

# Review of Revised Regional Water Planning Requirements

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Spring-Summer 2013 | Temple McKinnon  
Team Lead, Regional Water Planning

**Texas Water**   
**Development Board**



- i. Background on planning requirements**
- ii. Purpose and nature of rule changes**
- iii. Summary of specific rule changes**

## ***BASIC PLANNING PARAMETERS:***

- water supply plan to meet DOR needs
- 50-year planning horizon
- 5-year planning cycle
- categories of water use:
  - municipal      -manufacturing
  - irrigation      -mining
  - livestock      -steam-electric power

**“The state water plan shall provide for the preparation for and response to drought conditions.”**

*- Guidance Principles for the State  
Water Plan Development §358.3(1)*

**“The state drought manager [*TDEM*] is responsible for managing and coordinating the drought response component of the state water plan.”**

*- Texas Water Code, Sec. 16.055.  
Drought Response Plan*

# Regional Water Planning Requirements



**Statute**

(Texas Water Code)

**Agency Rules §**

(31 Texas Administrative  
Code 355, 357, 358)

**Regional Water Planning  
Contract Documents**

**RWP Requirements**

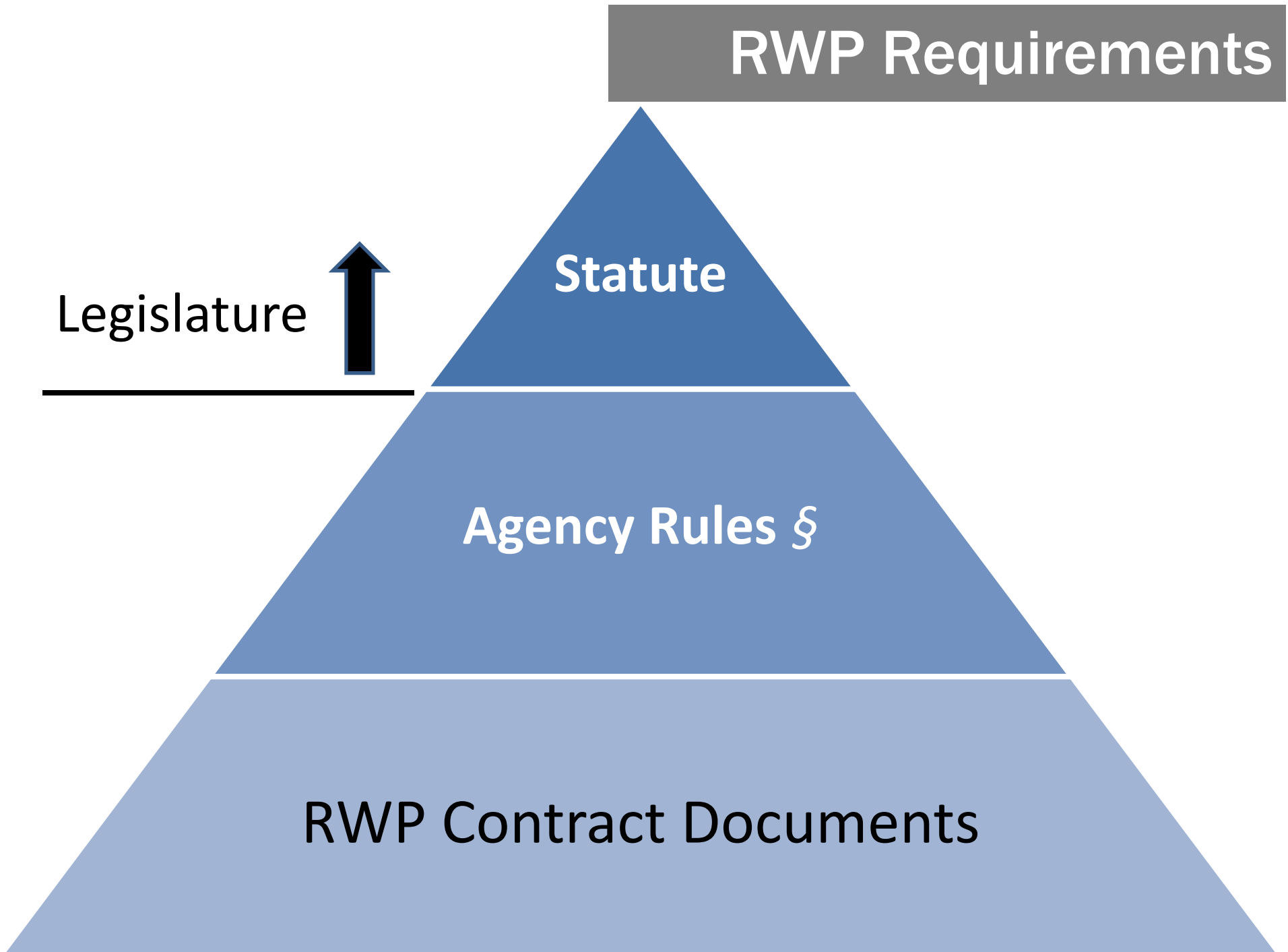
**Statute**

Legislature



**Agency Rules §**

**RWP Contract Documents**



**RWP Requirements**

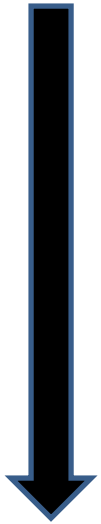
**Statute**

Legislature

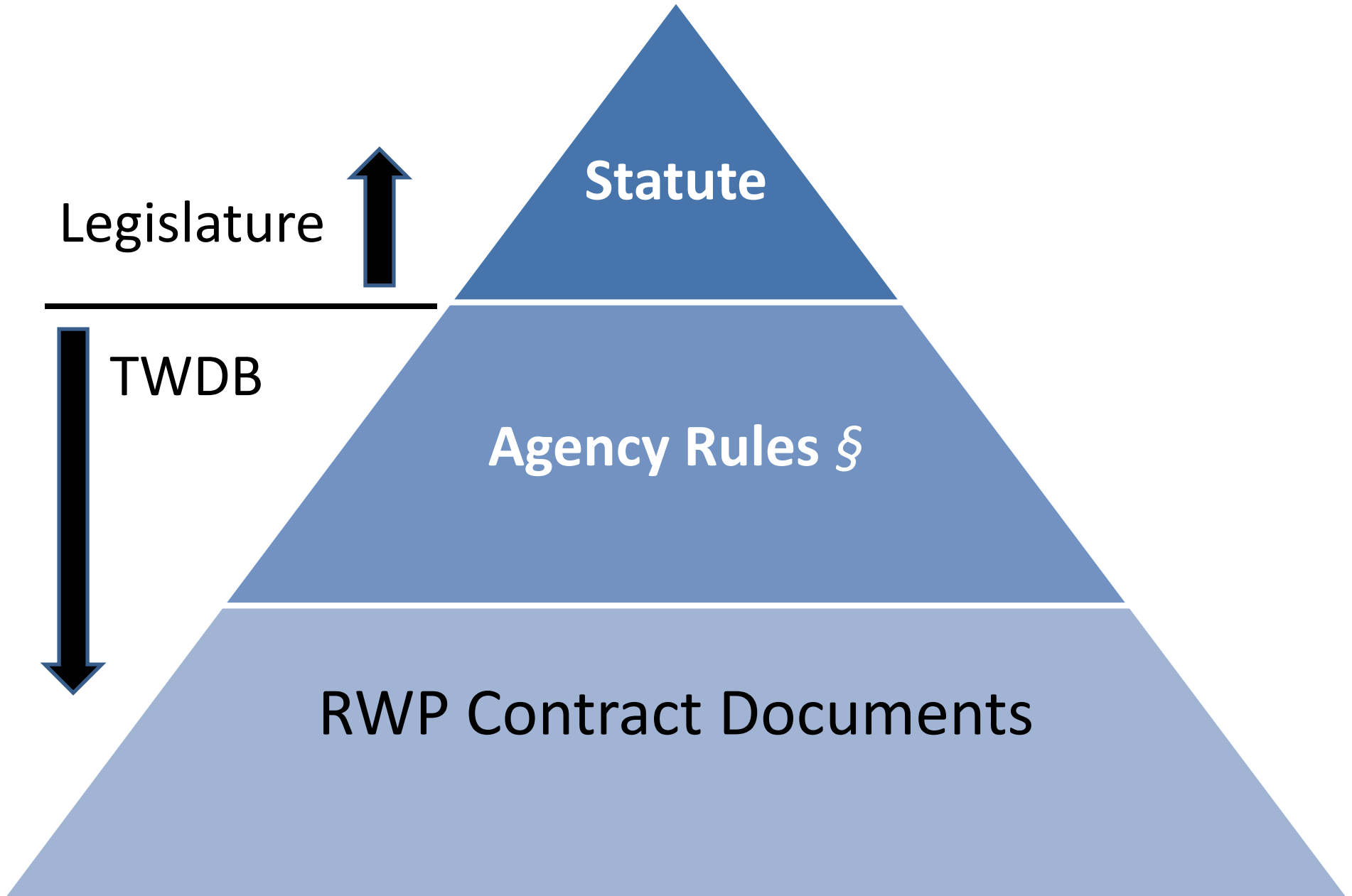


TWDB

**Agency Rules §**



**RWP Contract Documents**





**RWP Requirements**

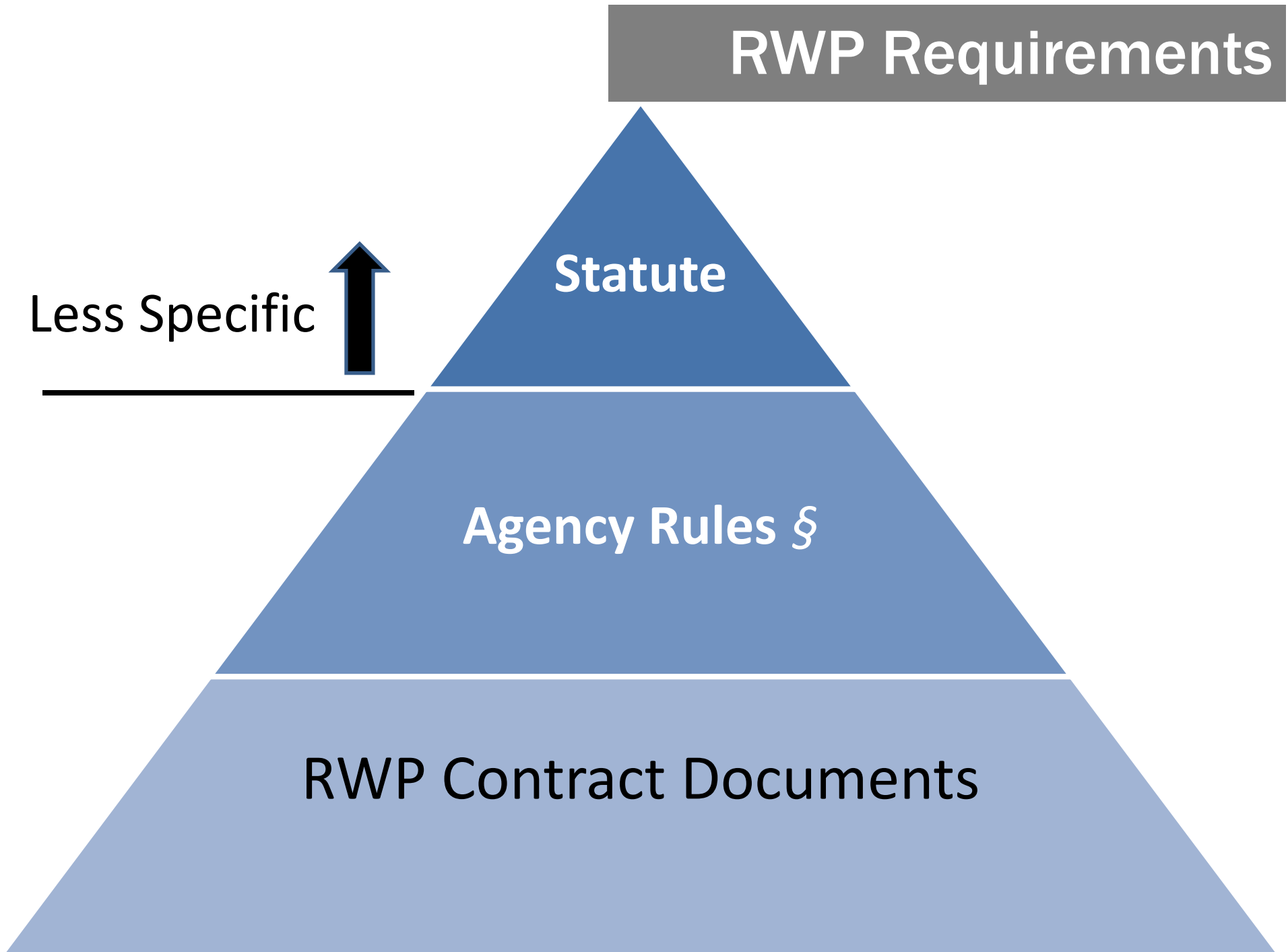
**Statute**

Less Specific



**Agency Rules §**

**RWP Contract Documents**



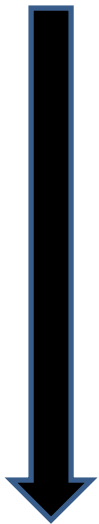
# RWP Requirements

Statute

Less Specific

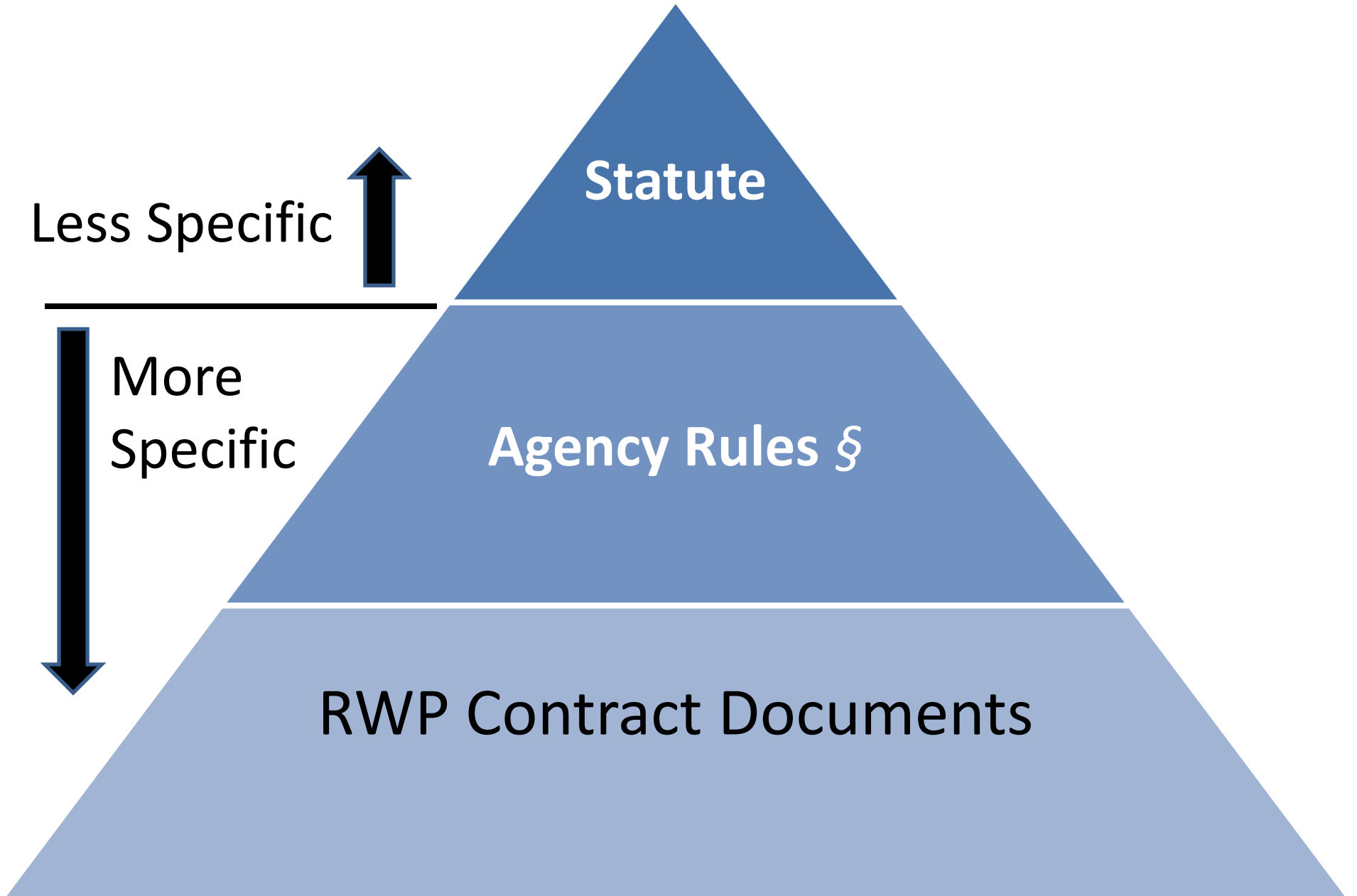


More Specific



Agency Rules §

RWP Contract Documents



# RWP Requirements



Statute

Agency Rules §

**Revised in 2012**

RWP Contract Documents

# RWP Requirements

Statute

Agency Rules §

**Revised in 2012**



RWP Contract Documents

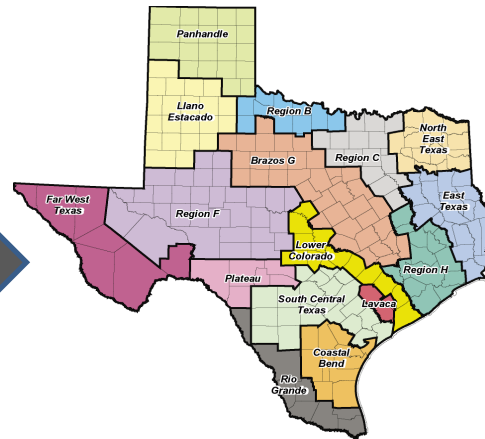


# Planning Rules

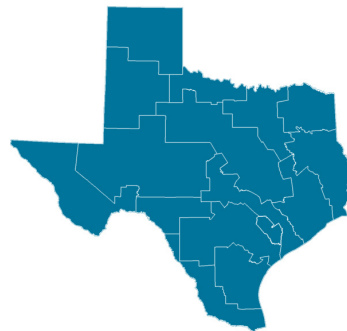
**§355**



**§357**



**§358**



# Types of Rule Revisions

new rules for new statutes

new rules for new requirements

reorganized rules for existing content

emphasized rules for existing content

# Purpose & Nature of Rule Changes

- **statutory changes**
- **problems encountered during 2011 drought**
- **outcomes from agency coordination**

## Impact of Changes

**Rule changes will require RWPGs to:**

- a) report additional (existing) information in plans**
- b) collect, analyze, and consider additional information**
- c) make additional recommendations**



## ***REGIONAL WATER PLAN CHAPTERS:***

- 1. description**
- 2. demands**
- 3. supply**
- 4. needs**
- 5. WMS evaluations**
- 6. plan impacts**
- 7. drought response**
- 8. policy recommendations**
- 9. financing of WMSs**
- 10. plan adoption**
- 11. implementation & comparison**

## *Chapter with Revised Requirements:*

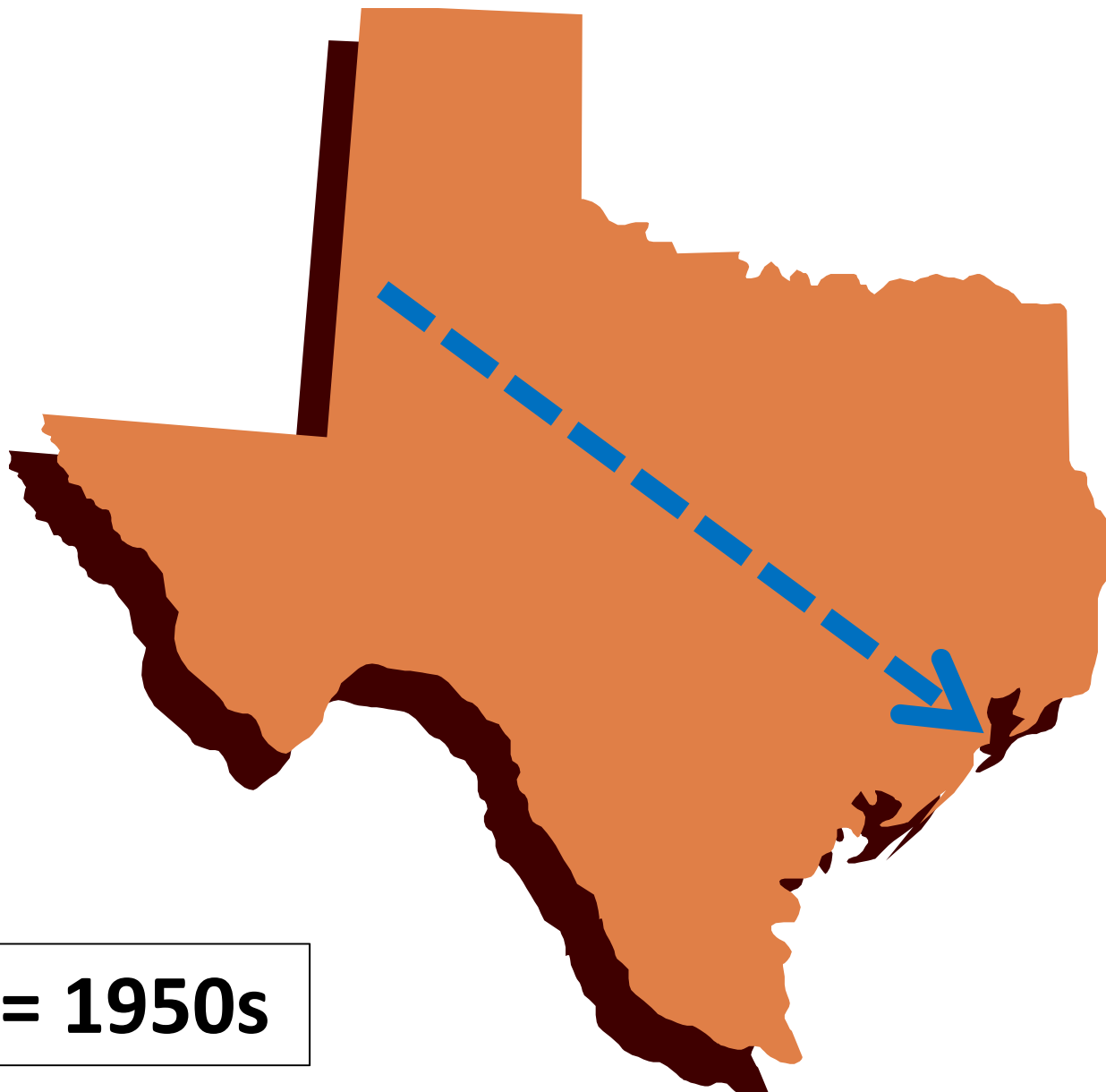
1. description
2. demands
3. supply
4. needs
5. WMS evaluations
6. plan impacts
7. drought response **NEW**
8. policy recommendations
9. financing of WMSs
10. plan adoption
11. implementation & comparison **NEW**

# Chapter 1: RWP Area Description

**Identify in the plan multiple historic droughts of record (DOR), if applicable**

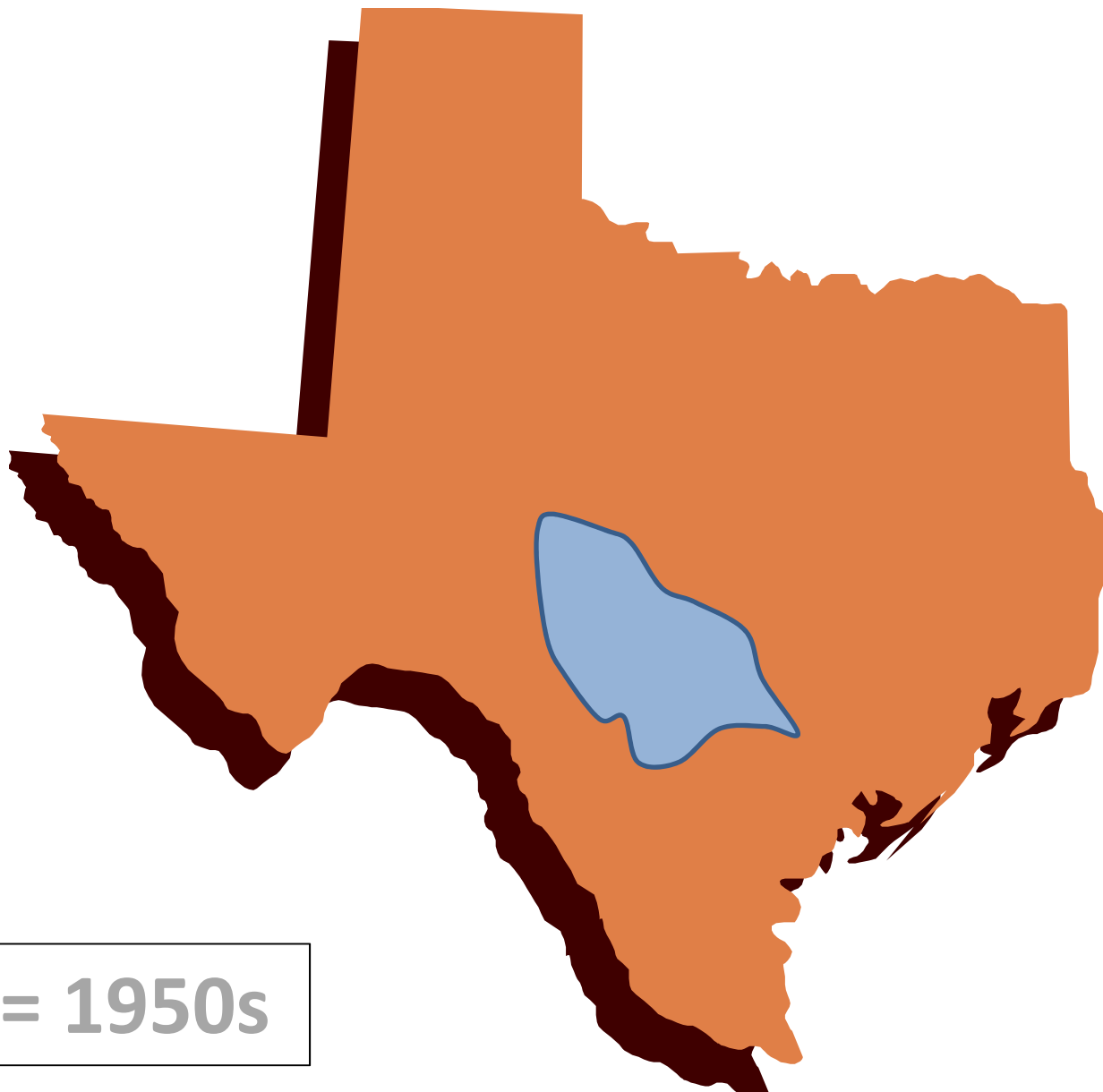
*- §357.30(9)*

# RWP Area Description



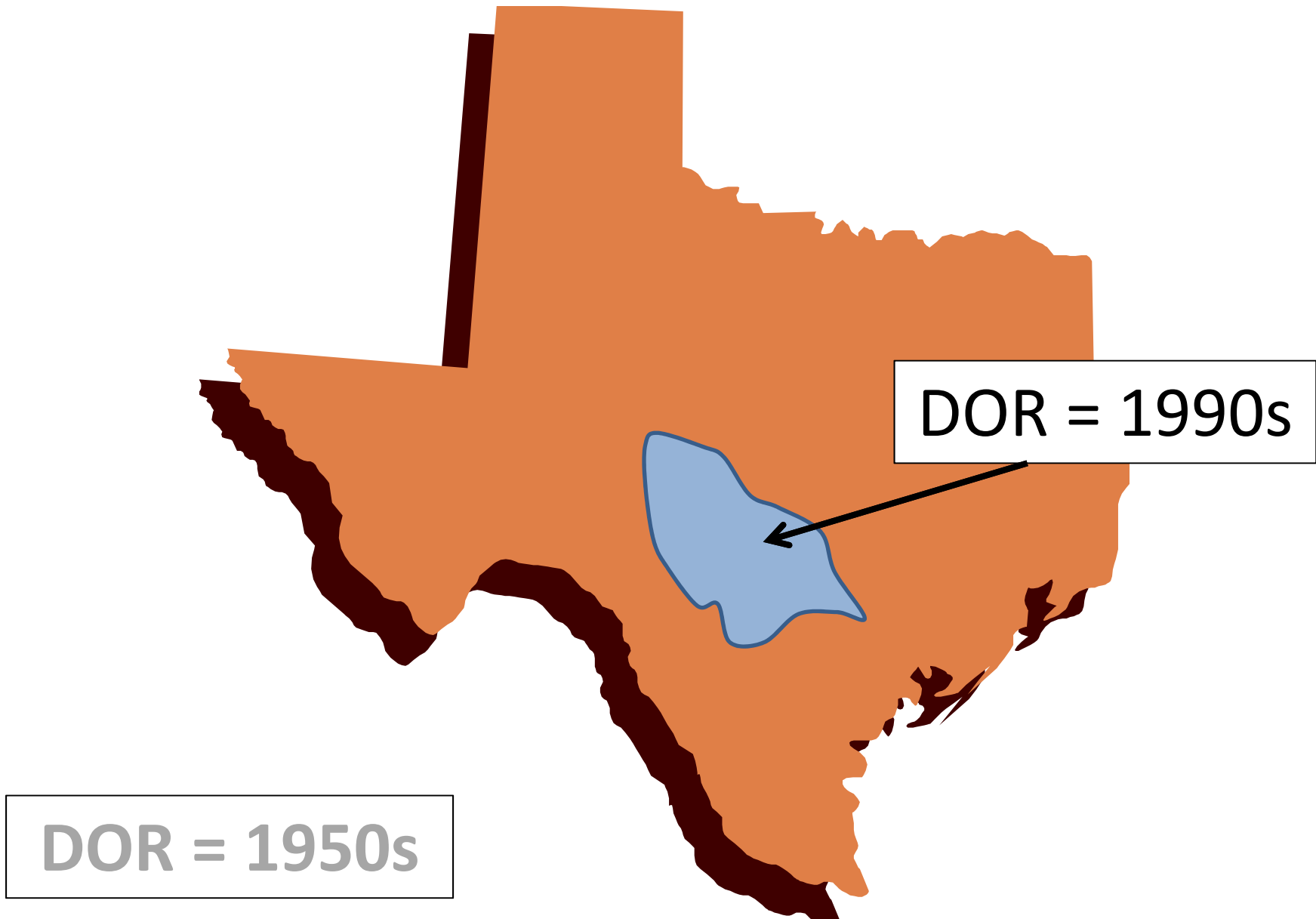
**DOR = 1950s**

# RWP Area Description



DOR = 1950s

# RWP Area Description



DOR = 1990s

DOR = 1950s

## CHAPTER 3: Existing Water Supplies

**Where a DFC has been established...**

RWPlans  
Groundwater  
Availability



MAGs

## Development of DFCs

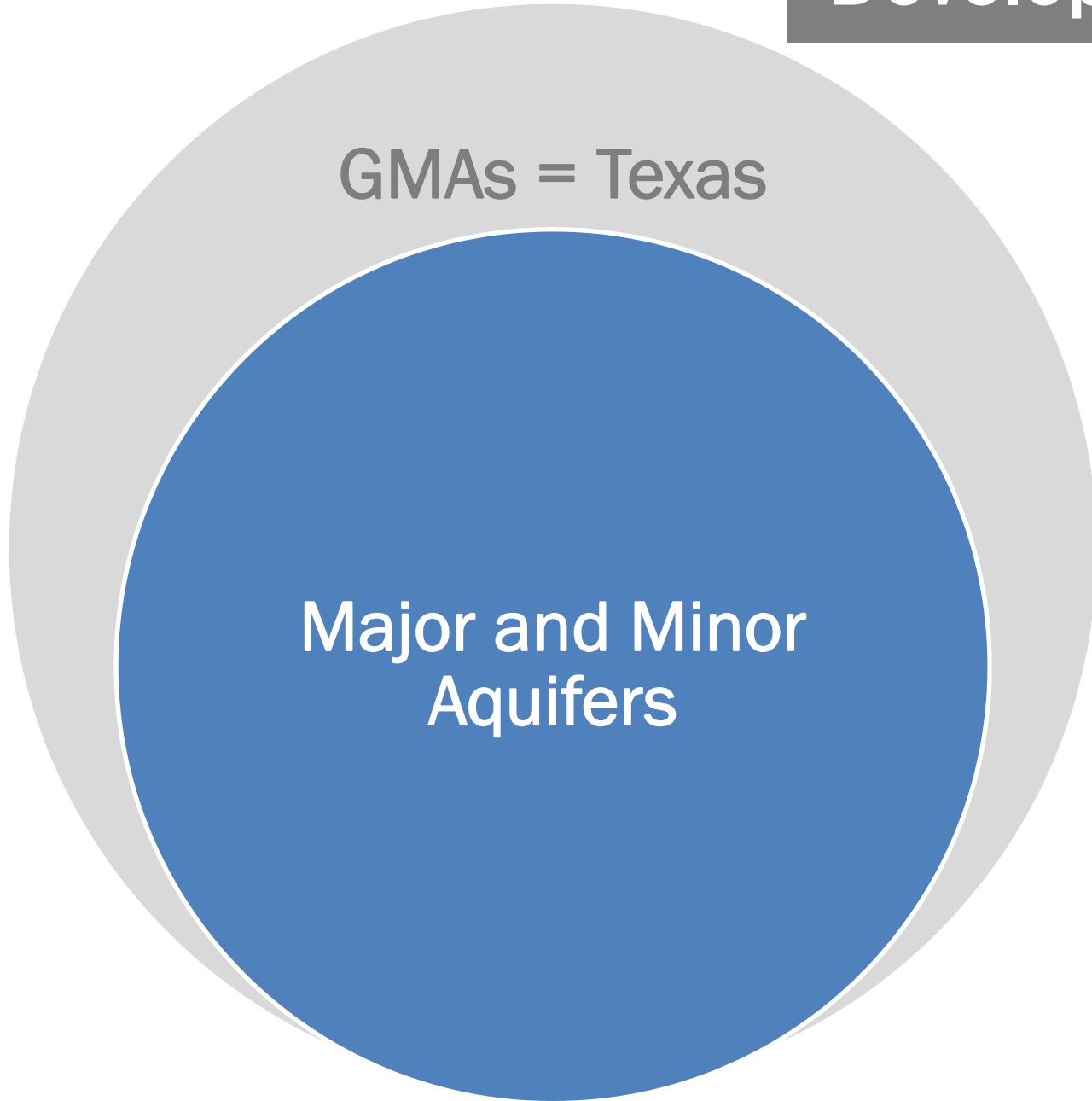
**Groundwater  
Management Areas  
(GMAs) = Texas**



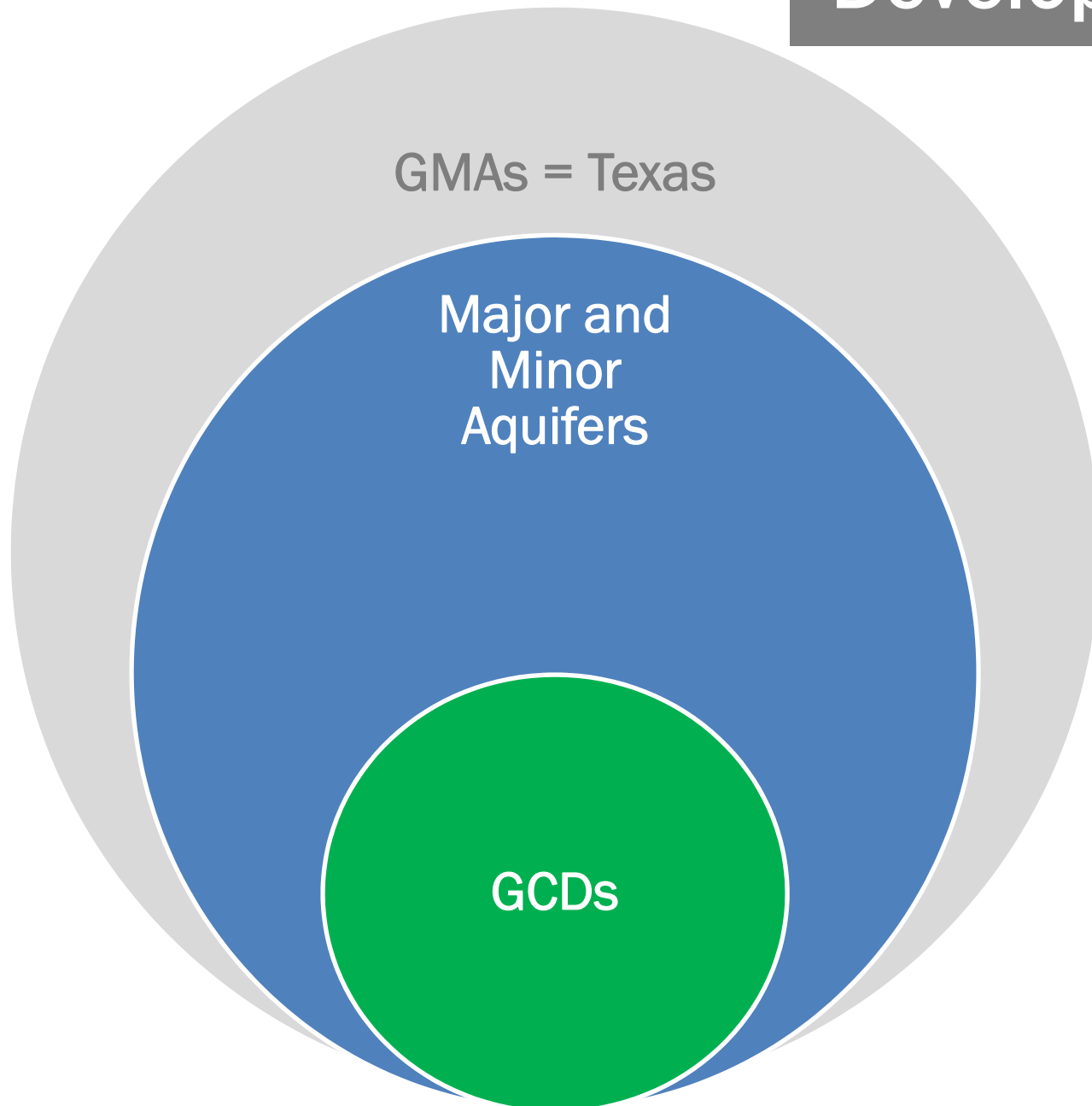
# Development of DFCs

GMA = Texas

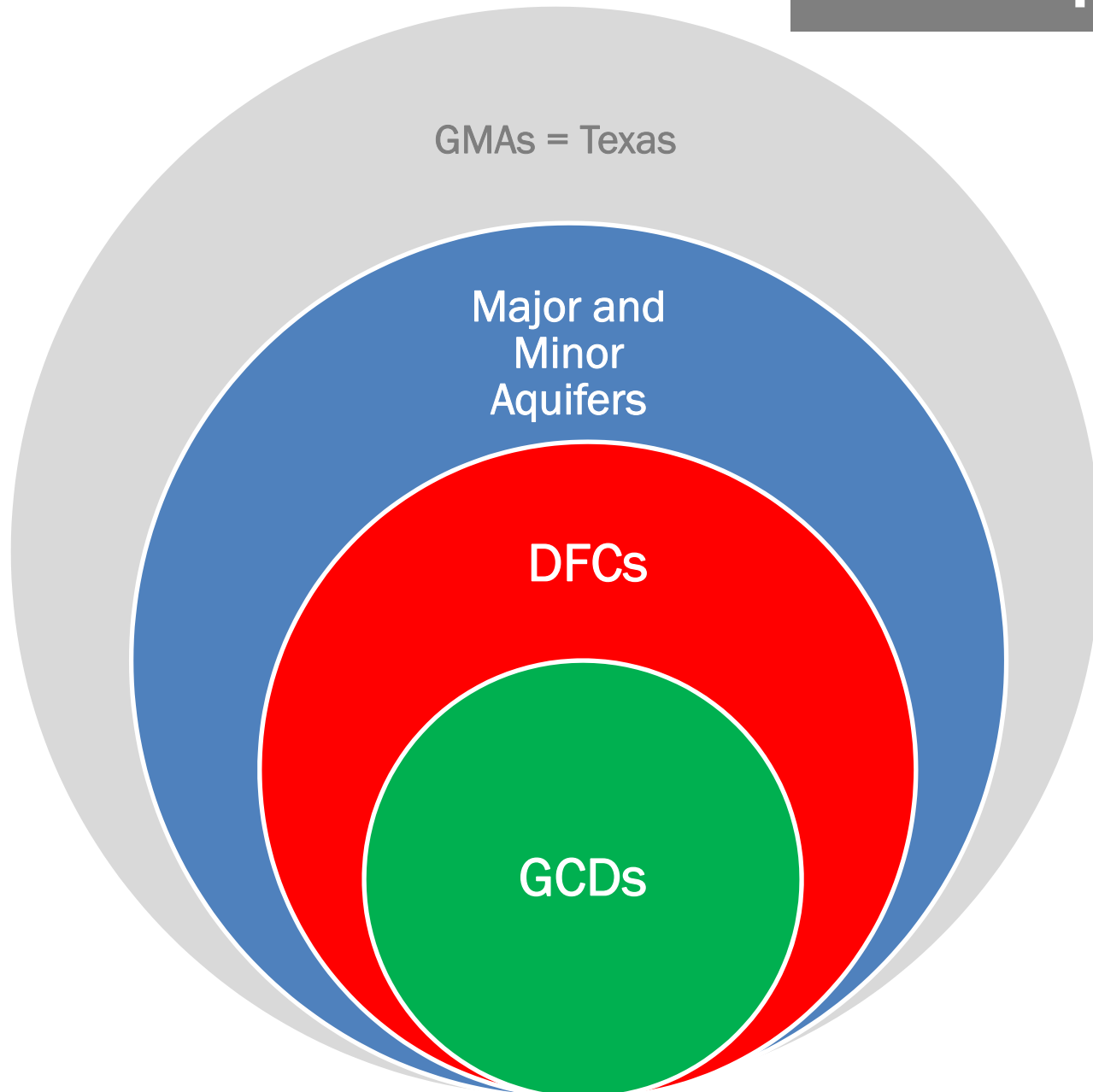
Major and Minor  
Aquifers



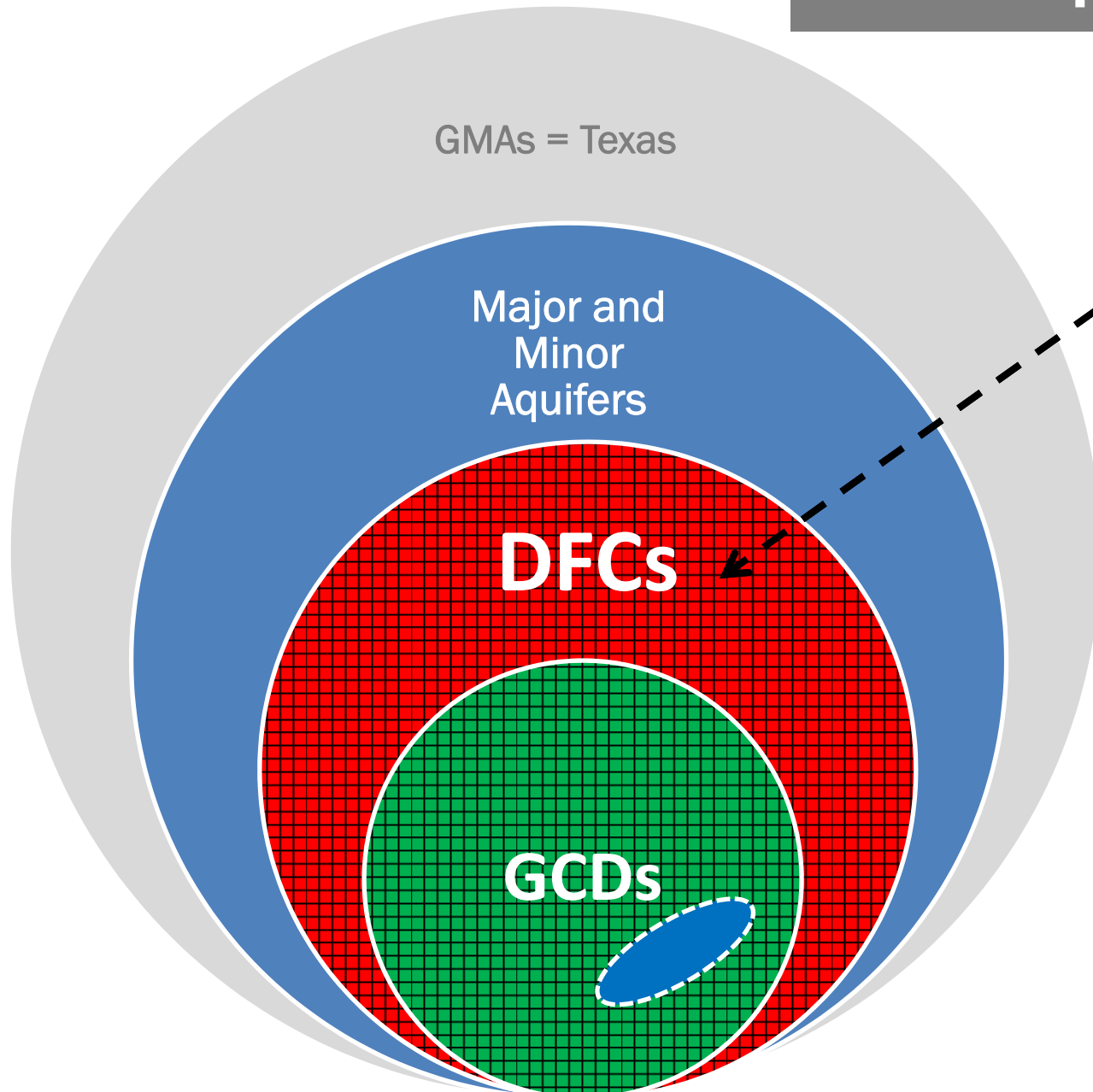
# Development of DFCs



# Development of DFCs

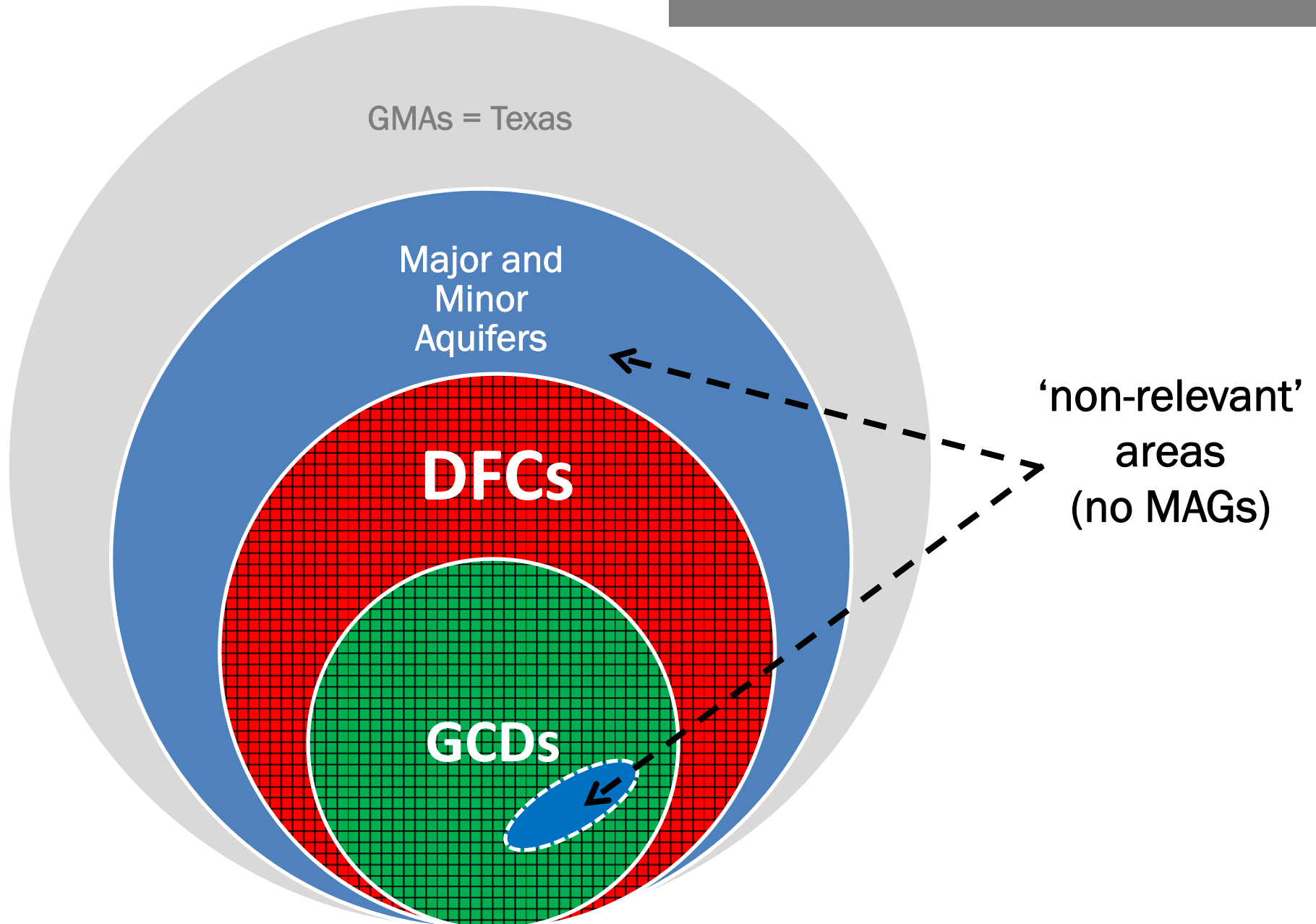


# Development of DFCs

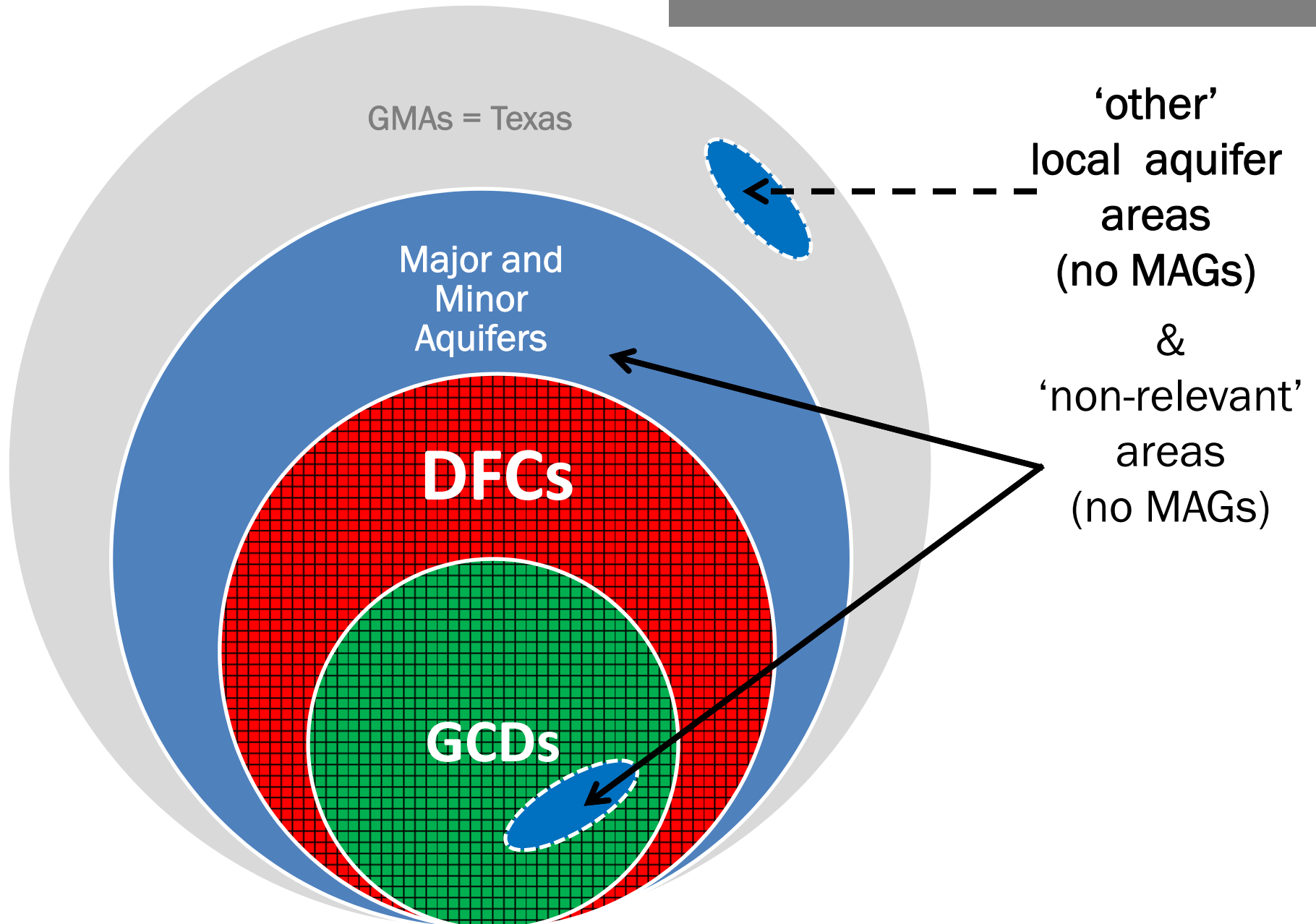


**Areas  
with  
MAGs**

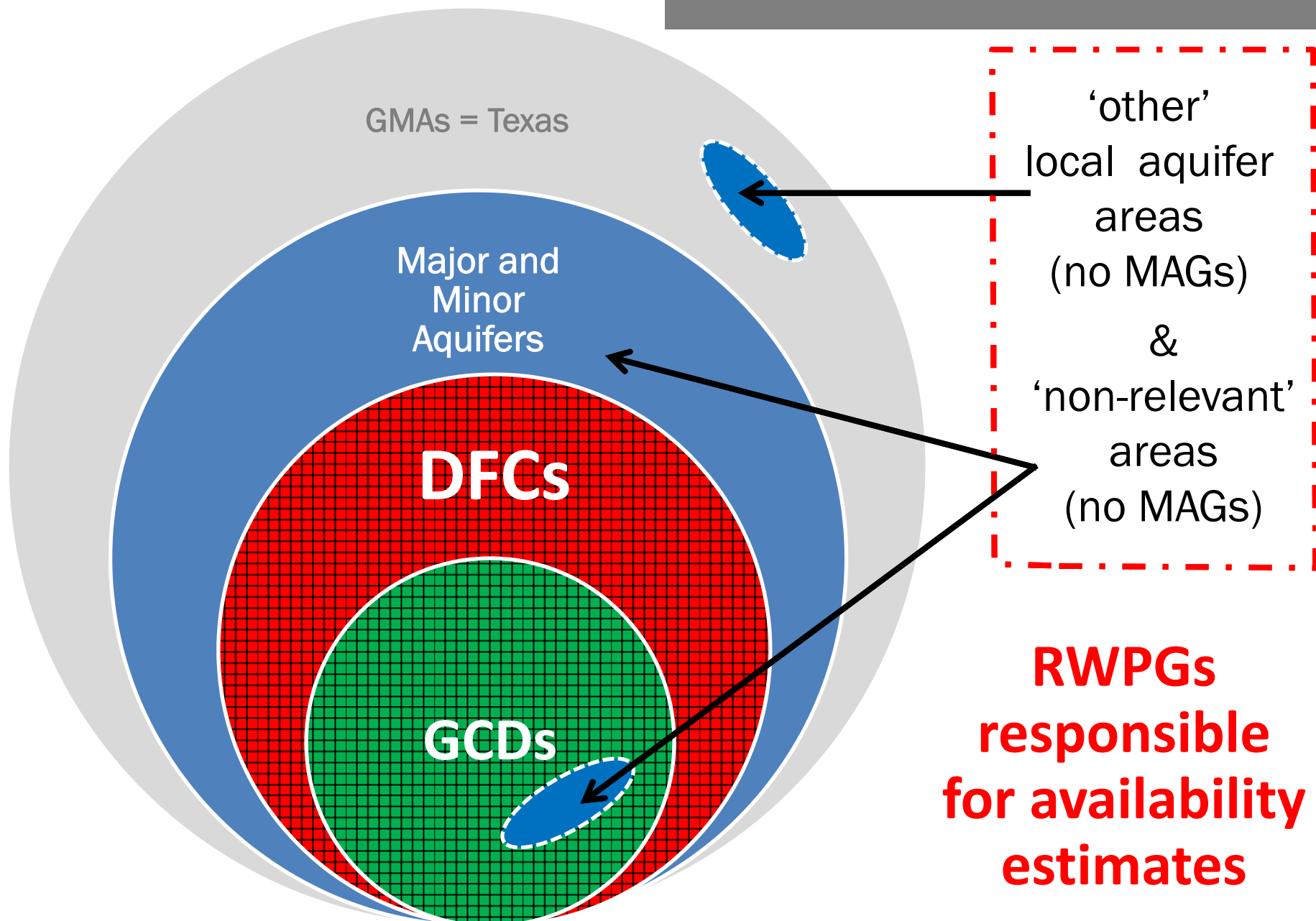
# Areas Without DFCs



# Areas Without DFCs



# Areas Without DFCs



## CHAPTER 4: ID of Water Needs

**Secondary needs analysis to be performed  
after recommending conservation and reuse**

- §357.33 (e)

**New REPORTING REQUIREMENT  
based on data already developed by RWPG  
- no new data or work required**

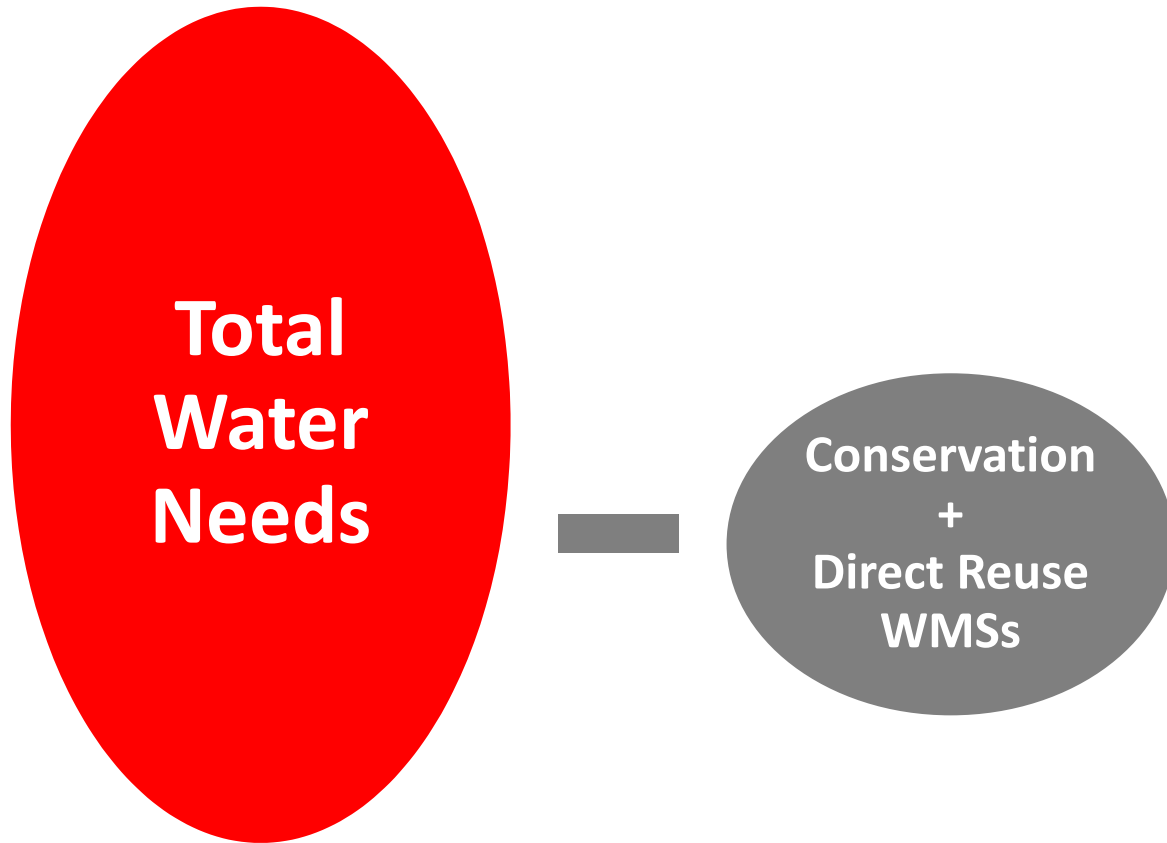


# Secondary Needs Analysis

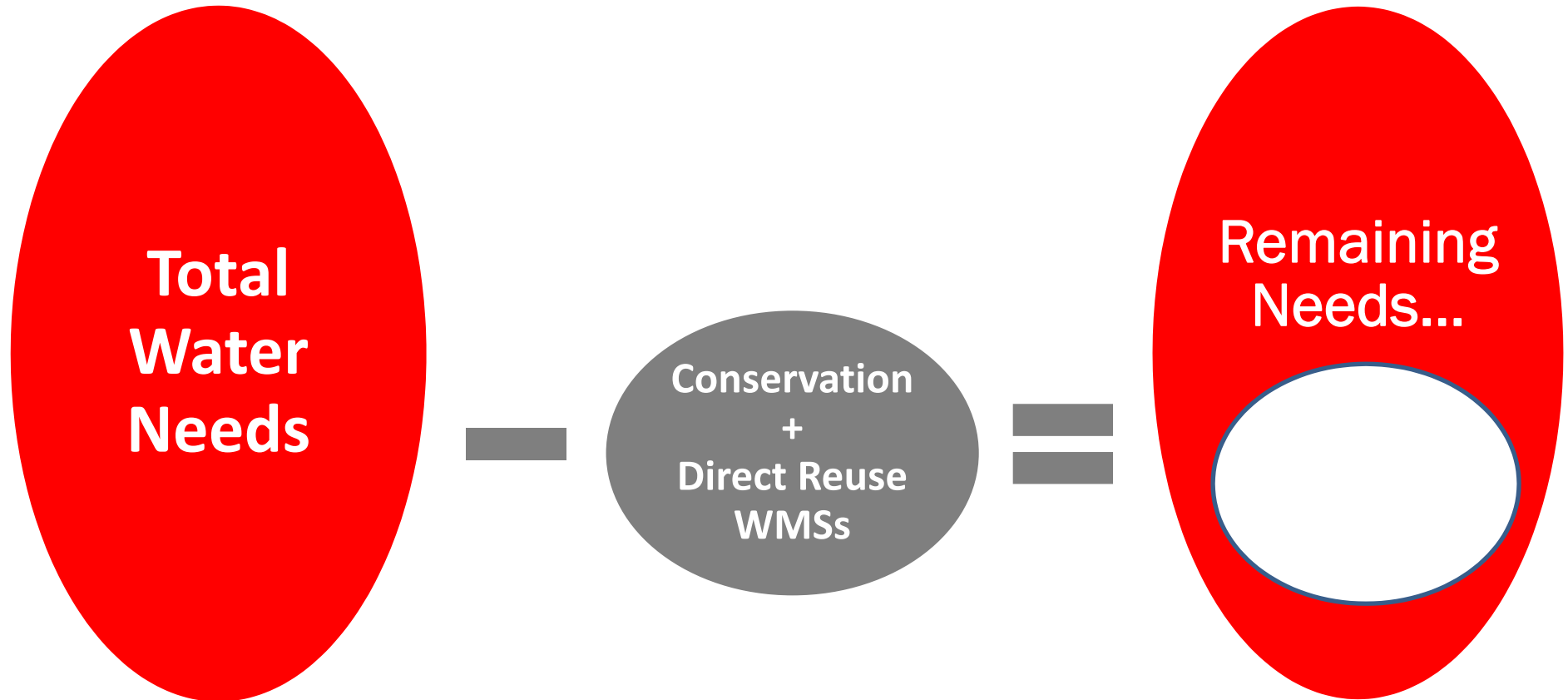


**Total  
Water  
Needs**

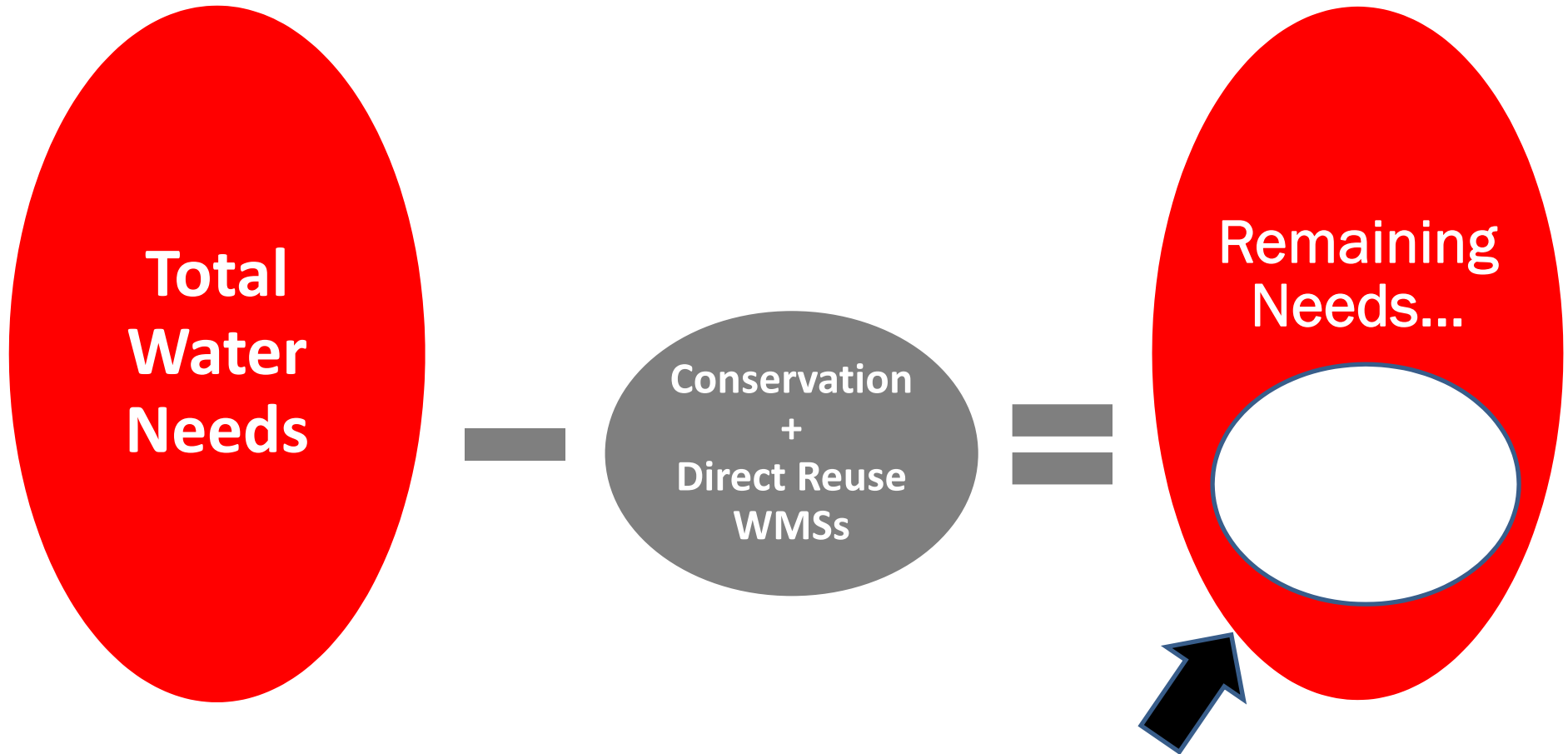
# Secondary Needs Analysis



# Secondary Needs Analysis



# Secondary Needs Analysis



**calculated by TWDB & presented in plans**

# Potentially Feasible, Evaluated, Recommended WMSs

## Chapter 5: WMSs

- a) TCEQ Environmental Flow Standards**
- b) potentially applicable BMPs**
- c) conservation sub-chapter**
- d) management supply factor (MSF)**
- e) other**

# Environmental Flow Stds

**a.) All WMSs must adhere to relevant adopted environmental flow standards**

*§357.34(d)(3)(B)*



# Environmental Flow Stds

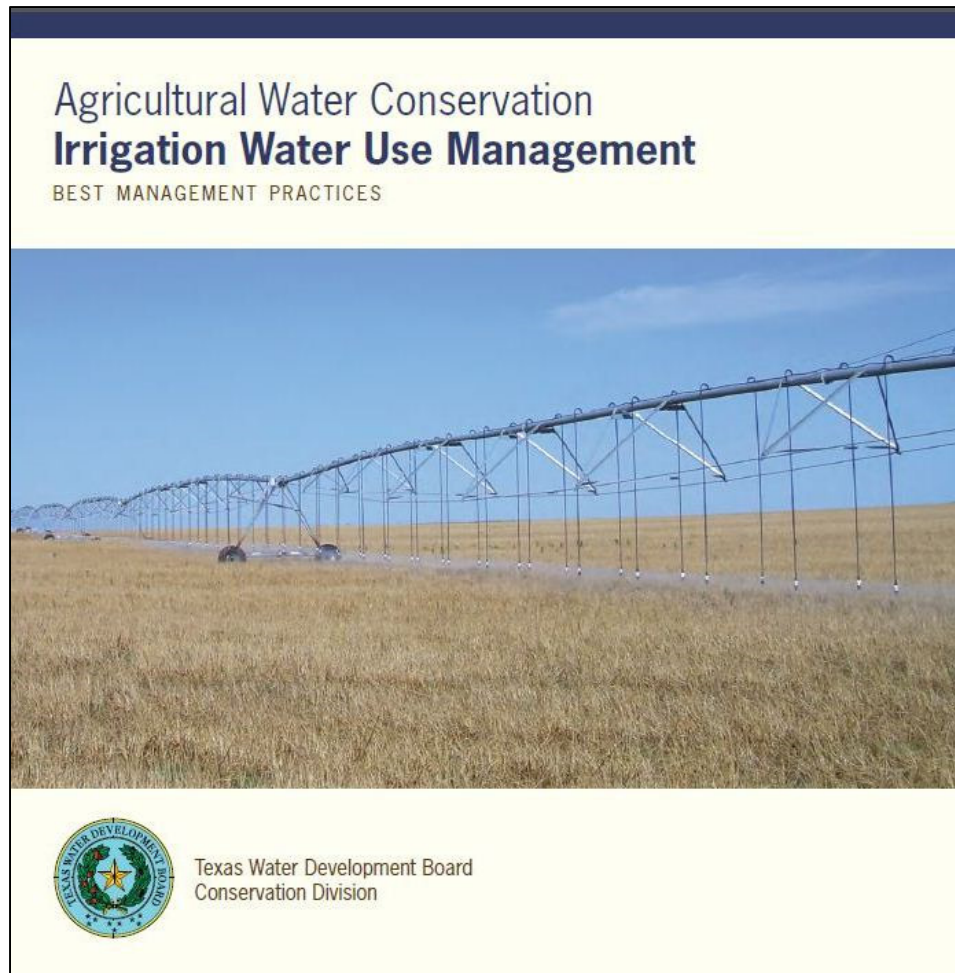


**site specific studies  
(when available)**

**apply the 1997 *“Consensus  
Criteria for Environmental Flow  
Needs”***



# Consider BMPs



**b.) Shall consider potentially applicable BMPs**

*§357.34(f)(2)*

## Conservation Sub-Chapter

**c.) All Conservation recommendations will be gathered into a Sub-Chapter**

*§357.34(g)*

**REORGANIZATION OF EXISTING PLAN  
CONTENT ONLY**

**- no new data or work required**

**d.) Report calculated planning  
'MSFs' - assuming all recommended  
WMSs are implemented.**

*§357.35(g)(2)*

**NEW REPORTING REQUIREMENT  
based on data already developed by RWPG  
- no new data or work required**

**MSF**

**Existing  
Supply +**

**WMS  
Supply**

**MSF**

**Existing  
Supply +**

**WMS  
Supply**

**DIVIDED BY**

**Total Demand**

MSF

Existing  
Supply +

WMS  
Supply

DIVIDED BY

Total Demand

**= 'management supply factor'**

MSF

Existing  
Supply +

WMS  
Supply

DIVIDED BY

Total Demand

- ***for each WUG***

Existing  
Supply +

WMS  
Supply

DIVIDED BY

Total Demand

- *for each WUG*
- *in each decade*



MSF

Existing  
Supply +

WMS  
Supply

DIVIDED BY

Total Demand

**provided by TWDB & presented in plans**

*(example 1)*

MSF

Existing  
Supply +

WMS  
Supply

Total Demand

*factor = 1.0*

*(example 2)*

MSF

Existing Supply  
+

WMS  
Supply

---

Total Demand

*factor > 1.0*

## Other Requirements

**brackish desal  
WMSs must fit  
within most  
MAGs**

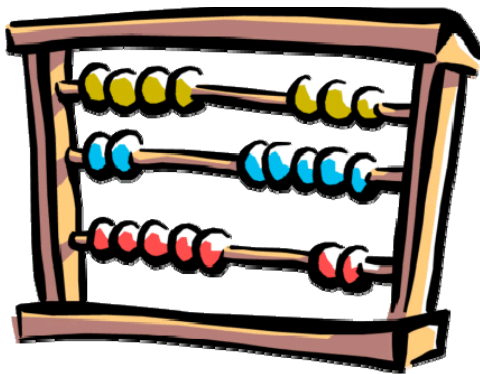


**NO GW  
overdrafts  
esp. MAGs**



## Other Requirements

**All WMS supply volumes must be firm during DOR**



**Costing tool for all WMSs**



## Other Requirements

- ✓ must include more details that go into WMS cost estimates
- ✓ must include estimate of anticipated water loss in WMS technical evaluations

## Other Requirements

**more detailed documentation  
of all WMS categories that  
were considered**      §357.34(c)

*reuse*  
*desalination*  
*reallocation*  
*emergency transfers*  
*conjunctive use*



## CHAPTER 6: Plan Impacts & Consistency

**RWPs shall include a summary of the identified remaining unmet needs**

*§357.40(c)*

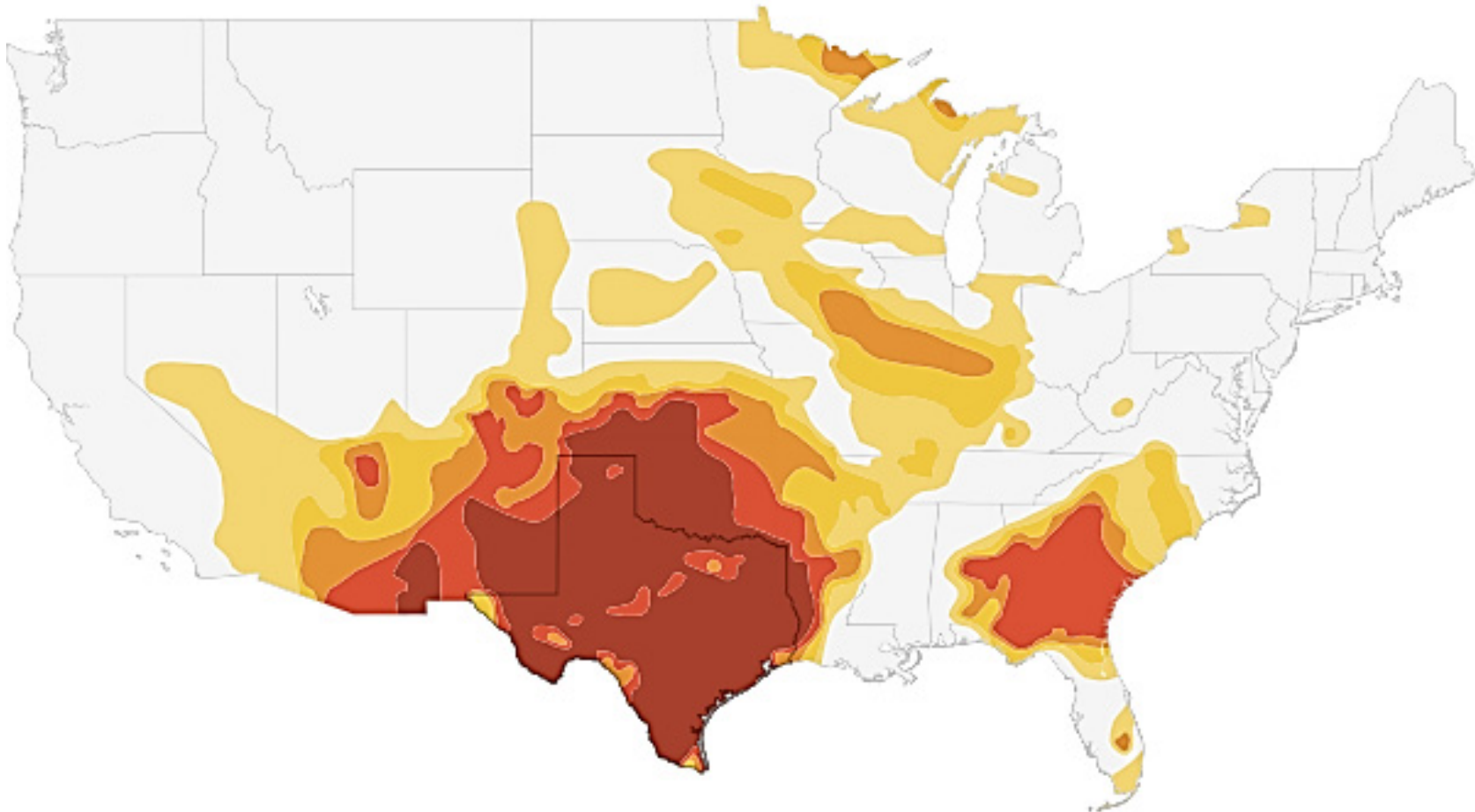
### ***New REPORTING REQUIREMENT ONLY***

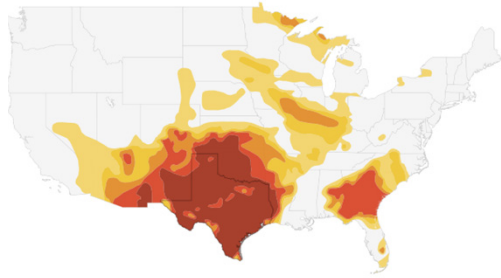
- TWDB to calculate & provide***
- By WUG category & decade***
- Municipal WUGs individually***



# Chapter 7: Drought Response Information, Activities, and Recommendations

## ***A NEW CHAPTER IN ALL PLANS***

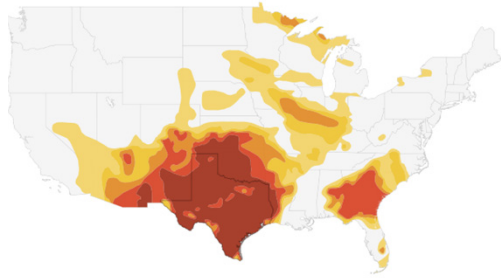




## Ch. 7 – Background

As a result of the 2011 drought, TCEQ and TDEM provided input on rules based on:

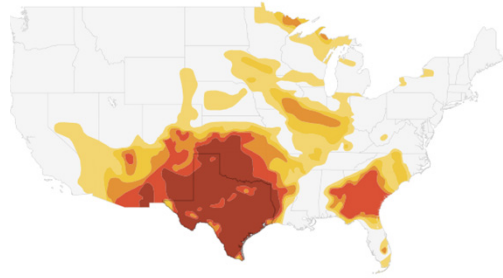
- **number of water systems in danger of running out of water**
- **lack of implementation of DCPs**
- **lack of information on local options for water in emergency situation**
- **poor local coordination**



## Ch. 7 – Background

Rule changes in response to the 2011 drought will require RWPGs to:

- **collect, analyze, & consider additional information**
- **make additional recommendations**



## Ch. 7 – New Requirements

- a) recommendations for each existing source**
  - §357.42(c),(i)(2) (triggers and responses)
  
- b) emergency responses to local conditions**
  - §357.42(g) (7,500 population or less; single source)
  
- c) develop region-specific model DCPs -§357.42(j)**
  
- d) recommendations to the State Drought Preparedness Council - §357.42(i)**

*more later.....*

## Ch. 11: Implementation & Comparison

### ***A NEW CHAPTER IN ALL PLANS***

- i. **progress on 2011 plan WMSs**
- ii. **comparison to the previous regional water plan**



## i. Determine level of implementation of 2011 plans §357.45(a)

- *survey of sponsors of 2011 WMSs*
- *survey tool to be provided by TWDB*

### **STATUS:**

*under study?*  
*land acquired?*  
*permitted?*  
*constructed?*



# Comparison

## ii. Comparison to previous plan §357.45(b)

2011 plan



- *projections*
- *water availability*
- *existing supplies*
- *needs*
- *recommended WMSs*

2016 plan



## New Regional Plan Content

- electronic appendices to include **full WAM input files** used to determine SW availability including dates of model runs
- technical memorandum prior to draft plan



# New Regional Plan Content

## 2016 plans to incorporate several standardized database reports

- *reduce costs*
- *consistently report required data*
- *facilitate compliance with rules*
- *facilitate reviews and SWPlan development*
- *comply with agency audit finding*

**compiled by TWDB – presented in plans**

# Questions?

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[www.twdb.texas.gov](http://www.twdb.texas.gov)

**Texas Water**  
**Development Board**

The logo for the Texas Water Development Board, featuring a stylized graphic of three curved lines representing water or waves to the right of the text.