

Desalination test a model of cooperation

by Sandra Dibble

YUMA, Ariz. - It is one of the world's largest desalination plants, big enough to provide water to 500,000 people. But since 1993, the Yuma Desalting Plant has stood idle at the edge of this quiet agricultural community.

Now, for the first time in 14 years, the \$250 million reverse-osmosis facility is back in operation for a three-month test run. And that is prompting a key question: How would this affect the Cienega de Santa Clara, a wetland 30 miles south in Mexico? What could have flared into a bitter dispute between environmentalists intent on saving the cienega and water managers searching for a new supply has turned into an cooperative venture. Both sides hope to set an example for avoiding conflict and learning to share an increasingly scarce supply of Colorado River water.

"In this little region of California, Arizona, Mexico, we're all confronted with the same issues," said Sid Wilson, general manager of the Central Arizona Project, a water district that serves 1.5 million users. "How do you deal with growing demands for water by people, declining natural supply and trying to sustain environmental values?"

The Yuma Desalting Plant, he said, "provides the key as to how we might better manage resources at the end of the system."

The Cienega de Santa Clara is a 15,000-acre cattail marsh that is a prime habitat for endangered species and waterfowl, the largest such place in the Sonoran Desert. It was created inadvertently three decades ago by runoff from southern Arizona farms that was sent to Mexico, and has survived largely because until now, no one has decided to run the desalination plant.

Today, "it's a super important stop on the Pacific Flyway," a major route for migratory birds, said Osvel Hinojosa, a wildlife ecologist with Mexico's largest environmental group, Pronatura. For Hinojosa and other conservationists intent on preserving the cienega, its existence offers proof of nature's resilience and hope that other parts of the Colorado River Delta can be brought back to life.

The flow to the cienega began in the mid-1970s with the construction of a drainage canal to divert the agricultural runoff before it got into the Colorado River. During the 1960s, Mexican farmers had complained that when the untreated runoff made its way into the Colorado, it raised the salinity level of their river water and harmed their crops.

But the canal was only meant to be a temporary measure until a desalination facility could be built to treat the

water in the United States. The Yuma Desalting Plant was completed in 1992, but for years, high water levels on the Colorado River made the plant's operation - which costs about \$30 million a year - unnecessary. With drought and growing populations, Arizona water districts began pressing to start the plant up again.

Conservationists feared operating the desalting plant would cut off the cienega's main lifeline and braced for a battle to keep the water flowing.

"You mentioned the Yuma Desalting Plant and the environmental community saw the imminent doom for the Cienega de Santa Clara," said Jennifer Pitt, a research analyst with Environmental Defense. "There was no dialogue happening; it was just a push-button issue."

Until a few years ago, Wilson of the Central Arizona Project cared little about the wetland. "My view was the cienega isn't natural," he said. "But when you go down there, you recognize that artificial or not, it has some real environmental value."

Wilson also saw some practical reasons for engaging with conservationists: avoiding a fight over the water.

Seeing the potential for conflict, Wilson formed a group to discuss the options for the cienega and the desalting plant. Participants included the U.S. Bureau of Reclamation, which owns and operates the facility, the Arizona Department of Water Resources and the city of Yuma, as well as U.S. environmental groups that have studied the delta, including Environmental Defense, the Tucson-based Sonoran Institute and the Oakland-based Pacific Institute.

In April 2005, they came up possible alternatives that included treating poor-quality Yuma groundwater at the plant and allowing the agricultural runoff to continue flowing to the cienega. The report also included a proposal for a voluntary program in which farmers are paid not to grow crops.

The group "is a model for how we should resolve border environmental and water disputes," said participant Peter Culp, an attorney for the Sonoran Institute.

As the Bureau of Reclamation's area manager, Jim Cherry oversees the desalination plant and also participated in discussions.

"This is something we've found common ground on," Cherry said. "It's good to be working cooperatively with these groups, because historically, we've sat down at the table and argued."

The potential for conflict can be seen just west of Yuma on the California border, where a plan to stop cross-border seepage by lining a portion of the All-American Canal has led to litigation and a standoff between the U.S. and Mexican governments.

In Arizona, the Bureau of Reclamation has made no final decisions on the plant's operation. Staff members are studying options and are hoping to gather information by operating the plant at 10 percent capacity for a three-month period that ends in June.

"We're concerned about the environmental impacts associated with operating the plant," Robert Johnson, the bureau's commissioner, said during a visit to the plant Tuesday. "We don't have an obligation to do this, but if we can avoid the impact on that environmental resource, no matter where it is, we want to take that into consideration."

The bureau is also following the results of a separate scientific study of how the plant's partial operation will affect the cienega, hoping to understand how sensitive it is to a reduction in the flow of the Arizona agricultural water. The Central Arizona Project is funding the \$80,000 study, conducted by the University of Arizona and two Mexican groups, Pronatura and the Center for Investigation in Nutrition and Development.

Karl Flessa, a conservation biologist at the University of Arizona, is encouraged by the interest in the study's outcome. "It's an acknowledgment that how we manage water on this side affects environmental quality on the other side of the border. It's a recognition that it's all one river."

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