Water Management is what matters.

New Braunfels Utilities Aquifer Storage and Recovery Program at a Glance.



What is an Aquifer Storage and Recovery Program?

An Aquifer Storage and Recovery (ASR) program will enable New Braunfels Utilities (NBU) to store drinking water in the brackish Edwards Aquifer when there is excess water available and recover that water during drought, or to meet peak demands. An excellent location for the ASR in the NBU service territory is near the New Braunfels Regional Airport. The goal is to store 14,000 acre-feet of water. To meet NBU's needs, the wellfield will include ASR wells and monitoring wells. Preliminary estimates indicate that each ASR well will be capable of recharging/injecting at a rate of about 0.5 million gallons per day (mgd) and recovering/ pumping at a rate of about 1.0 mgd. Depending on the quantity of wells and the timing of their construction, the cost of the ASR program could be in the range of \$22 to \$25 million.

Why an ASR as part of the Water Management Strategy?

An ASR is 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) and the Comal Trinity Groundwater Conservation District (CTGCD).





New Braunfels Utilities Aquifer Storage and Recovery Program Timeline

Aquifer Storage and Recovery Feasibility Study

In 2012, Arcadis-US, Inc. (Arcadis) completed a preliminary evaluation of an ASR for NBU. Based on this feasibility study, the Arcadis team and NBU concluded that developing an ASR can serve as a valuable water management strategy. The major conclusions and recommendations from the study included gathering additional data on the brackish Edwards Aquifer at or near the New Braunfels Regional Airport.



2015

Texas Water Development Board - Funded Data Collection Project

In 2015, NBU and the EAA submitted an application for funding support for the ASR project from the Texas Water Development Board (TWDB). Based on a competitive process, the TWDB awarded funding to EAA and NBU for:

- Designing and constructing a wire line core and a monitor well in the brackish portion of the Edwards Aquifer on NBU property near the New Braunfels Regional Airport.
- Collecting data from the core and the well. The results of Phase Two of the ASR project were very encouraging. As a result, NBU proceeded with design and construction of a full-scale ASR demonstration well.



2012

Geologists Measuring and Analyzing 10' Core





Demonstration ASR Well Permitting, Design, and Construction

Phase Three of the ASR project has been divided into two sub-phases:

- **Phase Three A** services approved by the NBU Board of Trustees, December 13, 2018, included:
 - TCEQ permitting.
 - Detailed design of the demonstration ASR well and the required monitoring wells.

The necessary permits and technical plans and specifications for bidding purposes were provided to allow construction on Phase Three B to begin in June 2019.

• **Phase Three B** will include the installation of the ASR demonstration well and three monitoring wells in the Edwards Aquifer at or near the New Braunfels Regional Airport.

December 6, 2018: House Bill 481 Filed

January 29, 2019: Senate Bill 520 Filed



April 2, 2019: House Bill 481 Voted Favorably Out of House Committee

May 22, 2019: Senate Bill 520 Passed and Sent to Governor

WHAT'S NEXT?

Senate Bill 520 Effective September 1, 2019 Bill Becomes Law

Aquifer Storage and Recovery Wellfield Expansion

The NBU ASR wellfield will be expanded based on the results of Phase Three of the project. Based on discoveries found through Phase One and Two, it is estimated that there will be a need for nine total ASR wells.



How does an ASR Work?



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