

TWDB Updates

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Brazos G RWPG meeting

The following presentation is based upon professional research and analysis within the scope of the Texas Water Development Board's statutory responsibilities and priorities but, unless specifically noted, does not necessarily reflect official Board positions or decisions.

Outline

- 6.9.1 – Recently adopted rule revision (*31 TAC 357*) & guidance changes (*Exhibit C – to be finalized soon*)
- 6.9.2 – New non-municipal demand projections methodologies
- 6.9.3 – Legislative update

Purpose of 2016 Rule Revisions

- Implement legislative changes
- Address stakeholder concerns
- Improve the planning process
- Increase flexibility in planning requirements
- Reduce certain unessential reporting requirements
- Clarify rules and refine definitions

2016 Rule Revision Process

Obtained Preliminary Stakeholder Input

- State agencies
- RWPG members
- Other stakeholders

Proposed Draft Rule Revisions

- Board approved proposal on July 21st
- Published in Texas Register on August 5th
- Comments accepted through September 6th
- Held public hearing on August 24th

Revised and adopted final rules

- Board adopted rules on November 17th
- Rules effective on December 8th

Revised Water User Group (WUG) Definition - §357.10(41)

- Reflects the utility-based planning approach for municipal WUGs
- Sets a new lower, threshold of 100 acre-feet per year provided by the utility
- Privately-owned utilities must provide an average of 100 acre-feet per year across all owned systems
- County-Other definition revised to be consistent

Definitions of WWP and MWP – §357.10(42) and §357.10(19)

Wholesale Water Provider (WWP)

- Eliminates the annual 1,000 acre-foot delivery or sales threshold
- The RWPG will identify the WWPs in its region to be evaluated

Major Water Provider (MWP)

- Significant public or private WUG or WWP
- Designated by the RWPG
- MWP is a category to be used for reporting purposes in regional and state water planning instead of previous WWP-based reporting requirements

WMSPs and Prioritization of Projects

- §357.10(39) and §357.46

Water Management Strategy Project (WMSP) = a water project that has a capital cost and when implemented, would develop, deliver, or treat additional water supplies or conserve water for **WUGs** or **WWPs**

- May be required to implement a water management strategy (WMS)
- Defined to distinguish from a WMS and to clarify what RWPGs are to prioritize at the end of their planning efforts
- New §357.46 requires each RWPG to prioritize recommended WMSPs for SWIFT

Public Notice Revisions - §357.21

RWPGs may now post notices:

- Online on the RWPGs website, OR
- With each County Clerk in the RWPA

New §357.21(e)

- Pertains to notice for requesting research and planning funds from the TWDB

Existing Surface Water Supply Analysis - §357.32(c)

- Availability requirements for existing supplies of stored and run of river water are split out as §357.32(c)(1) and §357.32(c)(2)
- Evaluation of existing run of river surface water availability for municipal WUGs must be based on the minimum monthly diversion amounts that are available 100% of the time, if it is the only supply for the municipal WUG

Groundwater Availability Analysis - §357.32(d)

- Clearly stipulates that for an RWP to be consistent with a desired future condition, the groundwater availability in the RWP must not exceed the modeled available groundwater (MAG)*
- If there is no groundwater conservation district within the RWPA, then the RWPG will determine the availability of groundwater for regional planning purposes (in response to SB 1101)

*Or as adjusted by the MAG Peak Factor

MAG Peak Factor - §357.32(d)(3) and §357.10(20)

MAG Peak Factor = a percentage (e.g., greater than 100%) that is applied to a MAG value reflecting the annual groundwater availability that, for planning purposes, shall be considered temporarily available for pumping consistent with DFCs.

- Developed in response to stakeholder input
- Provides temporary accommodation of increased groundwater demands by accommodating anticipated fluctuations in pumping
- Does **not** limit permitting or guarantee approval of any future permit applications.
- Requires review and approval by relevant groundwater conservation districts, groundwater management areas, and the TWDB Executive Administrator

Additional Rule Changes – New and Revised Definitions

- §357.10(1) – Agricultural Water Conservation (*new*)
- §357.10(3) – Availability (*revised*)
- §357.10(10) – Drought Management WMS (*new*)
- §357.10(11) – Drought of Record (*revised*)
- §357.10(13) – Existing Water Supply (*revised*)
- §357.10(14) – Firm Yield (*revised*)
- §357.10(21) – Planning Decades (*new*)
- §357.10(26) – RWPG-Estimated Groundwater Availability (*new*)

Additional Rule Changes – New and Revised Definitions (continued)

- §357.10(28) – Reuse (*new*)
- §357.10(32) – State Water Planning Database (*new*)
- §357.10(33) – Unmet Water Need (*new*)
- §357.10(34) – Water Conservation Measures (*revised*)
- §357.10(35) – Water Conservation Plan (*revised*)
- §357.10(36) – Water Conservation Strategy (*new*)
- §357.10(37) – Water Demand (*new*)
- §357.10(40) – Water Need (*new*)

Additional Rule Changes (continued)

- §357.22(a) – Impacts on public health, safety, or welfare *(revised)*
- §357.34(c) – Seawater and brackish groundwater WMSs *(revised)*
- §357.34(d) – WMSs and WMPSs must reduce consumption, loss, or waste; improve efficiency; or develop, deliver, or treat additional water supply volumes *(new)*
- §357.35(g)(2) – Management supply factor *(revised)*

Additional Rule Changes (continued)

- §357.50(j) – Unmet municipal needs (*new*)
- §357.51(a) – Amendment petitions (*revised*)
- §357.51(b) and (c) – Unmet needs in major and minor amendments (*revised*)
- §357.51(e) – Substituting alternative for recommended WMSs (*revised*)
- §357.60 – Consistency of RWPs (*revised*)

Questions?

6.9.2 – New non-municipal water demand projections methodologies

- Manufacturing
- Steam-Electric Power Generation
- Irrigation
- Livestock

We anticipate draft projections for these categories to be ready by June 2017

Projections Methodology Goals

Methodologies should:

1. Utilize historical water use data and publically available data
2. Be possible with existing TWDB staff resources
3. Be reproducible at the beginning of each planning cycle

5th Cycle Goal: Get projections to the regions earlier in planning cycle.

Methodology development process for manufacturing, steam-electric power and irrigation

- December 2015 – Hired CDM Smith
- April 2016 – First draft of CDM Smith report
- Summer 2016 – Initial stakeholder outreach
- August 2016 – Final CDM Smith report
- Fall 2016 – Continued stakeholder outreach
- February 2017 – Finalized methodology
- June 2017 – Draft projections to RWPGs
- November 2017 – Region-requested changes due

Manufacturing Projections

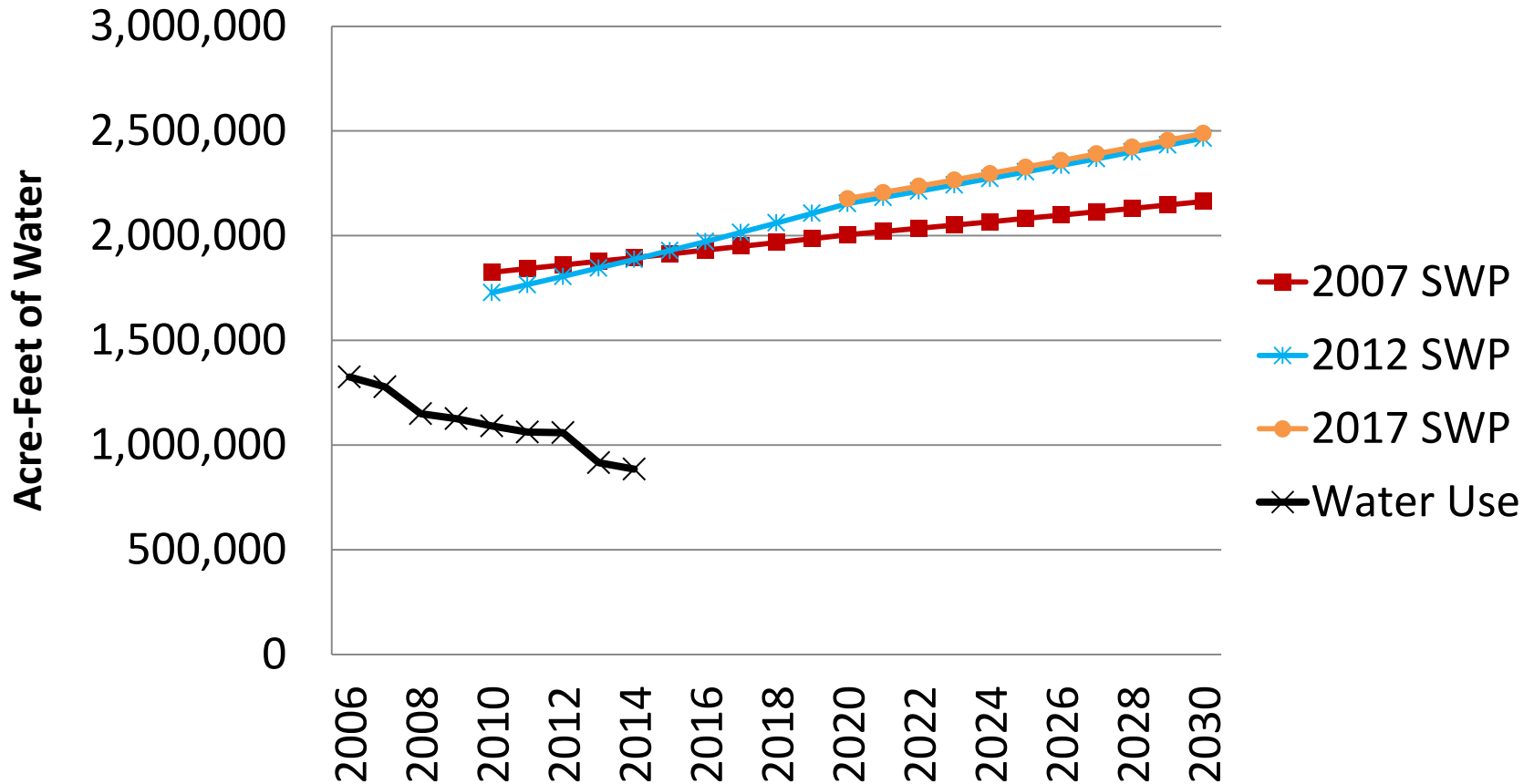
- 2020 projections: highest year of recent water use (by county: 2010-2014)
- Include reuse (and brackish groundwater), plus additional data collection
- 2030 projections – 2020 demand increased by projected employment growth
- 2030 – 2070 projections held constant

Why Constant Demands After 2030?

1. 3 Goals of projection methodologies
2. Historical Trends: Texas & Nation
 - Efficiency
 - Industrial Changes
3. Long-term manufacturing output \neq water use
4. Long term planning assumes continued efficiency

Why Constant Demands After 2030?

Statewide Manufacturing Water Use and Demand Projections



Why Constant Demands After 2030?

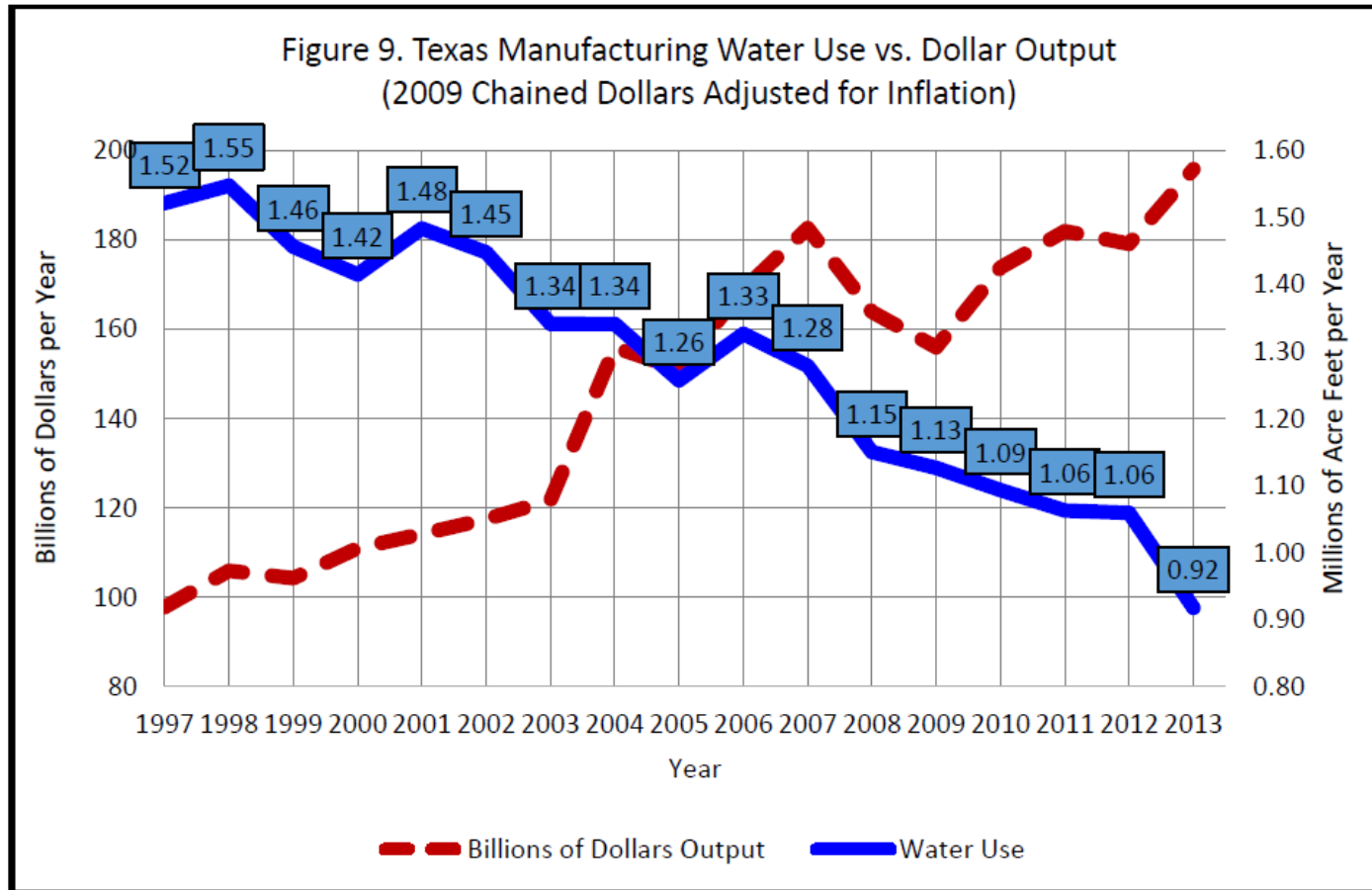


Figure 9. Texas Manufacturing Water Use vs. Dollar Output (2009 Chained Dollars Adjusted for Inflation)

Why Constant Demands After 2030?

Long-term assumption of efficiency:

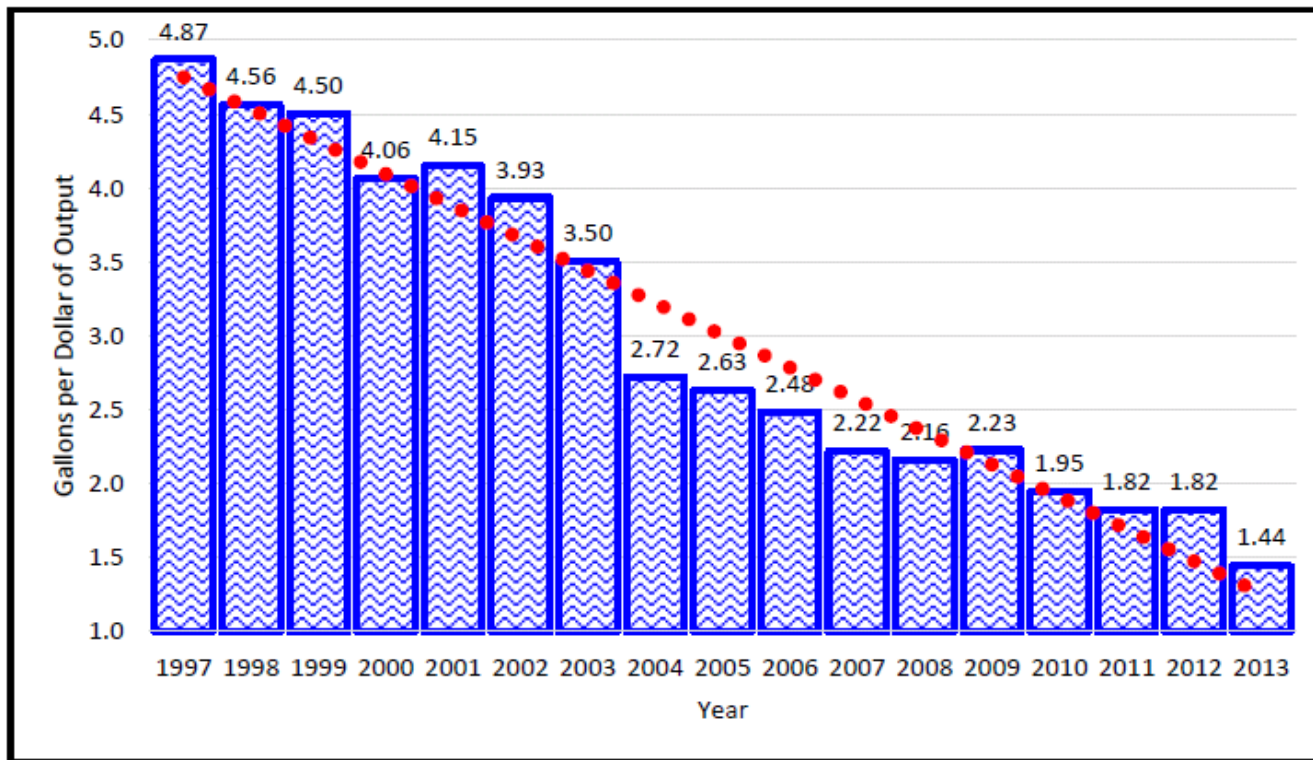


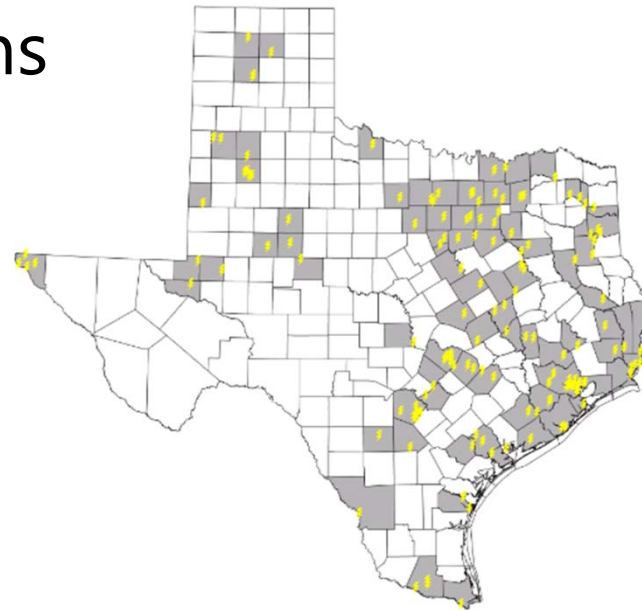
Figure 10. Gallons of Water per Dollar of Output for Manufacturing in Texas (2009 Chained Dollars Adjusted for Inflation)

Manufacturing Change Criteria

1. New or existing facility is not in TWDB data
2. Facility has recently closed
3. Planned construction of a facility
4. Documentation to support alternative long-term planning projections
5. Evidence of errors in historical water use estimates, including volumes of brackish or reuse water

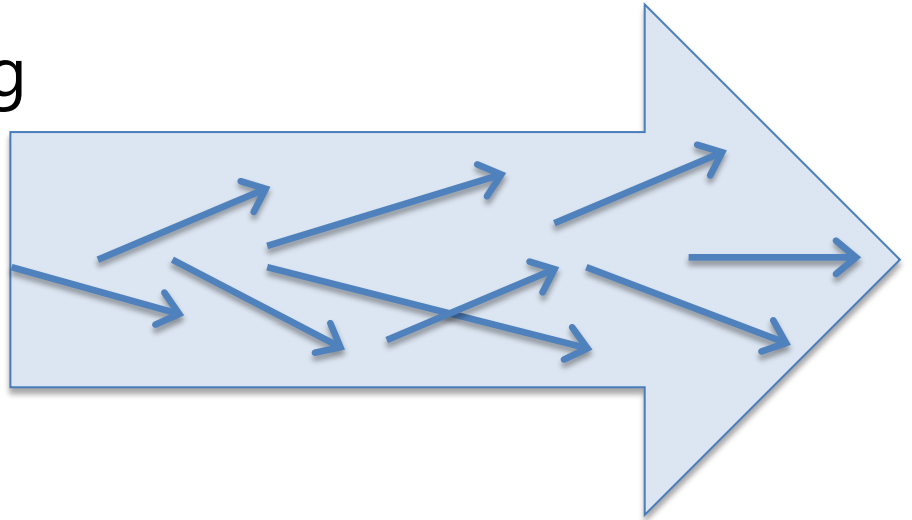
Steam-Electric Power Projections Methodology

- 2020 projections
 - Highest of recent water use (2010-2014)
 - Water use of near-term additions and retirements
 - Include reuse and brackish groundwater
- 2020 – 2070 projections held constant



Why Constant Demands After 2020?

1. 3 Goals of projection methodologies
2. Long-term unknowns:
 - Electricity demand
 - Solar/Wind/Dry-Cooling
 - Fuel type
 - Cooling type
 - Generation type
 - Efficiency
 - Carbon capture and environmental regulations



Steam-Electric Power Change Criteria

1. A facility is not included in draft projections
2. Local information regarding facility construction or retirement
3. Documentation to support a long-term water demand of a facility or county that is different than TWDB draft projections
4. Evidence that an existing facility experienced its dry-year water use beyond 5 years, but not more than 10 years
5. Evidence of errors in historical water use estimates, including volumes of brackish or reuse water

Irrigation Projections Methodology

- Baseline: Average water use over the last 5 years (2010 – 2014), constant between 2020 and 2070
- If projected groundwater demands > total groundwater availability, then projections will decline after 2030 or later
- Will include reuse and brackish groundwater when appropriate



Irrigation Change Criteria

1. Other water use estimates are more accurate
2. Recent trends (within last 10 years) better than groundwater-constrained projections
3. Baseline projections more likely than groundwater-constrained projections
4. Local studies that are more accurate than draft projections
5. Evidence of errors in historical water use estimates, including volumes of brackish or reuse water

Livestock Projections Methodology

- Baseline: Average water use over the last 5 years (2010 – 2014) constant between 2020 and 2070
- New per-head water use coefficients for poultry
- Held constant between 2020 and 2070



Livestock Change Criteria

1. Plans for construction of a CAFO in a county at some future date
2. Documentation of an existing CAFO not captured in draft projections
3. Other evidence of change in livestock inventory or water requirements
4. Local studies that are more accurate than draft projections
5. Evidence of errors in historical water use estimates, including volumes of brackish or reuse water

Questions?

6.9.3 – TWDB Legislative Update



6.9.3 – TWDB Legislative Update: Bills filed related to regional water planning

- HB 174 (Lucio) - Relating to the authority of the TWDB to provide financial assistance to political subdivisions for water supply projects.
- HB 1862 (Lucio) / SB 863 (Perry) - Relating to the designation of certain river or stream segments as being of unique ecological value
- HB 2948 (Larson) - Relating to the state and regional water planning process

TWDB Legislative Update:

Bills filed related to regional water planning (2)

- HB 3027 (Phelan) / SB 347 (Watson) - Relating to the applicability of open meetings and public information laws to RWPGs and their committees
- HB 4006 (Larson) - Relating to a requirement that the TCEQ obtain or develop updated water availability models for all of the river basins in this state
- SB 696 (Perry) - Relating to a requirement that the TCEQ obtain or develop updated water availability models for certain river basins

TWDB Legislative Update:

Bills filed related to regional water planning (3)

- HB 4217 (Farrar) / SB 1999 (Watson) - Relating to energy resources planning for electric generation in ERCOT
- SB 1511 (Perry) - Relating to the state and regional water planning process and the funding of projects included in the state water plan
- SB 1525 (Perry) - Relating to a study by the Texas Water Development Board of water needs and availability in this state

TWDB Legislative Update:

Bills filed related to regional water planning (4)

- HB 2215 (Price) - Relating to the adoption of desired future conditions for aquifers in groundwater management areas and the consideration of those conditions in the regional water planning process
- SB 1312 (Miles) - Relating to the deadline for adoption of desired future conditions in groundwater conservation districts
- HB 3043 (Workman) - Relating to the joint planning process for groundwater management

TWDB Legislative Update:

Bills filed related to regional water planning (5)

- SB 1528 (Creighton) - Relating to the joint planning process for groundwater management
- HCR 43 (Yvonne Davis) - Directing the TWDB and the TCEQ to support the creation of a model water recycling project
- HB 2716 (Alonzo) - Relating to a study by the Department of Agriculture of the transfer of water from the Mississippi River

Questions?

Upcoming TWDB Financial Assistance Workshop

May 9, 2017 – 9:00 am

Fort Worth Botanic Garden

3220 Botanic Garden Blvd.

Fort Worth, TX