

RESOLUTION NO. 2019-10



STATE OF TEXAS § **IN THE COMMISSIONERS COURT**
COUNTY OF COMAL §

**A RESOLUTION OF COMMISSIONERS COURT OF COMAL COUNTY,
TEXAS, EXPRESSING SUPPORT FOR THE PASSAGE OF H.B. 481
RELATED TO STORAGE AND RECOVERY OF POTABLE WATER IN
THE BRACKISH PORTION OF THE EDWARDS AQUIFER**

WHEREAS, New Braunfels, Texas and the surrounding area have been documented by the U.S. Census Bureau as one of the fastest growing communities in the United States; and

WHEREAS, New Braunfels Utilities (“NBU”) is a municipally-owned public utility responsible for water, wastewater, and electric service for the residents and businesses in the New Braunfels area, within portions of Comal and Guadalupe Counties; and

WHEREAS, over the last 75 years, NBU has diligently developed a diverse inventory of surface water and groundwater sources, but about half of that water supply is subject to decreased availability because of regulatory restrictions during periods of severe drought; and

WHEREAS, Aquifer Storage and Recovery (“ASR”) has proven to be a successful water management technology in Texas and over 20 other states by giving utilities the ability to: (i) recharge water into underground aquifers during times when excess water is available and (ii) later recover that stored water during times of drought, peak demand, or emergency; and

WHEREAS, over the last eight years, NBU has methodically studied the feasibility of ASR as a strategy for significantly improving the reliability of NBU’s water supply; and

WHEREAS, NBU has worked with the Edwards Aquifer Authority (“EAA”) and the Texas Water Development Board on a multi-phased data-collection project to further confirm the feasibility of storing water in, and recovering water from, the brackish portion of the Edwards Aquifer (the “Saline Zone”) at or near the New Braunfels Regional Airport; and

WHEREAS, NBU and EAA have jointly developed an Interlocal Agreement (“ILA”) that documents the procedures, studies, and monitoring required for NBU to implement an ASR program in the Saline Zone of the Edwards Aquifer without detrimentally affecting water levels or water quality at the Comal and San Marcos Springs; and

WHEREAS, NBU is currently using the ILA authorizations and requirements to permit, design, and construct a full-scale ASR demonstration well and three additional monitoring wells; and

WHEREAS, NBU has determined, with input from EAA, that House Bill (“H.B.”) 481, which makes minor changes to Texas law, will improve the efficiency of NBU’s ASR program by allowing NBU to recharge drinking water from the NBU public water distribution system into the Saline Zone of the Edwards Aquifer; and

WHEREAS, the NBU ASR program will provide regional benefits by more-efficiently using existing water supplies during times of plenty while reducing NBU’s dependence on existing supplies during times of drought, and further demonstrating that storing water in the brackish portion of the Edwards Aquifer is a viable technology.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMISSIONERS COURT OF COMAL COUNTY, TEXAS:

SECTION 1. The Commissioners Court of Comal County, Texas supports the passage of HB 481 by the Texas Legislature during its 86th Regular Session.

SECTION 2. This Resolution takes effect immediately upon adoption.

Adopted on March 7, 2019.

Sherman Krause, County Judge

Donna Eccleston, Commissioner Pct. 1

Scott Haag, Commissioner Pct. 2

Kevin Webb, Commissioner Pct. 3

Jen Crownover, Commissioner Pct. 4

ATTEST:

Bobbie Koepf, County Clerk

House Bill 481 - Kuempel / SB 520 – Campbell/Zaffirini
86th Texas Legislature

Why New Braunfels Utilities Needs Legislative Changes to the Edwards Aquifer Authority Act and the Texas Water Code

January 25, 2019

Background.

In May 2012 New Braunfels Utilities (NBU) completed a feasibility study that evaluated Aquifer Storage and Recovery (ASR) as a water management strategy for the utility (the “ASR Feasibility Study”). ASR is a rapidly-growing water resources technology that allows water utilities to store water in underground aquifers when it is available and recover that water when it is needed during times of drought, peak demand or emergency. There are currently over 500 ASR wells successfully operating in 21 states. In Texas, successful ASR facilities are owned and operated by El Paso Water, the city of Kerrville and the San Antonio Water System (SAWS). The SAWS ASR wellfield is one of the largest in the United States, with a recovery capacity of over 60 million gallons of water per day.

The NBU Feasibility Study determined that ASR could be a very valuable management strategy which would allow NBU to more-fully and more-efficiently use its existing water rights from the Texas Commission on Environmental Quality (TCEQ), its contract for stored water in Canyon Reservoir and its groundwater permits from the Edwards Aquifer Authority (EAA). The Feasibility Study recommended that the most viable location for an ASR wellfield would be in the brackish (Saline Zone) portion of the Edwards Aquifer near the New Braunfels Regional Airport.

In 2015 the 84th Texas Legislature passed Rider 25 to H.B. 1 that appropriated \$1 million to the Texas Water Development Board (TWDB) for demonstration projects to support ASR and other innovative water storage technologies. Based on a competitive process, the TWDB selected three projects for funding, including the ASR data-collection project sponsored by EAA and NBU.

The EAA/NBU demonstration project has recently been completed, and the draft final report is being reviewed by the TWDB. Based on hydrogeologic, water quality and geochemical analyses of data gathered from a wireline core and a monitoring well, NBU has confirmed that ASR is very viable in the Saline Zone of the Edwards Aquifer at and near the New Braunfels Regional Airport.

In 2017 NBU and EAA jointly developed an Interlocal Agreement (ILA) that documents the procedures, studies and monitoring required for NBU to implement an ASR program in the Saline Zone of the Edwards Aquifer without detrimentally affecting water levels or water quality at the Comal and San Marcos Springs. Using the authorizations and requirements contained in the ILA, NBU is currently permitting, designing and constructing a full-scale ASR demonstration well and three additional monitoring wells.

Source Waters for Recharge, Storage and Recovery.

Over the last 75 years, NBU has diligently developed a diverse inventory of water supply sources, including both treated surface water from the Guadalupe River and Canyon Reservoir, and groundwater from the Edwards and Trinity Aquifers. However, during times of drought, only about 50 percent of that water is available due to regulatory restrictions by TCEQ and EAA. ASR will give NBU the ability to store treated surface water and groundwater during times when excess water is available. The water to be stored will be drinking water directly from NBU's public water distribution system.

Needed Changes to the EAA Act.

When the EAA's enabling act (SB 1477) was passed in 1993 (the "EAA Act"), Legislators did not envision ASR-type projects. In the EAA Act the provisions related to aquifer recharge focus on recharge of water into the freshwater portion of the Aquifer using water from the Edwards Aquifer itself, or diversion dams and natural recharge features. Based on years of research (including the recently-completed TWDB project) and more knowledge about ASR's potential benefits to the region, EAA and NBU understand and agree that it is feasible and appropriate to store freshwater in the Saline Zone of the Edwards Aquifer through ASR wells. To greatly increase the efficiency of that recharge and storage, changes are needed to Section 1.44 of the EAA Act in order for water utilities like NBU to store water directly from the potable water distribution system into the Saline Zone of the Aquifer.

Needed Changes to Texas Water Code Section 27.051.

Likewise, changes are needed to Section 27.051 of the Texas Water Code (TWC) to allow utilities like NBU to store potable water from the public water distribution system. Currently the TWC provides that only Edwards Aquifer water and stormwater can be recharged into the Edwards Aquifer. Those provisions mean that NBU cannot recharge into an ASR wellfield any water directly from NBU's public water system because the drinking water in that distribution system is comprised of a blend of treated surface water from Canyon Reservoir and the Guadalupe River, and groundwater from the Edwards and Trinity Aquifers.

Importance of H.B. 481.

The changes proposed in H.B. 481 will allow NBU to recharge drinking water with a total dissolved solids (TDS) of less than 1,500 milligrams per liter (mg/L) into the Saline Zone of the Edwards Aquifer where the TDS is greater than 5,000 mg/L. This is important to NBU because it:

- Allows NBU to more efficiently manage its treated surface water and groundwater by storing excess drinking water when it is available; and
- Eliminates the need to make significant and costly modifications to isolate portions of NBU's water distribution system or to lay dedicated pipelines from NBU's Edwards Aquifer wells to the ASR wellfield.

As drafted, H.B. 481 specifies that domestic wastewater, municipal wastewater and reclaimed water cannot be recharged or stored.

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