

GROUNDWATER ISSUES SUBCOMMITTEE
OF THE
TEXAS GROUNDWATER PROTECTION COMMITTEE
RECORD OF MEETING
Fourth Quarter Meeting, Fiscal Year 2023

Meeting Date: June 14, 2023
Meeting No.: 34

Place: videoconference
Room: N/A

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MEETING ATTENDANCE

Subcommittee Members

Kathy McCormack (Co-Chair)
Chris Heiligenstein (Co-Chair)
Rebecca Storms
Margaret Willis
David Villarreal
T.J. Helton

Leah Martinsson

John Malito

David Gunn

Linzy Foster

Ken Rainwater

Affiliation

Texas Commission on Environmental Quality (TCEQ)
Railroad Commission of Texas (RRC)
Texas Water Development Board (TWDB)
Texas Department of State Health Services (DSHS)
Texas Department of Agriculture (TDA)
Texas State Soil and Water Conservation Board (TSSWCB)
Texas Alliance of Groundwater Districts (TAGD)
Bureau of Economic Geology of The University of Texas at Austin (UTBEG)
Texas Department of Licensing and Regulation (TDLR)
United States Geological Survey (USGS)
Texas Tech University (TTU)

Agency Staff

Abiy Berehe
Alan Cherepon
Heather Dodson
Grant Gibson
Patricia Ging
Jason Godeaux
Cindy Hooper
Peggy Hunka
James LaManna
Julia Stanford
Scott Underwood

Affiliation

Program

TCEQ	Water Availability Division
TCEQ	Water Availability Division
TWDB	
TCEQ	Water Availability Division
USGS	
TCEQ	Water Availability Division
TCEQ	Water Availability Division
TCEQ	Water Availability Division
TCEQ	Water Supply Division
TAGD	
TCEQ	Water Availability Division

Interested Parties

Diana Nichols
Jennifer Miller

Affiliation

Kelly Hart & Hallman, LLP
Brazos River Authority

MEETING HANDOUTS

1. Texas Groundwater Protection Committee (TGPC) Groundwater Issues (GWI) Subcommittee Meeting Agenda, June 14, 2023
2. TGPC GWI Subcommittee Meeting Record, March 8, 2023
3. TGPC Agricultural Chemicals (AgChem) Task Force (TF) Status Report, June 14, 2023
4. TGPC Publications Status Report, June 14, 2023
5. *Midkiff farm ready to field test water treatment technology* news article, <https://www.mrt.com/business/oil/article/midkiff-farm-ready-field-test-water-treatment-17869146.php#photo-22818557>
6. Ground Water Protection Council (GWPC) *Produced Water Report: 2023 Regulations & Practices Updates*, <https://www.gwpc.org/wp-content/uploads/2023/06/2023-Produced-Water-Report-Update-FINAL-REPORT.pdf>
7. U.S. Environmental Protection Agency (EPA) *Proposed PFAS National Primary Drinking Water Regulation* press release, <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>
8. *Legislation to plug abandoned water wells passes* news article, <https://www.yourbasin.com/news/legislation-to-plug-abandoned-water-wells-passes/>
9. Final Draft *TGPC GWI Subcommittee Fiscal Year 2024 – 2025 Activity Plan*
10. Draft TGPC GWI Subcommittee *Charge*, June 14, 2023
11. Final Draft Groundwater Quality Monitoring Survey

MEETING RECORD OF JUNE 14, 2023

1. PRE-MEETING REMINDERS

Before the meeting started, Kathy McCormack (TCEQ) 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.

Kathy McCormack (TCEQ), Co-Chair of the GWI Subcommittee, called the meeting to order at approximately 9:35 AM CDT and then called the roll of GWI Subcommittee members. The representatives from Texas A&M AgriLife Research (AgriLife Research) and Texas A&M AgriLife Extension Service (AgriLife Extension) were not present at the meeting.

3. STATUS REPORTS

Agricultural Chemicals Task Force

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

- TCEQ had begun cooperative monitoring with TWDB and had performed immunoassay (IA) screening of 55 samples for atrazine and 2,4-D with no detects above quantitation limits.
- On June 5 – 8, 2023, TCEQ conducted ongoing monitoring of Public Water System (PWS) wells in the Panhandle that had prior high atrazine detects; 14 samples were IA screened for atrazine with a high detect of 0.12 ppb; eight of the 14 samples were also submitted to the DSHS Environmental Sciences Laboratory for U.S. EPA Method 525.2 analysis (which analyzes for over two dozen pesticides, including atrazine).
- USGS data was recently checked and downloaded, but Alan Cherepon (TCEQ) was waiting for additional sample results before entering new data into the TCEQ Interagency Pesticide Database (IPD).
- A table-top display and staff providing information on the TGPC, including pesticide information and data, was set up at the annual TCEQ Environmental Trade Fair in Austin on May 16 – 17, 2023.
- The revised draft TCEQ Quality Assurance Project Plan (QAPP) for Fiscal Year 2024 had been submitted for internal review and it was in the process of being approved.
- Alan Cherepon (TCEQ) planned to update the Pesticides of INterest Tracking System (POINTS) Pesticide Assessment Database for Texas in December 2023 for FY2023.
- The Region 6 U.S. EPA/States/Tribes Pesticide meeting for Spring 2023 was held in Oklahoma as a hybrid meeting on May 16 – 17, 2023. Topics discussed at the meeting included: U.S. EPA Region 6 Update and Pollinator Update, State and Tribal Updates (Personnel Updates, Emerging Pests, Dicamba, Other Topics), Enforcement Updates

(Priorities and Targeting, Use of Federal Credentials), Pre-State FIFRA Issues Research and Evaluation Group (SFIREG) meeting (States and Tribes Only), Report and Discussion from Pre-SFIREG meeting, Certification and Training Updates (Overall Status and What's Next), and U.S. EPA's Proposed Worker Protection Standard (WPS) Rule.

TGPC Publications

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

- *Joint Groundwater Monitoring and Contamination Report – 2022* (“*Joint Report*”, SFR-56)
 - The *2022 Joint Report* was published on May 31, 2023.
 - The report was available at <https://tgpc.texas.gov/tgpc-publications/> and hard copies were available upon request.

Cindy Hooper (TCEQ) noted that many efforts were taken this year to meet the June 1st TGPC-recommended publication date for this annual report, and added that the notice of availability of the *2022 Joint Report* would be mailed to county judges, county health officials, and Groundwater Conservation District (GCD) managers on June 16, 2023. The status of the TCEQ groundwater-related publications remained unchanged.

4. SET FUTURE MEETING DATE

The next TGPC GWI Subcommittee meeting was scheduled for Wednesday, September 13, 2023, at 9:30 AM CDT and it was planned as a videoconference.

5. DISCUSS CURRENT GROUNDWATER ISSUES

Oil and Gas Produced Water

Kathy McCormack (TCEQ) referred members to a recent news article about a field test utilizing treated produced water to irrigate non-food crops that was about to take place on Cody Wilson Farms in Midkiff, Texas (<https://www.mrt.com/business/oil/article/midkiff-farm-ready-field-test-water-treatment-17869146.php#photo-22818557>). The first project would deliver 2,000 barrels of distilled water per day to be collected and tested by the New Mexico Produced Water Consortium. The farm owner had obtained a P-5 permit from RRC to form a business organization for this work. Still to be determined in the long term was who owned, or would own, the produced water, and how the midstream sector and/or producers would leverage this technology for profit.

Kathy McCormack (TCEQ) also reported that the Ground Water Protection Council (GWPC) has published their *Produced Water Report: 2023 Regulations & Practices Updates* (<https://www.gwpc.org/wp-content/uploads/2023/06/2023-Produced-Water-Report-Update-FINAL-REPORT.pdf>):

- Changes in the produced water marketplace since their initial 2019 report were highlighted, including the most significant regulatory, operational, and technological advancements.
- With the highest levels of oil production and corresponding produced water volumes in the nation, this 2023 update focused on the Permian Basin in Texas and New Mexico. In spite of

the high current and projected levels of water scarcity in this landlocked region, reuse of produced water within the oilfield was estimated at only around 30%, and induced seismicity due to disposal in deep injection wells would increasingly limit this option in the future.

- Industry coalitions such as the New Mexico and Texas Produced Water Consortiums were continuing to communicate on the possibilities of reusing produced water outside of the oilfield, including surface discharge. The report indicated that produced water had transitioned from a waste product destined primarily for downhole disposal, to a commodity to be used for upcoming oil and gas well completions, enhanced oil recovery (EOR), or beneficial reuse.
- While several states were already allowing treated produced water to be used for agricultural irrigation and livestock use, or to be discharged to surface water, the U.S. EPA currently prohibited the discharge of unconventional (i.e., fracking) produced water to Waters of the United States (WOTUS). This report acknowledged that, along with extremely high salinity levels, there were many uncertainties in the other constituents of produced water, making treatment and analysis challenging for reuse outside of the oilfield (e.g., semi-salt tolerant crop irrigation, Aquifer Storage and Recovery (ASR) and Managed Aquifer Recharge (MAR), salt-tolerant concrete manufacturing, or discharge to state surface waters).

Kathy McCormack (TCEQ) also noted that funds had been allocated for the Texas Produced Water Consortium pilot project in one of the recent legislative session's appropriation bills.

David Villarreal (TDA) joined the meeting at approximately 9:59 AM CDT and was present for the remainder of the meeting.

Emerging Contaminants

Kathy McCormack (TCEQ) reported that on March 14, 2023, the U.S. EPA released its proposed Maximum Contaminant Levels (MCLs), or health-based standards, for six per- and polyfluoroalkyl substances (PFAS) compounds in drinking water systems (<https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>), and they anticipated finalizing the regulation by the end of 2023. The six compounds were PFOA and PFOS as individual contaminants, and PFHxS, PFNA, PFBS, and HFPO-DA (commonly referred to as GenX Chemicals) as a PFAS mixture. The proposed MCL for both PFOA and PFOS was 4.0 parts per trillion (ppt), and there was a 1.0 (unitless) Hazard Index for the other four compounds. The Hazard Index is a tool that is used to understand and calculate the health risk from chemical mixtures and determine compliance (<https://www.epa.gov/system/files/documents/2023-03/How%20do%20I%20calculate%20the%20Hazard%20Index.3.14.23.pdf>). The proposed rule would also require PWSs to:

- Monitor for these PFAS;
- Notify the public of the levels of these PFAS; and,
- Reduce the levels of these PFAS in drinking water if they exceeded the proposed standards.

James LaManna (TCEQ) reported that they had provided feedback during the comment period on the lack of laboratory capacity in the state for the number of samples this regulation would require from the PWSs – there were only two approved laboratories for PFAS analysis that could process the approximately 60,000 samples generated each year from the approximately 5,000

PWSs affected by this regulation. James LaManna (TCEQ) added that the proposed 4.0 ppt PFOA/PFOS MCL was also the practical quantitation limit for these compounds, and that there were potentially significant treatment costs (e.g., Granular Activated Carbon (GAC) and Ion Exchange (IE)), especially for small PWSs. Rebecca Storms (TWDB) asked about the analysis costs, and James LaManna (TCEQ) indicated that they would be approximately \$300 per sample (vs. approximately \$30 per sample for bacteriological testing). Patty Ging (USGS) noted that their National Water-Quality Assessment (NAWQA) program had sampled for PFAS in groundwater and tested 25 PWS wells in the Edwards Aquifer in November and December 2022.

David Villarreal (TDA) reported that recent news related to emerging contaminants was focused on PFAS, microbial contaminants, microplastics, environmental DNA (eDNA), and bacterial source tracking.

Aquifer Storage and Recovery (ASR)

Kathy McCormack (TCEQ) reported that the Interstate Technology & Regulatory Council (ITRC) recently published a draft guidance document on MAR with comments due by June 9, 2023. The document presented the current knowledge of MAR including intended uses, recharge technologies, and technical background, and it provided guidance and a framework for considering key elements when implementing a MAR project. Different sections covered intended use, source water, receiving aquifer, recharge technologies, water quality considerations, project planning, data and modeling, and case studies.

Abandoned Water Wells

Kathy McCormack (TCEQ) referred members to a recent news article about plugging abandoned P-13 wells in Pecos County (<https://www.yourbasin.com/news/legislation-to-plug-abandoned-water-wells-passes/>). These were former oil or gas wells that had been converted into water wells. House Bill (HB) 4256 was signed by the Governor on June 13, 2023, and it was effective immediately. The bill created the Leaky Water Well grant program that would be administered through TCEQ. The bill required TCEQ, by rule, to establish criteria for prioritizing projects eligible to receive a grant, and TCEQ would be working with RRC on this. In order to implement this bill, the legislature needed to appropriate funds for this program. Although establishing a statewide plugging fund has been a longtime recommendation in the TGPC Legislative Report, and this bill made no appropriation and applied to only one county, it at least established a precedent and provided the legal basis for future appropriation of additional plugging funds.

Leah Martinsson (TAGD) reported that HB 1 had \$10 million in appropriation for this program.

Brackish Groundwater

Rebecca Storms (TWDB) reported that their Groundwater Availability Modeling (GAM) and Brackish Resources Aquifer Characterization System (BRACS) groups were soliciting stakeholder input for contract ideas with a deadline of June 30, 2023, and that the East Sparta Aquifer BRACS study (for a portion of the Sparta Aquifer located east of the Colorado River)

and the sixth edition of the BRACS Data Dictionary would be published within the next few months.

Evapotranspiration Networks

Kathy McCormack (TCEQ) reported that House Bill 2759 (identical to the introduced Senate Bill 988) had been signed by the governor during the recent legislative session and it would be effective September 1, 2023. Sections 16.012(b) and 16.026 had been added to the Texas Water Code related to the establishment of the TexMesonet Hydrometeorology Network and TexMesonet Advisory Committee. TWDB would work with other entities to set up stations across the state to monitor hydrometeorological conditions (including evapotranspiration) and also share data and tools. TWDB was still sorting out special item funding for this work, and the TexMesonet Advisory Committee was scheduled to meet on June 27, 2023. The TGPC advocated for the establishment of a statewide evapotranspiration network in its recent Legislative Report, and this bill addressed that recommendation.

Others

There was no discussion of this topic at the meeting.

6. BUSINESS DISCUSSION AND POSSIBLE ACTION

Final Draft *TGPC GWI Subcommittee Fiscal Year 2024 – 2025 Activity Plan*

As required by the GWI Subcommittee's *Charge* (https://tgpc.texas.gov/wp-content/themes/responsive/subcommittees/gwissues/GWI_SubComm_Charge10Jul2019.pdf), Kathy McCormack (TCEQ) presented a final draft of the *TGPC GWI Subcommittee Fiscal Year 2024 – 2025 Activity Plan*. The only change from the last meeting was the addition of two white papers to the Accomplishments list on page 2 – these two white papers were approved by the TGPC at their meeting on April 19, 2023. David Gunn (TDLR) moved, David Villarreal (TDA) seconded, and all remaining members approved the final draft of the *Activity Plan*. The *Activity Plan* would be presented to the TGPC for approval at their next meeting.

Draft *TGPC GWI Subcommittee Charge*

As required by the GWI Subcommittee's current *Activity Plan* (https://tgpc.texas.gov/gwissues/activity_plans/TGPC_GWI_FY2022_2023_ActivityPlan_14Jul2021.pdf), Kathy McCormack (TCEQ) presented the TGPC GWI Subcommittee *Charge* (https://tgpc.texas.gov/wp-content/themes/responsive/subcommittees/gwissues/GWI_SubComm_Charge10Jul2019.pdf) for its annual review and discussion. Chris Heiligenstein (RRC) had agreed to continue as Co-Chair for the next Fiscal Year, but due to some website changes at TCEQ over the past few years, there were two broken links in the current *Charge* which had been updated in the draft *Charge*. Rebecca Storms (TWDB) moved, Chris Heiligenstein (RRC) seconded, and all remaining members approved the draft *Charge*. The draft *Charge* would be presented to the TGPC for approval at their next meeting.

Groundwater Quality Monitoring Survey – Final Draft

Rebecca Storms (TWDB) presented the final draft of the TGPC Groundwater Quality Monitoring Survey which would collect information about the active groundwater quality monitoring programs in Texas and their associated datasets. Since the last meeting, a working group of representatives from TCEQ, TWDB, and TAGD had prepared a Pilot Study for the survey and received responses from five groups – two program areas at TCEQ, two GCDs, and TWDB. Based on the feedback from the Pilot Study, a final draft of the survey had been prepared. The plan and timeline for the survey was:

- Make any final updates to the survey based on feedback from the meeting;
- Post the survey on the TGPC homepage;
 - GWI Subcommittee members were also welcome to provide a link to the TGPC homepage on their website while the survey was open;
- Send the GWI Subcommittee members the link to the survey so that they could announce it to their various audiences;
- Solicit other suggested organizations (e.g., International Boundary and Water Commission, Army Corps of Engineers, Edwards Aquifer Habitat Conservation Plan, Texas Water Resources Institute, river authorities, Clean Rivers Program, city water departments, etc.) to participate in the survey;
- Note the survey opportunity in the GovDelivery email that would be sent to the TGPC's subscription list on July 5, 2023 (i.e., one week before their fourth quarter meeting);
- Remind the various audiences to complete the survey by 5 PM on July 28, 2023;
- Summarize the results of the survey for the next GWI Subcommittee meeting on September 13, 2023; and,
- Post the survey results on the TWDB website.

Ken Rainwater (TTU) moved, David Villarreal (TDA) seconded, and all remaining members approved the final draft of the survey. The survey would proceed according to the plan and timeline that had been proposed. Note that TGPC approval of the survey was not needed because the survey itself would not be on the TGPC website after July 28, 2023, and the survey results would be posted on the TWDB website. Any subsequent white paper developed by the GWI Subcommittee based on the survey results would go through the usual GWI Subcommittee and TGPC approval process before being posted on the TGPC website.

Draft Children's Health and Groundwater Quality in Private Water Wells in Child Care Operations in Texas White Paper

Margaret Willis (DSHS) reported that they expected to present the initial draft of the *Children's Health and Groundwater Quality in Private Water Wells in Child Care Operations in Texas* white paper at the next meeting. They were reviewing the existing regulations, as well as contamination data in order to perform a geolocational analysis. Alan Cherepon (TCEQ) asked if the synergistic effects of contaminants, or the age of the children and/or the plumbing at these facilities, would be discussed, and Margaret Willis (DSHS) indicated that potential contaminant cumulative/aggregate effects would be a good topic to mention in the white paper. Abiy Berehe (TCEQ) asked if they would be investigating any connection between birth defects and

groundwater contamination; Margaret Willis (DSHS) indicated that this was outside of the scope of this white paper, but that they might be able to look at that data if they could obtain it.

Leah Martinsson (TAGD) left the meeting at approximately 10:42 AM CDT and was absent for the remainder of the meeting.

Discussion of White Papers Under Development

There was no discussion of this topic at the meeting.

7. ANNOUNCEMENTS

David Gunn (TDLR) announced that HB 3744 related to the regulation of water well drillers and water well pump installers (e.g., extending the license period from one to two years, cleaning up some wording in their agency's enabling statute and rules, etc.) was signed by the Governor on June 13, 2023, but any rule changes would need to be approved by their Water Well Drillers and Pump Installers Advisory Council and the TDLR Commissioners before they could be updated.

8. PUBLIC COMMENT

There was no public comment at the meeting.

9. ADJOURN

Kathy McCormack (TCEQ) adjourned the meeting at approximately 10:53 AM CDT.