



Item 8

Water & Wastewater Commission: November 12, 2025

Council: November 20, 2025

Posting Language

Recommend approval to execute a collaboration agreement with stakeholders related to field testing for an Aquifer Storage & Recovery project in Bastrop County. Funding: This item has no fiscal impact. Should the project move forward, the future financial impact will be determined as specific funding needs are presented to City Council in alignment with Austin Water’s 5-year Capital Improvement Plan.

Lead Department

Austin Water.

Fiscal Note

This item has no fiscal impact. Should the project move forward, the future financial impact will be determined as specific funding needs are presented to City Council in alignment with Austin Water’s 5-year Capital Improvement Plan.

Prior Council Action:

November 21, 2024 - Council approved the updated Water Forward Plan.

August 27, 2020 - Council approved a contract with HDR Engineering, Inc. for engineering services for an Aquifer Storage and Recovery Pilot and Program Management in an amount not to exceed \$6,000,000.

November 29, 2018 - Council approved the Water Forward Plan.

Council Committee, Boards and Commission Action:

November 12, 2025 - To be reviewed by the Water and Wastewater Commission.

Additional Backup Information:

This action is to enter into a collaboration agreement with stakeholders related to Aquifer Storage & Recovery (ASR) field testing in Bastrop County.

After extensive scientific study through a desktop analysis phase that began in 2022, Austin Water identified a portion of the Carrizo-Wilcox aquifer in Bastrop County as a location to conduct exploratory field testing for an ASR project. The location was identified based on favorable geotechnical characteristics of the aquifer that provide the potential ability to safely store and retrieve large quantities of water.

ASR is one of several water supply strategies in the Water Forward Plan, Austin’s 100-year water plan. The proposed project would store drinking water supply, which is sourced from the Colorado River and Highland Lakes upstream of Austin and treated at one of three water treatment plants. During times of water availability, water would be piped to the ASR project location to be stored deep underground. Before being stored in the aquifer, the water would be further treated to be compatible with native groundwater. When stored water is needed, it would be pumped back to Austin Water’s system.

A Bastrop County ASR stakeholder group was formed in April 2025. Nine stakeholder meetings were held through September 30, 2025. These meetings led to the development of the proposed collaboration agreement, with extensive input from the entities listed below. As requested by Bastrop County stakeholders,



Item 8

Water & Wastewater Commission: November 12, 2025

Council: November 20, 2025

the collaboration agreement is a binding contract that creates a framework for Austin Water and stakeholders to work together.

The intent of the collaboration agreement is to formalize Austin's commitments to provide protections and benefits for the Bastrop County community and to formalize a partnership approach for conducting an approximately three-year field-testing phase that tests water quality in a laboratory setting. Key provisions of the agreement include robust testing protocols, data transparency and public reporting, the formation of a technical advisory group, and other community engagement and oversight mechanisms. The City also commits to not use eminent domain to acquire property in Bastrop County for this project and affirms that Austin Water will not apply for a permit to export groundwater from the aquifer, which is consistent with Austin's Water Forward Plan.

During this field-testing phase, no water will be injected into the aquifer. In a laboratory setting, Austin Water will analyze the quality of the groundwater, geology and chemistry of aquifer core samples, and potential interactions between the groundwater, aquifer core samples, or Austin's drinking water.

To seek additional public awareness and community engagement, Austin Water engaged with nearly 300 Bastrop County residents during open houses and office hours held in Bastrop, Elgin, Smithville, and Paige in September 2025, as well as an online survey. The specific feedback received during this public engagement process is provided in a report as backup for this Council agenda item. The scope of the Phase 1B field testing will focus on developing scientific results to advance understanding of the project and to further respond to community feedback.

The following entities participated in the stakeholder group meetings and have considered the collaboration agreement:

- Aqua Water Supply Corporation – approved the agreement
- Simsboro Aquifer Water Defense Fund – approved the agreement
- Lost Pines Groundwater Conservation District – approved the agreement
- Bastrop County Water Control and Improvement District #2 – approved the agreement
- Bastrop County Commissioners Court – voted to not sign the agreement
- Bastrop City Council – did not take action on the agreement
- Smithville City Council – delayed action on the agreement

This collaboration agreement provides the framework for the City to begin the Phase 1B field testing phase in Bastrop County, which is anticipated to last 36 to 42 months. This phase will provide data needed to help determine whether this project should move forward to pilot testing.

Subject to City Council approval of this agreement, Austin Water will initiate planning for Phase 1B. Further City Council action will be needed in early 2026 to authorize additional funding for existing consultant contracts and other contracts. Next steps will include real estate negotiations, test well design, and well driller procurement, among other tasks.

ASR COLLABORATION AGREEMENT

An agreement related to Austin Water's Planned Aquifer Storage & Recovery (ASR) Project in Bastrop, County, Texas

1) Definitions

- a) A 'stakeholder' refers to a party that is working to explore Austin's Aquifer Storage and Recovery (ASR) Project while representing the interests of their constituents. Stakeholders party to this agreement are listed in Section 2.
- b) A 'partner' refers to a party that is performing an action to support the ASR project and/or, via subsequent contractual agreements, may receive community benefits such as water supply from the ASR project. Partners may be identified in future contractual agreements.
- c) A 'technical representative' refers to a person affiliated with, employed by, or contracted by a partner or stakeholder who has at least a bachelor's degree in Engineering, Geology, or other related physical sciences or is a licensed water operator, and has related experience in aquifer science, hydrogeology, municipal water supply, water quality testing, or other related experiences.

2) Stakeholders

- a) City of Austin / Austin Water
- b) Aqua Water Supply Corporation
- c) City of Bastrop
- d) Bastrop County
- e) Lost Pines Groundwater Conservation District (LPGCD)
- f) City of Smithville
- g) Simsboro Aquifer Water Defense Fund (SAWDF)
- h) Bastrop County Water Control and Improvement District (WCID) #2
- i) Additional parties as needed

3) Background

- a) Austin's Aquifer Storage and Recovery (ASR) project is planned to store drinking water from Austin's water treatment plants. This water would be available under Austin's existing water rights and would be stored in the aquifer during periods when water is more plentiful, and returned to Austin's distribution system primarily during times of drought. Stored water would be treated as needed to be compatible with native groundwater and Austin's drinking water quality. After completing a desktop study that evaluated all major and minor aquifer systems within an eight county area based on hydrogeological, water quality, and implementation criteria, Austin Water has identified the Carrizo-Wilcox aquifer in northeastern Bastrop County as a feasible location for field testing and a potential ASR pilot project.

4) Collaboration Framework Assumptions

- a) The parties acknowledge that this agreement is a binding and enforceable contract unless it is specifically stated herein that a provision or section is not binding and enforceable. If at any point Austin Water determines that this project is not feasible or decides to formally terminate the ASR project this agreement will terminate. If the ASR project proceeds beyond field testing (Phase 1B) to subsequent phases, additional contractual agreements will be

developed to formalize roles, responsibilities, and obligations during future project phases between parties choosing to either continue as stakeholders or become partners.

- b) Austin Water provision of community benefits, including an education component and center and water supply, are contingent on successful completion of a full-scale City of Austin-owned and operated ASR project sized to meet Water Forward 2024 goals. Austin Water will use subsection “h” below to modify this agreement if the Water Forward goals change.
- c) City of Austin will not use eminent domain to acquire land in Bastrop County with regard to the ASR project discussed herein.
- d) Application to Texas Commission on Environmental Quality (TCEQ) for a Class V injection well permit will not proceed any sooner than the completion of Phase 1B.
- e) Parties signing a non-disclosure agreement will have the opportunity to review an unredacted version of Phase 1A desktop study materials.
- f) Austin Water will provide testing methods, protocols, data, results, and information to partners and stakeholders during Phase 1B Field Testing.
- g) Austin Water will not seek a groundwater permit from LPGCD.
- h) Upon agreement of all of the parties, this agreement can be modified.

5) Phase 1B Field Testing Collaboration Framework Components

- a) Communication Approach
 - i) Partners and stakeholders will collaborate on public communication of factual information related to the development of the project. Stakeholders will discuss project information in good faith and in an open, objective, and factual manner with their constituents or the public when presenting this project, addressing possible benefits and impacts.
 - ii) Partners and stakeholders will make Bastrop County residents aware of opportunities for engagement in the project through public meetings or forums, utility bill inserts, neighbor meetings, community events, online surveys, and other methods.
- b) Decision-Making Framework
 - i) Austin Water will form an Aquifer Storage and Recovery Technical Advisory Group to include stakeholders’ technical representatives, partners’ technical representatives, and independent technical experts to provide input on testing methods, protocols, data, results, and information and advise on the technical aspects of the ASR project from the beginning to the completion of Phase 1B Field Testing. The ASR Technical Advisory Group will provide input on criteria for success to move to subsequent project phases.
 - (1) Non-technical stakeholders and partners signing this agreement will be invited to attend these Technical Advisory Group meetings.
 - ii) At the completion of Phase 1B Field Testing, Austin Water will provide a written report including data, results, and information to summarize the findings of field testing and the work of the ASR Technical Advisory Group. This report will include a science-based recommendation from the ASR Technical Advisory Group on whether to move forward to the next project phase based on the criteria for success identified in Section 5b(i) and any potential adjustments that should be made to the project plan for the subsequent phase. Austin Water will contract with a research firm to conduct a survey of Bastrop

County residents regarding this ASR project and the results will be included in this report. This report will be posted on the ASR project webpage.

- (1) Austin Water will provide notice to partners and stakeholders at the end of Phase 1B Field Testing, allowing time for discussions, recommendations, and input.
- (2) Austin Water will hold a meeting with partners and stakeholders to discuss the written report. Austin Water will provide the report to partners and stakeholders two weeks in advance of the meeting.
- (3) Partners and stakeholders will have the opportunity to review the report and provide recommendations related to moving forward to Phase 2 piloting to Austin Water.
- iii) The science-based recommendations from the ASR Technical Advisory Group, Austin Water's project recommendations, and the recommendations from partners and stakeholders will be provided by Austin Water in a report to Austin City Council members, as has been requested by Bastrop County stakeholders.
- iv) Austin Water may end or pause the project in Bastrop County during Phase 1B Field Testing if Austin Water determines the project will not meet Water Forward project goals as referenced in Section 4a or other goals.
- v) Initiation of each phase of the project is contingent on Austin City Council approval, including authorization of required funding.
- c) ASR Project On-Ramps for Phase 2 Piloting
 - i) The ASR Technical Advisory Group will give input regarding on-ramps throughout Phase 1B and will review recommendations prior to moving forward to Phase 2 piloting in alignment with the decision-making framework described in Sections 5b(i) and 5b(ii).
 - (1) Phase 1A – Desktop Study
 - (a) Austin Water does not plan to proceed from Phase 1A to Phase 1B as it pertains to the Bastrop County wellfield until this agreement has been executed.
 - (2) Phase 1B – Field Testing
 - (a) Austin Water plans to make required adjustments to the pilot project plan based on field testing results and the recommendations from the ASR Technical Advisory Group described in 5b(ii) prior to proceeding from Phase 1B to Phase 2.
 - (b) Austin Water does not plan to proceed from Phase 1B to Phase 2 if Austin Water does not have the ability to achieve necessary real estate access and/or agreements.
 - (c) As appropriate, Austin Water will make an application to TCEQ for necessary authorization for Phase 2 ASR piloting at the successful conclusion of Phase 1B, after following the decision-making process outlined in Section 5b.
 - (3) Phase 2 – Pilot Testing
 - (a) Austin Water, partners, and stakeholders will develop additional contractual agreements to formalize roles, responsibilities, and obligations in future project phases as described in Section 4a.
- d) Phase 1B Field Testing
 - i) If the project proceeds to Phase 1B Field Testing, Austin Water will:
 - (1) Share information with and seek feedback from the ASR Technical Advisory Group regarding laboratory testing methods, protocols and test results related to City of

Austin finished water, core samples, and native groundwater samples, in alignment with the decision-making framework described in Sections 5b(i) and 5b(ii).

- (2) Drill two sampling wells. At least one sampling well will be converted into a monitoring well after the conclusion of Phase 1B. Subject to future land agreements, ownership of this monitoring well may be transferred to LPGCD to access and monitor the well if the ASR project does not proceed into future phases.
 - (3) Provide funding in an amount to be determined in a future contractual agreement to LPGCD to support sampling of neighboring wells.
 - (4) Develop a policy statement for the purposes of the potential ASR project in Bastrop County that addresses both regulated and unregulated contaminants.
- ii) If the project proceeds to Phase 1B Field Testing, Lost Pines Groundwater Conservation District will:
- (1) Sample neighboring wells to monitor water levels and water quality. The area in which neighboring wells will be monitored will be determined through collaboration between partners, stakeholders, and technical experts via the ASR Technical Advisory Group.
- iii) If the project proceeds to Phase 1B Field Testing, stakeholders will:
- (1) Discuss project information in good faith and in an open, objective, and factual manner with their constituents or the public when presenting this project, addressing possible benefits and impacts,
 - (2) Make a recommendation about the future of the project after completion of Phase 1B Field Testing, and
 - (3) Take no action to prevent the completion of Phase 1B Field Testing without first raising concerns at a meeting of partners and stakeholders to discuss and address the concerns of the parties.
- e) Phase 2 Pilot ASR project and Phase 3 Full-scale ASR Project
- i) If the project proceeds to beyond Phase 1B Field Testing, Austin Water, partners, and stakeholders will develop additional contractual agreements to formalize roles, responsibilities, and obligations in future project phases as described in Section 4a and in alignment with the decision-making framework described in Section 5b.

6) General Provisions

- a) Jurisdiction and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas, without regard to any conflict of law principles. The exclusive venue for any dispute relating to this Agreement shall be in the state courts of Bastrop County, Texas.

7) Signatures Below

8) Attachments

- a) Overall Austin Water ASR Estimated Project Timeline as of April 2025
- b) Provisions for Future Phases

IN WITNESS WHEREOF, the authorized representative of Aqua Water Supply Corporation has executed this Agreement as of the date set forth below.

AQUA WATER SUPPLY CORPORATION

By: 

Name: DAVID GLASS

Title: President

Date: 10/7/2025

IN WITNESS WHEREOF, the authorized representative of Lost Pines Groundwater Conservation District has executed this Agreement as of the date set forth below.

LOST PINES GROUNDWATER CONSERVATION DISTRICT

By: Kathryn Rogers

Name: Kathryn Rogers

Title: Acting President

Date: 10/15/25

Attest:

Michael Summang

IN WITNESS WHEREOF, the authorized representative of Simsboro Aquifer Water Defense Fund has executed this Agreement as of the date set forth below.

SIMSBORO AQUIFER WATER DEFENSE FUND

By: 

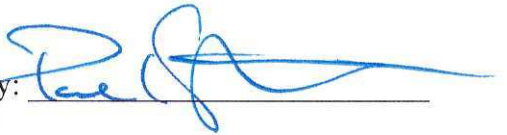
Name: Andrew A. Wier

Title: Executive Director

Date: 10/16/2025

IN WITNESS WHEREOF, the authorized representative of Bastrop County Water Control and Improvement District #2 has executed this Agreement as of the date set forth below.

BASTROP COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT #2

By:  _____

Name: Paul Hightower

Title: General Manager

Date: 10/17/25

Overall Austin Water ASR Estimated Project Timeline as of April 2025



PHASE 1A

Desktop Analysis • 2022 to present

- Identify most viable location for ASR project based on scientific studies
- Introduce project to stakeholders and receive feedback for partnership agreements



PHASE 1B

Exploratory Drilling and Field Testing • 36 to 42 months est.

- 36 to 42-month duration estimated, including approximately 12 months for design and bidding services, and approximately 12 months for construction, field testing, modeling, and evaluation
- Drill one well to extract groundwater samples and core samples
- Groundwater and core samples will be tested in a lab to understand baseline geochemistry and with Austin Water drinking water to observe and document any interactions. Austin Water will share the data and seek input from project partners throughout the process.

What we will learn in this phase: Results of groundwater and core sample testing will indicate what type of water treatment may be required to achieve compatibility between injected water and native groundwater. Based on results and required adjustments to the pilot phase project plan, Austin Water will make a go or no-go determination to move on to the next phase of the project.



PHASE 2

Pilot ASR Testing • 36 months est.

- 36-month duration estimated (dependent on results of field testing phase and permitting requirements)
- Requires a local source of water that can be treated to be similar to City of Austin drinking water. Austin Water will seek input from project partners throughout the process.
- Inject water that is similar to City of Austin drinking water into one well to test water quality, operational, and other parameters

What we will learn in this phase: Based on the results and required adjustments to the full-scale ASR project plan, Austin Water will make a go or no-go determination to move on to the next phase of the project.



PHASE 3

Full-Scale ASR Design and Construction • 8 to 10 years est.

- Infrastructure design: ASR wellfield design will be based on field testing and pilot phase results.
- Construction: Full-scale ASR construction will include construction of ASR transmission main, treatment facilities, pumping and storage facilities, injection and recovery wells, monitoring wells, wellfield piping, and other infrastructure.

Austin Water Proposed Bastrop County ASR Project

Provisions for Future Phases

- If the project proceeds to Phase 2 Piloting, Austin Water will:
 - Apply for a TCEQ Class V Injection Well permit as required by state law
 - Share operational testing plan and protocols prior to injecting water
 - Share and seek feedback from the ASR Technical Advisory Group on water quality monitoring results from pilot ASR operations
 - Conduct a study of best practices related to identification and confirmation of neighboring well impacts, including those related to water quality and water levels, from ASR project operations and mitigation strategies to address impacts. Further definition of potential impacts and the appropriate buffer volume for ASR operations to maintain the health of the aquifer will be explored by the partners and technical experts via the ASR Technical Advisory Group.
 - Develop a mitigation plan and identify funding to implement mitigation strategies as necessary to address possible impacts from full-scale ASR project operations.
- If the project proceeds to Phase 3 Full-scale ASR implementation, Austin Water will:
 - Work with partners to establish protections for the aquifer and local community that:
 - Put more water in the aquifer than the ASR project recovers
 - Maintain compliance with the ASR project's TCEQ permit requirements related to protection of the aquifer and federal Safe Drinking Water Act requirements,
 - Establish as a minimum a quarter-mile buffer zone around the wellfield,
 - Use mitigation strategies to address potential impacts on neighboring wells
 - Work with partners to define and provide community benefits that:
 - Structure land agreements so that landowners will be compensated for purchase or lease of land while having the opportunity to remain on the properties and allow compatible uses such as local farming and ranching to continue, while possibly placing land under Austin Water control in conservation easements
 - Establish monitoring wells and share hydrologic and water quality data
 - Establish an education component and center
 - Make a specified amount of water supply available for purchase by partners with details to be determined via development of subsequent contractual agreements
 - Explore development of possible City of Austin issued grants for local communities and organizations
 - Explore provision of publicly available parks, trails and greenspace as has been done in Travis County on available property needed to secure the storage area and not directly needed for physical use by Austin Water, subject to safety buffers and cost considerations
 - Refrain from using eminent domain as relates to the ASR project in Bastrop County