costs, which are expected to be about \$1.5 million a year, the annual operation and maintenance is estimated at \$3.6 million.

“Back when the canal and its delivery system were built, costs were spread across the entire district; consensus was that all benefitted equally,” said Robbins, “but a ‘postage stamp’ funding approach may not be appropriate this time.

In addition to the improved irrigation for farmers, this project will join those used to protect and preserve local groundwater,” said Robbins.



“This is crucial to the valley’s future growth, development and the region’s overall quality of life.”

As planning and analysis continues, more grower input will be sought before a staff presentation to the water district’s Board of Directors, its review and a possible vote.

Recent court decisions favorable to the QSA enable water district engineers to move forward with anticipation that Colorado River water likely will be available for expansion of the Coachella Canal’s distribution system.

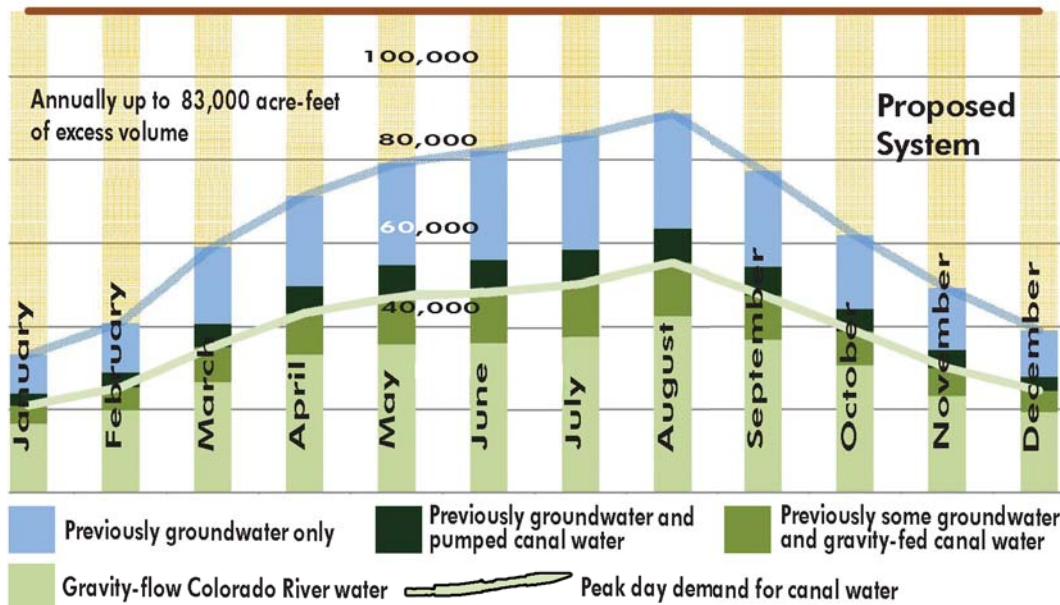
In December a state appellate court ruled a trial court was in error when it found that the QSA was invalid. The case is being returned to the lower court to adjudicate all unresolved issues.

Meanwhile, the ruling by the appellate court will go to the state Supreme Court, which has 60 days to act; although the court can grant itself more time if it wants it.

Despite the favorable court rulings, unresolved are crucial issues regarding restoration of the Salton Sea.

California Governor Jerry Brown is recommending the state council that is supposed to oversee sea restoration be disbanded, which could pave the way for local control and input regarding restoration.

Groundwater preservation helps to preserve permanent storage capacity, to prevent a decrease in water quality and to diminish the potential for subsidence and permanent damage to the landscape.



Proposed system improvements and the use of on-farm reservoirs — in addition to three operated by CVWD— will result in available capacity exceeding peak demand on any given day. This will create opportunities such as additional groundwater recharge or expansion of canal water deliveries to customers located outside of Improvement District 1, provided doing so preserves groundwater levels within ID1.



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Farm Water Watch

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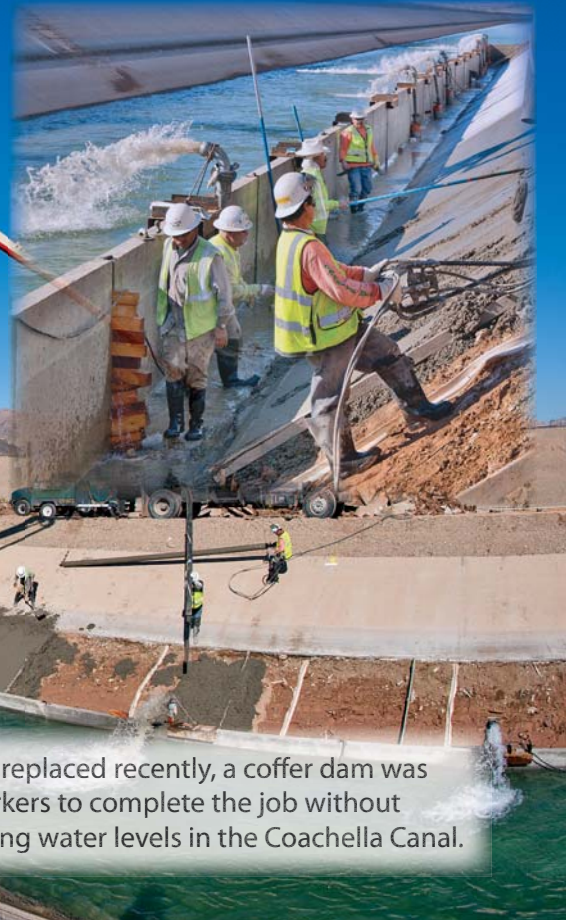
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Canal panels are replaced with no interruption in service



When panels were replaced recently, a coffer dam was built to enable workers to complete the job without significantly lowering water levels in the Coachella Canal.