

**TEXAS GROUNDWATER PROTECTION COMMITTEE
 RECORD OF MEETING
 Second Quarterly Meeting, Fiscal Year 2011**

Meeting Date: January 19, 2011
 Meeting No.: 88

Place: TCEQ Campus, Bldg F
 Room: 2210

TABLE OF CONTENTS

MEETING ATTENDANCE	2
MEETING HANDOUTS	3
MEETING RECORD OF JANUARY 19, 2011	4
1. CALL TO ORDER AND INTRODUCTIONS	4
2. SUBCOMMITTEE REPORTS.....	4
Agricultural Chemicals	4
Data Management	5
Public Outreach and Education.....	5
Groundwater Research.....	6
Nonpoint Source Task Force	7
3. PRESENTATION.....	7
Texas Groundwater Management: Joint Planning Process.....	7
4. BUSINESS DISCUSSION AND POSSIBLE ACTION.....	8
Discuss Data Management Subcommittee Charge and Staff Assignments.....	8
Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 82nd Legislature – Status of Final Report and Delivery to the Legislature.....	8
Joint Groundwater Monitoring and Contamination Report – 2010 – Format and Content Approval.....	8
Set Future Meeting Date	9
5. INFORMATION EXCHANGE FOR GROUNDWATER-RELATED ACTIVITIES – STATUS UPDATE	9
Groundwater Contamination Notice Coordination (HB 3030, 78th Legislature)...	9
Groundwater Management Areas	9
Regional Water Planning	9
Groundwater Availability Modeling.....	9
Nonpoint Source Pollution.....	10
National Groundwater Initiatives.....	10
Drought Status	10
6. ANNOUNCEMENTS.....	10
Rules Update.....	11
New Publications	11
Upcoming Conferences.....	12
7. PUBLIC COMMENT	12
8. ADJOURN.....	12

MEETING ATTENDANCE

Committee Members

Cary Betz

Bill Hutchinson

Leslie Savage

Ken Ofunrein

Richard Eyster

Donna Long

David Van Dresar

Kevin Wagner

Bruce Cutright

David Gunn

Affiliation

Texas Commission on Environmental Quality (TCEQ)

Texas Water Development Board (TWDB)

Railroad Commission of Texas (RRC)

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)

Texas AgriLife Research (TAR)

University of Texas Bureau of Economic Geology (UTBEG)

Texas Department of Licensing and Regulation

Agency Staff

Abiy Berehe

Lauren Bilbe

Mike Chadwick

Alan Cherepon

Ron Ellis

Peggy Hunka

Kathy McCormack

Kelly Mills

Joe Peters

L. Scott Underwood

Leslie Smith

Janie Hopkins

Affiliation

TCEQ

TDA

TWDB

Program

Water Supply Division

Water Quality Planning Division

Water Supply Division

Interested Parties

Mike Mathis

Ann Ardis

Kirk Holland

Allen Berthold

Ruth A. Gunn

Affiliation

Chesapeake Energy

United States Geological Survey (USGS) – Texas Water Science Center

Barton Springs Edwards Aquifer Conservation District

Texas Water Resources Institute (TWRI)

MEETING HANDOUTS

1. Agenda for Texas Groundwater Protection Committee meeting on January 19, 2011
2. Record for Texas Groundwater Protection Committee meeting on October 20, 2010
3. Summary of Texas Groundwater Protection Committee (TGPC) Public Outreach and Education (POE) Subcommittee Meeting on December 1, 2010
4. J. Hopkins' feedback on TGPC Data Management Subcommittee Charge
5. Draft TGPC Data Management Subcommittee Charge
6. *Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 82nd Legislature*, TCEQ publication SFR-047/10 (TGPC members only)
7. Draft Table of Contents for *Joint Groundwater Monitoring and Contamination Report – 2010* (TGPC members only)
8. Drought 2011 – Public Water Supply Systems Affected as of January 1, 2011; U.S. Drought Monitor, Texas as of January 11, 2011; U.S. Seasonal Drought Outlook January – March 2011
9. TCEQ Rules of Interest to TGPC 1/19/2011
10. Texas On-Site Wastewater Treatment Research Council (TOWTRC) Annual Conference flyer
11. 2011 Water-related Conferences in Texas, January 2011

The following publications were also on display in the back of the room:

- *Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 82nd Legislature*, TCEQ publication SFR-047/10, http://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/047_10.pdf
- *Priority Groundwater Management Areas and Groundwater Conservation Districts, Report to the 82nd Legislature*, TCEQ publication SFR-053/07, http://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/053_07.pdf

MEETING RECORD OF JANUARY 19, 2011

1. CALL TO ORDER AND INTRODUCTIONS

Cary Betz (TCEQ), Designated Chairman of the Texas Groundwater Protection Committee (TGPC), called the meeting to order at approximately 1:08 PM CST. TGPC members then introduced themselves.

2. SUBCOMMITTEE REPORTS

Agricultural Chemicals

Joe Peters (TCEQ) reported that the TGPC Agricultural Chemicals Subcommittee met for their Fiscal Year 2011 Second Quarter meeting that morning.

For the Site Selection Task Force, Janie Hopkins (TWDB), the Task Force Chair, reported that TWDB had sampled 200 – 250 wells in the Trinity and Edwards-Trinity Plateau Aquifers in 2010, and that they will resume sampling in the Edwards-Trinity Plateau Aquifer in March 2011.

For the Pesticide Management Plan Task Force, Alan Cherepon (TCEQ), the Task Force Co-Chair, reported that the Task Force had assessed 17 of the remaining 22 pesticides on the United States Environmental Protection Agency's (U.S. EPA's) list of 57 pesticides of interest and concern. None of the pesticides that were assessed were considered pesticides of concern.

Steve Niemeyer (TCEQ) gave a presentation on groundwater issues along the Texas portion of the U.S.-Mexico Border. Groundwater along the border is not used very intensely. There are some issues with arsenic contamination, as well as pesticide contamination at a few, old manufacturing and mixing sites. Additional groundwater monitoring should be done along the border, and there is very little information on Mexican aquifers.

Alan Cherepon (TCEQ) gave a presentation on the proposed plan for the next monitoring season. It includes, in order of priority:

1. Cooperative monitoring;
2. Monitoring in the Nueces County area and the lower Rio Grande Valley;
3. Monitoring of pesticide manufacturing, storage, mixing, and other related sites; and,
4. On-going monitoring.

The proposed plan was approved by the members present.

Data Management

Cary Betz (TCEQ) reported that the Data Management Subcommittee had not met since the last TGPC meeting and deferred further discussion of the Subcommittee's Charge until the Business portion of the meeting.

Public Outreach and Education

Kathy McCormack (TCEQ) reported that the TGPC POE Subcommittee last met on December 1, 2010 and seven state agencies and organizations were represented.

The Outreach Events Status Report (available on the POE Subcommittee webpage, <http://www.tgpc.state.tx.us/subcommittees/POE/POE.htm>, under "Additional Resources") was reviewed:

- Texas AgriLife Extension Service (TAES) Water Well Screening Events
 - Three since the previous TGPC POE Subcommittee meeting (288 samples)
 - None planned through the upcoming quarter; 11 planned through 2011
- TAES Abandoned Water Well Closures
 - None since the previous TGPC POE Subcommittee meeting
 - None planned at this time
- TGPC Booth
 - One since the previous TGPC POE Subcommittee meeting (700 estimated attendees)
 - One planned through December 2010

The Google Analytics report on TGPC website activity statistics for June 1, 2010 through November 23, 2010 was reviewed. The seven monitored TGPC webpages had an average of 42 unique visitors per day, and website visitation peaked with the quarterly GovDelivery email announcing each TGPC meeting.

Although Peter Pope (RRC) was not able to attend, detailed feedback on his six draft Oil and Gas Waste Disposal Wells and Water Quality Frequently Asked Questions (FAQs) was shared with him after the meeting.

Various topics related to the *TGPC POE Groundwater Educational Outreach Plan Implementation Strategy* ("Implementation Strategy", http://www.tgpc.state.tx.us/subcommittees/POE/TGPC_POE_EduOutreachPlan_Impl_St rat03Oct2007.pdf) were discussed:

- TGPC Frequently Asked Questions (FAQs) Follow-up Survey
 - Kathy McCormack (TCEQ) reviewed the four 2010 emails sent to TAGD members by David Van Dresar (TAGD), the online survey (<https://www.surveymonkey.com/s/ZGZQ68F>) set up by Linda Ruiz McCall (TWDB), and the summarized survey results from 21 Groundwater Conservation Districts (GCDs) regarding TGPC FAQs. TGPC FAQs already exist for several topics of interest to TAGD's audience (water ownership, monitor well levels, *in situ* uranium mining, and regional water planning), while FAQs are currently

being developed for another area of their public's interest (oil and gas activities). The TAGD survey responses will guide development of future TGPC FAQs (e.g., well registration, testing, contaminants, and disinfection, and groundwater conservation) which can assist GCDs in their public outreach and education efforts. In addition, the POE Subcommittee plans to repeat this exercise in 2011 with TAES county offices (through Diane Boellstorff) and TSSWCB Soil and Water Conservation District (SWCD) offices (through Mel Davis or Donna Long).

- Abandoned Water Well Identification Online Training Module
 - Extensive feedback was provided to David Gunn (TDLR) regarding his draft Abandoned Water Well Identification Online Training Module, and he agreed to bring a revised draft to the next POE Subcommittee meeting.

FAQs on the following topics are in various stages of revision:

- Oil and Gas Waste Disposal Wells and Water Quality:
 - *What is an Underground Injection Well ?*
 - *How Are Oil and Gas Waste Disposal Wells Regulated ?*
 - *How Are Oil and Gas Waste Disposal Wells Regulated to Protect Water Quality ?*
 - *What Are the Construction Standards for an Oil and Gas Waste Disposal Well ?*
 - *What Are the Permitting Processes for an Oil and Gas Waste Disposal Well ?*
 - *How Are Oil and Gas Waste Disposal Wells Monitored to Ensure That They Are Not Leaking ?*
 - *Who Has Jurisdiction Over the Clean-up of Oil and Gas Waste Disposal Well Contamination ?*
- *What are the Statewide Water Well Databases ?*

The next POE Subcommittee meeting is scheduled for March 8, 2011.

David Gunn (TDLR) arrived at approximately 1:15 PM CST and was present for the remainder of the meeting.

Groundwater Research

Kevin Wagner (TAR) reported that the Groundwater Research Subcommittee met that morning, they discussed and prioritized over a dozen research needs in the state, and they identified the top four topics for white paper development:

- Characterizing groundwater and surface water interactions in the state with respect to water quantity and quality;
- Aquifer Storage and Recovery (ASR);
- Quantifying aquifer vulnerability; and,
- Groundwater treatment methodologies for effectiveness and economics in relation to removal of contaminants for private well owners.

TWRI and UTBEG will collaborate on the development of these white papers, and the Groundwater Research Subcommittee will explore funding options for these research needs.

TWDB also announced an open Request for Proposal (RFP), TCEQ reported that their Fiscal Year 2012 Clean Water Act Section 319(h) grant funding Request for Application (RFA) should be available this spring or summer, and TSSWCB indicated that their 319(h) RFP would be available in the fall.

Nonpoint Source Task Force

Donna Long (TSSWCB) reported that the Nonpoint Source (NPS) Task Force last met on December 1, 2010 and seven state agencies and organizations were represented. A summary was presented of the fiscal year 2011 first quarter meeting, held on September 17, 2010. The Texas Nonpoint Source Management Program update was discussed. Due to the timeframe for the finalizing the current NPS Management Program, significant changes to groundwater portions are not likely. However an approach for addressing groundwater issues in future NPS Management Programs will be explored by the NPS Task Force.

Two documents providing background information about the aquifer vulnerability assessment used in the 2005 NPS Management Program and potential methodologies for a future approach to assessing aquifer vulnerability were provided by Task Force members for continued development towards a future approach. Brian Reece (USGS) gave a presentation on a geospatial approach to assessing the vulnerability of public drinking water supply wells which had been developed by USGS for the TCEQ Source Water Protection Program. The NPS Task Force then discussed how this geospatial database and approach could be utilized for assessing aquifer vulnerability to NPS pollution. The NPS Task Force will continue to develop a document identifying data availability and needs for an update to the next NPS Management Program.

The next NPS Task Force meeting date is scheduled for March 11, 2011 at 9:30 A.M CDST. The primary focus will be the update to the current management program with additional discussions on the approach to future updates.

3. PRESENTATION

Texas Groundwater Management: Joint Planning Process

Bill Hutchinson (TWDB) provided an overview of the history and current status of groundwater management in Texas and definitions of Groundwater Conservation Districts (GCDs), Groundwater Management Areas (GMAs), joint planning, Managed Available Groundwater (MAG), Desired Future Conditions (DFCs), and Groundwater Availability Models (GAMs).

4. BUSINESS DISCUSSION AND POSSIBLE ACTION

Discuss Data Management Subcommittee Charge and Staff Assignments

Cary Betz (TCEQ) reviewed TWDB's proposed changes to the Data Management Subcommittee Charge. Cary Betz felt that there is still a need to define some key data elements which can be shared across agencies (perhaps in a table instead of a Data Dictionary) in support of the TGPC mandate to coordinate groundwater management activities. Janie Hopkins (TWDB) agreed that similar projects in other organizations may be successfully using a list of definition tables in relational databases. Bruce Cutright (UTBEG) indicated that it's been critical to have an approved definition of terms within the National Geothermal Database and National Geochemical Database projects. Cary Betz noted that the draft Charge eliminates a comprehensive state-wide groundwater monitoring program which was to be included in *Texas Groundwater Protection Strategy*, and that the TGPC functions as a coordinating mechanism to identify "data gaps" and adjust existing groundwater programs, as needed. Bruce Cutright suggested that, in addition to monitoring groundwater for hydrocarbons, data regarding dissolved carbon dioxide should also be collected in preparation for future carbon sequestration activities.

Cary Betz (TCEQ) agreed to send out the draft Data Management Subcommittee Charge via email and asked that the TGPC members provide him with feedback within a month so that a revised draft Charge could be discussed again at the next TGPC meeting.

Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 82nd Legislature – Status of Final Report and Delivery to the Legislature

Cary Betz (TCEQ) reported that the *Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 82nd Legislature* was finalized in early December 2010, all TGPC members concurred with the final draft, and it was published and delivered to the Texas Legislature (Governor, Lieutenant Governor, Speaker of the House, and Chairmen of both Natural Resources Committees) at 9:00 AM CST on January 11, 2011.

Joint Groundwater Monitoring and Contamination Report – 2010 – Format and Content Approval

Abiy Berehe (TCEQ) reviewed the draft Table of Contents for the *Joint Groundwater Monitoring and Contamination Report – 2010* ("Joint Report"). This TGPC publication is prepared every year in order to document groundwater contamination cases in Texas, and the primary audiences are county judges, county health officials, and GCDs. All TGPC members and TCEQ program areas had previously been asked to provide their updates, and Abiy Berehe noted that the *Joint Report's* publication deadline is April 1 of every calendar year.

Kevin Wagner (TAR) proposed, Richard Eyster (TDA) seconded, and all remaining TGPC members approved the draft Table of Contents for the 2010 *Joint Report*, its continued preparation, and any formatting changes required by the TCEQ Publications department.

Set Future Meeting Date

The next TGPC quarterly meeting is scheduled for April 20, 2011 at 1:00 PM CDT.

Kevin Wagner (TAR) left at approximately 2:09 PM CST and was absent for the remainder of the meeting.

5. INFORMATION EXCHANGE FOR GROUNDWATER-RELATED ACTIVITIES – STATUS UPDATE

Groundwater Contamination Notice Coordination (HB 3030, 78th Legislature)

Peggy Hunka (TCEQ) reported that the Impact Evaluation Team (IET) reviewed 7 contamination cases and mailed out 69 letters to water well owners and users in the last quarter. Revision of the IET's protocol regarding naturally-occurring contaminants has also been discussed since the last TGPC meeting; TCEQ has recently been issuing safety notifications for natural gas constituents in addition to the standard health advisories.

Groundwater Management Areas

Janie Hopkins (TWDB) reported that, of the 75 Desired Future Conditions (DFCs) turned in last September, 45 draft Managed Available Groundwater (MAG) reports have been returned to the Groundwater Management Areas (GMAs) for their assessment (including draft exempt use). Modelers and staff in Groundwater Technical Assistance are in the progress of issuing the remaining 30 MAGs. David Van Dresar (TAGD) added that the calculation of exempt (non-permitted) uses which can be subtracted from the MAGs is a hot topic, and that GMA 13 had recently submitted a petition regarding their DFCs.

Regional Water Planning

Janie Hopkins (TWDB) reported that, as of the November Board meeting, all 16 of the initially prepared plans were approved. Due to inflation and increased population projections, the cost to implement all strategies has increased to \$53 billion from the nearly \$31 billion estimated in the 2007 State Water Plan.

Groundwater Availability Modeling

Janie Hopkins (TWDB) reported that Groundwater Availability Modeling (GAM) staff are performing additional runs on models at the request of the Board in order to determine sustainable yields.

Nonpoint Source Pollution

Donna Long (TSSWCB) reported that the five-year NPS Management Plan is in early draft form and is currently being reviewed by TSSWCB and TCEQ.

National Groundwater Initiatives

Janie Hopkins (TWDB) announced that the reports for the five National Groundwater Monitoring Network and Monitoring Program pilot projects have been submitted and are being reviewed by the U.S. Department of the Interior's Advisory Committee on Water Information (ACWI, <http://acwi.gov/>) Subcommittee on Groundwater (<http://acwi.gov/sogw/index.html>). A USGS-designed online "data portal" is expected to provide access to national groundwater information.

Leslie Savage (RRC) reported that Congress has directed the U.S. EPA to perform another study on the effects of hydraulic fracturing ("fracing") on groundwater. Their 2004 study was limited to coal bed methane in an Underground Source of Drinking Water (USDW), but there is none of this type of production in Texas. After this study, the major well treatment servicing companies voluntarily agreed to discontinue use of diesel fuel in the fracing process. In 2005, the Energy Policy Act's definition of injection excluded hydraulic fracturing as long as diesel fuel was not used, but the definition was still open to interpretation. A draft scope of the latest multi-year, multi-million-dollar study has been submitted and it is very broad. There are also a number of concerns with the various chemicals used in the fracing process and the risk to groundwater, and a voluntary, national database of these chemicals is being established. Leslie Savage's major concern with hydraulic fracturing was water availability, especially since a TWDB report revealed fracing's high percentage of water use in Wise County, and natural gas production is moving to the drier western and southern portions of Texas.

Ken Ofunrein (DSHS) left at approximately 2:38 PM CST and was absent for the remainder of the meeting.

Drought Status

Cary Betz (TCEQ) referred the TGPC to the most recent U.S. Drought Monitor and TCEQ drought-affected Public Water Supply (PWS) Systems maps. Since the last meeting, the number of PWS systems affected by drought remained about the same, but drought conditions worsened across much of the state, and they are expected to persist or intensify through March 2011. Richard Eyster (TDA) reported that Bob Rose (LCRA) had recently commented that the current La Nina conditions are as strong as they were in the 1950s drought.

6. ANNOUNCEMENTS

Cary Betz (TCEQ) announced that the TGPC would be sponsoring National Groundwater Awareness Week (March 6 – 12, 2011) posters again this year, and that Kathy

McCormack (TCEQ) would be contacting TGPC members next month in order to arrange poster pick-up or drop-off. Texas-specific information about this year's National Groundwater Awareness Week was already posted on the TGPC website (http://www.tgpc.state.tx.us/GW_AwarenessWeek2011.pdf and http://www.tgpc.state.tx.us/Natl_GW_Week_flyer_2011.pdf).

Rules Update

Cary Betz (TCEQ) reported on current TCEQ rulemaking that was of interest to the TGPC:

- 2010-055-311-OW: Discharge of Pesticides into, Over or Near the Highland Lakes and Areas Over the Edwards Aquifer;
- 2009-055-007-PR: Memorandum of Understanding Between the TCEQ and the Railroad Commission of Texas;
- 2009-034-311-PR: Water Quality Management within the Barton Creek and Onion Creek Watersheds;
- 2009-020-290-OW: Federal Lead Copper Revisions and Federal Corrections for Surface Water, Disinfection, and Groundwater;
- 2009-011-321-PR: Revisions to certain Subchapters of 30 TAC Chapter 321 related to revised EPA CAFO rules; and,
- 2008-022-213-CE: Edwards Aquifer.

Additional information on a specific TCEQ rule can be found at http://www.tceq.state.tx.us/nav/rules/propose_adopt.html.

Leslie Savage (RRC) reported that they had adopted two new rules regarding carbon dioxide sequestration (<http://www.rrc.state.tx.us/rules/rule.php>):

- Chapter 5. Carbon Dioxide (CO₂); and,
- Chapter 11, Subchapter C. Substantive Rules – Uranium Exploration and Surface Mining.

New Publications

Cary Betz (TCEQ) announced four TCEQ publications:

- *Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 82nd Legislature*, SFR-047/10 (new), http://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/047_10.pdf
- *Priority Groundwater Management Areas and Groundwater Conservation Districts, Report to the 82nd Legislature*, SFR-053/07 (new), was expected out shortly, http://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/053_07.pdf
- *Edwards Aquifer Protection Program Contractor Handout*, GI-406 (revised), <http://www.tceq.texas.gov/publications/gi/gi-406.html>
- *Study of the Methods for Disposing of Unused Pharmaceuticals*, SFR-098 (new), http://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/098.pdf

Leslie Savage (RRC) announced that RRC, TCEQ, UTBEG, and the Texas General Land Office had published *Injection and Geologic Storage Regulation of Anthropogenic Carbon Dioxide*, <http://www.rrc.state.tx.us/forms/reports/notices/SB1387-FinalReport.pdf>.

Cary Betz (TCEQ) also announced the publication of *Geochemical evolution processes and water-quality observations based on results of the National Water-Quality Assessment Program in the San Antonio segment of the Edwards aquifer, 1996-2006*, USGS SIR 2210-5129, <http://pubs.usgs.gov/sir/2010/5129/>.

Upcoming Conferences

Cary Betz (TCEQ) referred TGPC members to the conferences listed in the “2011 Water-related Conferences in Texas” handout – the current version of this handout is always available on the TGPC’s POE Subcommittee webpage at <http://www.tgpc.state.tx.us/subcommittees/POE/POE.htm> under “Additional Resources”. Cary Betz also referenced a flyer for the Texas On-Site Wastewater Treatment Research Council (TOWTRC) Annual Conference (<http://www.towtrc.state.tx.us/>).

Ann Ardis (USGS) reminded TGPC members that their searchable, interactive National Water Information Service (NWIS) is available online (<http://waterdata.usgs.gov/nwis>). The NWIS database includes information on spring flow, water levels in wells, and chemical and physical data for springs and wells.

Cary Betz (TCEQ) requested input from TGPC members regarding future TGPC meeting presentations. Donna Long (TSSWCB) suggested Brian Reece’s (USGS) presentation on “GIS Mapping of Drinking Water Wells” which had been given at the December 1, 2010 NPS Task Force meeting.

7. PUBLIC COMMENT

There was no public comment.

8. ADJOURN

Cary Betz (TCEQ) adjourned the meeting at approximately 2:58 PM CST.