Lone Star Groundwater Conservation District

DESIRED FUTURE CONDITION HEARING ON LSGCD'S DFCS PROPOSED BY VOTING GCDS IN GMA 14

AUGUST 11, 2026

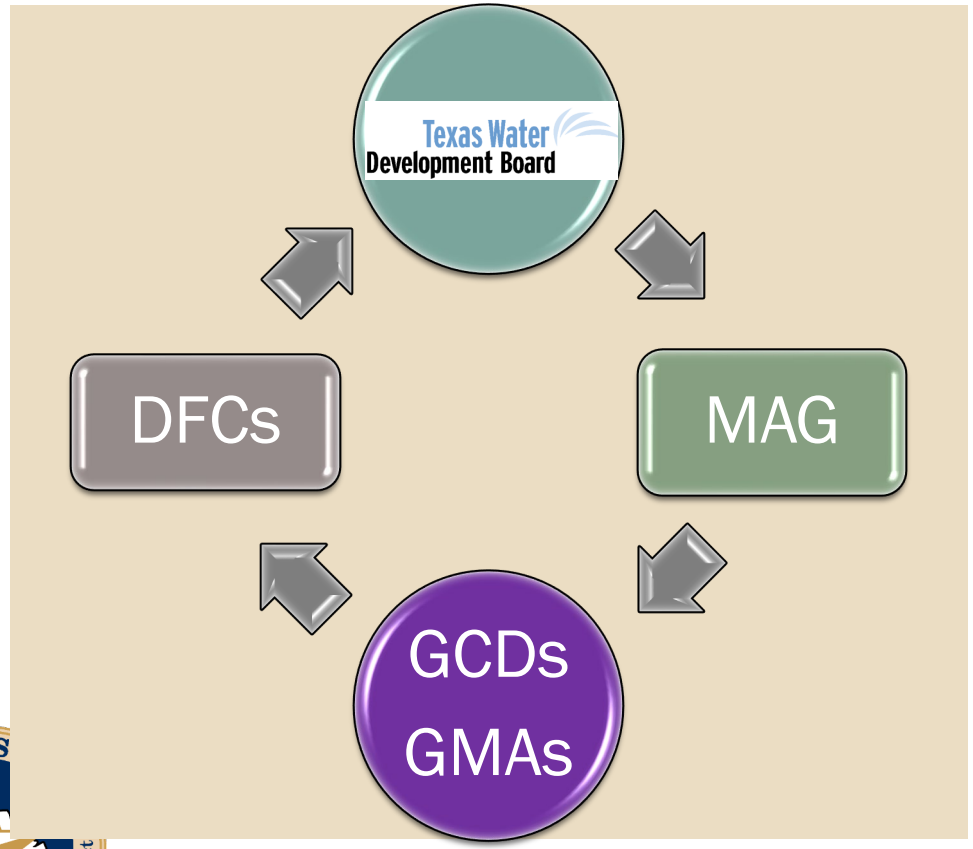
DESIRED FUTURE CONDITION
MODELED AVAILABLE GROUNDWATER

"**Desired future condition**" means a quantitative description, adopted in accordance with Section 36.108, of the desired condition of the groundwater resources in a management area at one or more specified future times.

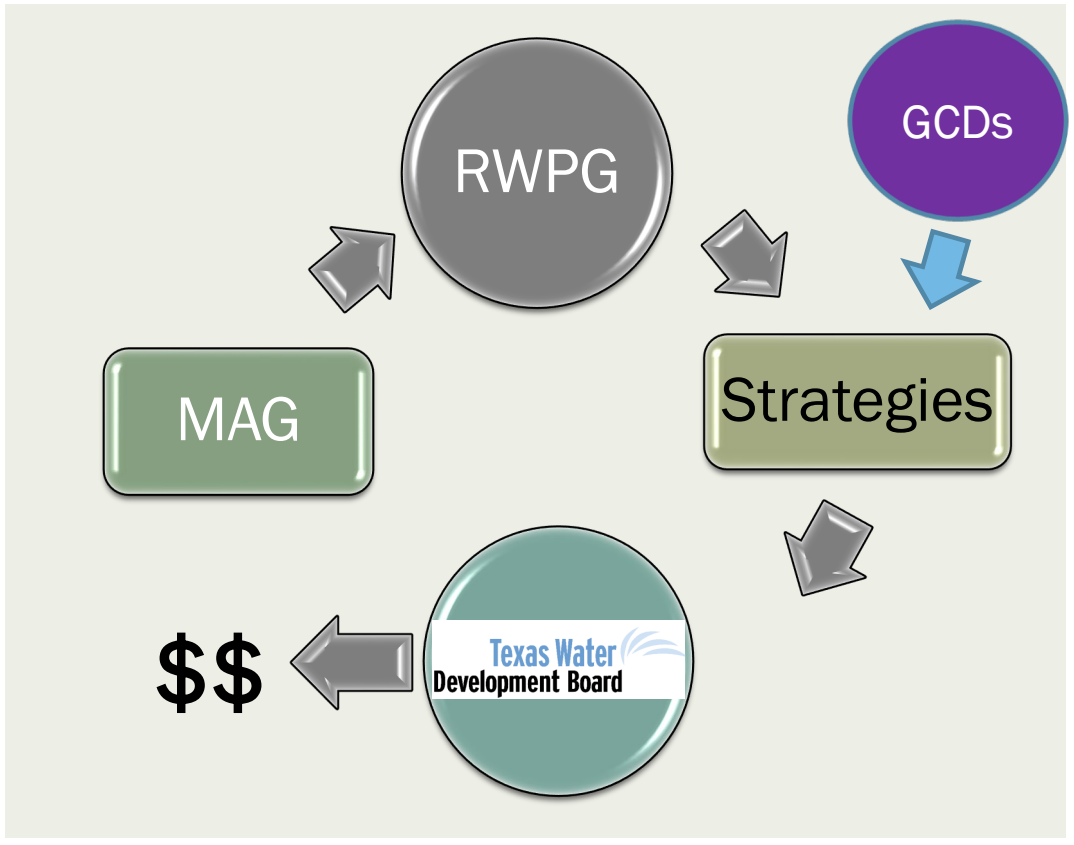
"**Modeled available groundwater**" means the amount of water that the executive administrator determines may be produced on an average annual basis to achieve a desired future condition established under Section 36.108.

THE GROUNDWATER PLANNING CYCLE

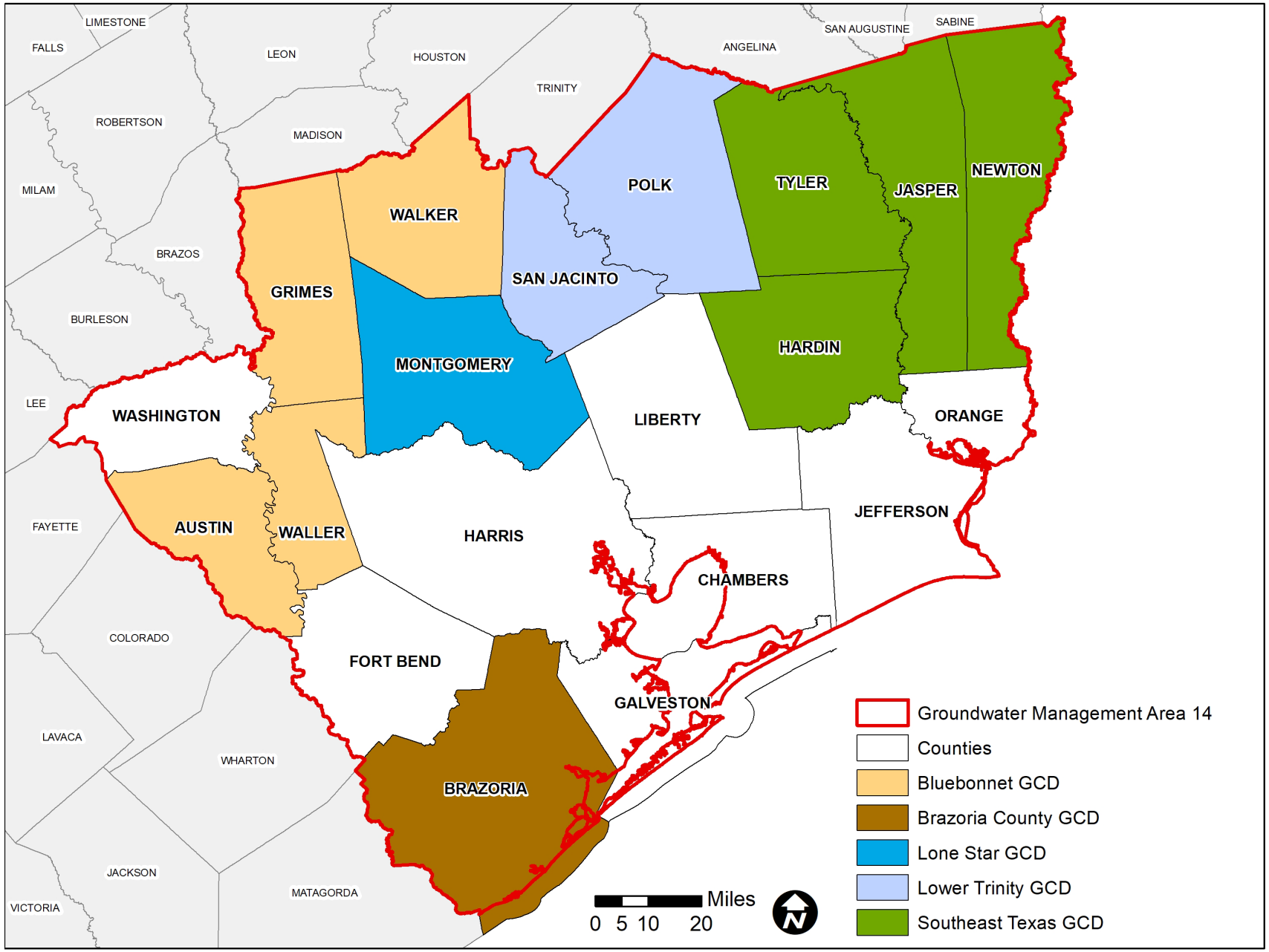
Joint Groundwater Planning



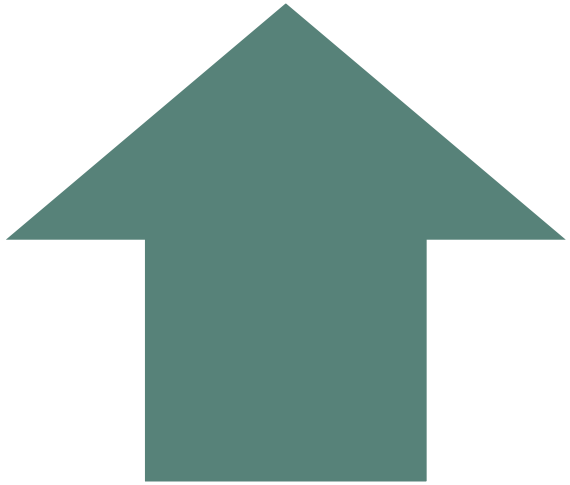
Regional Water Planning



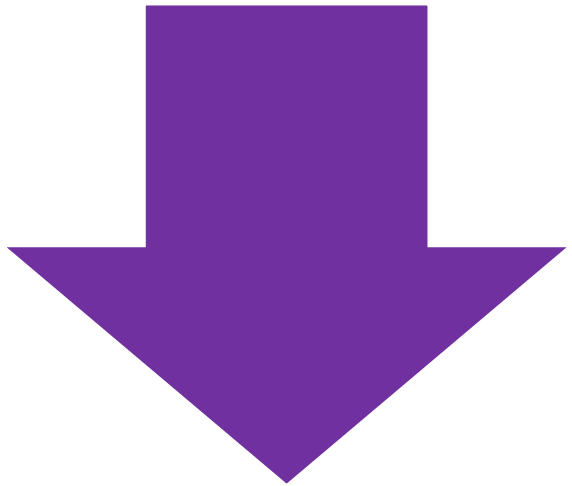
VOTING DISTRICTS IN GMA 14



CHAPTER 36 BALANCING TEST – THE DFC MUST PROVIDE A BALANCE BETWEEN



highest practicable level of groundwater production



conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence

9 FACTORS TO CONSIDER IN DEVELOPING DESIRED FUTURE CONDITIONS

- Aquifer Uses or Conditions
- Supply Needs and Management Strategies
- Hydrological Conditions
- Environmental Impacts
- Subsidence Impacts
- Socioeconomic Impacts
- Private Property Rights
- DFC Feasibility
- Other Relevant Information

TEXAS WATER CODE- CHAPTER 36

1. aquifer uses or conditions within the management area, including conditions that differ substantially from one geographic area to another;
2. the water supply needs and water management strategies included in the state water plan;
3. hydrological conditions, including for each aquifer in the management area the total estimated recoverable storage as provided by the executive administrator, and the average annual recharge, inflows, and discharge;
4. other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water;
5. the impact on subsidence;
6. socioeconomic impacts reasonably expected to occur;
7. the impact on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater as recognized under Section 36.002;
8. the feasibility of achieving the desired future condition; and
9. any other information relevant to the specific desired future conditions.

TECHNICAL APPROACH FOR 4TH ROUND OF JOINT PLANNING

- GMA-14 used the updated GMA-14 GAM
- Other GCDs provided input on pumping, and most preferred to use the same volume of pumping as the last round with redistribution (2018 well distribution and outcrop)
- Using the same approach for calculating DFCs from model outputs (water levels)
  - Retain the same DFC metric (water level) - remaining median available drawdown
  - Calculation period is 2018 to 2080
  - All wells in TWDB databases where the total depth is reported
  - Updated the dataset with wells completed thru 2025

SUMMARY OF MODELING
LSGCD DFC COMMITTEE RECOMMENDATION

- Pumping Scenario:
  - Proposed DFC Run Scenario (All GCDs agree on the WEL file used for this simulation)
  - Updated GCD pumping through 2080
  - Pumping used for Subsidence Districts was Modified B6
- LSGCD will not use averaging approach as presented at January 2026 GMA 14 meeting, but supports GMA 14 Member Districts' post-processing or averaging that is appropriate for their District
- Anticipated MAG (from WEL file) = 199,069 af/year

LSGCD APPROACH TO GMA 14 PLANNING

- No change to the current DFC: Minimum 70% median available drawdown remaining in 2080
- No subsidence metric for Montgomery County
- Evaluation approach
  - Maintain available drawdown calculation approach from previous round of joint planning
  - Update the TWDB well dataset for determining the median available drawdown remaining from 2018 to 2080
- Support GMA 14 Member Districts selecting a DFC that is appropriate for their aquifer management

PROPOSED DFC STATEMENT FOR LSGCD

In Montgomery County, no less than 70 percent median available drawdown remaining in 2080 in the Gulf Coast Aquifer between 2018 and 2080.

- Excludes Catahoula Aquifer
- Catahoula Aquifer is designated non-relevant for joint planning purposes

STATEMENT OF PROPOSED DESIRED FUTURE CONDITIONS FOR GROUNDWATER MANAGEMENT AREA 14

The Member Districts of Groundwater Management Area 14 ("GMA 14") propose the following Desired Future Conditions ("DFCs") for each county in GMA 14 in the Gulf Coast Aquifer[1] in 2080 from 2018 to 2080:[2]

- **Austin County**: no less than 82 median percent remaining available drawdown
- **Brazoria County**: no less than 83 median percent remaining available drawdown
- **Chambers County**: no less than 82 median percent remaining available drawdown
- **Fort Bend County**: no less than 56 median percent remaining available drawdown
- **Galveston County**: no less than 91 median percent remaining available drawdown
- **Grimes County**: no less than 75 median percent remaining available drawdown
- **Hardin County**: no less than 82 median percent remaining available drawdown
- **Harris County**: no less than 67 median percent remaining available drawdown
- **Jasper County**: no less than 72 median percent remaining available drawdown
- **Jefferson County**: no less than 88 median percent remaining available drawdown
- **Liberty County**: no less than 80 median percent remaining available drawdown
- **Montgomery County**: no less than 70 median percent remaining available drawdown
- **Newton County**: no less than 71 median percent remaining available drawdown
- **Orange County**: no less than 88 median percent remaining available drawdown
- **Polk County**: no less than 91 median percent remaining available drawdown
- **San Jacinto**: no less than 87 median percent remaining available drawdown
- **Tyler County**: no less than 79 median percent remaining available drawdown
- **Walker County**: no less than 70 median percent remaining available drawdown
- **Waller County**: no less than 72 median percent remaining available drawdown
- **Washington County**: no less than 85 median percent remaining available drawdown

Excludes Catahoula in GMA 14 and uses version of GMA 14 Model Scenario "Adjusted 14.3 SD B6," which has been cleaned up and renamed as "GMA 14 Proposed DFC Run 2026."

PROPOSED DFCS

- All 5 GCDs unanimously approved the proposed DFCs for each county in GMA 14 including no less than 70 median percent remaining available drawdown in Montgomery County.
- The no less than 70 median percent remaining available drawdown is the current DFC so proposing no changes in the DFC for Montgomery County.
- The updated GMA 14 model predicts that additional groundwater is available in Montgomery County under the proposed DFC than under the old model (even though the DFC remains unchanged).
  - The additional available groundwater is consistent with the current regional water plan.
- No GCD voted to adopt a subsidence metric for various reasons.
- Materials supporting the development of the DFCs have been available during the 90+ day comment period on a publicly available website.

NON-RELEVANT AQUIFERS FOR JOINT PLANNING PURPOSES

- Aquifers proposed as Non-Relevant
  - Catahoula Aquifer
  - Others not present in LSGCD
- Non-relevant aquifers can still be managed by the District according to adopted rules and management plan

WRITTEN COMMENTS RECEIVED ON PROPOSED DFCS

- Comments supporting proposed DFCs:
  - Resolution in support from the City of Shenandoah
  - Resolution in support from the City of Splendora
  - Resolution in support from the City of Conroe
  - Resolution in support from the City of Magnolia
- Other comments:
  - Laura Norton: how proposed DFC will affect subsidence; coring study; and Spring Creek Study, which evaluates how subsidence may affect flooding.
  - Neil Gaynor: regional modeling for GMA 14 DFCs; definition of MPRAD; 70% limit in monitoring well in Montgomery County; and access to available groundwater in current or future wells.
  - Benjamin Slotnick, PhD: technical criticisms of the GAM; sensitivity testing of GAM vertical hydraulics to investigate effect on proposed DFCs; GAM verification using post-2019 data
  - Paul Cote: exceeding recharge; access to groundwater; no single entity in charge of long-term water supply

THANK YOU

PUBLIC COMMENT