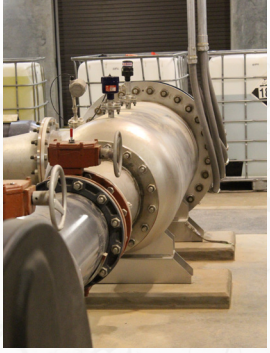
TCEQ photos





Natural OUTLOOK
PD-020/13-08 AUGUST 2013

EXTENDED DROUGHT FOSTERS NEW APPROACHES

While it is tempting to think that the drought of 2013 is "second verse, same as the first," it is and it isn't. In some parts of the state, the lessons learned since the drought began in the fall of 2010 are paying off through planning, and in implementation, of innovative ways to extend water supplies. In other areas, shortfalls at water sources have been so rapid and severe that systems have had to improvise to avoid critical water shortages.

In all cases, the Texas Commission on Environmental Quality, other state agencies, and officials are at work to help public water systems meet the primary needs of their customers for safe drinking water and sanitation.

Big Spring Opens a New Plant

Water has always been a precious commodity in West Texas and is a frequent topic of conversation there from the school yard to the stock yard, and from the bank lobby to the board room.

When its reservoirs were reduced to mud patches in 2011, the Colorado River Municipal Water District was already planning ways to increase supplies through drilling more groundwater wells, installing a pipeline, and constructing a new facility to enhance raw-water supplies in Big Spring. The district originally began discussions about such a facility with the TCEQ in 2004.

This raw-water production facility captures treated municipal effluent from the City of Big Spring, and gives it additional advanced treatment before blending it with raw surface water in their delivery system. It is then treated by conventional surface water treatment plants. On April 11, the TCEQ approved the facility to add treated water to a raw-water pipeline that carries the blended water to five downstream conventional surface water treatment plants. According to the CRMWD, treated water from the facility began to be added to the raw-water pipeline on April 25. Initial output is estimated at 2 million gallons per day.

Because the blended water from the CRMWD Raw Water Production Facility is treated downstream at conventional surface water treatment plants, the facility's treatment goals are to produce water with a quality equivalent to, or better than, the raw surface water that it is blended with.

A microfiltration unit at the CRMWD Raw Water Production facility in Big Spring, Texas. Also part of the facility are (top of page, l to r) reverse osmosis units, microfiltration unit piping, and a UV-light reactor.

Other water providers are currently exploring the potential for similar direct-potable reuse projects in various areas around the state.

Officials Urge Action on the Mexican Water Deficit

The failure of Mexico to consistently deliver water in accordance with the 1944 Water Treaty significantly harms Texas' interests. The treaty stipulates that Mexico release an average of 350,000 acre-feet annually during a continuous five-year cycle. Mexico's failure to do so has caused considerable hardship for Texas water users, especially agricultural irrigators.

Since November of last year, TCEQ Commissioner Carlos Rubinstein has urged the International Boundary and Water Commission to persuade the Mexican government to comply with the dictates of the treaty. Through the course of the year, the commissioner has been joined by Texas Agricultural Commissioner Todd Staples; Governor Rick Perry; and local, state, and federal officials—all of whom have appealed to both the IBWC and the U.S. State Department to take action—with no tangible result.

In June, U.S. Sens. John Cornyn and Ted Cruz, along with U.S. Reps. Filemon Vela and Mike Conaway, even introduced the Working to Address Treaty Enforcement Rapidly for Texas Act. The WATER for Texas Act would require the Secretary of State's office to regularly submit reports detailing the efforts Mexico has undertaken to meet its treaty obligations.

Meetings in the Rio Grande Valley Help Cities Deliver Water

Parts of South Texas have suffered from prolonged and extreme drought conditions resulting in lower flows in segments of the Rio Grande. Irrigation districts in the Rio Grande Valley, in conjunction with the Rio Grande watermaster, manage a series of canals that deliver water to their customers, including municipalities.

While these municipalities have adequate supplies to meet basic needs, more water is required to push these supplies down the canals for delivery. The lack of rain and inadequate releases from Mexico raised concern about municipal deliveries.

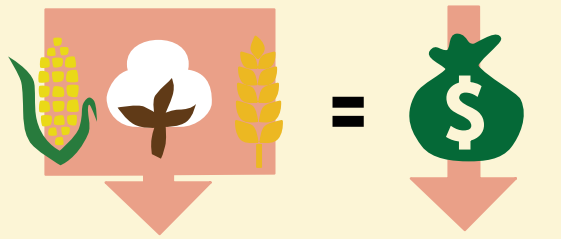
In February and March, the TCEQ hosted the first of many meetings to address these concerns. Experts from different parts of the agency, the North American Development Bank, the EPA, and the Texas Department of Emergency Management met with district and municipal operators, as well as local officials in Harlingen. The result: a forum to discuss ways for districts to work together toward a regional approach to avoiding shortages.

Conservation is Still Key

Even in years with adequate rain, Texans need to think differently about water.

- Communities are filing and implementing water restrictions according to their drought contingency plans and urging customers to make better choices.
- Individuals are taking action to conserve water by planting native plants, and capturing rainwater. Also, consumers are more

Projected Economic Losses Associated with the Lack of Irrigation Water in the Lower Rio Grande Valley.



2013 decrease in crop acreage > **LOSS** of **$218 million** in value added,* **$395 million** in economic output,** & **4,840** jobs

* Value added is a measure of net business income and employee compensation. It also represents a contribution to Texas' Gross Domestic Product, the most commonly used indicator of the health of the state's economy.

** Economic output represents gross business activity (spending) associated with irrigated crop production.

Source: Ribera, Luis, Dean McCorkle. "Economic Impact Estimate of Irrigation Water Shortages on the Lower Rio Grande Valley Agriculture." Texas A&M AgriLife Extension, June 2013.

Irrigation districts supply water for **AGRICULTURAL** & **MUNICIPAL** use

Some irrigation districts in the Lower Rio Grande Valley are expected to **RUN OUT** of **IRRIGATION WATER,** impacting municipal water deliveries to more than **800,000 residents**

Affected communities are being forced to **SPEND FUNDS** to purchase water—funds for which they originally had not budgeted

Source: TCEQ

conscious of water use around the house by doing full loads of laundry or dishes, fixing plumbing leaks, and taking shorter showers.

- Businesses need to plan for more efficient water use, too, by reducing demand and recycling water where possible.

Teamwork is Working

Since 2010, we at the TCEQ have relied on partners in other state agencies to work with us to help public water systems meet the needs of their customers for clean, safe, reliable drinking water and sanitation. The agency gives technical assistance to systems where water supplies are depleted.

Other agencies, such as the Texas Department of Agriculture and the Texas Water Development Board, have made grants or low-interest loans available to communities needing to fund projects such as drilling new wells, moving intakes, or interconnecting with other suppliers.

This coordinated effort makes better use of taxpayer dollars by reducing duplication, and opens doors for further collaboration in data sharing and collection.

We are never sure what the weather will do, but our state's growing population makes water planning critical for continued success. The TCEQ is building relationships to find solutions that will resonate in the years ahead—come rain or come shine.

For More Information

Texas drought: www.tceq.texas.gov/response/drought

Treaty with Mexico: www.tceq.texas.gov/border/water-deficit.html

Rio Grande Watermaster Program: www.tceq.texas.gov/permitting/water_rights/wmaster/rgwr

For public drinking-water systems: www.tceq.texas.gov/drinkingwater/pdw_rulesGuide.html

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