

Binational desalination plans heat up

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With scarce rainfall and increasing competition for water from the Colorado River, Baja California faces many of the same challenges as Southern California as it strives to meet the needs of a swelling population.

Now water managers are considering whether to build four desalination plants along the Pacific Ocean corridor that spans Rosarito Beach to Ensenada. Two of the proposals are binational ventures — one private, the other public — that would pipe a portion of the processed seawater to users in San Diego County.

The private project has been moving forward quickly in recent months as developers explore the possibility of a reverse-osmosis facility in Rosarito Beach with an initial capacity of 50 million gallons daily. That would be as large as the Poseidon plant scheduled for operations in Carlsbad.

For years, U.S. and Mexican water agencies have discussed the prospects of a binational desalination plant in Rosarito Beach, and the issue is gaining momentum as mounting supply demands and drought have strained the Colorado River.

“The situation on the Colorado River is dismal,” said Halla Razak at the San Diego County Water Authority. “It is important to augment the water supply, and this is why everybody is talking.”

Combining forces with U.S. water agencies can help lower expenses for both sides, said Mario López Pérez, who oversees

Desalination plant cities



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international ventures for Mexico's National Water Commission. "The larger the project, the less expensive the cost per unit," he said.

Sen. Denise Ducheny, D-San Diego, also believes such binational efforts can be mutually beneficial.

"To be able to help with the capital costs and share the water is a way for the whole region to prosper," Ducheny said. "It's acknowledging that we're a shared economic region."

The group behind the private venture in Rosarito Beach is NSC Agua, co-owned by a Cayman Islands-based company, Consolidated Water. The company has a contract to purchase a plot next to the Rosarito Beach power plant, but still needs permits, financing, guarantees for a steady supply of electricity and commitments from water purchasers on both sides of the border.

If all of the components fall into place, the complex could be completed as early as 2015. In the initial phase, the developers are counting on selling half of the water to the Otay Water District.

"It's another source in the portfolio of water supply that we need," said Mark Watton, general manager of the district, which serves 48,000 customers in southeastern San Diego County. "Otay is not investing money into Mexico. It's strictly water delivered at the border fence at the proper quality and quantity."

The other binational project in Rosarito Beach is in early discussions. Many of its details remain unresolved, but the projected capacity is 50 million to 100 million gallons daily.

A third venture would be located in the southern Rosarito Beach community of La Misión, said Efraín Muñoz, head of the State Water Commission for Baja California. The agency is evaluating specific land parcels for a facility that would produce about 5.6 million gallons of water daily, he said.

The fourth desalination project is the furthest along.

Known as El Salitral, it would sit on property owned by the Baja California government in Ensenada. On Thursday, the state is expected to relaunch the bidding process after its initial selection effort was annulled by a federal board last year. It hopes to choose the winning bidder early next year and have the facility finished by the end of 2012.

"We have no other options but the ocean," Muñoz said. The port city of Ensenada, with about 290,000 residents, is the only Baja California municipality that doesn't receive water piped in from the Colorado River, and its aquifers are overdrawn.

Mexico's federal government has agreed to pay 40 percent of the plant's estimated \$30 million construction cost, while the project's builder would contribute the rest in return for operating the plant for 20 years.

The design for El Salitral calls for a reverse-osmosis facility that could produce nearly 5.6 million gallons of water a day, enough to serve roughly 90,000 people in the community of El Maneadero.

Hector Contreras Luenga, head of a business umbrella group in Ensenada, the Business Coordinating Council, said the project is urgently needed in his city. His group has recommended three desalination plants.

While there are some small desalination plants in Baja California, the Ensenada one would be the first large facility in the state and the largest in Mexico based on current construction timelines. At the southern tip of the Baja California peninsula, Cabo San Lucas has run a municipal desalination plant since 2007 that treats about 5 million gallons daily.

Desalination is becoming an increasingly attractive option as the cost of that technology drops and the price of water from other sources has risen. Mexican authorities see desalination as an important alternative in arid areas such as Baja California.

José Guadalupe Osuna Millán, the governor there, said the state needs to consider all possible ways of boosting the water supply.

“Desalination just on its own is very expensive, but in a mix it is very feasible,” he said.

Others stressed that desalination shouldn't be pursued until water conservation and recycling have been fully emphasized. They include Leopoldo Mendoza, a professor with the Institute of Oceanographic Research at the Autonomous University of Baja California, who said the government should put more resources into water-reuse programs.

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