

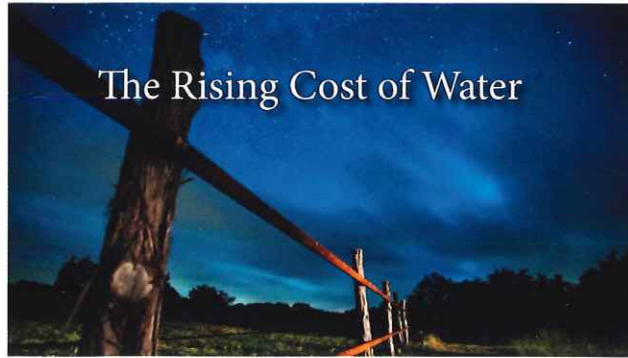


How will we pay for our future water resources?

The NHCRWA was not given taxing authority when it was created by the State Legislature. Instead of taxes, fees are charged for groundwater pumped by the utility districts and their customers within the NHCRWA's boundaries. They are also charged for the delivery of surface water. These fees are collected to pay back the bonds and State Water Implementation Fund for Texas (SWIFT) funds incurred by the Authority for the costs of the infrastructure and operating costs.

While the Authority has pledged to *keep the fees as low as possible, for as long as possible*, we know that the cost of water will continue to go up in the future. Here are the new rates:

Effective April 1, 2019:
Groundwater — \$3.85/1000 gallons
Surface water — \$4.30/1000 gallons



The Rising Cost of Water

The NHCRWA invites you to visit www.nhcrwa.com and watch our new video presentation



NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY

www.nhcrwa.com
3648 Cypress Creek Parkway, #110
Houston, TX 77068
281-440-3924

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WHY DOES THE COST OF WATER KEEP GOING UP?



Decades before **WATER** became the global issue that it is today, the state of Texas had begun taking aggressive measures to preserve and protect this finite natural resource. In fact, The Lone Star State is recognized as having one of the most comprehensive **state water plans** in the nation. That's a good thing because a staggering number of businesses and people relocate to Texas every year.

Experts now forecast that the state's population will increase more than 70 percent between 2020 and 2070, from 29.5 million to 51 million. Over half of this projected growth will occur in the Dallas-Fort Worth and Houston metropolitan areas.

Each year, the **Texas Water Development Board** collects information on water usage and comprehensive population projections from water systems around the state. The **State Water Plan** – produced every five years -- provides a critical roadmap for our long-term planning.

For decades, drinking water for much of southeast Texas has traditionally come from the **Gulf Coast Aquifers** – made up of many layers of clay, rocks and sand. Over geologic time, these layers naturally compact, and collapse underground, never to be restored. Sadly, the area's steadily increasing population and voracious thirst for water sped up this natural process. Aggressive groundwater pumping not only resulted in a decline of the underground aquifers, but also triggered land surface *elevation loss*, or what is called **subsidence**, throughout the region.

The Harris-Galveston Subsidence District (HGSD) was created by the Texas Legislature in 1975 to study and control subsidence in Harris and Galveston counties. The District issued a regulatory plan requiring industries on the Houston Ship Channel to convert from groundwater to surface water. The results were

dramatic -- subsidence in the Baytown-Pasadena area was dramatically improved, and has since been largely halted.

Groundwater Reduction Regulations for NW Harris County

The combination of subsidence in northwest Harris County and evidence that aquifers were beginning serious decline confirmed the need to convert to surface water. Based on the success of their initial effort, the Subsidence District took a similar approach in north and west Harris County.

The first phase of the District's mandate was completed in 2010, which reduced reliance on groundwater by 30 percent. The next deadline is 2025 – requiring 60 percent conversion to alternative (or surface) water.

Back in the 1950's, some visionary Houston officials understood that achieving the city's future economic potential hinged on securing the rights to nearby surface water resources. Their foresight led to the construction of three man-made lakes as water storage reservoirs – Lake Houston, Lake Livingston and Lake Conroe -- fed by the San Jacinto and Trinity Rivers.

Fortunately, the Houston region can now rely on the surface water resources secured all those years ago. There are still some hurdles ahead, however, because there is not enough water in the San Jacinto River system to meet our 2025 needs and beyond.

Where will these future supplies come from?

Since its creation in 2000, the North Harris County Regional Water Authority (NHCRWA) has complied with Subsidence District groundwater reduction mandates. The NHCRWA is also responsible for building the water infrastructure to deliver treated water to the municipal utility districts (MUDs) to serve

hundreds of thousands of residents...and that's no small task. The current challenge is to complete the planning and engineering stage of the multi-pronged 2025 conversion system.

A new alliance of regional water providers has teamed up to initiate the **Luce Bayou Interbasin Transfer Project** with the capacity to bring raw water from the Trinity River to Lake Houston and the City's North East Water Purification Plant. The partners include the City of Houston, the North, West and Central Harris County Regional Water Authorities, the North Fort Bend Water Authority, and the Coastal Water Authority.

Construction of the 90-acre **Capers Ridge Pump Station** on the Trinity River's west bank is underway. When fully functional, it will be able to divert up to 500 million gallons of water a day from the Trinity River and pump it into side-by-side underground pipelines. The water will flow through these huge waterlines to a storage and sedimentation basin, and then into a canal that runs to the northeastern tip of Lake Houston.

In anticipation of more raw water coming into the Lake Houston reservoir, regional water authorities and the City of Houston forged a partnership to accomplish an expansion of the **Northeast Water Purification Plant** with each paying its fair share of the costs. This multi-billion dollar project -- to be completed in phases over the next 6 to 9 years -- will increase the treatment capacity from the current 80 million gallons a day to 400 million gallons a day.

In addition to the cost of purchasing the surface water from the City of Houston, there are shared transmission, operations and maintenance expenses to be paid. All of these factors -- coupled with the cost of constructing the NHCRWA's 2025 water supply system -- will impact the future cost of water.