

GROUNDWATER ISSUES SUBCOMMITTEE
OF THE
TEXAS GROUNDWATER PROTECTION COMMITTEE
RECORD OF MEETING
Third Quarter Meeting, Fiscal Year 2021

Meeting Date: March 10, 2021
Meeting No.: 25

Place: videoconference
Room: N/A

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MEETING ATTENDANCE

Subcommittee Members

Kathy McCormack (Co-Chair)	Texas Commission on Environmental Quality (TCEQ)
Christopher Heiligenstein (Co-Chair)	Railroad Commission of Texas (RRC)
Rebecca Storms	Texas Water Development Board (TWDB)
Eric Lawrence	Texas Department of State Health Services (DSHS)
David Villarreal	Texas Department of Agriculture (TDA)
T.J. Helton	Texas State Soil and Water Conservation Board (TSSWCB)
David Van Dresar	Texas Alliance of Groundwater Districts (TAGD)
Maria D. (Rosario) Sanchez Flores	Texas A&M AgriLife Research (AgriLife Research)
Linda Ruiz McCall	Bureau of Economic Geology of The University of Texas at Austin (UTBEG)
Adam Foster	Texas Department of Licensing and Regulation (TDLR)
Ken Rainwater	Texas Tech University (TTU)
Diane Boellstorff	Texas A&M AgriLife Extension Service (AgriLife Extension)
Lynne Fahlquist	United States Geological Survey (USGS)

Agency Staff

<u>Affiliation</u>	<u>Program</u>
Natalie Ballew	TWDB
Abiy Berehe	TCEQ
Alan Cherepon	TCEQ
Lorrie Council	TCEQ
Grant Gibson	TCEQ
Dan Hannah	TCEQ
James Harcourt	RRC
Cindy Hooper	TCEQ
Peggy Hunka	TCEQ
Leah Martinsson	TAGD
Jessica Price	DSHS

Interested Parties

<u>Affiliation</u>
Margaret Cook
Stephanie Glenn
Wendy Gordon

MEETING HANDOUTS

1. Texas Groundwater Protection Committee (TGPC) Groundwater Issues (GWI) Subcommittee Meeting Agenda, March 10, 2021
2. TGPC GWI Subcommittee Meeting Record, December 9, 2020
3. TGPC Agricultural Chemicals (AgChem) Task Force (TF) Status Report, March 10, 2021
4. TGPC Publications Status Report, March 10, 2021
5. *TCEQ to Administer Clean Water Program, EPA Announces* press release, <https://www.tceq.texas.gov/news/releases/tceq-to-administer-clean-water-program-epa-announces>, January 15, 2021
6. PFAS Updates
7. TWDB ASR Report, <https://www.twdb.texas.gov/innovativewater/asr/index.asp> and <https://www.twdb.texas.gov/innovativewater/asr/projects/Statewide/index.asp>
8. *In Our Opinion Stormwater – A Beneficial Resource or a Contaminant: Infiltrate With Caution* press release, <https://www.gwpc.org/news/m.blog/540/in-our-opinion-stormwater-a-beneficial-resource-or-a-contaminant-infiltrate-with-caution>, February 12, 2021
9. Boy Rescued After Falling into a Water Well in Texas news article, <https://www.cnn.com/2020/12/09/us/texas-boy-rescued-well-trnd/index.html>, December 9, 2020
10. TWDB Brackish Groundwater Report, <http://www.twdb.texas.gov/innovativewater/bracs/studies/UCPC/index.asp>
11. Draft TGPC GWI Subcommittee Fiscal Year 2022 – 2023 *Activity Plan*
12. Draft update of *How is Groundwater Quality Affected by Wellhead Impacts from Flooding during Natural Disasters?* white paper
13. Draft update of *Aquifer Storage and Recovery Issues 2021* white paper outline, March 2, 2021
14. UTBEG feedback on draft update of *Aquifer Storage and Recovery Issues 2021* white paper outline, March 10, 2021
15. Draft *Abandoned Water Wells and the Challenges They Pose* white paper

The following item was also on display on the handout table:

1. N/A

MEETING RECORD OF MARCH 10, 2021

1. PRE-MEETING REMINDERS

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

2. CALL TO ORDER AND INTRODUCTIONS

Due to the COVID-19 pandemic, on March 16, 2020, in accordance with section 418.016 of the Texas Government Code, Governor Abbott suspended various provisions of the Open Meetings Act that require government officials and members of the public to be physically present at a specified meeting location. Pursuant to that suspension, the public was not be able to attend this meeting in person but was able to attend via videoconference at no cost.

Christopher Heiligenstein (RRC), Co-Chair of the GWI Subcommittee, called the meeting to order at approximately 9:38 AM CST and then called the roll of GWI Subcommittee members. The representative from the Texas Parks and Wildlife Department (TPWD) was not present at the meeting.

3. STATUS REPORTS

Agricultural Chemicals Task Force

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

- Preparations were made for the Fiscal Year (FY) 2021 Cooperative Monitoring season by arranging for analytical purchases and scheduling the annual training of the TWDB sampling team on March 9, 2021; the annual TCEQ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) grant readiness review would be scheduled for later in March 2021;
- The Pesticides of Interest Tracking System (POINTS) Pesticide Assessment Database update was completed in December 2020; and,
- The Region 6 U.S. Environmental Protection Agency (EPA)/States/Tribes pesticide Spring meeting was tentatively scheduled for May 2021, and it would normally fall to New Mexico to host it in 2021, but it would likely be held virtually due to ongoing COVID-19 concerns.

TGPC Publications

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

- *Activities and Recommendations of the Texas Groundwater Protection Committee: Report to the 87th Legislature* (“Legislative Report”, SFR-047)
 - The TGPC Legislative Report was published and distributed to the Texas Legislature and it was available online at https://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/047-20.pdf.
- *Joint Groundwater Monitoring and Contamination Report – 2019* (“Joint Report”, SFR-056)
 - Work was ongoing in the preparation of the 2020 *Joint Report* and the goal was to have a final report for TCEQ publication in May 2021.

- Groundwater Assessment for the *2022 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)* (“*Texas Integrated Report*”)
 - TCEQ staff would begin work on the Groundwater Assessment portion of this biennial report in September 2021 and it was expected that the report would rely on water quality data from TWDB’s Groundwater Database; and,
 - The current report from 2020 was available online at <https://www.tceq.texas.gov/waterquality/assessment/20twqi/20txir>.
- *Landowner’s Guide to Plugging Abandoned Water Wells* (“Plugging document”, RG-347)
 - TGPC’s Public Outreach and Education (POE) Subcommittee reviewed and updated the Plugging document for readability and substantive changes; the revised document was presented and approved at the TGPC meeting in January 2021 and it was currently in the TCEQ publications process.

4. SET FUTURE MEETING DATE

The next TGPC GWI Subcommittee meeting was scheduled for Wednesday, June 2, 2021, at 9:30 AM CDT and it was planned as a videoconference.

5. DISCUSS CURRENT GROUNDWATER ISSUES

Hydraulic Fracturing

There was no discussion of this topic at the meeting.

Oil and Gas Produced Water

Kathy McCormack (TCEQ) reviewed a recent TCEQ press release (<https://www.tceq.texas.gov/news/releases/tceq-to-administer-clean-water-program-epa-announces>) where the U.S. EPA announced that TCEQ would now be the permitting authority for discharges of oil and gas activities, pipelines, and natural gas processing plants as part of the Clean Water Act. These responsibilities had previously been under the jurisdiction of RRC. The National Pollutant Discharge Elimination System (NPDES) permit program regulates point sources that discharge pollutants to waters of the U.S.

Emerging Contaminants

Kathy McCormack (TCEQ) presented two updates regarding per- and polyfluoroalkyl substances (PFAS):

- A PFAS white paper (<https://www.ecos.org/documents/ecos-white-paper-processes-and-considerations-for-setting-state-pfas-standards/>) was published in February 2020 by the Environmental Council of the States (ECOS) which compiled information on state-level PFAS standards, advisories, and guidance values while also providing considerations for future regulatory activities on PFAS; and,
- On February 22, 2021, the U.S. EPA announced that they would now regulate PFOS and PFOA in drinking water (<https://www.epa.gov/ccl/regulatory-determination-4>) and that they

planned to collect data on 29 additional PFAS in 2023 – 2025 (<https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>).

Lynne Fahlquist (USGS) reported that they had developed a new method for analyzing PFAS and that they would provide more details on this at the next meeting.

Aquifer Storage and Recovery (ASR)

Rebecca Storms (TWDB) presented a summary of their recently-published *Statewide Survey of Aquifer Suitability for Aquifer Storage and Recovery Projects or Aquifer Recharge Projects* report (<https://www.twdb.texas.gov/innovativewater/asr/index.asp> and <https://www.twdb.texas.gov/innovativewater/asr/projects/Statewide/index.asp>). A result of House Bill (HB) 721 from the 86th Texas legislative session, the report developed an evaluation framework to measure the suitability of the state’s major and minor aquifers for both ASR and Aquifer Recharge (AR) projects. The screening framework included hydrogeological parameters, excess water, and water supply needs identified in the State Water Plan (SWP). Some of the report’s conclusions were that the highest ASR final suitability ratings were found in the Wilcox, Trinity, Gulf Coast, Sparta, and Edwards (Balcones Fault Zone) aquifers, and that the highest AR final suitability ratings were found in the Brazos Valley Alluvium, Gulf Coast, and Carrizo-Wilcox aquifers and the Hueco-Mesilla Bolsons Aquifer outcrops. The caution in these findings is that although the results of this survey can be used as an indicator of the probability of finding suitable sites, site scores should not be considered absolute with respect to the potential success of a project. The report is accompanied by an ArcGIS story map and an interactive webpage map application for stakeholders so that they can better understand the process of assessing aquifer suitability and view areas within the aquifers that might be suitable for these types of projects.

Kathy McCormack (TCEQ) reviewed a recent Ground Water Protection Council (GWPC) press release (<https://www.gwpc.org/news/m.blog/540/in-our-opinion-stormwater-a-beneficial-resource-or-a-contaminant-infiltrate-with-caution>) titled *In Our Opinion Stormwater – A Beneficial Resource or a Contaminant: Infiltrate With Caution* that was co-authored by Mary Musick (former TCEQ and TGPC Designated Chair). The press release highlighted the need for more research “regarding groundwater quality impacts of stormwater infiltration, identifying appropriate BMPs for different hydrogeologic settings and climate conditions, and aquifer-protective infiltration designs.”

Abandoned Water Wells

Kathy McCormack (TCEQ) noted a recent news article (<https://www.cnn.com/2020/12/09/us/texas-boy-rescued-well-trnd/index.html>) about a four-year-old Texas boy who was rescued six hours after falling nine feet down a 8-inch diameter water well on a ranch in the Rio Grande Valley. This highlighted the fact that abandoned or uncapped water wells in Texas continued to be hazardous to humans 33 years after “Baby Jessica” fell 22 feet down a similar water well in Midland for 56-hour-long ordeal.

Wellhead Impacts After Natural Disasters

Discussion of this topic occurred during the Business portion of the meeting.

Brackish Groundwater

Rebecca Storms (TWDB) presented a summary of their recently-published *Brackish Groundwater in Aquifers of the Upper Coastal Plains, Central Texas* report (<http://www.twdb.texas.gov/innovativewater/bracs/studies/UCPC/index.asp>). The report focused on the Wilcox, Carrizo, Queen City, Sparta, and Yegua aquifers. This area was selected because of the anticipated need for additional brackish groundwater in the region. The study maps delineated areas with similar salinity classes (i.e., fresh, slightly saline, and very saline), and estimated volumes of brackish groundwater in the study area are reported as an indication of the potential availability of this resource. The data and report can be used to evaluate potential sites for brackish groundwater production well fields, but it is not intended to serve as a substitute for desalination plant well field characterization.

Desalination

There was no discussion of this topic at the meeting.

Endangered Species

There was no discussion of this topic at the meeting.

Coal Ash from Power Plants

There was no discussion of this topic at the meeting.

Anthropogenic Mixing of Groundwater

There was no discussion of this topic at the meeting.

Others

James Harcourt (RRC) reported that several groundwater-related bills had recently been filed during the 87th Texas Legislative session:

- HB 2201 regarding the location of pits used in the production of oil and gas; and,
- HB 2381 regarding the establishment of the Texas Energy and Communications Commission to consolidate the functions of the Public Utility Commission of Texas (PUC) and the Railroad Commission of Texas (RRC).

6. BUSINESS DISCUSSION AND POSSIBLE ACTION

Draft TGPC GWI Subcommittee Fiscal Year 2022 – 2023 *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 an updated draft of the TGPC GWI Subcommittee Fiscal Year 2022 – 2023 *Activity Plan*. Rebecca Storms (TWDB) and James Harcourt (RRC) agreed with David Gunn's (TDLR) previous suggestion to keep brackish groundwater as a discussion topic in the *Activity Plan*. The final draft of the *Activity Plan* would be reviewed at the next meeting.

Draft *How is Groundwater Quality Affected by Wellhead Impacts from Flooding during Natural Disasters?* White Paper

Diane Boellstorff (AgriLife Extension) reviewed an updated draft of the *How is Groundwater Quality Affected by Wellhead Impacts from Flooding during Natural Disasters?* white paper which included two continuing research needs and five recommendations. The final draft of the white paper would be reviewed at the next meeting.

Draft *Opportunities and Challenges in Aquifer Storage and Recovery* White Paper

Ken Rainwater (TTU) reviewed the updated outline of the ASR white paper. Lorrie Council (TCEQ) reported that various aspects of ASR were being discussed during the current Texas legislative session. Linda Ruiz McCall (UTBEG) shared some feedback on the draft outline from Bridget Scanlon (UTBEG) and reported that Bridget Scanlon (UTBEG) was interested in participating in future working meetings on the white paper. Lorrie Council (TCEQ) noted that the focus of existing ASR statutes is on the quality of the water produced from an aquifer that has an ASR project, not on the quality of the water that is injected into an ASR well. An initial draft of the white paper was expected at the next meeting.

Draft *Abandoned Water Wells and the Challenges They Pose* White Paper

Adam Foster (TDRL) presented the initial draft of the *Abandoned Water Wells and the Challenges They Pose* white paper and reported that there had not been a lot of research on abandoned water wells. He added that the Edwards Aquifer Authority (EAA) had a robust abandoned water well plugging program, and he requested any information that GWI Subcommittee members might be able to share about similar programs in other states. Christopher Heiligenstein (RRC) suggested that the Texas Historical Commission (THC) may have information on the abandoned water wells that they encounter during their field work. Rebecca Storms (TWDB) added that the next edition of the SWP should be ready in the spring or summer of 2021 and it would include water use data. Natalie Ballew (TWDB) added that data from their water use survey could be found at <http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp>. Adam Foster (TDRL) indicated that he would include information about inundated water wells in the updated draft of the white paper that would be presented at the next meeting.

Discussion of White Papers Under Development

There was no discussion of this topic at the meeting.

7. ANNOUNCEMENTS

Kathy McCormack (TCEQ) announced that it was the annual National Groundwater Awareness Week and that additional information about the event could be found on the TGPC homepage. Peggy Hunka (TCEQ) noted that the annual TGPC-sponsored National Groundwater Awareness Week poster would be on display at the Texas Capitol rotunda during the following week.

Linda Ruiz McCall (UTBEG) announced the 71st Annual Gulf Coast Geoscience Convention (<http://geogulf2021.org/>) was scheduled for September 19 – 21, 2021 in Austin and it would include water resource issues and some virtual field trips.

Lynne Fahlquist (USGS) announced that:

- They were reinstating their webinar series and the webinar scheduled for April 2, 2021 would cover their transboundary aquifer assessment program activities in west Texas;
- They had suffered substantial water damage to their Austin office due to the previous month's historic winter storm Uri; and,
- They had issued a news release about Zebra mussels being found in moss balls sold for home aquariums.

Rosario Sanchez (AgriLife Research) announced that information regarding the Permanent Forum of Binational Waters (PFBW) could be found at <https://binationalwaters.tamu.edu>. This network of surface water and groundwater professionals provides integrated data and research related to binational waters and hosts frequent data-sharing events.

Rebecca Storms (TWDB) announced that they were continuing their Springs Monitoring Program (<https://www.twdb.texas.gov/groundwater/data/springs.asp>), they expected to kick it off again in April 2021, and they hoped to add some new locations to the network in 2021.

David Villarreal (TDA) announced that the next two Water Conservation Advisory Council (WCAC) meetings were scheduled for June 9, 2021 and September 8, 2021.

8. PUBLIC COMMENT

There was no public comment at the meeting.

9. ADJOURN

Christopher Heiligenstein (RRC) adjourned the meeting at approximately 11:32 AM CST.