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<tr>
<td>Cary Betz</td>
<td>Texas Commission on Environmental Quality (TCEQ)</td>
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<tr>
<td>Larry French</td>
<td>Texas Water Development Board (TWDB)</td>
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<td>Peter Pope</td>
<td>Railroad Commission of Texas (RRC)</td>
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<td>Emily Hall</td>
<td>Texas Department of State Health Services (DSHS)</td>
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<td>David Villarreal</td>
<td>Texas Department of Agriculture (TDA)</td>
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<td>John Tracy</td>
<td>Texas A&amp;M AgriLife Research (AgriLife Research)</td>
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<tr>
<td>Linda Ruiz McCall</td>
<td>Bureau of Economic Geology of The University of Texas at Austin (UTBEG)</td>
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<tr>
<td>Adam Foster</td>
<td>Texas Department of Licensing and Regulation (TDLR)</td>
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<thead>
<tr>
<th>Agency Staff</th>
<th>Affiliation</th>
<th>Program</th>
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<tbody>
<tr>
<td>Alan Barraza</td>
<td>TCEQ</td>
<td>Water Quality Division</td>
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<td>Abiy Berehe</td>
<td>TCEQ</td>
<td>Water Availability Division</td>
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<td>Alan Cherepon</td>
<td>TCEQ</td>
<td>Water Availability Division</td>
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<td>Lorrie Council</td>
<td>TCEQ</td>
<td>Radioactive Materials Division</td>
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<tr>
<td>Leon Byrd</td>
<td>TCEQ</td>
<td>Water Availability Division</td>
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<tr>
<td>Bill Carter</td>
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<td>Water Quality Planning Division</td>
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<td>Andrew Gorton</td>
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<tr>
<td>April Hoh</td>
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<tr>
<td>Cindy Hooper</td>
<td>TCEQ</td>
<td>Water Availability Division</td>
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<td>Peggy Hunka</td>
<td>TCEQ</td>
<td>Water Availability Division</td>
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<td>Cindy Loeffler</td>
<td>TPWD</td>
<td>Water Resources Branch</td>
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<td>Kathy McCormack</td>
<td>TCEQ</td>
<td>Water Availability Division</td>
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<tr>
<td>Julie Rueckheim</td>
<td>TCEQ</td>
<td>Water Quality Division</td>
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<td>L. Scott Underwood</td>
<td>TCEQ</td>
<td>Water Availability Division</td>
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<tr>
<td>Sarah Welborn</td>
<td>TCEQ</td>
<td>Waste Permits Division</td>
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<td>Hannah Zellner</td>
<td>TCEQ</td>
<td>Water Quality Division</td>
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<th>Interested Parties</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Lorenzo Danielson</td>
<td>Office of Texas Senator Kel Seliger</td>
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<tr>
<td>Ken Kramer</td>
<td>Sierra Club</td>
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<tr>
<td>Doug Laymon</td>
<td>Collier Consulting</td>
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<tr>
<td>Stephanie Moore</td>
<td>Daniel B. Stephens &amp; Associates</td>
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<tr>
<td>Mary Musick</td>
<td>Musick Groundwater Consulting</td>
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<tr>
<td>Steve Musick</td>
<td>Musick Groundwater Consulting</td>
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<tr>
<td>Jennifer Zhang</td>
<td>Collier Consulting</td>
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MEETING HANDOUTS

1. Agenda for Texas Groundwater Protection Committee meeting on April 18, 2018
2. Record for Texas Groundwater Protection Committee meeting on January 10, 2018
3. Summary of Texas Groundwater Protection Committee (TGPC) Groundwater Issues (GWI) Subcommittee Meeting, March 21, 2018
4. Summary of Texas Groundwater Protection Committee (TGPC) Public Outreach and Education (POE) Subcommittee Meeting, March 2018
5. Adopted Rule Review, Texas Groundwater Protection Committee, Title 31, Part 18
6. Proposed Texas Groundwater Protection Strategy update (draft TCEQ publication AS-188)
7. TGPC Strategy planning timeline, 22Mar2018
8. email template to TGPC member management regarding the proposed Strategy update (TGPC members only)
9. TCEQ management concurrence letter template regarding the proposed Strategy update (TGPC members only)
13. TCEQ Rules Update, 4/18/2018
15. 2018 – 2019 Water-related Conferences in Texas, April 2018
16. 2018 TCEQ Environmental Trade Fair & Conference tentative agenda

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

1. TGPC Public Information Act Policy
MEETING RECORD OF APRIL 18, 2018

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. The representatives from the Texas State Soil and Water Conservation Board (TSSWCB) and Texas Alliance of Groundwater Districts (TAGD) were not present at the meeting.

2. SUBCOMMITTEE REPORTS

Groundwater Issues

Peter Pope (RRC) reported that the TGPC GWI Subcommittee last met on March 21, 2018 and 10 state agencies and organizations were represented.

The current Agricultural Chemicals Task Force Status Report (available on the GWI Subcommittee webpage, http://tgpc.texas.gov/tgpc-subcommittees/tgpc-groundwater-issues-subcommittee/, under the “Additional Resources” heading) was reviewed with the following highlights:

- The proposed Fiscal Year 2018 monitoring plan required modification and included the following tasks:
  - Continue with cooperative pesticide monitoring with TWDB, primarily for atrazine and possibly 2,4-D and glyphosate; this year, TWDB would be sampling in the Carrizo-Wilcox Aquifer and several minor aquifers, and a total of 150 samples were anticipated; and,
  - Shallow water wells would be sampled for atrazine and related pesticides used on corn and sorghum cropland areas from Williamson to Ellis Counties, primarily east of I-35. This area had not been previously monitored by TCEQ and was close enough to TCEQ’s main office to limit travel expenses. An urban metropolitan area with sufficient water wells to sample for some previously un-monitored urban pesticides would not actually be monitored, after all, because the laboratory could not accommodate the analyses, and a cluster of Resource Conservation and Recovery Act (RCRA) and Superfund pesticide-related sites could not be identified in order to collect samples from nearby private water wells.
- TCEQ monitoring was not scheduled to begin until late spring/early summer 2018, while Cooperative monitoring was scheduled to begin sometime in April 2018.
- The 2017 Cooperative and on-going monitoring results had been entered into the Interagency Pesticide Database (IPD) and had been sent to the U.S. Environmental Protection Agency (EPA) and Region 6 U.S. EPA.
- The 12/14/16 to 9/20/17 United States Geological Survey (USGS) data had been quality checked and entered into the IPD; this included 64 wells (27 new), 69 new samples, and 15,377 analytes.
The current TGPC Publications Status Report (also available on the GWI Subcommittee webpage) was reviewed with the following highlights:

- **Groundwater Assessment for the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d) (“Texas Integrated Report”):**
  - The 2018 report preparation was underway and anticipated to be completed by April 1, 2018.

  - Staff were working on the 2017 Joint Report and it would be completed by June 2018.

- **Texas Groundwater Protection Strategy (“Strategy”, TCEQ publication AS-188):**
  - There had been two Strategy Update Task Force meetings since the last GWI Subcommittee meeting; the final draft was to be reviewed, and possibly approved, at that GWI Subcommittee meeting.

The current Strategy Update Task Force Status Report (also available on the GWI Subcommittee webpage) was reviewed with the following highlights:

- The Strategy Update Task Force had met on December 21, 2017 and discussed the revised draft;
- The Strategy Update Task Force had met on February 21, 2018 and reviewed the proof from TCEQ Agency Communications; and,
- As requested by the Strategy Update Task Force, TCEQ Agency Communications made three minor changes to the proof resulting in the final draft to be reviewed at that GWI Subcommittee meeting.

The following current groundwater issues were briefly discussed:

- Emerging Contaminants;
- Border Groundwater;
- Aquifer Storage and Recovery;
- Abandoned Water Wells; and,
- Others (freshwater mussels).

The final draft of the proposed Strategy update was approved by the GWI Subcommittee, and it would be presented to the TGPC for approval at their April 18, 2018 meeting. The GWI Subcommittee approved the deactivation of the Strategy Update Task Force.

The next GWI Subcommittee meeting was scheduled for June 13, 2018.

Public Outreach and Education

Peggy Hunka (TCEQ) reported that the TGPC POE Subcommittee last met on March 21, 2018 and nine state agencies and organizations were represented.

The current Outreach Events Status Report (available on the POE Subcommittee webpage, http://tgpc.texas.gov/tgpc-subcommittees/tgpc-public-outreach-and-education-subcommittee/, under the “Additional Resources” heading) was reviewed:
• Texas A&M AgriLife Extension Service (AgriLife Extension) Water Well Screening Events
  o There had been three water well screening events since the previous POE Subcommittee meeting.
• TGPC Exhibit Booth
  o Two since the previous POE Subcommittee meeting.

Diane Boellstorff (AgriLife Extension) reviewed the Texas Well Owner Network (TWON) schedule of completed, confirmed, obligated, and suggested water well one-day training events and workshops. There had been over 8,097 samples or attendees at TWON events since April 2011. On-going sampling in areas affected by Hurricane Harvey were not reflected in this TWON data.

The Google Analytics activity report on the TGPC website for December 11, 2017 through March 19, 2018 was reviewed.

Diane Boellstorff (AgriLife Extension) gave a presentation on their Hurricane Harvey Sampling Activity.

The next POE Subcommittee meeting was scheduled for June 13, 2018.

Legislative Report

Abiy Berehe (TCEQ) reported that the TGPC Legislative Report Subcommittee had been re-activated at the last TGPC meeting in order to prepare the Activities and Recommendations of the Texas Groundwater Protection Committee: A Report to the 86th Texas Legislature ("Legislative Report") and he gave the following summary:

• The Legislative Report Subcommittee had met twice since the last TGPC meeting – on February 21, 2018 and earlier that day (April 18, 2018). During these two meetings, the Legislative Report Subcommittee had reviewed the process and timeline for the completion of the Legislative Report and the statute that created the TGPC, and they had worked on various Recommendations that pertained to the protection of groundwater quality in the state.
• The Legislative Report Subcommittee would finalize the draft Recommendations and update the TGPC’s activities for the past biennium, and then present the draft Legislative Report for approval at the TGPC meeting in July 2018.
• Should the Legislative Report Subcommittee need to meet again, a room had been reserved on September 19, 2018.
• After obtaining TGPC upper management review and concurrence, the final draft Legislative Report would be presented for approval at the TGPC meeting in October 2018.
• The final Legislature Report would be distributed in December 2018 before the Legislative session began in January 2019.
3. PRESENTATION

Jennifer Zhang (Collier Consulting) gave a presentation titled, “Managing Metals During ASR Cycle Tests” which reviewed various aspects of Aquifer Storage and Recovery (ASR): the goals, tools, problems, status, water sources and pretreatment options, arsenic and metal mobilization mechanisms, cycle testing results, modeling requirements, hydrogeologic factors of an ideal ASR zone, regulations, and institutional controls for ASR.

4. BUSINESS DISCUSSION AND POSSIBLE ACTION

Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 86th Legislature

There was no additional discussion of this topic at the meeting.

Quadrennial Rules Review and Amendments to 31 Texas Administrative Code (TAC) Chapter 601, Groundwater Contamination Report

Kathy McCormack (TCEQ) reported that no public comments had been received regarding the Texas Register notice of the TGPC’s intention to readopt their Rules during the 30-day period that ended on February 26, 2018. The TGPC’s legal counsel recommended that the TGPC readopt their Rules and allow TCEQ staff to make any non-substantive revisions necessary to comply with Texas Register requirements.

Larry French (TWDB) proposed, John Tracy (AgriLife Research) seconded, and all remaining TGPC members approved:
- Readoption of the TGPC Rules;
- Publication of a notice in the Texas Register regarding the readoption of the TGPC Rules; and,
- TCEQ staff to make any non-substantive revisions necessary to comply with Texas Register requirements.

Proposed Texas Groundwater Protection Strategy Update

Kathy McCormack (TCEQ) presented the proposed Texas Groundwater Protection Strategy (“Strategy”) update to the TGPC. David Villarreal (TDA) proposed, Peter Pope (RRC) seconded, and all remaining TGPC members approved the proposed Strategy update for member agency management concurrence. The following items in the handout package were then reviewed:
- A timeline for the proposed Strategy update process through 2018;
- An email template to TGPC member management regarding the proposed Strategy update;
- A TCEQ management concurrence letter template regarding the proposed Strategy update; and,
- A draft Texas Register announcement regarding the proposed Strategy update.
Current Groundwater Issues

Adam Foster (TDLR) reported that the Water Well Drillers and Pump Installers Advisory Council had formed a Groundwater Comingling Task Force to address the co-mingling of groundwater and how it affects water quality. The Task Force would be developing possible recommendations for addressing these concerns, and the TGPC had provided the requested input to the Task Force. The next Council meeting was scheduled for May 11, 2018.

Set Future Meeting Date

The next TGPC quarterly meeting was scheduled for July 18, 2018 at 1:00 PM CST.

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

Groundwater Contamination Notice Coordination (Texas Water Code §26.408)

Peggy Hunka (TCEQ) reported that the Impact Evaluation Team (IET) had met six times since the last TGPC meeting. Seven groundwater contamination cases were reviewed and 48 letters had been mailed to private water well owners. Three of the meetings were held to discuss Reese Air Force Base and the notification letters regarding perfluorooctanesulfonic acid (PFOS) that had been mailed by the Air Force.

Groundwater Management Areas

There was no discussion of this topic at the meeting.

Regional Water Planning

Larry French (TWDB) reported that:

- The 2022 Regional Water Planning Data Entry application was open to the Regional Water Planning Group (RWPG) consultants for use in the development of the 2021 Regional Water Plans (RWPs) and 2022 State Water Plan (SWP). Updated Modeled Available Groundwater (MAG) data was in the application for all Groundwater Management Areas (GMAs) except GMAs 7 and 10. Once these MAGs were available, the RWPGs would be notified in accordance with 31 TAC §357.32(d) and the MAGs would be updated for use in the plans, as appropriate.
- The updated population and water demands projections for the 2021 RWPs and 2022 SWP (http://www.twdb.texas.gov/waterplanning/data/projections/index.asp) were adopted by their Board on April 16, 2018.
- The 2016 water use estimates were being prepared and Groundwater Conservation Districts (GCDs) had been contacted earlier in 2018 in order to review irrigation estimates.
- The 2017 Water Use Survey online application (http://www.twdb.texas.gov/waterplanning/waterusesurvey/survey/online.asp) would
close on July 1, 2018. TWDB staff were working on future enhancements that may result in the connection of the water use database to the groundwater database.

Groundwater Availability Modeling

Larry French (TWDB) reported that:
- They had two more MAG reports to complete (GMA 7 and 10).
- GAM funded contracts:
  - They had received the final deliverables for both the Subsidence Study and the study for mapping the southern portion of the Carrizo-Wilcox, Queen City, and Sparta Aquifers;
  - The study to update the model for the central portion of the Carrizo-Wilcox, Queen City, and Sparta Aquifers was in progress; and,
  - The study for the conceptual model for the Hill Country portion of the Trinity Aquifer was in progress.

Nonpoint Source Pollution

Bill Carter (TCEQ) announced that the Texas Nonpoint Source Management Program (https://www.tceq.texas.gov/assets/public/waterquality/nps/mgmt-plan/2017_NPSManagementProgram.pdf) joint TCEQ/TSSWCB five-year plan had been approved by the U.S. EPA.

National Groundwater Initiatives

Mary Musick (Musick Groundwater Consulting) reported that the U.S. EPA had a call for comments regarding discharges via direct hydrologic connection to surface water as part of the National Pollutant Discharge Elimination System (NPDES) permitting program for industrial wastewater. Specifically, they were requesting comments by May 21, 2018 on their previous statements interpreting the Clean Water Act (CWA) that discharges of pollutants from point sources to jurisdictional surface waters that occur via groundwater or other subsurface flow that had a direct hydrologic connection to the surface water were subject to CWA regulation. Mary Musick also reported that the U.S. Senate Environment and Public Works Committee was holding a hearing that day on the appropriate role of states and the federal government in protecting groundwater.

Drought Status

Cary Betz (TCEQ) referred TGPC members to the most recent U.S. Drought Monitor and TCEQ drought-affected Public Water Systems (PWSs) maps, as well as the TCEQ List of PWSs Limiting Water Use to Avoid Shortages (aka, the “180-day list”). As of April 10, 2018, 65% of the state was classified as D0 through D4, down from 2% at the last TGPC meeting, with the U.S. Seasonal Drought Outlook forecasting drought conditions persisting or likely to develop in the central and western portions of the state through June 30, 2018. As of January 3, 2018, of the 4,647 active community water systems in Texas, 1,050 were affected by drought (either voluntary or mandatory), and 734 of those
used groundwater (either partially or exclusively). As of April 11 2018, five PWSs in the state could be out of water in 180 days or less (one system less than at the last TGPC meeting).

6. ANNOUNCEMENTS

Rules Update

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

• 2018-017-336-WS – Uranium Committee of the Texas Mining and Reclamation Association (TMRA-UC) Petition Follow-up and Federal Cross-Reference Update;
• 2018-004-344-CE – Landscape Irrigation Backflow Assemblies; and,
• 2016-034-336-WS – Rate Adjustments.

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:

• Managing Nonpoint Source Pollution in Texas: 2017 Annual Report, SFR-066/17
  (new January 2018),
  https://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/066-17.pdf; and,

Upcoming Conferences

Cary Betz (TCEQ) referred TGPC members to the conferences listed in the “2018 – 2019 Water-related Conferences in Texas” handout – the current version of this handout is always available on the TGPC’s POE Subcommittee webpage at http://tgpc.state.tx.us/tgpc-subcommittees/tgpc-public-outreach-and-education-subcommittee/ under the “Additional Resources” heading. The TGPC would again have an exhibit counter at the TCEQ Environmental Trade Fair & Conference on May 15 – 16, 2018 in Austin.

7. PUBLIC COMMENT

There was no public comment.

8. ADJOURN

Cary Betz (TCEQ) adjourned the meeting at approximately 2:34 PM CST.