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11/16/05

Lubbock's Water Crisis: Keys to the Future

On average, Lubbockites use 190 gallons of water per person per day! If that number can be reduced by 20 gallons or more by conserving, other costly alternatives can be postponed for several years... saving you money.

Deputy City Manager Tom Adams says, "If we didn't do anything, it's possible by 2015, we would need a new source. But if we can conserve just a little bit, we can push that to 2020, 2025, even 2030."

Within the next year expect some not so gentle prodding from the city to conserve water. The Water Advisory Commission is recommending a change in the way you're charged for its use. "The more you use it stays the same rate. The next step would be an increasing rate structure where the more you use the higher the price is," says Adams.

According to Adams, the biggest strain on Lubbock's water supply comes during the summer months... something called "peak day demand." The cause: mainly people trying to keep their lawns green. "If we used the winter average throughout the year, water supply would be easy. In fact, we'd almost have a 100 year supply without doing very much," Adams explains.

Senator Robert Duncan adds, "We waste a lot of water in Lubbock. We water without a whole lot of guilty conscience when we do so in Lubbock and we're going to have to change that."

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Water Conservation Tips For Around the House

Saving water is just a few tips away for homeowners. Find out all you need to know to conserve this precious resource here.

In the winter, Lubbock uses 22 million gallons of water a day, but in the summer, that number can more than triple! It's very expensive to build storage to accommodate peak usage as Lubbock's population grows. The sheer cost may someday mean lawns will be replaced with the same stuff on the Texas Tech football field - Astroturf.

Chief Water Planning Engineer Ches Carthel says, "Places like El Paso and Albuquerque and Las Vegas, they've even paid people to take up their yard. To take up grass and replace it with something else." Councilman Gary Boren adds, "Anything that can save water - to the shower spray, to the volume of water used in a commode in a flush... we need to be looking at that today so tomorrow won't be panic mode."

City leaders are learning from other Texas cities like San Antonio, which cut per person per day water use from 180 gallons to 120. "What the city was able to demonstrate is that when push comes to shove, people can conserve," says Texas Tech Water Resource Center Director Ken

Rainwater.

Whether it's keeping grass alive or crops, there are ways to conserve here. Crops in Hale and Floyd counties are making irrigation techniques more efficient. "Basically what we're doing is monitoring all the inputs, all the water, whether it be rainfall or irrigation, that's going into the crop, to try to determine what kinds of production we're getting," explains Texas Alliance for Water Conservation Project Director, Rick Kellison.

The Texas Alliance for Water Conservation is a state funded project that spans 4300 acres and 26 agricultural sites. The variables of each site are carefully recorded with one goal in mind. Kellison says, "To pump less water and make more money. So, we're trying to maintain the profitability while still looking at the longevity of the Ogallala Aquifer."

You'll find one of the most efficient uses of water in the world being fine tuned at Texas Tech in concert with NASA! Rainwater explains, "For several years, we've done work for the Johnson Space Center as they are trying to come up with new ways to recycle their water for the long-term space flight."

NASA can only put so much water onto one space flight. Astronauts must recycle their own waste water and urine into drinking water using a filter. Rainwater says, "They're trying to look for other means that don't have to use up the filters as much. So what our work here has been focusing on is biological means to treat the water where you essentially use microorganisms to degrade the organic components of our urine."

The very same thing could eventually be done at Lubbock's wastewater treatment plant. Plant Manager Mary Gonzales says, "We treat about 21 million gallons per day." A lot of water the city could be putting to good use instead of sending downstream. It just takes an upgrade to the plant.

"We add oxygen to have the bacteria at their optimal state to eat that organic material," Gonzales explains. Rainwater adds, "There are different ways to enhance the process and the new treatment plant they are planning to put in, will be able to give us really good quality wastewater effluent."

The story of Lubbock's water began with the windmill in the early 20th century and it may be vital in the 21st. Windmills of the 1900's tapped the Ogallala Aquifer and in the future they may be needed to tap a vast water resource called the Dockum Reservoir. The problem: it is salt water which is terribly expensive to treat. "What we're trying to figure out in our research in cooperation with the wind engineering folks here is how can we connect renewable wind energy to high level water treatment," says Rainwater. If even part of the process is done through Lubbock's ample wind energy, the savings could be considerable.

So, through research and the exploration of every alternative, the future of water in Lubbock looks bright, but only if citizens realize their role. H.P. Bo Brown Jr., Chairman of the Water Advisory Commission, says, "Our long-term situation is great. If we do it the right way."

Councilman Boren adds, "If you're going to have your family here and you're going to work in this city and die here, you've got to take care of water. You can't ever... you can't ever take it for granted." And High Plains Water District Chairman Jim Conkwright simply says, "Conserve water. It's our future."

Regionalism is going to be a big part of our water supply going forward. The legislature is not asking, but requiring, that cities work together. They say what is good for Lubbock's neighbors is going to be good for Lubbock.

11/15/05
Lubbock's Water Crisis: Sources and Costs

The city is considering some expensive options to keep water flowing to your tap in the future. One of those could cost two to three hundred million dollars. Where exactly is taxpayer money headed? NewsChannel 11's Darcy Tucker continues an in-depth investigation.

11/14/05

Lubbock's Water Crisis: Supply At Hand

Just a couple years ago, no one would have believed it if you said Lubbock's water supply will run out within a decade. But today city leaders are trying to solve a very real threat. NewsChannel 11 wanted to know exactly what they are doing to keep the water running. In the first of a three part series, Darcy Tucker brings you the results of her three month investigation.

NewsChannel 11 Special Reports

Take a look at the special reports on NewsChannel 11 from the past.