

**TEXAS GROUNDWATER PROTECTION COMMITTEE
 RECORD OF MEETING
 Second Quarterly Meeting, Fiscal Year 2014**

Meeting Date: January 15, 2014
 Meeting No.: 102

Place: TCEQ Campus, Bldg F
 Room: 2210

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MEETING ATTENDANCE

Committee Members

Cary Betz

Janie Hopkins

Chris Moore

Ken Ofunrein

David Villarreal

David Van Dresar

Kevin Wagner

Bridget Scanlon

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 Alliance of Groundwater Districts (TAGD)

Texas A&M AgriLife Research (AgriLife

Research)

University of Texas Bureau of Economic Geology (UTBEG)

Texas Department of Licensing and Regulation

Agency Staff

Abiy Berehe

Mike Chadwick

Alan Cherepon

Kathy Humphreys

Peggy Hunka

Isaac Jackson

Paul S. Lewis

Kathy McCormack

Kelly Mills

L. Scott Underwood

Kristine Uhlman

Affiliation

TCEQ

UTBEG

Program

Water Availability Division

Water Availability Division

Water Availability Division

Environmental Law Division

Water Availability Division

Intergovernmental Relations
Division

Remediation Division

Water Availability Division

Water Availability Division

Water Availability Division

Interested Parties

Brian Boerner

Jon Doherty

Lynne Fahlquist

Shelley Ross

Jill Savony

Steve Young

Affiliation

Chesapeake Energy

Esri

United States Geological Survey

Kelly Hart & Hallman, LLP

INTERA, Inc.

MEETING HANDOUTS

1. Agenda for Texas Groundwater Protection Committee meeting on January 15, 2014
2. Record for Texas Groundwater Protection Committee meeting on October 16, 2013
3. Summary of Texas Groundwater Protection Committee (TGPC) Public Outreach and Education (POE) Subcommittee meeting, December 4, 2013
4. *What Are the Texas Evapotranspiration (ET) Networks ?* Frequently Asked Question (FAQ)
5. Draft Table of Contents for *Joint Groundwater Monitoring and Contamination Report – 2013* (TGPC members only)
6. Draft *Texas Groundwater Protection Strategy* (TGPC members only)
7. Draft “Program Type and Name” table for the draft *Texas Groundwater Protection Strategy* (TGPC members only)
8. *Establishing a Collaborative National Ground-Water Monitoring Network Program for the United States*, http://acwi.gov/sogw/NGWMN_InfoSheet_final.pdf
9. Drought 2014 – U.S. Drought Monitor, Texas as of January 7, 2014; U.S. Seasonal Drought Outlook, December 2013 – March 2014; Public Water Supply Systems Affected as of January 8, 2014
10. TCEQ Rules Update, 1/4/2014
11. 2014 Water-related Conferences in Texas, January 2014

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

1. TGPC Public Information Act Policy

MEETING RECORD OF JANUARY 15, 2014

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 1:07 PM CST. TGPC members then introduced themselves.

2. SUBCOMMITTEE REPORTS

Agricultural Chemicals

Cary Betz (TCEQ) reported that the TGPC Agricultural Chemicals Subcommittee had not met since the last TGPC meeting.

Data Management

Mike Chadwick (TCEQ) reported that the TGPC Data Management Subcommittee had met that morning and they discussed the possibility of having various presentations in future meetings.

TCEQ provided a follow-up to TWDB's request to provide Public Water Supply (PWS) well location information of source groundwater locations (i.e., wellheads). It was decided that TCEQ would continue to pursue the possibility of a database transfer of latitude/longitude information for PWS wells. TWDB indicated that this data transfer is not needed immediately, but it would be helpful after TWDB updates the Water Information Integration and Dissemination (WIID, http://wiid.twdb.state.tx.us/index_explain.asp) database. Additional information on WIID updates would be provided at the next Data Management Subcommittee meeting.

The other previous TWDB request concerning permanent PWS well identification was tabled for now because this is not allowed in current TCEQ processes. Lynn Fahlquist (USGS) noted that an EPA number may be associated with a PWS well. TCEQ and USGS agreed to review their data to see if a permanent EPA number is associated with PWS wells.

David Villarreal (TDA) noted that they were "data hungry" for biocide identification and concentration information in hydraulic fracturing fluids because biocides could contribute pesticide residues. FracFocus (<http://fracfocus.org/>) was mentioned as a possible source of biocide component listings and the producers that use them. Other TDA activities included an interest in desalination for aquaculture along the coast as the British Petroleum 2010 Gulf oil spill settlement money begins to fund restoration projects, inter-basin transfers of water for agriculture use and its relationship to property ownership, and watching the development of the Eagle Ford Shale across the Rio Grande River into Mexico.

The next Data Management Subcommittee meeting was scheduled for the morning of the July 2014 TGPC meeting.

Public Outreach and Education

Kathy McCormack (TCEQ) reported that the TGPC POE Subcommittee last met on December 4, 2013 and seven state agencies and organizations were represented.

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

- Texas A&M AgriLife Extension Service (AgriLife Extension) Water Well Screening Events
 - Four since the previous POE Subcommittee meeting (468 samples)
 - One planned through February 2014
- AgriLife Extension Abandoned Water Well Closures
 - None since the previous POE Subcommittee meeting
 - None scheduled at this time
- TGPC Exhibit Booth
 - Two since the previous POE Subcommittee meeting (73 estimated attendees)
 - One planned through December 2013

Diane Boellstorff (AgriLife Extension) reviewed the TWON schedule of completed, confirmed, obligated, and suggested water well screening events and workshops. There have been over 3,653 samples or attendees at these events since April 2011. TSSWCB funding for the TWON program has been renewed through Fiscal Year 2015.

The Google Analytics activity report on the TGPC website for September 5 – December 2, 2013 was reviewed with similar average website visit duration and pages per visit data as in previous reports.

Kristine Uhlman (UTBEG) gave a brief presentation to the POE Subcommittee regarding an online application to 1) identify and recommend interventions to address public-health issues associated with Unregulated Drinking Water Systems, and 2) develop a means to inform public-health practitioners, and the public, on issues associated with Unregulated Drinking Water Systems. POE Subcommittee members were asked to review the beta website and provide feedback to Kristine Uhlman.

The approved the *TGPC Groundwater Education Outreach Plan, 2nd Edition* (“Plan”, <http://www.tgpc.state.tx.us/subcommittees-POE-POE.php>) was reviewed. Subject Matter Experts (SMEs) and POE Subcommittee members were encouraged to think about and prepare to implement the *Plan’s* actions that would deliver the specified messages to the targeted audiences. The *Plan* will be reviewed as needed at future POE Subcommittee meetings.

Diane Boellstorff (AgriLife Extension) thanked POE Subcommittee members for their feedback on three draft TWON fact sheets: 1) *Improving Petroleum Product Storage to Protect Groundwater Quality*, 2) *Improving Livestock Manure Storage and Treatment to Protect Groundwater Quality*, and 3) *Improving Livestock Holding Pen Management to Protect Groundwater Quality*. Diane Boellstorff also indicated that a draft TWON fact sheet related to fertilizers may be available for POE Subcommittee review before the next meeting.

The draft *What Are the Texas Evapotranspiration (ET) Networks ?* FAQ was reviewed and POE Subcommittee members approved it with the changes discussed at the meeting. After receiving TGPC approval at the January 15, 2014 meeting, it will be posted on the TGPC FAQ webpage (<http://www.tgpc.state.tx.us/FAQs.php>).

The next POE Subcommittee meeting was scheduled for March 5, 2014.

Groundwater Research

Cary Betz (TCEQ) reported that the TGPC Groundwater Research Subcommittee had not met since the last TGPC meeting.

3. PRESENTATION

Hydrogeochemical Evaluation of the Texas Gulf Coast Aquifer System and Implications for Developing Groundwater Availability Models

Steve Young (INTERA, Inc.) gave a presentation about a project that used geochemical data to identify relationships relevant for evaluating the conceptual flow model for the Gulf Coast Aquifer System (GCAS), identified potential data gaps in geochemical data, and obtained additional measurements to help fill in the gaps. The approach included:

- Constructing maps of areal plots and vertical cross-sections of ions, ion ratios, hydrogeochemical facies, stable isotopes, and groundwater ages based on carbon 14 (^{14}C);
- Developing transects through the GCAS with a focus on a representative cross-section for Groundwater Management Areas (GMAs) 14, 15, and 16; and,
- Analyzing the maps to identify evidence for groundwater mixing, flow paths, and ages.

The conceptual flow model showed:

- The up-dip boundary for the regional GCAS flow should be the Catahoula Formation outcrop;
- The down-dip boundary for the regional GCAS flow should allow groundwater to discharge across a large area of the ocean bottom;
- The numerical representation of the regional groundwater flow system should be constrained by estimates of groundwater age calculated from ^{14}C measurements;

- A conceptual water budget should be developed and be guided by recharge estimates by Scanlon and others (2012) after appropriate uncertainty estimates have been developed;
- Proper conceptualization and representation of groundwater mixing and flow paths requires vertical layering smaller than the thicknesses of the major aquifers, and the utility and accuracy of the Groundwater Availability Models (GAMs) could be improved if model layers represented the geological formations that include the Chicot, Evangeline, and Jasper Aquifers; and,
- General head boundaries do not accurately model recharge to an aquifer and should not be used for that purpose in any future GAMs for the GCAS.

4. BUSINESS DISCUSSION AND POSSIBLE ACTION

What Are the Texas ET Networks ? FAQ

Cary Betz (TCEQ) presented the *What Are the Texas Evapotranspiration (ET) Networks ? FAQ* to the TGPC members. Kevin Wagner (AgriLife Research) proposed, David Van Dresar (TAGD) seconded, and all remaining TGPC members approved the FAQ. The FAQ would be posted on the TGPC FAQ webpage, <http://www.tgpc.state.tx.us/FAQs.php>.

Joint Groundwater Monitoring and Contamination Report – 2013

Abiy Berehe (TCEQ) requested TGPC approval of the draft Table of Contents for the *Joint Groundwater Monitoring and Contamination Report – 2013 (“Joint Report”)*. David Van Dresar (TAGD) proposed, Chris Moore (RRC) seconded, and all remaining TGPC members approved the draft Table of Contents and format for the *2013 Joint Report*.

Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 84th Legislature

Cary Betz (TCEQ) announced that the *Activities and Recommendations of the Texas Groundwater Protection Committee (“Legislative Report”)* would be due to the 84th Legislature by the beginning of January 2015. David Gunn (TDLR) proposed, Kevin Wagner (AgriLife Research) seconded, and all remaining TGPC members approved reactivation of the TGPC Legislative Report Subcommittee. All TGPC members present indicated that they or their alternate would serve on the Subcommittee. Cary Betz said that the Subcommittee Chair would call the first meeting.

Texas Groundwater Protection Strategy

Cary Betz (TCEQ) provided TGPC members with an updated draft of the *Texas Groundwater Protection Strategy (“Strategy”)*, http://www.tceq.state.tx.us/assets/public/comm_exec/pubs/as/188.pdf which included comments from all TGPC members except DSHS, TDLR, and TAGD. Cary Betz

requested feedback on the document, and also reviewed a draft table which combined Tables 1 and 2 from the current *Strategy* regarding regulatory and non-regulatory groundwater quality protection programs by agency. Cary Betz indicated that he would revise the document based on discussion at the meeting and then send an updated version to TGPC members within three weeks.

TGPC members agreed to meet on March 5, 2014 at 9:00 AM CST for another *Strategy* Work Session.

Current Groundwater Issues

Cary Betz (TCEQ) reported that the Edwards Aquifer Authority (EAA, <http://edwardsaquifer.org/>) had informed TCEQ of an incident of groundwater contamination based on their monitoring at a TCEQ-regulated facility.

Set Future Meeting Date

The next TGPC quarterly meeting was scheduled for April 23, 2014 at 1:00 PM CDST.

Cary Betz (TCEQ) reminded TWDB, DSHS, and TSSWCB that they needed to submit new TGPC representative designation letters, and that UTBEG may want to submit a new letter, as well. Cary Betz also noted that the TGPC would begin performing their Quadrennial Rules Review at the next 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) had met four times during the last quarter and reviewed four groundwater contamination cases. For three of the cases, 26 letters were mailed to private drinking water well owners. One case (see the Current Groundwater Issues section, above) required further investigation before a determination could be made. Also, six letters were mailed from a case reviewed on October 15, 2013, the day before the last meeting TGPC meeting.

Groundwater Management Areas

David Van Dresar (TAGD) reported that Groundwater Conservation Districts (GCDs) are in the middle phase of the next round of the Desired Future Conditions (DFCs) development process.

Regional Water Planning

Janie Hopkins (TWDB) reported that:

- Population and water demand projections for the 2016 Regional Water Plans and 2017 State Water Plan were taken to the Board in October 2013;
- Regional Water Planning Groups (RWPGs) continue work on source availability and entity supply analyses. Some have submitted their strategy scopes of work and some have begun work on select water management strategy analyses; and,
- The Stakeholder Committee for Project Prioritization composed of the RWPG Chairs met in October 2013, developed the standards that will be used for prioritization of the projects, and submitted the standards to TWDB on December 1, 2013. They will use these standards in the preparation of draft project prioritizations which are due to TWDB by June 1, 2014 with final prioritizations due by September 1, 2014.

Groundwater Availability Modeling

Janie Hopkins (TWDB) reported that:

- Staff have completed 89 of the required 101 Total Estimates of Recoverable Storage (TERS); summary reports for GMAs 1, 2, 3, 6, 7, 9, 10, 12, 13, and 16 have been sent, GMAs 4, 8, 15 are pending Executive Administrator signature, and GMAs 11 and 14 are in queue;
- DFCs will be processed as they arrive and are due by May 1, 2016;
- Externally-contracted GAMs include the Houston Area Groundwater Model (coordinated with USGS; comments were due by January 10, 2014 and seven comment letters were received), the High Plains Aquifer System GAM (draft conceptual model was due by January 31, 2014), the Brazos River Alluvium GAM (contracted with INTERA; first stakeholder meeting was scheduled for January 20, 2014 in College Station), and a conceptual GAM for GMA 8 (conceptual model report was reviewed and comments were provided);
- Internal GAMs include the Blossom (conceptual model report was due by the end of October 2014), Eastern Arm of Capitan Reef Complex (conceptual model report was in review), Marathon (underway), Llano Uplift (draft conceptual model report was due by the end of December 2013, but is delayed until mid-2014 due to other work priorities; Hickory GCD may provide funding), and a local model of the Seymour Aquifer in Haskell, Baylor, and Knox Counties (final stakeholder meeting was scheduled for January 29, 2014 in Munday); and,
- Additional contract updates include:
 - A hydrochemistry draft report for GMAs 11, 12, and 13 was pending a response to final deliverable comments;
 - An educational video on GAMs was still progressing;
 - A hydrochemistry final report for GMAs 3 and 7 was pending review of the resubmitted final deliverable;
 - A hydrochemistry draft report for GMAs 14, 15, and 16 was pending a response to the final deliverables; and,
 - Staff are working on funding options for FY 2014 and 2015 GAM grants.

David Gunn (TDLR) left at 3:14 PM CST.

Nonpoint Source Pollution

Kevin Wagner (AgriLife Research) reported that both TCEQ and TSSWCB are reviewing all Clean Water Act (CWA) Section 319 Request For Proposal (RFP) submissions and some acceptance letters have already been sent out.

National Groundwater Initiatives

Cary Betz (TCEQ) referred TGPC members to the National Groundwater Monitoring Network flyer for the official description of the program. Cary Betz also announced that the Edwards Aquifer Recovery Implementation Program and its Habitat Conservation Plan would be receiving a U.S. Department of the Interior 2013 Partners in Conservation Award the next day.

David Gunn (TDLR) returned at 3:17 PM CST and was present for the remainder of the meeting.

Drought Status

Cary Betz (TCEQ) referred TGPC members to the most recent U.S. Drought Monitor and TCEQ drought-affected Public Water Supply (PWS) Systems maps. As of January 7, 2014, 71 % of the state was in one of the five drought categories (but only 5 % was extreme or exceptional), and drought conditions were forecast to develop or persist in patchy areas in the western half of the state through March 2014. As of January 8, 2014, of the 4,650 active community water systems in Texas, 1,149 were affected by drought (either voluntary or mandatory), and 766 of these use groundwater (either exclusively or partially).

6. ANNOUNCEMENTS

Rules Update

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

- 2013-055-295-OW – HB 3233: Interbasin Transfers of Surface Water;
- 2013-053-331-WS – SB 1532: Authorizing Certain Injection Wells in the Edwards Aquifer;
- 2013-043-290-OW – HB 2781: Rainwater Harvesting;
- 2013-033-PET-NR – Rulemaking Petition on Land Application of Sewage Sludge;
- 2013-025-317-LS – Reproposal of 30 TAC Chapter 317: Design Criteria for Sewage Systems;
- 2012-040-217-OW – Amendments to 30 TAC Chapter 217: Design Criteria for Domestic Wastewater Systems;

- 2012-001-307-OW – Triennial Revision of 30 TAC Chapter 307, Texas Surface Water Quality Standards;
- 2009-034-311-OW – Water Quality Management within the Barton Creek and Onion Creek Watersheds; and,
- 2009-011-321-OW – Revisions to 30 TAC Chapter 321 Related to Revised EPA CAFO Rules.

Additional information on a specific TCEQ rule can be found at <http://www.tceq.texas.gov/rules/whatsnew.html>.

New Publications

Cary Betz (TCEQ) announced two TCEQ publications:

- *Rainwater Harvesting with Rain Barrels, A Take Care of Texas Guide*, GI-383 (revised November 2013), <http://www.tceq.texas.gov/publications/gi/gi-383.html>; and,
- *Landscape Irrigation, A Take Care of Texas Guide*, GI-409 (November 2013), <http://www.tceq.texas.gov/publications/gi/gi-409.html>.

Upcoming Conferences

Cary Betz (TCEQ) referred TGPC members to the conferences listed in the “2014 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.php> under “Additional Resources”.

Cary Betz (TCEQ) also announced that the TGPC would again be preparing National Groundwater Awareness Week posters for its members. This year’s event is scheduled for March 9 – 15, 2014. David Villarreal (TDA) suggested submitting an announcement about this event to the *Texas Water Smart* newsletter (<http://www.texaswatersmart.com/>).

Kevin Wagner (AgriLife Research) announced that the University of Texas would be holding a number of meetings about State Water Implementation Fund for Texas (SWIFT) funding.

7. PUBLIC COMMENT

Jill Savony, a resident of Fort Bend County, addressed TGPC members about the following topics:

- Groundwater monitoring (regulation and definition of an observation well);
- Pipelines in subsidence models, especially in the Harris-Galveston Subsidence District; and,
- Groundwater pumping reports (annual quantities and revenues), especially for urban areas.

Several TGPC members agreed to follow up with Jill Savony after the meeting.

Lynne Fahlquist (USGS) had the following announcements:

- There would be a webinar on the National Water-Quality Assessment (NAWQA) program and research activities in Texas on January 25, 2014;
- USGS would be willing to submit appropriate non-state agency information for the *Strategy*, if needed;
- A number of new publications that may be of interest to the TGPC are now available online and in hardcopy; and,
- USGS has received a number of media inquiries regarding possible fracking-related earthquakes in north Texas.

Kelly Mills (TCEQ) announced that Richard Hyde was the new TCEQ Executive Director.

8. ADJOURN

Cary Betz (TCEQ) adjourned the meeting at approximately 3:41 PM CST.