THE JOINT PLANNING PROCESS FOR GROUNDWATER MANAGEMENT: THE BASICS OF HOW GROUNDWATER DISTRICTS DEVELOP DESIRED FUTURE CONDITIONS

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Water Planning Workshop

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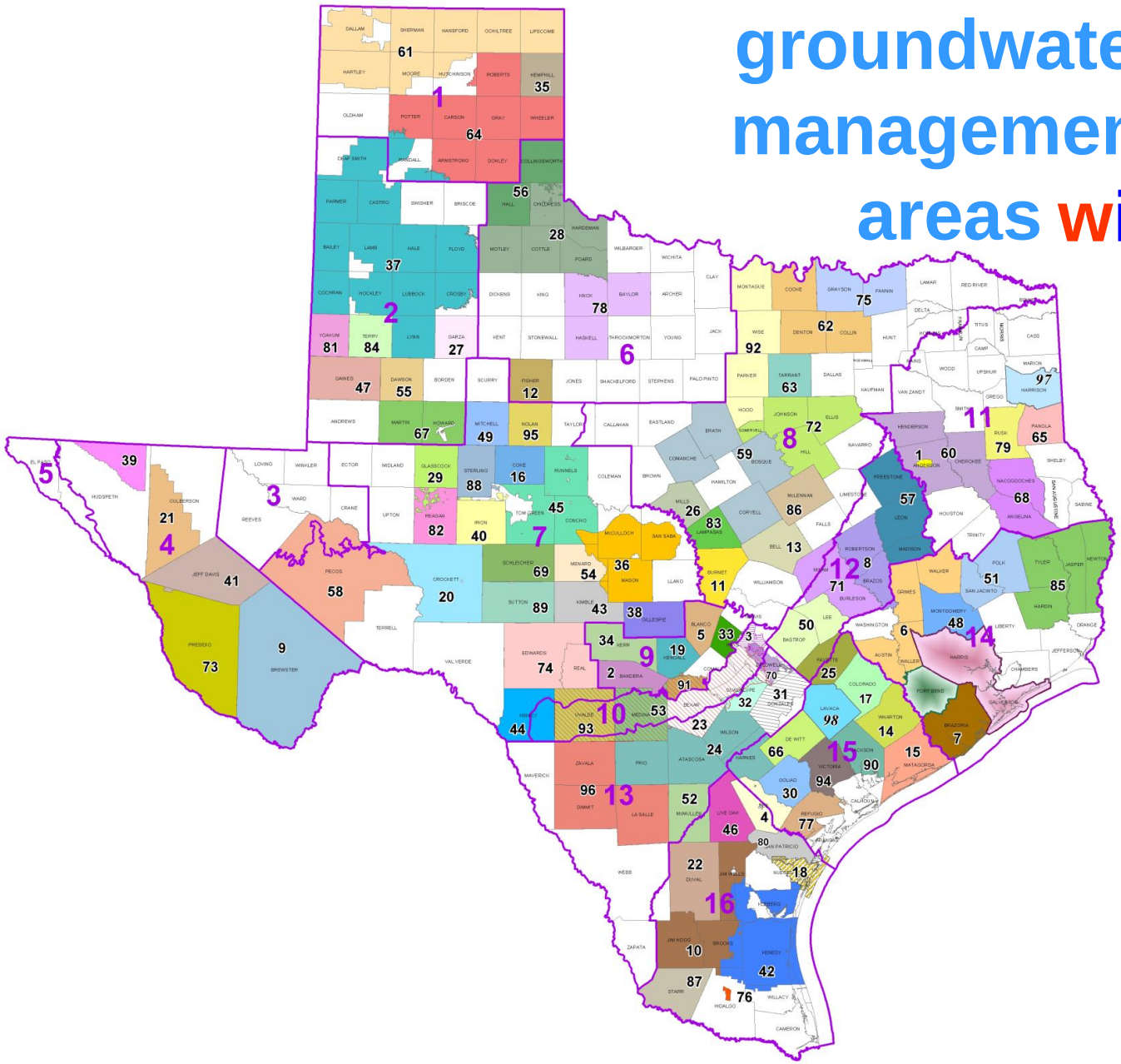
Presentation Outline

- Status of joint planning in Texas for DFC adoption.
- What changed in the joint-planning process from the first round to the current round for DFC adoption.
- The process for considering, proposing, and adopting DFCs.
- How DFCs play into District's Management Plans and Rules.

What is a Groundwater Management Area?

- A groundwater management area (GMA) is a geographic area suitable for the management of groundwater resources.
- TWDB designated 16 GMAs across the state that include all major and minor aquifers.
- The boundaries of the GMAs generally coincide with the hydrologic features of the state's major aquifers.
- Lone Star GCD is located in GMA 14.
- Beginning in 2005, the GCDs in each management area are charged with engaging in joint planning and developing Desired Future Conditions (DFCs) for the aquifers.

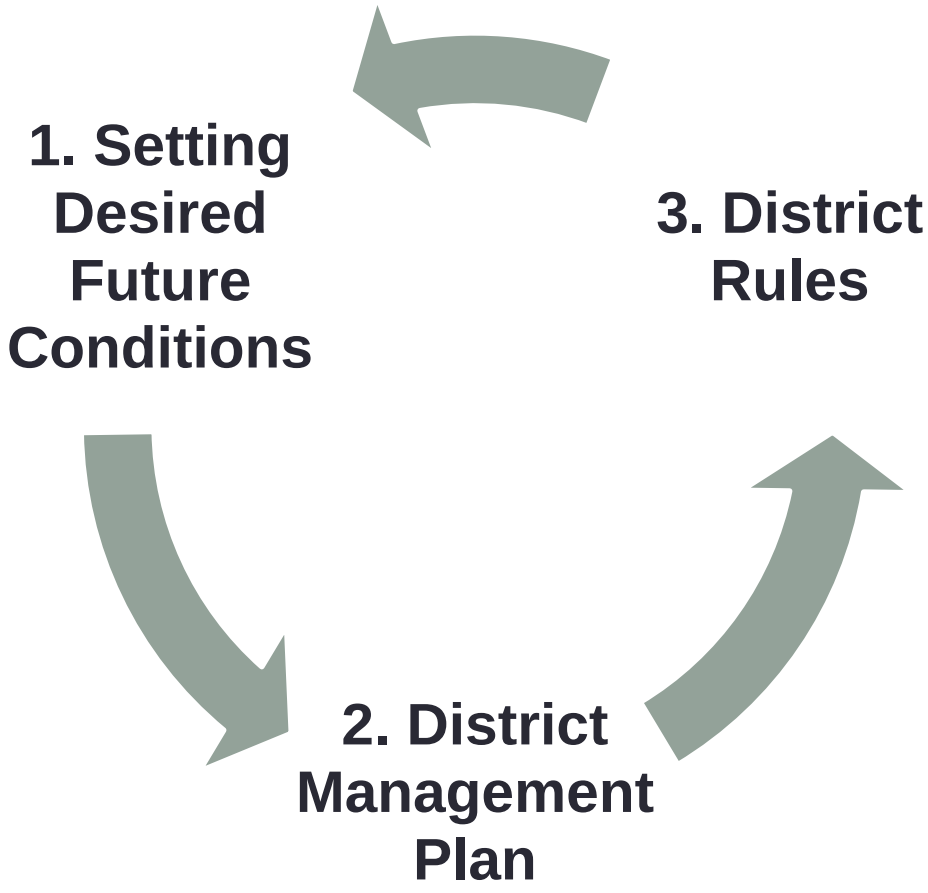
groundwater management areas with GCDs



What is a Desired Future Condition?

- A desired future condition (DFC) is a quantitative statement of what you want the aquifer to look like in 50 years.
  - Defined in terms of water level, quality, spring flows, or volume, etc.
- While there can be different DFCs for different aquifers, subdivisions of aquifers, or geographic areas, the DFCs must be physically possible.
- Once DFCs are adopted, they do not remain static.
  - DFCs may be amended at any time, but, at a minimum, DFCs must be reestablished at least once every five (5) years.
- The GMA must utilize groundwater models approved by the TWDB in their development of DFCs.

Adaptive Management Process



What has changed in the joint-planning process between the first and second round?

- First round – September 1, 2005 – September 1, 2010
- Second (current) round – September 1, 2010 – May 1, 2016

What has changed in the joint-planning process between the first and second round?

Beginning in 2011, new requirements that:

- Substantially overhaul the procedures and required statutory considerations for DFC development, proposal, and adoption.
- Require the development of an explanatory report that explains the DFCs adopted, those rejected, and documents numerous criteria evaluated in the process.
- All supporting information considered during DFC development must be included in explanatory report.
- GMA must propose for adoption DFCs no later than May 1, 2016.

What has changed in the joint-planning process between the first and second round?

- Ongoing developments of new and improved groundwater science to better understand the availability of regional groundwater resources.

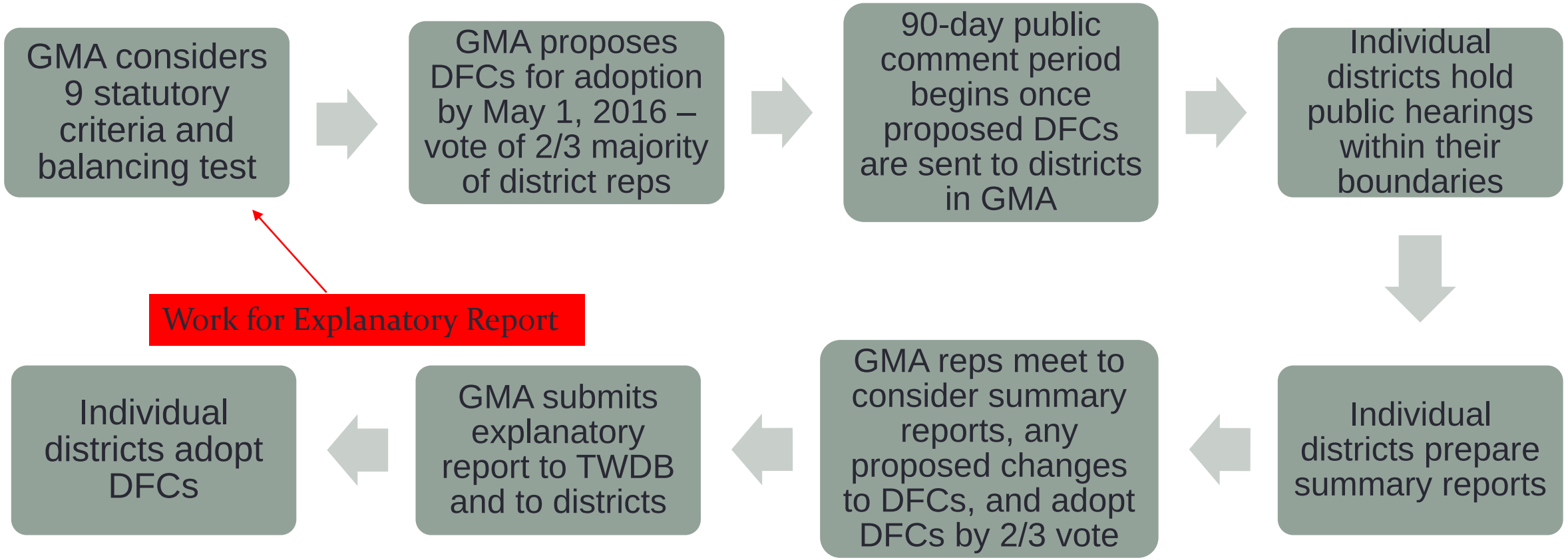
- Legal developments with respect to the relationship between private property rights and management of groundwater resources in Texas (SB 332, Day Case).

The path to DFC…

The old way:

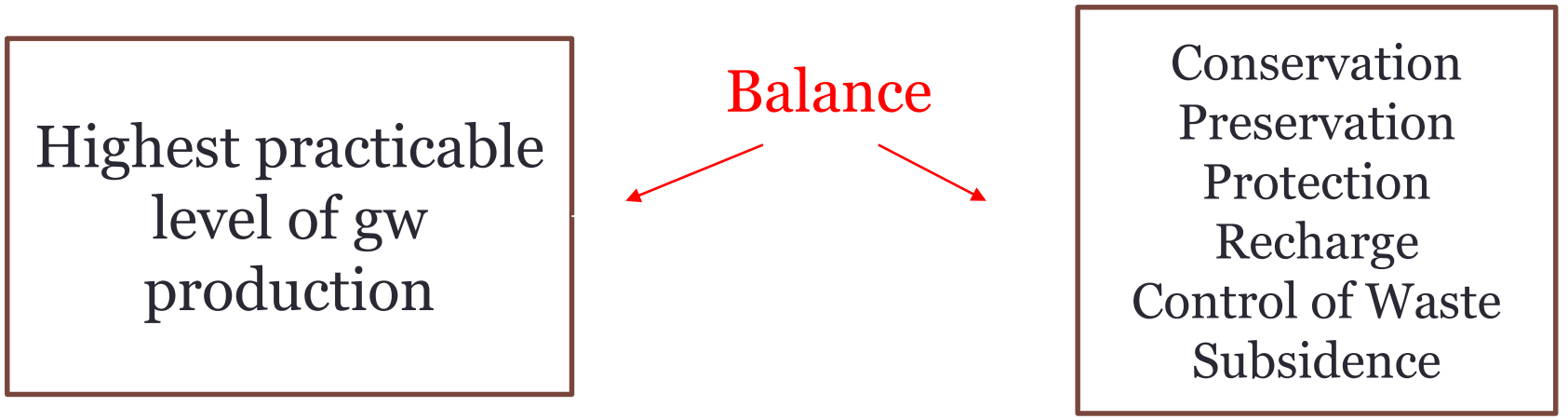
1. **Determine DFC**
2. **Adopt DFC**
3. **Send DFC to TWDB**

“New” DFC Adoption Process



“New” Criteria

- Balance
  - between two outer limits or “book ends”
  - highest practicable and conservation, recharge, etc…



“New” Criteria – Proposed DFCs

- The “Big 9” – Nos. 1 through 4
  1. Aquifer uses or conditions, including conditions that differ substantially from geographic area to another
  2. Water supply needs and strategies in the SWP
  3. Hydrogeological conditions, including TERS, recharge, inflows, and discharge
  4. Other environmental impacts, including impacts on spring flows and other sw and gw interactions

“New” Criteria – Proposed DFCs

- The “Big 9” – Nos. 5 through 9
  5. Impact on subsidence
  6. Socioeconomic impacts reasonably expected to occur
  7. Impact on interests and rights in private property, including ownership and the rights of landowners, their lessees and assigns
  8. Feasibility of achieving the DFC
  9. Any other information relevant to the DFCs

“New” Criteria – Proposed DFCs

- Explanatory Report = Reasoned Justification Document

- Section 36.108(d-3) – The Explanatory Report must:

1. Identify each DFC;
2. Provide the policy and technical justifications for each DFC;
3. Include documentation that the 9 factors were considered by the districts; discussion of how the adopted DFCs impact each factor;

“New” Criteria – Proposed DFCs

- Continued…

4. List other DFC options considered / reasons why not adopted; and
5. Discuss reasons why recommendations made by advisory committees and relevant public comments received by the districts were / were not incorporated into the DFCs.

Importance of Explanatory Report

- Proves GMAs/districts considered all statutory criteria
- Deference to GCDs – detailed report can prevent a judge from substituting his judgment for that of the GCDs in the GMA.
- Serves as the Administrative Record.

What TWDB Does With Explanatory Report

- TWDB takes the adopted DFC and uses a Groundwater Availability Model (GAM) to provide each GCD with an estimate of the amount of groundwater that can be pumped annually in order to achieve the DFC (the “Modeled Available Groundwater” [MAG] number).

- GCDs consider the MAG and other statutory factors in developing management plan and rules, and in issuing permits.

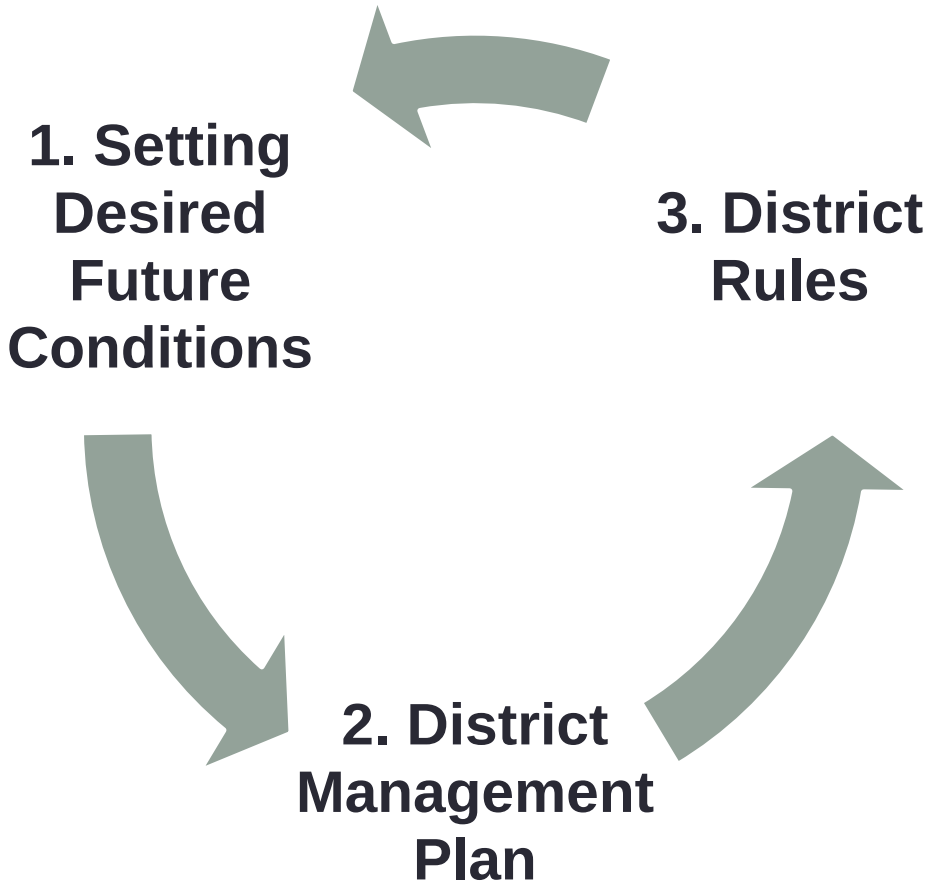
Groundwater Districts – Management Tools

- So, a district must participate in setting DESIRED FUTURE CONDITIONS of its aquifers, which, in turn, impacts the district's management plan and rules.

- A district must develop a MANAGEMENT PLAN – which establishes general management framework and must contain goals and objectives and priorities consistent with achieving the DFCs.

- A district then must adopt RULES that are designed to implement the goals and objectives set forth in the management plan and achieve the DFCs, and must enforce those rules.

Adaptive Management Process



District Management Plan

- A district must develop a management plan, which must be readopted at least every five years (coinciding with joint planning process), and which must be approved by the TWDB.
- Chapter 36 sets out required elements of the management plan.
- Includes goals and performance objectives of the District Board, strategies for achievement of DFCs, and technical and water planning information.

District Rules

- A district must adopt rules to implement the management plan.
- Rules establish the regulatory framework on how a GCD will manage and regulate the groundwater resources within its boundaries.
- Rules establish the well permitting process.
- GCDs have numerous options on what types of rules they can use to regulate groundwater production (well spacing, production limits, management zones, etc.)
- Rules must achieve the DFCs and must be enforced.

QUESTIONS?