

GROUNDWATER ISSUES SUBCOMMITTEE
 OF THE
 TEXAS GROUNDWATER PROTECTION COMMITTEE
 RECORD OF MEETING
 Second Quarter Meeting, Fiscal Year 2016

Meeting Date: January 13, 2016
 Meeting No.: 4

Place: TCEQ Campus, Bldg F
 Room: 2210

TABLE OF CONTENTS

MEETING ATTENDANCE 2

MEETING HANDOUTS 3

MEETING RECORD OF JANUARY 13, 2016..... 4

1. CALL TO ORDER AND INTRODUCTIONS4

2. STANDING ISSUES4

Agricultural Chemicals: Pesticide Monitoring Plan, Activities, Groundwater Monitoring,
and Contamination4

Data Management4

Groundwater Research.....4

3. TGPC REPORTS4

Joint Groundwater Monitoring and Contamination Report – 20154

2016 Groundwater Assessment for the *Texas Integrated Report* for the Clean Water Act
Sections 305(b) and 303(d).....5

Texas Groundwater Protection Strategy5

*Activities and Recommendations of the Texas Groundwater Protection Committee:
Report to the 85th Legislature*5

4. CURRENT GROUNDWATER ISSUES.....5

Brush Control.....5

Hydraulic Fracturing.....6

Freshwater Mussels.....6

Emerging Contaminants.....7

Saltwater Intrusion7

Agricultural Chemicals7

Priority Groundwater Management Areas (PGMAs)7

Others8

5. SET FUTURE MEETING DATE.....8

6. ANNOUNCEMENTS.....8

7. PUBLIC COMMENT8

8. ADJOURN.....8

MEETING ATTENDANCE

Subcommittee Members

Cary Betz (Acting Co-Chair)
Alan Cherepon
Janie Hopkins
Emily Hall
David Villarreal
T.J. Helton

Sarah Schlessinger
Bridget Scanlon

Lynne Fahlquist
Cindy Loeffler

Affiliation

Texas Commission on Environmental Quality (TCEQ)
TCEQ
Texas Water Development Board (TWDB)
Texas Department of State Health Service (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)
United State Geological Survey (USGS)
Texas Parks and Wildlife Department (TPWD)

Agency Staff

Abiy Berehe
Bill Carter
Peggy Hunka
Linda Ruiz McCall
Kathy McCormack
Clint Robertson
L. Scott Underwood
Marcia Workman

Affiliation

TCEQ
TCEQ
TCEQ
UTBEG
TCEQ
TPWD
TCEQ
TCEQ

Program

Water Availability Division
Water Quality Planning Division
Water Availability Division

Water Availability Division

Water Availability Division
Water Availability Division

Interested Parties

Rebecca Andrews
Beth Hood
Vicky Kennedy

Affiliation

Best Best & Krieger LLP
TAGD
Travis County

MEETING HANDOUTS

1. Texas Groundwater Protection Committee (TGPC) Groundwater Issues (GWI) Subcommittee Meeting Agenda, January 13, 2016
2. TGPC GWI Subcommittee Meeting Record, October 21, 2015
3. Prep notes for GWIS meeting 1/12/16
4. Topic Summaries:
 - a. Brush Control
 - b. Potential Impacts of Hydraulic Fracturing on Drinking Water
 - c. Overview of Federally Endangered, Candidate, and Petitioned Freshwater Mussel Species in Texas
 - d. Emerging Contaminants
 - e. Saline Groundwater Trends and Impacts in Texas
 - f. Have pesticides decrease[d] in urban and rural areas of Texas
 - g. Priority Groundwater Management Area (PGMA)
5. TGPC trifold brochure, TCEQ publication GI-088, Revised December 2015, <https://www.tceq.texas.gov/publications/gi/gi-088.html>

The following items were also on display on the handout table:

1. TGPC Public Information Act Policy
2. Threatened Freshwater Mussels (Bivalvia: Unionidae) of Texas poster

MEETING RECORD OF JANUARY 13, 2016

1. CALL TO ORDER AND INTRODUCTIONS

Cary Betz (TCEQ), Acting Co-Chair of the TGPC GWI Subcommittee, called the meeting to order at approximately 10:09 AM CST. GWI Subcommittee members were introduced. Cary Betz announced several changes in the TCEQ staff supporting the TGPC GWI Subcommittee, the TGPC Public Outreach and Education (POE) Subcommittee, and the TGPC Legislative Report Subcommittee.

2. STANDING ISSUES

Agricultural Chemicals: Pesticide Monitoring Plan, Activities, Groundwater Monitoring, and Contamination

Alan Cherepon (TCEQ) presented:

- A summary of rural and urban pesticide trends in Texas;
- The proposed Fiscal Year (FY) 2016 groundwater pesticide monitoring plan, including cooperative monitoring with TWDB;
- The FY 2015 groundwater pesticide monitoring results; and,
- Updates on the Interagency Pesticide Database (IPD), Pesticide Monitoring Program for the Implementation of the Texas State Management Plan for the Prevention of Pesticide Contamination of Groundwater Quality Assurance Project Plan (QAPP), and recent outreach.

Data Management

There was no discussion of this topic at the meeting.

Groundwater Research

Bridget Scanlon (UTBEG) reported that they were doing a lot of work on issues related to hydraulic fracturing and produced water, overpressuring in the San Andres-Glorieta Aquifer (a local aquifer in the Permian Basin) due to saltwater disposal in injection wells, and increasing the number of permanent and temporary stations in the state's seismic monitoring network.

3. TGPC REPORTS

Joint Groundwater Monitoring and Contamination Report – 2015

Abiy Berehe (TCEQ) reported that:

- The draft Table of Contents for the *Joint Groundwater Monitoring and Contamination Report – 2015* (“*Joint Report*”) would be presented for approval at the TGPC meeting that afternoon;
- Notices had been sent out to all program areas of the TCEQ and to TGPC member agencies requesting input for the *Joint Report*; and,
- He would be working with new staff, Cindy Hooper (TCEQ), on this year's *Joint Report*.

2016 Groundwater Assessment for the *Texas Integrated Report* for the Clean Water Act Sections 305(b) and 303(d)

Abiy Berehe (TCEQ) reported that the *Texas Integrated Report* for the Clean Water Act Sections 305(b) and 303(d) was a biannual report to the U.S. Environmental Protection Agency (EPA) and that the Groundwater Assessment portion would be completed by April 1, 2016. Cary Betz (TCEQ) noted that the TWDB ambient water database would be used extensively for this report.

Texas Groundwater Protection Strategy

Cary Betz (TCEQ) reported that there had been no discussion of this report or its Groundwater Classification System since the last GWI Subcommittee meeting, but he hoped that there would be time to discuss this after the Current Groundwater Issues portion of the meeting.

Activities and Recommendations of the Texas Groundwater Protection Committee: Report to the 85th Legislature

Cary Betz (TCEQ) reported that the TGPC Legislative Report Subcommittee would be re-activated at the TGPC meeting that afternoon in order to prepare the biannual *Activities and Recommendations of the Texas Groundwater Protection Committee: Report to the 85th Legislature* (“*Legislative Report*”).

4. CURRENT GROUNDWATER ISSUES

Cary Betz (TCEQ) introduced the discussion by asking whether the TGPC should be concerned about any of the following topics, and if so, how the TGPC would address the topic(s) in its *Legislative Report* and/or otherwise.

Brush Control

Cary Betz (TCEQ) presented a Brush Control topic summary to GWI Subcommittee members. Discussion items included:

- David Villarreal (TDA) – the Water Conservation Advisory Council (WCAC, <http://www.savetexaswater.org/>) and Regional Water Planning Groups may also have legislative recommendations on this topic that the TGPC should consider, there had been recent contradictory studies with ambiguous results regarding the quantity of groundwater recharged by brush control, but TDA supported it for other reasons;
- Cindy Loeffler (TPWD) – the TWDB’s Water Conservation Best Management Practices (specifically, the guide for agricultural water users, <http://www.twdb.texas.gov/conservation/BMPs/Ag/index.asp>, section 4.1) includes brush control, but many issues remain, including whether it truly benefits groundwater recharge; and,
- Cary Betz (TCEQ) – the topic needs further research and discussion, perhaps the topic should be called Land Use instead of Brush Control, and GIW Subcommittee members were requested to bring additional information on this topic to the next meeting.

Hydraulic Fracturing

Cary Betz (TCEQ) presented a Potential Impacts of Hydraulic Fracturing on Drinking Water topic summary to GWI Subcommittee members. Discussion items included:

- Cary Betz (TCEQ) – there have been no reports of groundwater contamination in Texas due to hydraulic fracturing (“fracking”), produced water disposal might be causing earthquakes, and 60 % of the drilled wells have not yet been fracked;
- Bridget Scanlon (UTBEG) – there are no reporting requirements in the state for the source of the water that is being used during hydraulic fracturing, water reuse and recycling in the Marcellus Shale only accounts for 10 – 20 % of the water use, and contaminate accumulation in surface water can be a concern;
- David Villarreal (TDA) – pesticides used to control biofouling do not seem to be a concern for surface water contamination;
- Cindy Loeffler (TPWD) – their agency made previous comments to RRC regarding land application of fracking wastewater; and,
- Lynne Fahlquist (USGS) – they are sampling groundwater around production wells in the Eagle Ford Shale and Haynesville Shale areas.

Freshwater Mussels

Cary Betz (TCEQ) presented an Overview of Federally Endangered, Candidate, and Petitioned Freshwater Mussel Species in Texas topic summary to GWI Subcommittee members.

Discussion items included:

- Cary Betz (TCEQ) – UTBEG published a report for the Texas Comptroller of Public Accounts (CPA) Environmental Working Group in 2013, and the topic needs further research and discussion;
- Cindy Loeffler (TPWD) – the interaction of groundwater and surface water is the connection, stream base flow comes from spring flow, there is groundwater and surface water production in close proximity to the San Saba River, and the Edwards Aquifer Authority (EAA) has a voluntary irrigation suspension program;
- Clint Robertson (TPWD) – the San Saba River has five state/federal listed/petitioned mussel species, the headwaters of a river do not generally support mussels because they do not have enough “food” in them to support these filter feeders, pecan orchard irrigation depletes the San Saba River which has resulted in the taking of listed mussels, some mussels are sensitive to temperature increases and declines in water quality, wells may be draining alluvial (river-related) water, and a UTBEG Devils River groundwater and surface water interaction study now has funding;
- T.J. Helton (TSSWCB) – limited flow in the San Saba affected junior water rights during the last drought; and,
- David Villarreal (TDA) – they used to educate landowners about endangered species and pesticide application.

Emerging Contaminants

Cary Betz (TCEQ) presented an Emerging Contaminants topic summary to GWI Subcommittee members. Discussion items included:

- Cary Betz (TCEQ) – it is very expensive to test for some of the emerging contaminants and their daughter products, and sometimes no test methods are available, septic systems can allow emerging contaminants to infiltrate the soil, and it is often difficult for state agencies to fund and run programs for detecting emerging contaminants;
- Bridget Scanlon (UTBEG) – in Europe, pharmaceuticals can be returned to where they were purchased;
- Emily Hall (DSHS) – cheaper and more effective tests and methods are needed for detecting and remediating emerging contaminants, and pharmaceutical runoff from feedlots is also a concern;
- Linda Ruiz McCall (UTBEG) – major water reuse studies have been looking at this topic, along with advanced treatment methods;
- Sarah Schlessinger (TAGD) – septic systems in rural areas had issues during drought; and,
- Lynne Fahlquist (USGS) – the National Water Quality Assessment (NAWQA) program is sampling for some emerging contaminants (e.g., pharmaceuticals and hormones) in several Texas aquifers this year, as well as their effects on the aquatic environment and perhaps on human health.

Saltwater Intrusion

Due to time constraints, discussion of this topic was postponed until the next GWI Subcommittee meeting.

Agricultural Chemicals

Due to time constraints, discussion of this topic was postponed until the next GWI Subcommittee meeting.

Priority Groundwater Management Areas (PGMAs)

Cary Betz (TCEQ) reported that TWDB and TCEQ had recently participated in their annual PGMA meeting. An area in the state is highlighted for a PGMA study if its current and projected groundwater usage values approach or exceed the Modeled Available Groundwater (MAG) values. At this time, there are no recommendations for additional PGMA studies in the state. TCEQ staff are working on solutions for district creation in some areas where PGMAs have already been designated. They are also finalizing a report for Groundwater Conservation District (GCD) creation in another area with a completion target date of May 2016. TCEQ staff have been authorized to contact local politicians in the affected areas. Cary Betz hoped that the GWI Subcommittee would discuss additional factors (e.g., subsidence and water quality) which could also be considered in evaluating areas for possible PGMA studies.

Due to time constraints, further discussion of this topic was postponed until the next GWI Subcommittee meeting.

Others

David Villarreal (TDA) mentioned border issues (e.g., shared groundwater resources between the United States and Mexico), but further discussion of this topic was postponed until the next GWI Subcommittee meeting.

Several GWI Subcommittee members noted their appreciation of the seven topic summaries that had been drafted by TCEQ staff.

5. SET FUTURE MEETING DATE

The TGPC would decide the date of their next meeting that afternoon. The next GWI Subcommittee meeting would be scheduled for the morning of the next TGPC meeting in April 2016 in TCEQ's Building F, Conference Room 2210.

6. ANNOUNCEMENTS

Cary Betz (TCEQ) announced that the *Texas Groundwater Protection Strategy* ("Strategy") update had hit a road block and may need to be re-examined. Cary Betz suggested that perhaps it should be modeled around the groundwater issues being discussed in the GWI Subcommittee, and he requested that GWI Subcommittee members let him know what they thought about developing this kind of a more dynamic *Strategy* – one which would outline a process and focus on the actions by which the GWI Subcommittee would address a number of current groundwater issues.

David Villarreal (TDA) added that Homeland Security was concerned about the mass mortality of livestock and the effect of their burial on groundwater.

7. PUBLIC COMMENT

There was no public comment.

8. ADJOURN

Cary Betz (TCEQ) adjourned the meeting at approximately 12:04 PM CST.