Yes, Montgomery County Has a Groundwater Problem

By Jace Houston

It is unfortunate, but not surprising, that there is significant confusion in Montgomery County over groundwater issues. For the past couple of years, two central-Texas consultants hired by the City of Conroe and Quadvest Utilities have been arguing that there is plenty of groundwater in our aquifers and that we don't have a water supply problem that warrants the development of new supplies, such as the surface water treatment and delivery project implemented by over eighty water utilities in the county. They contend that the major declines in groundwater levels experienced by our local water utilities are nothing to worry about and will actually help recharge the aquifers.

Conroe's consultants are outliers among the many engineers and scientists that have studied our aquifers. And they're simply wrong. We do have a water supply problem, and SJRA and other cities, towns, and utilities in the county have been working together for years to solve it.

SJRA has been relatively quiet during the current water debate and has not aggressively challenged Conroe's consultants for a couple of reasons.

First, we didn't believe they would be taken seriously. Their positions have no merit and are contradicted by state and federal agencies that study these issues without getting paid for reaching one conclusion over another.

Second, SJRA has been content to let the Lone Star Groundwater Conservation District respond to Conroe's consultants, since Lone Star is the agency charged by the Legislature with managing the aquifers in Montgomery County.

But in recent months, things have changed. Now, SJRA has been falsely accused of "conspiring" with Lone Star to "create" a water problem so it could somehow profit from building and running a surface water treatment plant on Lake Conroe. These accusations are entirely untrue, and there is no evidence supporting them.

As a result, it has become necessary for SJRA to speak louder on this issue and point out some of the obviously false and misleading statements being made to the public by Conroe's consultants. (For the full version of this article, visit SJRA's website: www.sjra.net.)

The claims of Conroe's consultants that "there is plenty of water in the Gulf Coast aquifer" and that "continued water-level declines will simply allow more water to recharge into the aquifer faster" are wrong, irresponsible, and contrary to the overwhelming guidance that engineers and hydrologists have given their utility clients in the Houston region for nearly seven decades.

The problems associated with water-level declines in the Houston region, including Montgomery County, have been studied since the mid-1900s. These problems are well-documented, not just by the Texas Water Development Board and the U.S. Geological Survey (USGS), but also by the local engineering community. Subsidence – that is, when the land sinks due to overpumping of groundwater – is one obvious problem resulting from declining water levels, but it is hardly the only problem.

Unless responsible actions are taken to manage the aquifers, the county faces water supply problems such as reduced well yields and increased concerns over the ability of existing wells to keep up with demand. Wells that have been reliable for years will require expensive overhauls or have to be replaced with even more expensive new wells. These are the facts, and Montgomery County is not the first or only county in our area to deal with them.

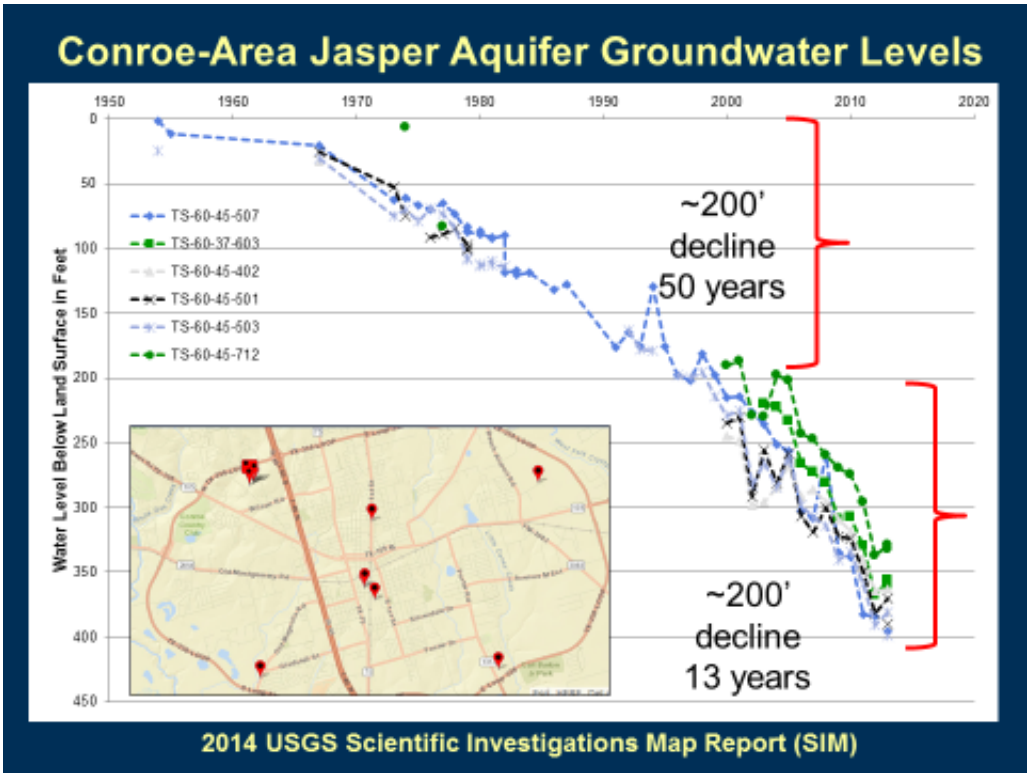
Hundreds of cities and water utilities in the greater Houston region have spent billions of dollars over the last 50 years to reduce their reliance on groundwater and develop alternate water supplies to meet their growing demands. They all use surface water to supplement and preserve their groundwater supply. They adopted forward-looking policies and solutions to avoid saddling future generations with even bigger problems. And they are all seeing water costs go up as a result, yet they choose to make the investment when the easy political choice would be to kick the can down the road.

For Conroe's elected leaders and their consultants to now claim that there is "plenty of water" and "no problem" and that "entities should simply continue pumping" is irresponsible.

Let's just look at one example that shows how far Conroe's consultants are willing to go to avoid the overwhelming evidence of the problems with our aquifers. It involves a June 1975 report by William F. Guyton and Associates prepared for Conroe and The Woodlands Development Company. Conroe's consultants have frequently quoted from this report to point out that there are millions of acre-feet of water stored in our aquifers and that water-level declines in wells are just reductions in pressure and not reductions in storage. Their position is simple: there's plenty of water, so why not just keep pumping like there's no tomorrow?

But they only quote the portions of the report that support their misleading arguments. Somehow, they missed the portions discussing the inherent limitations in using the aquifers and the problems that would occur as pumpage increased. The fact is this 1975 report documented that the ability to reliably produce water from the aquifers in Montgomery County would be limited in the future.

In other words, local experts knew – over 40 years ago – that there would be a water problem with unrestrained groundwater pumpage. These local experts have been proven right over the decades. The following figure prepared by USGS shows how water levels have declined in Conroe's wells, including almost 350 feet of decline after the publication of the 1975 Guyton report.



And since other counties in the Houston region have been addressing the very groundwater problems that Conroe's consultants deny, the consultants have tried to argue that Montgomery County is different. Unfortunately, their explanations have often been false.

Conroe's consultants claim that water utilities in Harris County are only reducing their groundwater pumpage because of subsidence. This is absolutely false. The North Harris County Regional Water Authority recently borrowed $1.2 billion from the State of Texas to expand its existing surface water treatment and delivery system. This second phase of surface water conversion is not being done because of subsidence, but because groundwater wells alone cannot keep up with demand.

One of the hired consultants recently submitted an affidavit erroneously claiming that no subsidence "has ever . . . or will ever occur from pumping groundwater from the Jasper aquifer in Montgomery County."

That statement is an astounding overreach with no support in science or fact. Here are the facts: (1) as reported by USGS, there is subsidence occurring across the southern half of Montgomery County, including in the Conroe area, (2) there is no monitor in Montgomery County that can distinguish subsidence in the Jasper from other layers of the aquifer, and (3) there is no data or report suggesting that the Jasper cannot compact.

There are other technical issues with statements by Conroe's consultants that are covered in the full version of this article.

So what is the truth about the aquifers in Montgomery County?

We have a growing groundwater supply problem in our county. It is the same problem utilities have been dealing with in Harris, Galveston, Fort Bend, and Brazoria counties since the 1970's. Our aquifers simply cannot produce enough water fast enough to keep up with increasing demand. When an area exceeds the reliable yield of the aquifer, water levels in wells begin to drop and can reach a point where the pumps have to be turned off or down-sized, which means the utility cannot keep up with demand.

By repeating false and misleading claims for the past two years, Conroe's consultants have tried to persuade the county's citizens that Montgomery County doesn't have the same groundwater problem that the rest of the counties around us have. They want county residents to believe that we are the only county where water has become more expensive, and that Lone Star is somehow an outlier for limiting groundwater pumpage to preserve the county's water supply.

The only outliers here are Conroe's hired consultants who say we should just keep on pumping the Gulf Coast aquifer despite ongoing water-level declines, while nearly every other city and water utility in the Houston region has already recognized the problem and taken steps to address it. Pretending a problem doesn't exist won't solve it, nor will it ensure that the natural resource we've relied on for decades will be readily available decades in the future.