GROUNDWATER ISSUES SUBCOMMITTEE
OF THE
TEXAS GROUNDWATER PROTECTION COMMITTEE
RECORD OF MEETING
First Quarter Meeting, Fiscal Year 2026

Meeting Date: September 10, 2025 Place: videoconference
Meeting No.: 43 Room: N/A

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**MEETING ATTENDANCE**

| Subcommittee Members | Affiliation |
|---|---|
| Kathy McCormack (Co-Chair) | Texas Commission on Environmental Quality (TCEQ) |
| Chris Heiligenstein (Co-Chair) | Railroad Commission of Texas (RRC) |
| Rebecca Storms | Texas Water Development Board (TWDB) |
| Omar Valdez | Texas Department of State Health Services (DSHS) |
| David Villarreal | Texas Department of Agriculture (TDA) |
| David Van Dresar | Texas Alliance of Groundwater Districts (TAGD) |
| Justin Thompson | Bureau of Economic Geology of The University of Texas at Austin (UTBEG) |
| Linzy Foster | United States Geological Survey (USGS) |
| Marty Kelly | Texas Parks and Wildlife Department (TPWD) |
| Guy Fipps | Texas A&M AgriLife Extension Service (AgriLife Extension) |
| Ken Rainwater | Texas Tech University (TTU) |

| Agency Staff | Affiliation | Program |
|---|---|---|
| Stanley Aniagu | TCEQ | Toxicology, Risk Assessment, and Research Division |
| Katie Brice | TCEQ | Water Availability Division |
| Alan Cherepon | TCEQ | Water Availability Division |
| Cindy Hooper | TCEQ | Water Availability Division |
| Natalie Houston | USGS | |
| Peggy Hunka | TCEQ | Water Availability Division |
| Stephanie Keith | TAGD | |
| James LaManna | TCEQ | Water Supply Division |
| Robert Nail | TCEQ | Radioactive Materials Division |
| Chance Rushing | TCEQ | Occupational Licensing and Registration Division |
| James-Eric Simon | TCEQ | Water Availability Division |
| Scott Underwood | TCEQ | Water Availability Division |
| Phillip Valladolid | TWDB | |
| Scout Vanderwal | DSHS | |

| Interested Parties | Affiliation |
|---|---|
| Diana Nichols | Kelly Hart & Hallman, LLP |

**MEETING HANDOUTS**

1. Texas Groundwater Protection Committee (TGPC) Groundwater Issues (GWI) Subcommittee Meeting Agenda, September 10, 2025
2. TGPC GWI Subcommittee Meeting Record, June 18, 2025
3. TGPC Agricultural Chemicals (AgChem) Task Force (TF) Status Report, September 10, 2025
4. TGPC Publications Status Report, September 10, 2025
5. Texas Produced Water Consortium videos, https://www.youtube.com/@TexasProducedWaterConsortium
6. City of Austin Aquifer Storage and Recovery project, https://www.speakupaustin.org/asr
7. City of Alice Brackish Desalination Plant news article, https://www.kristv.com/news/local-news/in-your-neighborhood/jim-wells-county/alice/alice-brackish-water-desalination-plant-opens-brings-drought-resistance-plan
8. enCore Energy Uranium Mining news article, https://encoreuranium.com/news/encore-energy-announces-expansion-of-the-alta-mesa-uranium-project/
9. Draft TGPC GWI Subcommittee *Annual Report*
10. TCEQ Groundwater Contamination Viewer, https://www.tceq.texas.gov/gis/groundwater-contamination-viewer

**MEETING RECORD OF SEPTEMBER 10, 2025**

1. PRE-MEETING REMINDERS

Before the meeting started, Chris Heiligenstein (RRC) provided the attendees with some tips that would facilitate a productive videoconference.

2. CALL TO ORDER AND INTRODUCTIONS

The TGPC approves all Subcommittee products and designated TGPC members attending this Subcommittee meeting participated as an employee or representative of their agency or organization, not as a designated TGPC member. Therefore, this Subcommittee meeting was not subject to the Open Meetings Act and it was held 100% virtually. The public was also able to attend this meeting via videoconference or teleconference at no cost.

Chris Heiligenstein (RRC), Co-Chair of the GWI Subcommittee, called the meeting to order at approximately 9:32 AM CDT and then called the roll of GWI Subcommittee members. The representatives from the Texas State Soil and Water Conservation Board (TSSWCB), Texas A&M AgriLife Research (AgriLife Research), and Texas Department of Licensing and Regulation (TDLR) were not present at the meeting.

3. STATUS REPORTS

Agricultural Chemicals Task Force

Alan Cherepon (TCEQ) reported on the Agricultural Chemicals Task Force:

- For Fiscal Year (FY) 2025, 102 wells and 30 QA/QC samples from Cooperative Monitoring were immunoassay screened for atrazine. There were two quantifiable detections with a maximum of 0.88 ppb (vs. the Maximum Contaminant Level for atrazine of 3.0 ppb). Due to sample vials being received approximately three months late, an unknown number of samples were not collected in FY 2025.
- In FY 2026, TWDB was planning on monitoring the Carrizo-Wilcox, Hueco-Mesilla Bolson, Pecos Valley, and Seymour Aquifers. Of these, the Carrizo-Wilcox Aquifer would be the most significant area of sampling.
- The draft Cooperative Monitoring Groundwater Pesticide Monitoring report and the End-Of-Year report would be uploaded into the U.S. Environmental Protection Agency (EPA) Central Data Exchange (CDX) Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Grant Database (FGD) as soon as they were approved (target date October 1, 2025).
- FY 2025 Cooperative Monitoring results and 2021 – 2024 USGS data were entered into the TCEQ Interagency Pesticide Database (IPD), with the new totals at 7,134 wells and springs, 16,230 samples, and 407,508 pesticide analyses.
- Pesticide monitoring data was requested from the TCEQ Public Drinking Water and Source Water Protection programs in August 2025, and these, along with the IPD, would be uploaded into the U.S. EPA CDX-FGD as soon as they were received.
- An updated IPD report was still being prepared to replace the previous 2008 report.

- On August 5 – 6, 2025, Alan Cherepon (TCEQ) attended TCEQ's annual Public Drinking Water Conference in Austin and staffed the TGPC exhibit booth from which FIFRA grant-related information were distributed.
- The 2025 U.S. EPA/States/Tribes FIFRA Fall grant meeting would be held in October or November 2025. The 2026 U.S. EPA/States/Tribes FIFRA Spring grant meeting would be hosted by New Mexico.

TGPC Publications

Cindy Hooper (TCEQ) reported on the following TGPC publication:

- *Joint Groundwater Monitoring and Contamination Report – 2024* ("*Joint Report*", TCEQ publication SFR-56-24)
  - The 2024 *Joint Report* was published on June 2, 2025, and it was available at https://tgpc.texas.gov/tgpc-publications/.

Cindy Hooper (TCEQ) also reported on the following groundwater-related TCEQ publication:

- *Groundwater Assessment* (TCEQ publication AS-465/26) for the 2026 *Texas Integrated Report of Surface Water Quality for Clean Water Act Sections 305(b) and 303(d)* ("*Texas Integrated Report*")
  - Work on the 2026 *Groundwater Assessment* would begin in September 2025.
  - The published report would be provided to TCEQ's Water Quality Planning Division for inclusion in the 2026 *Texas Integrated Report*.

4. SET FUTURE MEETING DATE

The next TGPC GWI Subcommittee meeting was scheduled for Wednesday, December 3, 2025, at 9:30 AM CST and it was planned as a videoconference.

5. DISCUSS CURRENT GROUNDWATER ISSUES

Oil and Gas Produced Water

The Texas Produced Water Consortium (TxPWC, https://www.depts.ttu.edu/research/tx-water-consortium/) Stakeholder Advisory Council met once since the last GWI Subcommittee meeting, and they would be meeting again on September 16, 2025. At their meeting on July 22, 2025:

- They announced that two public outreach videos had already been recorded, more were planned, they were available on their YouTube channel (https://www.youtube.com/@TexasProducedWaterConsortium), and they would be available on their website (https://www.depts.ttu.edu/research/tx-water-consortium/resources.php) soon.
- They expected to publish their water quality analysis report (i.e., Pilot Testing Water Quality Report) soon.
- They wanted to establish an interdisciplinary team to look at potential opportunities for using treated oil and gas (O&G) produced water in the Permian Basin, including the Pecos River Basin and downstream to the Rio Grande River.

- There had been a lot of recent news regarding the potential use of treated oil and gas (O&G) produced water for data centers and cooling towers.
- Amy Hardberger (TTU Center for Water Law and Policy) reviewed a recent Texas Supreme Court ruling which provided that produced water is oil and gas waste and therefore part of the mineral rights estate, not the surface estate; that is, O&G produced water is a waste stream of industrial processes and it is not equivalent to groundwater which belongs to the landowner.
- Mike Hightower (New Mexico Produced Water Research Consortium, https://nmpwrc.nmsu.edu/) said that 13 states now had or were planning their own O&G produced water consortia, the U.S. EPA was probably going to establish a national O&G produced water program, and Texas and New Mexico could take a significant role in this.

Rebecca Storms (TWDB) reported that:

- In a committee hearing the previous week, Texas Senator Lois Kolkhorst noted that there was an emerging O&G play in east Texas called the Western Haynesville.
- TWDB was notified of a recent well blowout of one of their water level observation wells (SWN 3708304), a former rig supply well, in the northeast corner of Shelby County near the Louisiana border. The well was 160 feet deep, completed in the Carrizo-Wilcox Aquifer, and had water levels approximately 25 feet below the ground surface. They had been using the well to monitor groundwater levels since 2020, it began blowing brine approximately 20 feet into the air in late August 2025, and it was one of several wells associated with an abandoned frac site, several of which were now flowing brine. The incident was reported to TCEQ and RRC.

Emerging Chemical and Biological Contaminants

On July 10, 2025, the National Ground Water Association (NGWA) presented a webinar on microplastics and nanoplastics (MNPs) in groundwater. They reported that:

- This plastic contamination is now ubiquitous in the world's soil and aquatic environment, and it can also be found in the human body.
- Smaller MNPs are more harmful/toxic than larger MNPs, smaller MNPs are more abundant now, and they will increase in the future due to the accelerated plastic manufacturing production and the aging of the material in the environment.
- The first evidence of MNPs in groundwater was published in 2019 (for a karst aquifer in Illinois), but there have been only a few papers with experimental results since then.
- Wastewater treatment plants aren't removing MNPs effectively, MAR can enhance MNP deposition to groundwater, and biosolids used in land applications as fertilizer for agricultural crops contain a high quantity of MNPs.
- They've sampled various groundwater sites in China (e.g., springs, water wells (historic, hand pump, monitoring, and drilled), cave and mining waters, and mountain streambeds) and generally found low levels of MNPs so far, but MNPs are an emerging contaminant.
- Their data showed that soil and the aquifer matrix trap the majority of MNPs, although they can still travel through preferential paths (e.g., cracks, fractures, and dissolution cavities).

Note that, as of February 2023, the Interstate Technology and Regulatory Council (ITRC) reported that more research was needed on MNPs in groundwater (e.g., occurrence, types, and concentrations).

Managed Aquifer Recharge (MAR)

Austin Water, the City of Austin's water utility, was holding open house meetings and office hours during September 2025 regarding their proposed three-year test phase of the feasibility of an Aquifer Storage and Recovery (ASR) project in the Carrizo-Wilcox Aquifer in Bastrop County (https://www.speakupaustin.org/asr). Stakeholders had drafted a binding agreement that reflected protections, benefits, and safeguards for the project which would be considered for approval in October and November 2025. If approved, the next project phase would be a small-scale pilot to test appropriate treatment processes.

Rebecca Storms (TWDB) reported that:

- Their Innovative Water Technologies (IWT) staff would be sharing information at the NGWA Managed Aquifer Recharge conference in Denver, Colorado on September 22 – 25, 2025:
  - A poster on *Developing Managed Aquifer Recharge Projects in Texas: Transforming Ideas into Reality*;
  - A poster on *ASR Aquifer Characterization for the San Jacinto River Authority, Texas*; and,
  - A presentation on *Reclaimed Water ASR or AR in Texas*.
- IWT staff would also be sponsoring a technical session titled, *Exploring Groundwater Recharge and Management: Managed Aquifer Recharge and Other Innovative Tools for Water Supply Development and Operations* at the Geological Society of America National Conference in San Antonio on October 19 – 22, 2025. The session would have 12 talks and over 10 posters from authors across the country.

Justin Thompson (UTBEG) asked if treated wastewater could be used as a source for ASR. Cindy Hooper (TCEQ) indicated that Texas 89(R) Legislative Session Senate Bill (SB) 2885 allowed them to write authorizations for this type of project, but rulemaking had not yet started. Robert Nail (TCEQ) agreed that their Underground Injection Control (UIC) team was aware of the issues and beginning to move forward.

Ken Rainwater (TTU) joined the meeting at approximately 10:01 AM CDT and noted that, so far, only water meeting drinking water quality standards had been used as a source for ASR projects.

Abandoned Water Wells

There was no discussion of this topic at the meeting.

Groundwater Quality Monitoring

Rebecca Storms (TWDB) reported that:

- TWDB Groundwater Monitoring staff had completed FY 2025 water quality sampling in August 2025, which included the Gulf Coast and Yegua-Jackson Aquifers, as well as springs monitoring in coordination with TPWD on a joint study during the critical index period.
- The FY 2026 water quality season was in planning mode. The lab contract and list of aquifers to be sampled were in progress. TWDB would target four major aquifers to sample in the spring and summer of 2026: the Carrizo-Wilcox, Hueco-Mesilla Bolson, Pecos Valley, and Seymour Aquifers, with the Carrizo-Wilcox Aquifer being the most significant area of sampling based on geographic extent and the number of wells. TWDB would also sample a few minor aquifers located near the major aquifers, with a specific list to be determined, but the Blaine and Cross Timbers Aquifers would be included.
- The FY 2026 water level season would begin in October 2025, starting with the Central Texas area.

Brackish Groundwater

A public-privately owned brackish water reverse osmosis desalination plant opened in Alice on July 29, 2025 (https://www.kristv.com/news/local-news/in-your-neighborhood/jim-wells-county/alice/alice-brackish-water-desalination-plant-opens-brings-drought-resistance-plan, https://finance.yahoo.com/news/seven-seas-water-group-city-121700103.html). One well was providing 1 million gallons per day (MGD), and another well was scheduled to come online within the next few months that would add another 1.7 MGD to the city's water supply.

Evapotranspiration Networks

Rebecca Storms (TWDB) reported that:

- The TexMesonet department received the Final Report under a TWDB contract with Texas A&M University to characterize the site-specific physical and hydraulic soil properties at TexMesonet sites. The report featured a case study on the application of soil moisture data for estimating groundwater recharge. The final report would be available on the TWDB website (https://www.twdb.texas.gov/publications/reports/contracted_reports/index.asp) soon.
- The TexMesonet Advisory Committee was working on their first Recommendations Report to TWDB regarding program improvements to TexMesonet and it was expected to be available by the beginning of 2026.

David Villarreal (TDA) asked if TWDB had received recent legislative appropriations to invest in evapotranspiration (ET) networks for the next few years. Rebecca Storms (TWDB) indicated that preliminary information on this had been shared at the last meeting and she would provide an update on it at the next meeting.

Others

A joint venture project was recently announced between enCore Energy and Boss Energy (https://encoreuranium.com/news/encore-energy-announces-expansion-of-the-alta-mesa-uranium-project/, https://www.mining-technology.com/news/encore-land-parcel-alta-mesa-uranium-project/?cf-view&cf-closed). Exploration and drilling in the 5,900-acre parcel in Brooks County was scheduled to start in October 2025. Uranium mineralization was present in roll fronts within the Goliad Formation. The existing in-situ recovery (ISR) central processing plant had an annual operating capacity of 1.5 million pounds of uranium, with an additional drying capacity of 500,000 pounds.

Rebecca Storms (TWDB) reported that:

- They were working out the logistics of additional funding received during the Texas 89(R) Legislative Session towards the recorder well, springs monitoring, and groundwater quality programs, including how a new staff position would be structured.
- Texas 89(R) Legislative Session House Bill (HB) 1400, the Groundwater Science, Research, and Innovation Fund did not pass, but TWDB was allocated $7.5M total for FY 2026 – 2027 (SB 1, Article IX, Section 17.25) for grants to Groundwater Conservation Districts (GCDs) to conduct projects and programs for groundwater research, science, and data collection that benefit local groundwater management and planning. TWDB was still in the planning and organizational stage, but they intended to open this up for initial applications later in the fall of 2025.
- TWDB received a request to assess the Trinity River Alluvium for potential minor aquifer designation via a letter from a group of legislators. TWDB was still working on how to respond to the request and would be meeting with TCEQ on this matter.

Justin Thompson (UTBEG) asked if GCD research fund grant guidance would be made available, and Rebecca Storms (TWDB) indicated that they were having meetings and discussions on this subject.

6. BUSINESS DISCUSSION AND POSSIBLE ACTION

Draft TGPC GWI Subcommittee *Annual Report*

As required by the GWI Subcommittee's *Charge* (https://tgpc.texas.gov/wp-content/themes/responsive/subcommittees/gwissues/GWI_SubComm_Charge10Jul2019.pdf), Chris Heiligenstein (RRC) presented a draft of the TGPC GWI Subcommittee *Annual Report*. In FY 2025, the GWI Subcommittee met four times, reviewed the Agricultural Chemicals Task Force and TGPC Publications status reports, and discussed a number of groundwater-related topics. The GWI Subcommittee approved two white papers and the new edition of its biennial *Activity Plan*. At the meeting on June 18, 2025, the GWI Subcommittee reviewed its *Charge* and did not have any changes to recommend to the TGPC. In FY 2026, the GWI Subcommittee would continue to develop one or more white papers. David Villarreal (TDA) moved, David Van Dresar (TAGD) seconded, and all remaining members approved the draft *Annual Report*

with one minor change (i.e., the date on page 1). The *Annual Report* would be presented to the TGPC for final approval at their next meeting.

Discussion of White Papers Under Development

GWI Subcommittee members discussed possible future white paper topics related to groundwater quality and associated Subject Matter Expert(s). Ideas included:

- Emerging Chemical and Biological Contaminants
  - Manganese – UTBEG would be doing a contract report on manganese for TCEQ in FY 2026;
  - Lead – Until 2011, lead-free plumbing components could legally contain up to 8% lead, and especially in some areas of the country, that lead-free content can be released into well water;
  - Bacteria (e.g., coliform bacteria, including *Escherichia coli*) and pathogens (e.g., *Cryptosporidium* sp., *Salmonella* sp. and subsp., *Legionella* spp., and *Naegleria fowleri*);
  - Lead and copper; and,
  - Water treatment disinfection byproduct N-nitrosodimethylamine (NDMA).
- Water well disinfection Best Management Practices (BMPs)
  - List water well disinfection Best Management Practices (BMPs), as well as recommendations for private water well owners regarding the information, equipment, and materials needed before and after emergency situations.
- Managed Aquifer Recharge (MAR)
  - Describe the enhanced susceptibility of karst aquifers to the deposition of contaminants.
- Abandoned Water Wells
  - Determine an updated estimate of the scope and scale of the problem in Texas.
- Private Water Wells
- Groundwater Quality Monitoring
  - Summarize the USGS National Water-Quality Assessment (NAWQA) Texas-specific groundwater quality data.
- Brackish Groundwater
  - Describe the potential impact of brine from brackish water treatment on groundwater quality and provide recommendations for managing its disposal.
- Evapotranspiration Networks
- Investigate whether there were any gaps in the existing groundwater quality regulatory programs of TGPC members due to the lack of a legislative mandate.

Guy Fipps (AgriLife Extension) joined the meeting at approximately 10:34 AM CDT and was present for the remainder of the meeting. Stanley Aniagu (TCEQ) left the meeting at approximately 10:59 AM CDT, James LaManna (TCEQ) left at approximately 11:00 AM CDT, and Ken Rainwater (TTU) left at approximately 11:03 AM CDT and they were absent for the remainder of the meeting.

Returning to the topic of ET networks, Guy Fipps (AgriLife Extension) noted that, due to bills passed during the previous legislative session, the TexMesonet received authorization to lead the effort in providing ET data for the state, but there was no associated funding. In the recent legislative session, TWDB received half of its request for TexMesonet activities. He had

incorporated approximately 40% of TWDB's stations into the TexasET Network, but TWDB siting practices did not include ET requirements. With funding, the TexasET Network capabilities could be transferred to the TexMesonet. The TexMesonet Advisory Committee would be meeting later in September 2025. The Water My Yard program (part of the TexasET Network) was self-funded with approximately 54,000 accounts, but it could be moved to a statewide program in the future.

7. ANNOUNCEMENTS

Kathy McCormack (TCEQ) announced that the TCEQ Groundwater Contamination Viewer had migrated to an updated application. The old application would remain active until the end of 2025, but bookmarks should be updated to the Viewer's splash page (at https://www.tceq.texas.gov/gis/groundwater-contamination-viewer). The splash page URL would never change, and it included links to the *User Guide* and other important background information. Staff were currently working on adding the 2024 data to the Viewer.

Linzy Foster (USGS) noted that some of their researchers were working on analysis of O&G produced water application and drilling waste application, one paper had been published (https://www.usgs.gov/publications/land-application-drill-waste-a-scope-analysis), and another paper based on Oklahoma data would be published soon. In addition, they had a new multi-year project starting in the San Antonio area (i.e., in Bandera, Bexar, Blanco, Comal, Kendall, and Medina counties) related to Edwards and Trinity Aquifers outcrop vulnerability maps based on hydraulic connections and units that might be particularly vulnerable to contamination pathways.

Chris Heiligenstein (RRC) announced that they had received legislative funding to create a sub-surface investigative group that would be looking at hazards such as sinkholes, seismicity, and groundwater contamination.

8. PUBLIC COMMENT

There was no public comment at the meeting.

9. ADJOURN

Chris Heiligenstein (RRC) adjourned the meeting at approximately 11:18 AM CDT.