

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

Meeting Date: December 9, 2020
 Meeting No.: 24

Place: videoconference
 Room: N/A

TABLE OF CONTENTS

MEETING ATTENDANCE 2

MEETING HANDOUTS 3

MEETING RECORD OF DECEMBER 9, 2020 4

1. PRE-MEETING REMINDERS4

2. CALL TO ORDER AND INTRODUCTIONS4

3. STATUS REPORTS4

 Agricultural Chemicals Task Force4

 TGPC Publications.....5

4. SET FUTURE MEETING DATE5

5. DISCUSS CURRENT GROUNDWATER ISSUES6

 Hydraulic Fracturing6

 Oil and Gas Produced Water.....6

 Emerging Contaminants.....6

 Aquifer Storage and Recovery (ASR)6

 Abandoned Water Wells6

 Wellhead Impacts After Natural Disasters6

 Brackish Groundwater6

 Desalination7

 Endangered Species7

 Coal Ash from Power Plants.....7

 Anthropogenic Mixing of Groundwater7

 Others7

6. BUSINESS DISCUSSION AND POSSIBLE ACTION.....8

 Draft TGPC GWI Subcommittee Fiscal Year 2022 – 2023 *Activity Plan*.....8

 Draft *Opportunities and Challenges in Aquifer Storage and Recovery* White Paper.....8

 Draft *How is Groundwater Quality Affected by Wellhead Impacts from Flooding during Natural Disasters?* White Paper8

 Discussion of White Papers Under Development.....8

7. ANNOUNCEMENTS.....8

8. PUBLIC COMMENT8

9. ADJOURN9

MEETING ATTENDANCE

<u>Subcommittee Members</u>	<u>Affiliation</u>
Kathy McCormack (Co-Chair)	Texas Commission on Environmental Quality (TCEQ)
Christopher Heiligenstein (Co-Chair)	Railroad Commission of Texas (RRC)
Natalie Ballew	Texas Water Development Board (TWDB)
Jessica Kessinger	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)
Leah Martinsson	Texas Alliance of Groundwater Districts (TAGD)
Maria D. (Rosario) Sanchez Flores	Texas A&M AgriLife Research (AgriLife Research)
David Gunn	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)

<u>Agency Staff</u>	<u>Affiliation</u>	<u>Program</u>
Abiy Berehe	TCEQ	Water Availability Division
Alan Cherepon	TCEQ	Water Availability Division
Grant Gibson	TCEQ	Water Availability Division
Patricia Ging	USGS	
Cindy Hooper	TCEQ	Water Availability Division
Julia Stanford	TAGD	
Rebecca Storms	TWDB	
John Tracy	AgriLife Research	

<u>Interested Parties</u>	<u>Affiliation</u>
N/A	

MEETING HANDOUTS

1. Texas Groundwater Protection Committee (TGPC) Groundwater Issues (GWI) Subcommittee Meeting Agenda, December 9, 2020
2. TGPC GWI Subcommittee Meeting Record, September 9, 2020
3. TGPC Agricultural Chemicals (AgChem) Task Force (TF) Status Report, December 9, 2020
4. Proposed FY21 Pesticide Monitoring Plan
5. TGPC Publications Status Report, December 9, 2020
6. Produced Water article (*Large water recycling facility thrives on collaboration*, October 12, 2020)
7. Brackish Groundwater article (*Alice hires Florida firm to design, build desalination plant*, August 24, 2020)
8. EAPP Wastewater Study article (*Impact of wastewater systems on Edwards Aquifer evaluated*, October 20, 2020)
9. Transboundary Groundwater conference article (*Laying the groundwork for transboundary groundwater*, November 12, 2020)
10. TGPC 87th Legislative Report Excerpt
11. Draft TGPC GWI Subcommittee Fiscal Year 2022 – 2023 *Activity Plan*
12. Draft update of *Aquifer Storage and Recovery Issues 2021* white paper outline, December 2, 2020
13. TWDB feedback on draft update of *Aquifer Storage and Recovery Issues 2021* white paper outline, December 2, 2020
14. Draft update of *How is Groundwater Quality Affected by Wellhead Impacts from Flooding during Natural Disasters?* white paper

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

1. N/A

MEETING RECORD OF DECEMBER 9, 2020

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

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.

Kathy McCormack (TCEQ), Co-Chair of the GWI Subcommittee, called the meeting to order at approximately 9:37 AM CST and then called the roll of GWI Subcommittee members. The representatives from the Bureau of Economic Geology of The University of Texas at Austin (UTBEG) and Texas Parks and Wildlife Department (TPWD) were not present at the meeting.

3. STATUS REPORTS

Agricultural Chemicals Task Force

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

- Fiscal Year (FY) 21 would only include Cooperative Pesticide Groundwater Monitoring with TWDB and immunoassay analysis would only include atrazine and 2,4-D;
- The USGS no longer conducted annual national pesticide groundwater monitoring so the TCEQ Interagency Pesticide Database (IPD) was updated to only include the Cooperative monitoring data from 2020;
- The FY21 Pesticide Management Plan (PMP) for the Implementation of the *Texas State Management Plan for Prevention of Pesticide Contamination of Groundwater* Quality Assurance Project Plan (QAPP) was approved by U.S. Environmental Protection Agency (EPA) on September 30, 2020;
- The Pesticides of Interest Tracking System (POINTS) Pesticide Assessment Database update was scheduled for completion by December 2020; and,
- The Region 6 U.S. EPA/States/Tribes pesticide meeting was held virtually on October 27 and 28, 2020 with the following highlights:
 - COVID-19 issues continued to impact grant efforts;
 - There were significant changes/updates to the “pesticides in water” section of the cooperative grant agreement which would be required for FY22; details were part of the draft 2022 – 2025 cooperative grant guidance;
 - There was considerable discussion on COVID-19 disinfectants and related products, especially for schools and childcare businesses, including training in Texas;

- Hemp and medical marijuana includes many non-registered growers, some of which were testing pesticides on hemp prior to using them on the medical marijuana; there had been a lot of hemp crop failure, so there should be less acres of it planted in coming years;
- TDA participated in a webinar on pesticide imports on November 10, 2020 and had one pesticide collection event in Lubbock this year; and,
- One major pollinator protection issue involved apiaries not reporting their hive locations.

Lynne Fahlquist (USGS) noted that their 30-year National Water-Quality Assessment (NAWQA) Project had completed all of its planned monitoring (including the monitoring of pesticides in groundwater) and that the project’s scope and focus were being re-envisioned for the future.

Alan Cherepon (TCEQ) also presented the proposed FY21 Pesticide Monitoring Plan. Rebecca Storms (TWD) reported that the specific aquifers that they planned to sample in FY21 were not finalized because their travel plans were still in flux due to the on-going COVID-19 pandemic, but that they intended to continue, and possibly expand, their springs monitoring program in FY21.

Julia Stanford (TAGD) joined the meeting at approximately 9:50 AM CST and was present for the remainder of the meeting.

TGPC Publications

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

- *Joint Groundwater Monitoring and Contamination Report – 2019* (“*Joint Report*”, SFR-056)
 - The 2019 *Joint Report* was available on the TGPC Publications webpage (<https://tgpc.texas.gov/tgpc-publications/#Current>) as well as the TCEQ website (<https://www.tceq.texas.gov/publications/sfr/056>);
 - Notification of the availability of the 2019 *Joint Report* was mailed in September 2020 to county judges, county health officials, and Groundwater Conservation Districts (GCDs); and,
 - Preparation for the 2020 *Joint Report* would begin in January 2021.
- *Activities and Recommendations of the Texas Groundwater Protection Committee: Report to the 87th Legislature* (“*Legislative Report*”, SFR-047)
 - The draft report was in the process of being published by TCEQ and it was anticipated to be distributed to the Texas Legislature in December 2020.
- *Landowner’s Guide to Plugging Abandoned Water Wells* (“*Plugging document*”, RG-347)
 - The POE Subcommittee was reviewing the Plugging document for possible substantive updates.

4. SET FUTURE MEETING DATE

The next TGPC GWI Subcommittee meeting was scheduled for Wednesday, March 3, 2021, at 9:30 AM CST 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 produced water article about Breakwater Energy opening its Big Spring Recycling System to help area oil producers reach their goal of using 100 percent recycled water in their operations. The facility recycled almost 5 million barrels of produced water in the third quarter of 2020, and they could provide an operator with 100 percent recycled water for fracking operations.

Emerging Contaminants

Jessica Kessinger (DSHS) reported that per- and polyfluoroalkyl substances (PFAS) were detected in some residential and public water wells near the former Reese Air Force Base in Lubbock County. In February 2020, the Agency for Toxic Substances and Disease Registry (ATSDR) conducted a study to find out if these chemicals found in that groundwater were also in resident's bodies. ATSDR released individual results to residents and published a fact sheet with aggregate results (<https://www.atsdr.cdc.gov/pfas/activities/assessments/sites/lubbock-county-tx.html>). DSHS also posted a Health Advisory on their website (<https://dshs.texas.gov/news/releases/2020/HealthAdvisory-20201111.aspx>).

Aquifer Storage and Recovery (ASR)

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

Abandoned Water Wells

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

Wellhead Impacts After Natural Disasters

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

Brackish Groundwater

Kathy McCormack (TCEQ) reviewed a recent brackish groundwater article about the City of Alice selecting Seven Seas Water Corporation to design and build a brackish reverse osmosis desalination plant within its city limits. The Tampa-based company would own and operate the plant on city-owned land.

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

Kathy McCormack (TCEQ) reviewed a recent article about an Edwards Aquifer Protection Plan (EAPP) Wastewater Study. Southwest Research Institute developed an integrated hydrologic computer model to evaluate the impact of different types of wastewater disposal facilities on the Edwards Aquifer. The two-year study was funded through the City of San Antonio's EAPP. The nearly 25-square mile Helotes Creek Watershed in northwest Bexar County was selected as the study area, and they looked at surface and groundwater data, along with climate, soil, and topographic inputs. After replicating the septic systems already located in the watershed, they investigated additional septic systems, facilities that reuse wastewater for irrigation, and systems that dispose of wastewater in nearby creeks or rivers. Their results predicted that installing additional wastewater systems in the region, regardless of type, would increase the amount of wastewater discharged to the environment and significantly degrade the watershed and the quality of water recharging the Edwards Aquifer.

Rosario Sanchez (AgriLife Research) reviewed a recent article about the Permanent Forum of Binational Waters' "U.S.-MX Transboundary Groundwater Conference: Innovation and Creativity – Strategies for Unprecedented Challenges" virtual conference on October 14 – 15, 2020 (<https://binationalwaters.tamu.edu/events-archives/transboundary-conference/>). The three outcomes were the conference documents, plans for a peer-reviewed publication, and a future binational groundwater task force that would define the values related to groundwater in the borderlands of the U.S. and Mexico, identify current and likely threats to those values, and identify and rank priorities related to the binational transboundary groundwater resources.

John Tracy (AgriLife Research) left the meeting at approximately 10:15 AM CST and was absent for the remainder of the meeting.

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 initial draft of the TGPC GWI Subcommittee Fiscal Year 2022 – 2023 *Activity Plan* and reviewed an excerpt of recommendations from the TGPC's 87th *Legislative Report*. David Gunn (TDLR) noted that TWDB had just started a brackish groundwater study, and that TDLR was also working with TWDB on a comingling study. The draft *Activity Plan* would be reviewed and discussed again 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 and TWDB's feedback on it. The TWDB ASR report was due to be published on December 15, 2020, and it would be a valuable resource for this white paper. Lynne Fahlquist (USGS) asked about potential ASR geochemical challenges, and Ken Rainwater (TTU) noted that there may be some recommendations in the white paper related to preventing the possible mobilization of metals during ASR processing.

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 and invited members to send her any feedback. An updated draft of the white paper would be presented at the next meeting.

Discussion of White Papers Under Development

David Gunn (TDLR) had announced earlier in the meeting that Adam Foster (TDLR) should be providing an initial draft of the white paper related to Abandoned Water Wells at the next meeting.

7. ANNOUNCEMENTS

Chris Heiligenstein (RRC) announced that he and Leslie Bruce (RRC) would be meeting later that week to discuss their confirmed contamination sites as they prepare their data for the 2020 *Joint Report*.

8. PUBLIC COMMENT

There was no public comment at the meeting.

9. ADJOURN

Kathy McCormack (TCEQ) adjourned the meeting at approximately 10:57 AM CST.