

Region's water consumption 'cause for concern'

By Neil Strassman
Fort Worth Star-Telegram

Metroplex residents use more water than other Texans and do the least when it comes to turning off the tap.

Although residents in San Antonio and El Paso live in fear of the water police busting them for wasting water in the street and have learned to live with low-flow showers, toilets and washing machines, North Texans enjoy a lavish relationship with the liquid that floats their boats, state water records show.

The Metroplex has the highest per-capita water use in Texas and is expected to have the greatest need for additional water in coming years.

"If you look at overall consumption compared to other major cities in the state, there is cause for concern," said former Fort Worth City Councilman Bill Meadows, now a Texas Water Development Board member. "We encourage consumption and institutionally discourage conservation. What's the incentive to conserve? Water is cheap."

The American Waterworks Association estimates the average per-capita water demand in America at about 171 gallons a day. In Dallas, it's 235 gallons and in Fort Worth 214 gallons, according to state figures. In the largest North Texas cities, it ranges from a high of 273 gallons in Plano to a low of 147 gallons in Grand Prairie. In contrast, El Paso residents use 159 gallons a day and San Antonio residents use 147 gallons, according to the AWA estimates.

Water has been plentiful for decades in North Texas, where civic leaders had numerous reservoirs built after seven painful years of drought in the 1950s.

A smarter landscape

Information on using drought-resistant native Texas plants for a landscape that needs little water can be obtained on Texas Smartscape, a computer CD-ROM. Texas Smartscape includes a tutorial on native plants and information building a yard that uses less water, pesticides, herbicides and fertilizers. The CD includes a searchable database of more than 200 native and adapted plants and step-by-step information on landscape design and care. To get a copy of the CD, see the Web site www.dfwstormwater.com, or call Gene Rattan at the Tarrant County Health Department storm-water program at (817) 871-7511. But last year an 84-day dry streak exposed lake bottoms. And in the summer of 1999, 46 days topped 100 degrees. Those are not-so-subtle reminders of the bone-dry potential of life on the prairie. This year the lakes are full - but for how long?

Across Texas, cities are giving away water-saving toilets and shower heads to replace old high-flow models and are offering incentives to homeowners and businesses willing to replace lush green St. Augustine turf with low-water use landscaping employing drought-resistant native plants.

Not in North Texas.

There are no rebate or incentive programs in Fort Worth, Dallas, Arlington or Denton other than occasional demonstration projects, North Texas water officials say.

Some people complain that they need to flush twice, take another shower and do the laundry again with low-flow technology. But, it does save water.

The 160,000 low-flow shower heads distributed in El Paso last year saved reduced the city's treated wastewater by 1 billion gallons, said Anai Padilla, the city's water conservation manager.

El Paso doesn't allow grass on parking strips narrower than 8 feet, Padilla said. "And, if you have grass, no spray heads. We want to avoid water running in the street."

San Antonio, El Paso and Austin are changing their landscape ordinances to no longer require grass, trees and irrigation. Drought-resistant native plants that use far less water than lawns are preferred. Such changes are rare in the Metroplex, but local water and environmental officials say they are reviewing ordinances to include native plants.

"Any tree with a large leaf surface or grass with a wide blade will use a lot of water," said Dotty Woodson, Tarrant County extension agent for horticulture. "You can have a landscape that is beautiful with plants that can take the heat."

To make a "significant dent" in water consumption, people are going to have to change the way they landscape, said Charles Anderson, director of the Arlington Water Utilities Department.

"We're going to have to cultivate a different culture," he said. "We have to educate the public to adopt a different view."

San Antonio pays businesses to save water. And in San Antonio and El Paso, it is illegal to water lawns between 10 a.m. and 8 p.m. or to let water run down the street. Residents know that the water police are watching.

Nearly all large Texas cities, including some in North Texas, have a tiered

pricing structure to discourage excessive water use.

But overall, unless lake levels drop, the North Texas effort is largely voluntary and centered on consumer education programs.

State officials are developing a water plan for the next 50 years, and the Metroplex, whose population of 5 million is expected to double by 2050, will have the greatest need for additional water of any area in the state, according to state estimates.

The state plan, which could be a summary of 16 regional plans, calls for spending \$17 billion on water projects: dams, lakes and pipelines. Roughly \$6.1 billion would be spent in North and East Texas. That includes \$1.6 billion for the 62,000-acre Marvin Nichols Reservoir near Mount Pleasant and a 130-mile pipeline from there to the Metroplex.

"We really need Marvin Nichols. There are fast-growing North Texas cities that will have great needs," said Terry Stewart, Dallas Water Utilities director and the chairman of the group that developed the North Texas regional water plan. "There will be a shortfall."

Critics of the state and regional plan say it is geared toward building dams and pipelines instead of encouraging conservation and environmental protection. Water officials say that eight new Texas dams, including two in North Texas, and additional pipelines are needed to ensure an adequate supply of drinking water across the state.

"If we were to enter a drought of record, there would be many communities that would not have enough water," said Bill Mullican, state director of water resources planning. Conservation was included as a way to meet about 15 percent of the need for the state's 800 water-user groups, he said.

"We cannot meet all of the needs through conservation," Mullican said.

But Meadows, the Fort Worth representative on the water board, said that if conservation is coupled with other water strategies, it might be possible to avoid or postpone the Nichols reservoir.

The board hopes to adopt a draft of the plan in September and conduct public hearings in October. A Texas constitutional amendment for a \$2 billion bonding authorization is slated to come before voters in November.

Environmental advocates say the Nichols reservoir is unnecessary. They point to the great success of San Antonio's 15-year conservation effort, which led to a 31 percent decrease in water use.

The Nichols project has been criticized for its potential to destroy 30,000 acres of hardwood bottomland forest, 15,000 acres of mixed post oak forest and habitat used by 22 endangered and threatened species.

Conservation and water from Oklahoma sought by North Texas water districts could fill the pipes of North Texas, said Susan Kaderka, director of the National Wildlife Federation in Austin.

"We're talking about building a reservoir to supply wasteful and unsustainable water use," Kaderka said. "North Texas, and to some degree, the entire state have looked at historical usage and projected that forward with population, with only a modest nod to conservation."

Complicating matters are industry estimates that in the next 20 years there will be a sharp and unprecedented rise in water costs because of the need to replace old and leaking pipes.

San Antonio has reduced water losses through the repair and replacement of leaking pipes and old water meters, said Calvin Finch, the city's conservation director. Water loss has been cut from 15 percent to 8 percent, he said.

Dallas estimates its water loss at 10 percent. Fort Worth, which is replacing a slew of older pipes, estimates its loss at about 12 percent. Arlington, which has newer pipes, estimates its water loss to be between 5 percent and 7 percent.

In San Antonio, a second set of water lines - painted purple as a warning not to sip - is used to carry treated wastewater to golf courses, parks and lawns that don't need to be irrigated with drinking-quality water.

A Dallas program using treated wastewater is at least several years away, Stewart said.

"We need to get the purple pipe in the ground," he said. "There are other conservation measures we can take. We recognize we may be able to do more."

In Fort Worth, one golf course uses recycled water, said Mary Gugliuzza, water department spokeswoman. The city encourages the use of native landscapes but doesn't offer incentives.

The Tarrant Regional Water District, which supplies water from Eagle Mountain, Cedar Creek, Bridgeport and Richland Chambers reservoirs for 1.6 million people - including those in Fort Worth and Arlington - says the current supply is adequate through 2016.

The district is building a 200-acre wetland at Richland Chambers that will use treated effluent, potentially increasing the yield of the reservoir by 30 percent, said Wayne Owen, planning development manager.

"We have a strong commitment to conservation but we have not been as aggressive as some other water districts," Owen said. "Our focus is on outdoor water use."

In North Texas, that is where more than half of the water goes.

"A huge chunk of our water is poured on grass. Fort Worth is built on a prairie, and we replaced native blue-stem grass with St. Augustine," Meadows said.

In terms of conservation, Texas is a microcosm of the nation, said Tony Gregg, chairman of the Water Works Association conservation division and water conservation director in Austin.

"Certain cities in some states are doing a lot and have really built conservation into their water supply systems," Gregg said.

The state's total projected water demand is expected to increase by 18 percent by 2050, but increasingly that water will be used in cities and not on farms and ranches.

The Texas population is expected to double in 50 years. In some areas, such as the Lower Rio Grande Valley, it is expected to triple. Twelve of the 20 fastest-growing cities in the state are in North Texas.

The need for water has raised concerns about the privatization of Texas' water utilities and water rights.

Dallas businessman T. Boone Pickens is buying water rights from under ranch land in the Panhandle and plans to sell it to Texas cities.

AquaSource Utility, a multimillion-dollar corporation with operations in 21 states, the largest private water company in Texas, has been buying small water utilities.

"When the public loses control of the service, they lose the guarantee of safe, affordable water," said Sparky Anderson, director of Clean Water Action in Austin. "Drinking water consumers should have some say in decisions about where the water comes from and how it's used."

Part of the conservation problem in Texas is a frontier mentality - "an unhappy mixture of romanticism and pragmatism" - that resources are

inexhaustible, said Peter Gunter, a University of North Texas professor of environmental philosophy and the author of the 1998 book Texas Land Ethics.

Whether it is land, oil, cattle, cotton or timber, there has always been a belief in endless supply, Gunter said.

"Look at the past, and it seems justifiable to believe there will be more where that came from. If you look at the present and the future, it is unrealistic," Gunter said. "Conditions have reversed, but that hasn't sunk in. Raw materials and energy don't come from the sky. You have to get them, pay for them, and they are limited."

Neil Strassman, (817) 390-7657

strass@star-telegram.com