

# Regional and State Water Planning in Texas

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Presented at the Milam & Burleson Counties Groundwater Summit  
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*Unless specifically noted, this presentation does not necessarily reflect official Board positions or decisions*

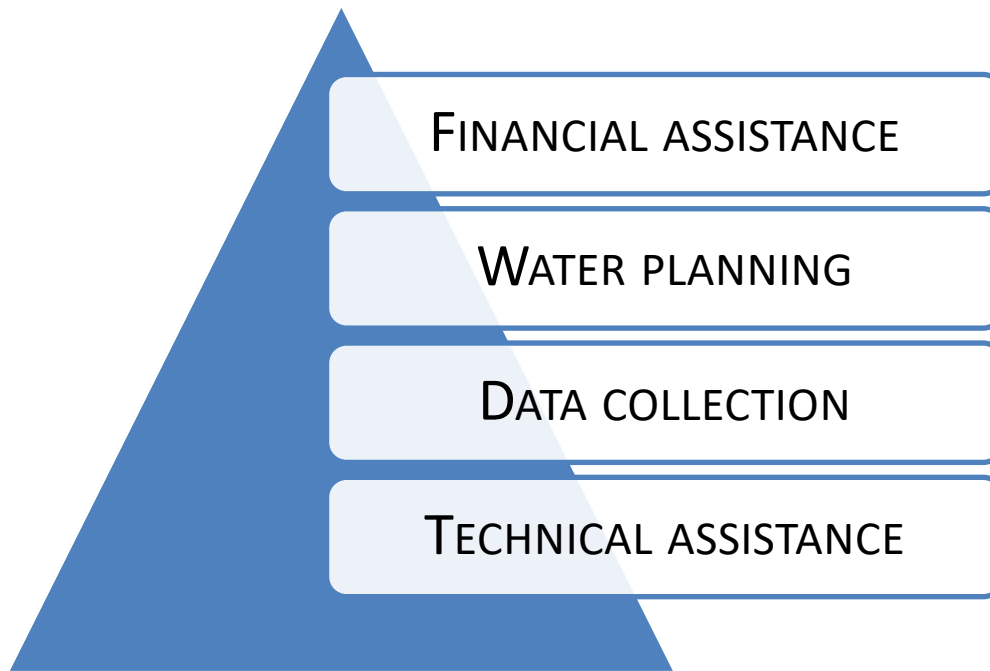
# Outline

- Background of state and regional water planning
- Regional and state water planning process
- Interactive State Water Plan

# Texas Water Development Board

## Mission:

To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas



# Legislative Response to Drought

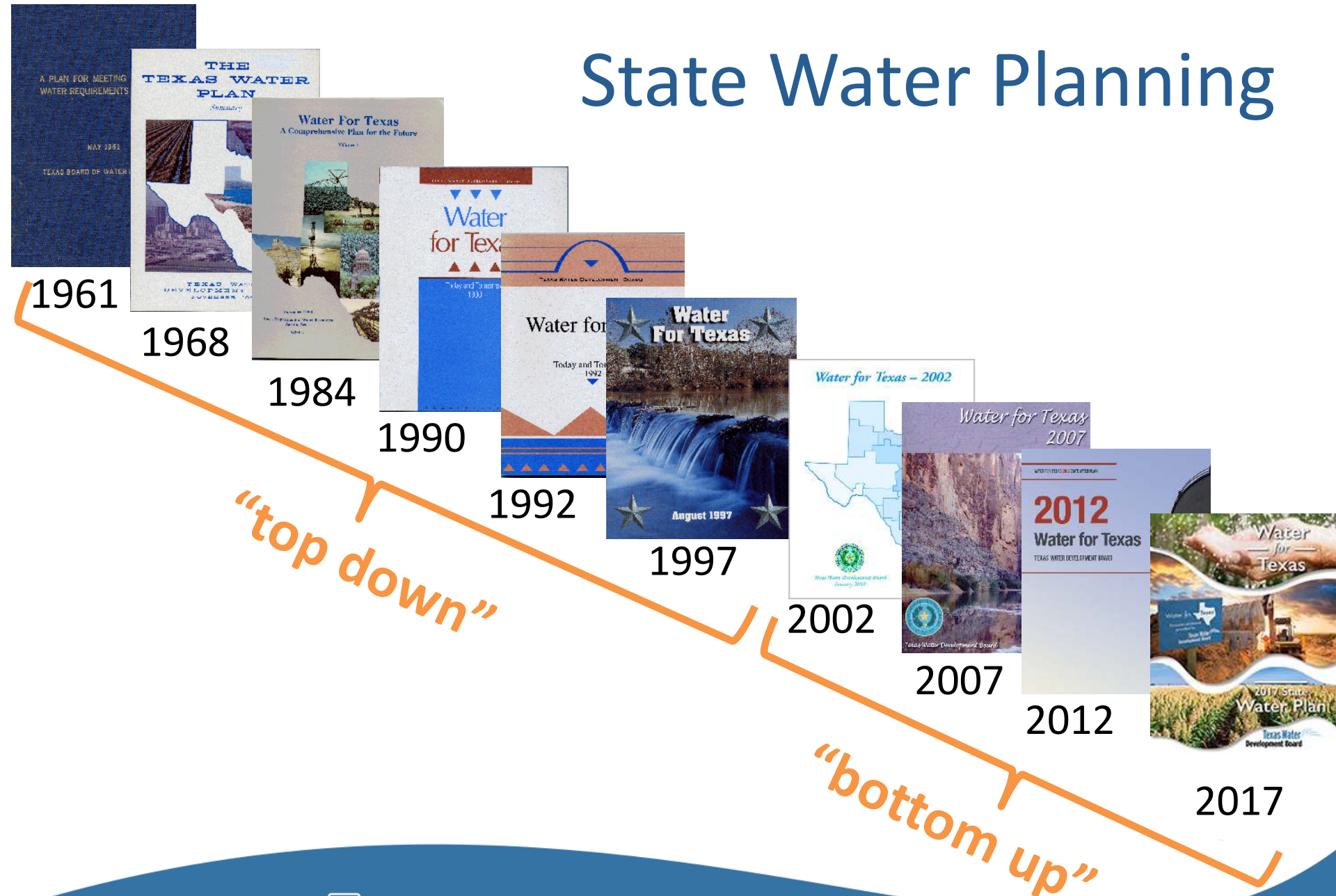
## 1950s – Drought of Record

- 1957: Creation of TWDB
- \$200 million in Water Development Fund

## 1997 – Senate Bill 1

- Provide for the orderly development, management, and conservation of water resources
- Prepare for and respond to drought conditions
- Make sufficient water available at a reasonable cost to ensure public health, safety, and welfare and further economic development while protecting the agricultural and natural resources of the entire state

# State Water Planning



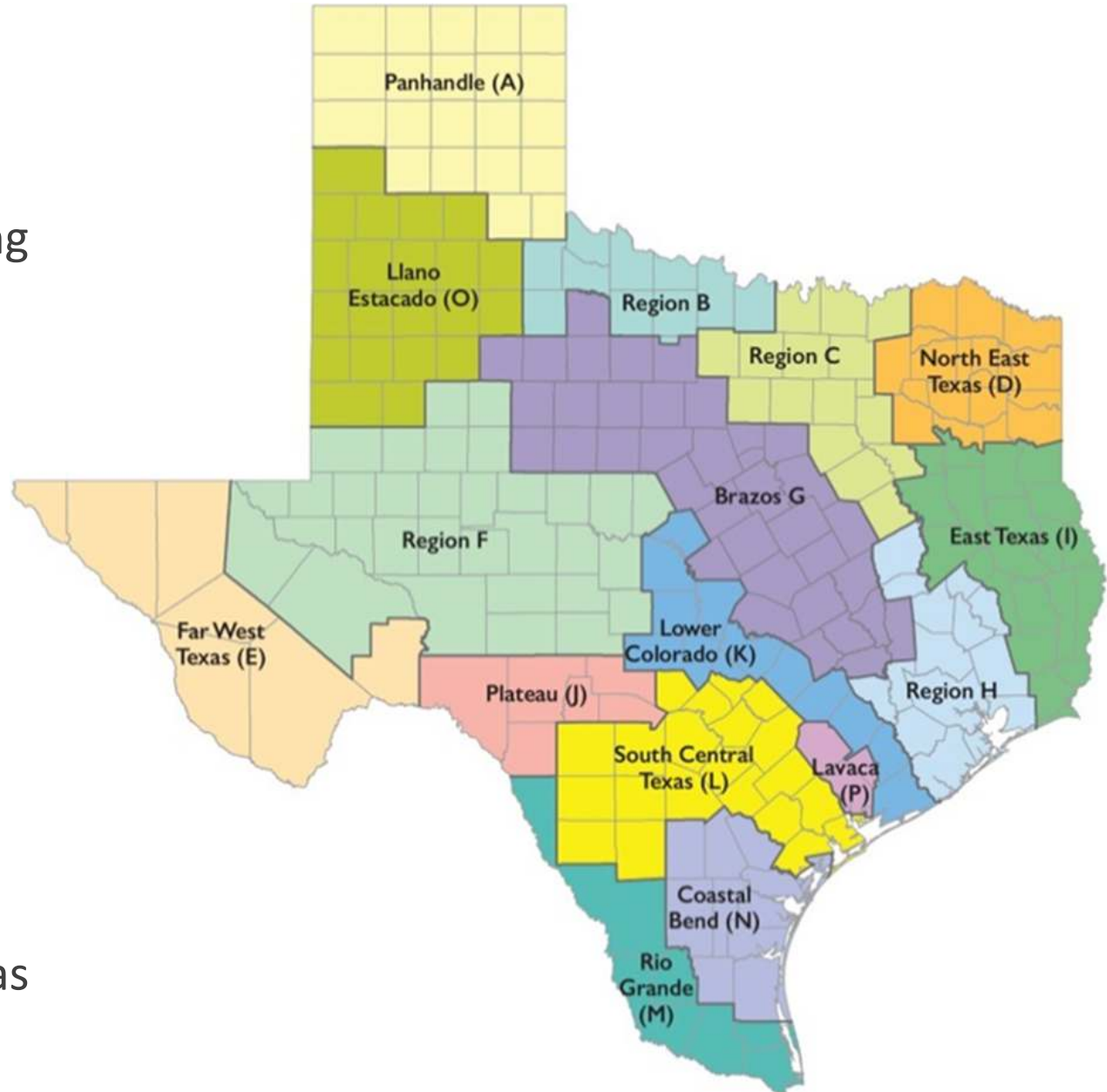
# Regional Water Planning

- Bottom-up approach to planning for future water needs
- Coordinated by 16 planning groups
- Regional water plans developed every 5-years



# RWPGs and Interest Categories

- Public
- Counties
- Municipalities
- Electric-generating utilities
- River authorities
- Industries



- Agriculture
- Environment
- Small businesses
- Water districts
- Water utilities
- Groundwater management areas



# How Do Planning Groups Function?

- Designate a host political subdivision
- Select technical consultants
- Apply to the TWDB for regional water planning grant funding
- Self-govern (maintain own bylaws and membership)
- Conduct business during open meetings



# How Do Planning Groups Function?

- Consider stakeholder input and make decisions in accordance with bylaws
- Submit a draft plan and data to the TWDB for review
- Adopt a final plan and submit to the TWDB for approval
- Planning groups are planning entities!

# Planning (in a nutshell)

- How many Texans there will be?
- How much water will we require?
- How much water do we have?
- Do we have enough water?
- What can we do to get more water?
- How much will it cost?

# Basic Planning Parameters

- Water supply plans based on DROUGHT conditions
- 50-year planning horizon
- 5-year planning cycle
- 6 categories of water use: municipal, manufacturing, mining, irrigation, livestock, and steam-electric power

# How Do We Plan?

How many Texans there  
will be?



Population projections

How much water will we  
require?



Water demand  
projections

# How Do We Plan?

How much water do we have?



Quantify water supplies:  
Surface water,  
Groundwater, and Reuse

Do we have enough water?



Identify surpluses and needs (potential shortages)

# How Do We Plan?



# How Do We Plan?

What can we do to get more water?



Evaluate and recommend water management strategies and projects

How much will it cost?



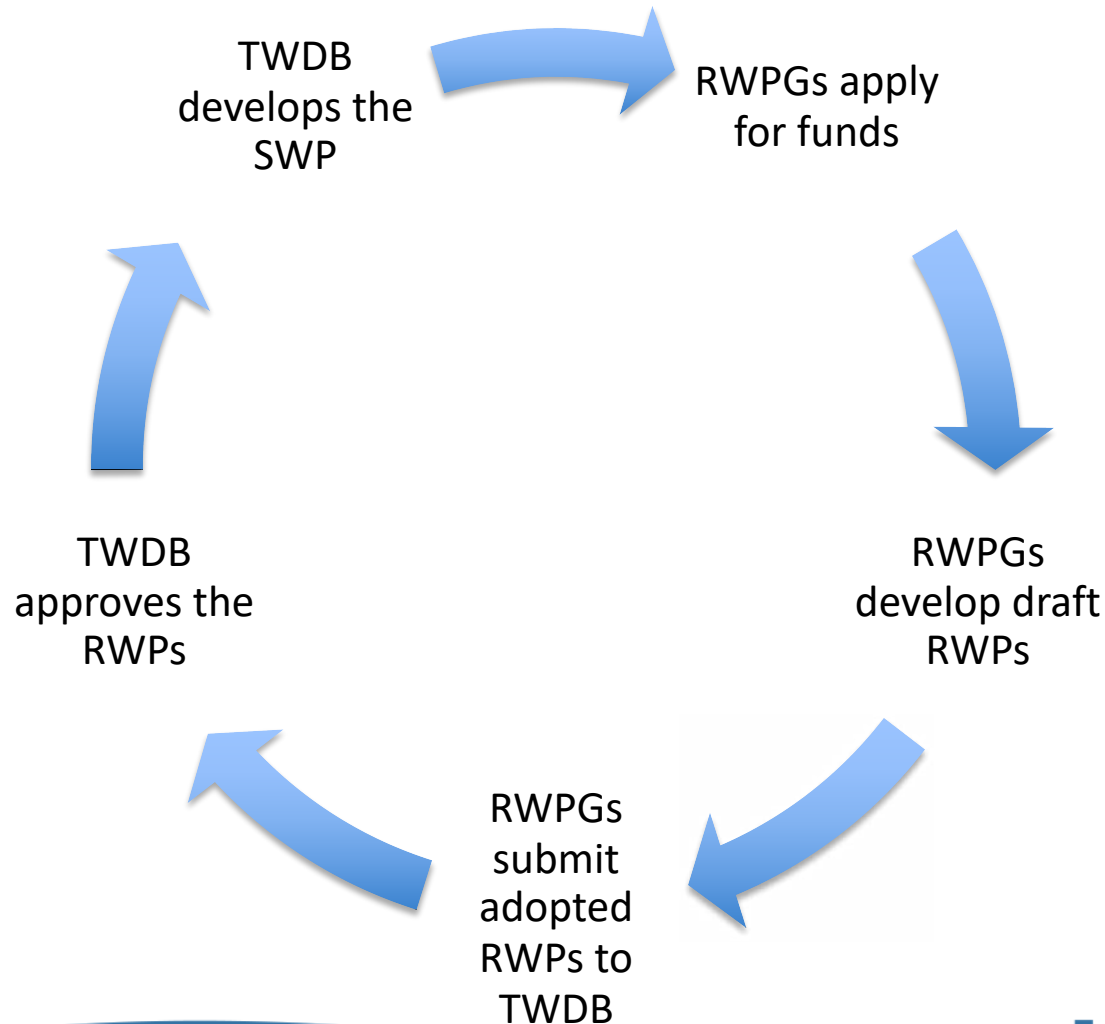
Capital costs of projects



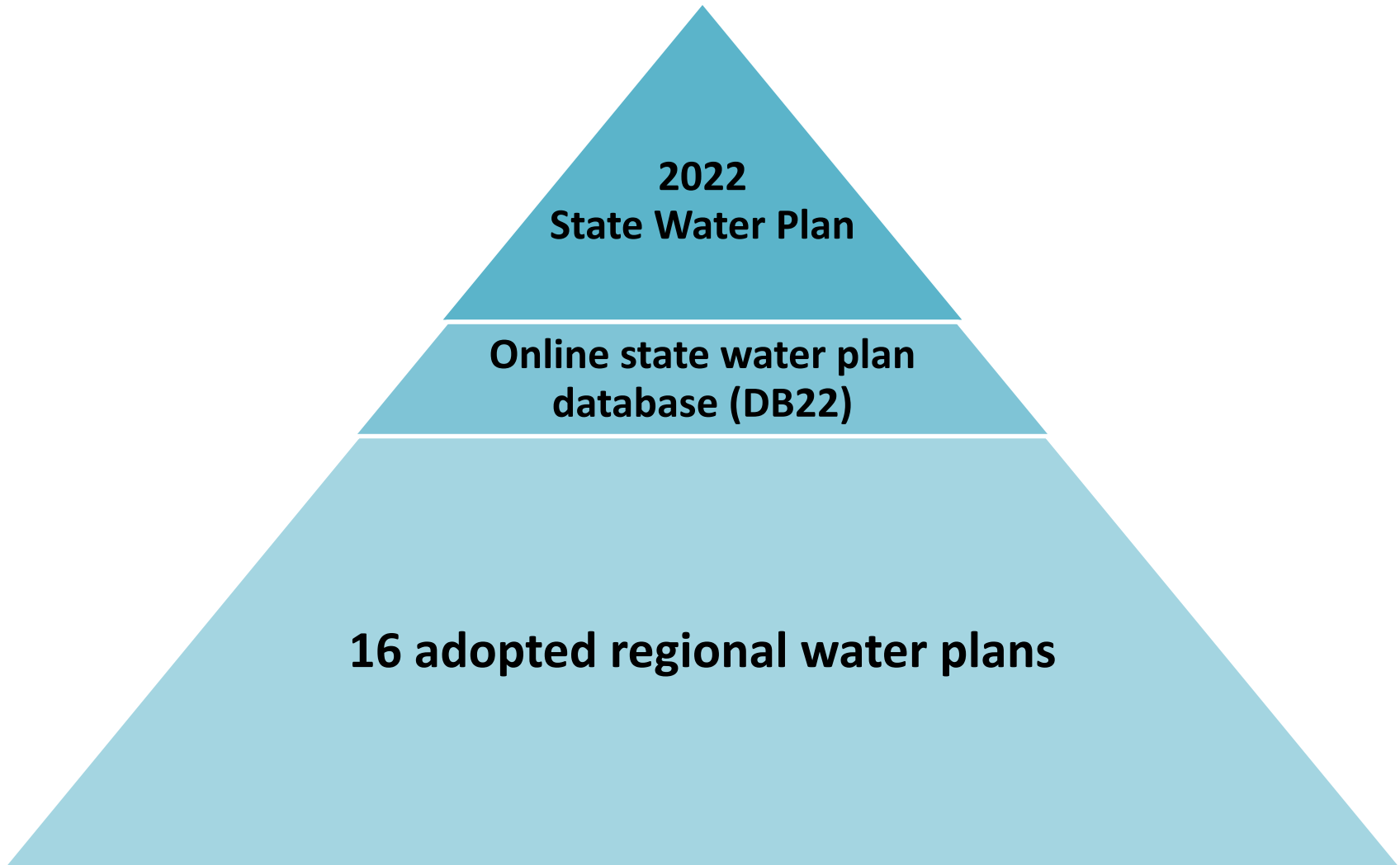
# Other Items Included in RWPs

- Description of the planning area
- Drought response information and recommendations
- Policy recommendations
- Infrastructure financing survey
- Implementation survey and comparison to previous regional water plan

# Regional and State Planning Cycle



# Bottom Up Approach



# Audience

- The State Water Plan is delivered to the Governor, the Legislature, and the public
- Key aspects for their consideration
  - Long-term projections of water supplies, demands, and needs
  - Project costs and funding needs
  - Policy recommendations

# Incentives to Participate

## TWDB funding

- Projects must be recommended in the SWP for SWIFT
- Projects must be consistent for other funding programs

## TCEQ surface water right permitting

- Must be consistent with the SWP



# Snapshot of the 2017 State Water Plan

**5,500** strategies



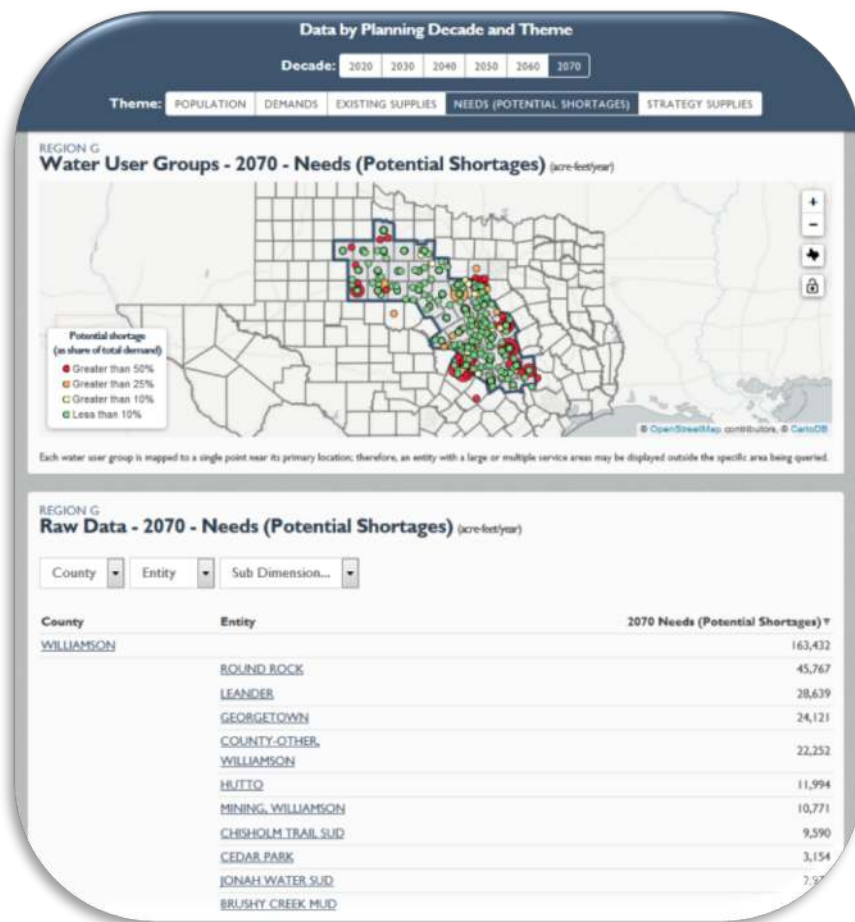
**2,500** projects



**Capital cost of \$62.8 billion**



# Interactive State Water Plan



“Geo-enables”  
information from the 2017  
State Water Plan

- Transparent
- Interactive
- Integrated

[texasstatewaterplan.org](http://texasstatewaterplan.org)

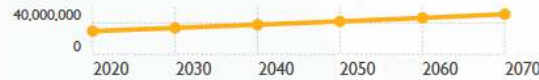


View data for All of Texas

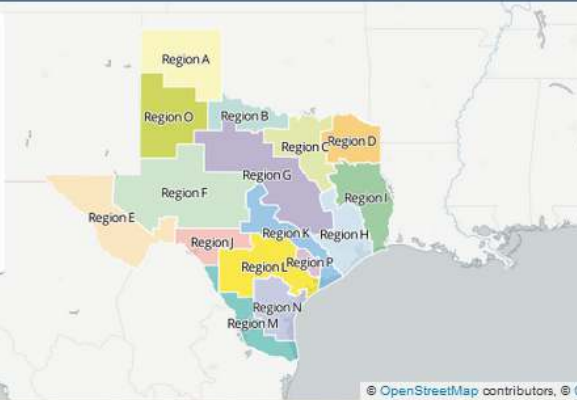
GO

## TEXAS

### Population



SHOW DATA TABLE



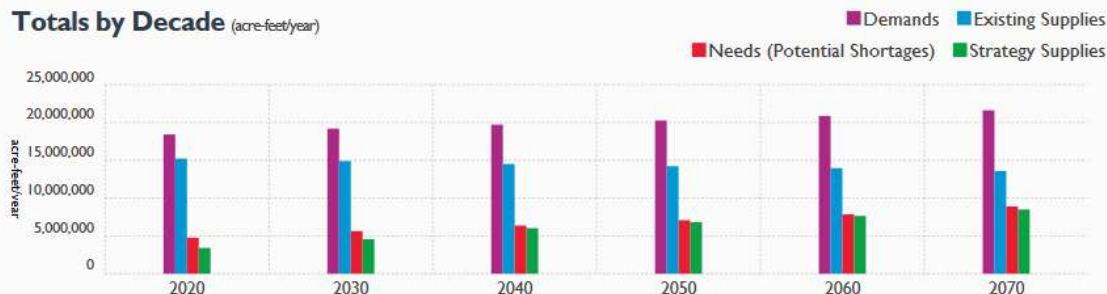
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Development of the state water plan is central to the mission of the Texas Water Development Board. Based on 16 regional water plans, the plan addresses the needs of all water user groups in the state – municipal, irrigation, manufacturing, livestock, mining, and steam-electric power – during a repeat of the drought of record that the state suffered in the 1950s. The regional and state water plans consider a 50-year planning horizon: 2020 through 2070.

This website lets water users statewide take an up-close look at data in the 2017 State Water Plan and how water needs change over time by showing:

- projected water demands,
- existing water supplies,
- the relative severity and projected water needs (potential shortages),
- the water management strategies recommended to address potential shortages, and
- recommended capital projects and their sponsors.

### Totals by Decade (acre-feet/year)



2017

# Texas State Water Plan by the Texas Water Development Board



View data for

All of Texas

GO

TEXAS

Population

40,000,000

0

20

All of Texas

Planning Region

County

Water User Group

Usage Type

Water Source

WMS Project

050

2060

2070

SHOW DATA TABLE

Region A

Region O

Region B

Region C

Region D

Region G

Region F

Region E

Region I

Region J

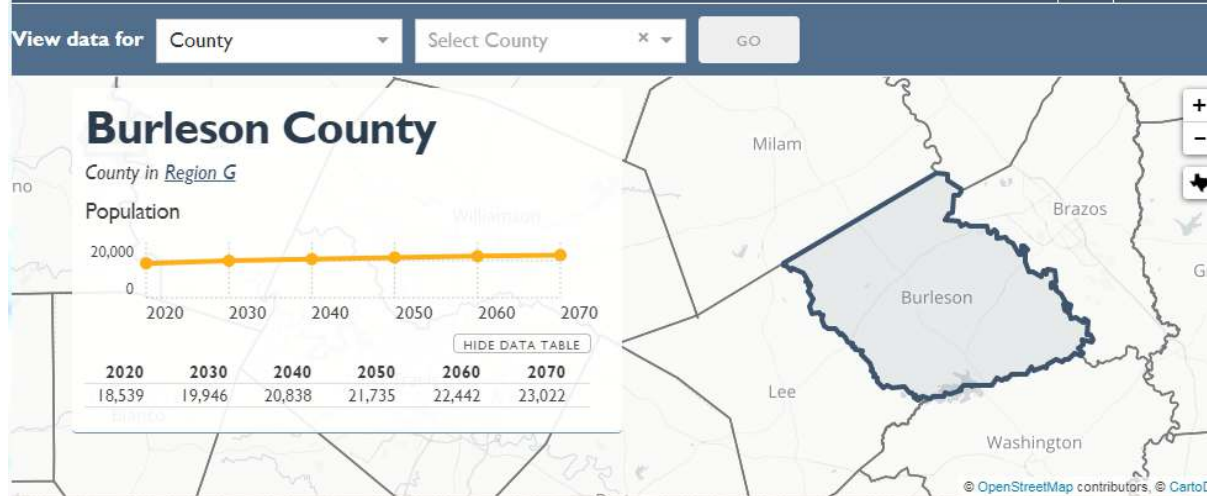
Region K

Region H

Region P

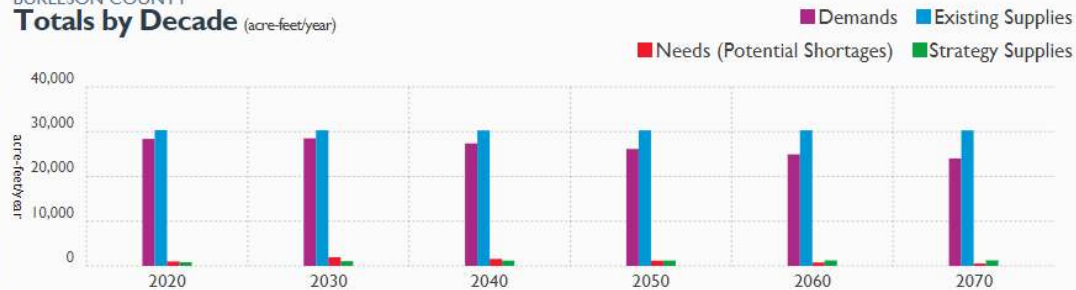
Region N

Region M



### BURLESON COUNTY

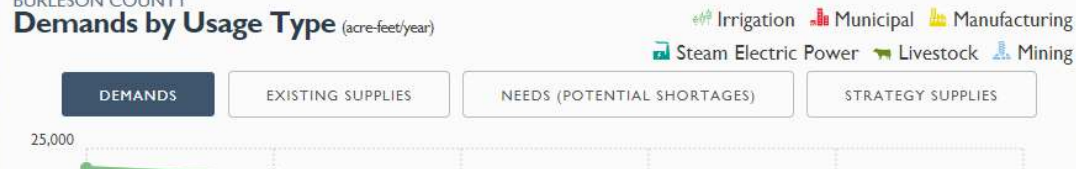
#### Totals by Decade (acre-feet/year)



	2020	2030	2040	2050	2060	2070
Demands	28,395	28,510	27,374	26,136	24,929	24,022
Existing Supplies	30,356	30,319	30,287	30,300	30,309	30,304
Needs (Potential Shortages)	995	1,945	1,556	1,164	768	530
Strategy Supplies	836	1,067	1,177	1,203	1,229	1,233

### BURLESON COUNTY

#### Demands by Usage Type (acre-feet/year)



BURLESON COUNTY

## Recommended Projects Serving Area of Interest

Total capital cost of recommended projects: **\$7,982,000.**

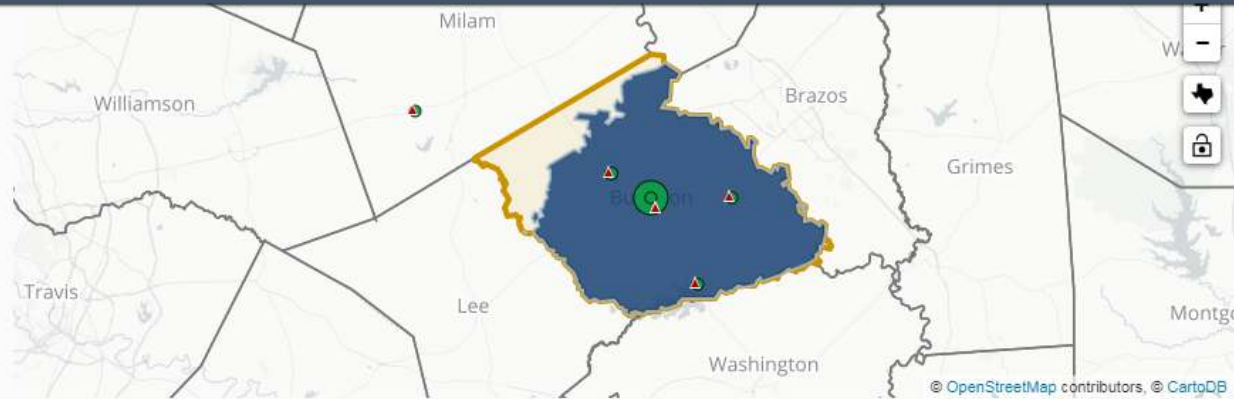
Project ▲	Decade Online	Sponsor	Capital Cost
<u>MUNICIPAL WATER CONSERVATION (RURAL) - SNOOK</u>	2020	SNOOK	\$378,000
<u>MUNICIPAL WATER CONSERVATION (RURAL) - SOUTHWEST MILAM WSC</u>	2020	SOUTHWEST MILAM WSC	\$137,000
<u>MUNICIPAL WATER CONSERVATION (SUBURBAN) - CALDWELL</u>	2020	CALDWELL	\$967,000
<u>MUNICIPAL WATER CONSERVATION (SUBURBAN) - SOMERVILLE</u>	2020	SOMERVILLE	\$102,000
<u>SPARTA AQUIFER DEVELOPMENT-BURLESON COUNTY MANUFACTURING</u>	2020	MANUFACTURING (BURLESON)	\$932,000
<u>SPARTA AQUIFER DEVELOPMENT-BURLESON COUNTY MINING</u>	2020	MINING (BURLESON)	\$5,466,000



## Data by Planning Decade and Theme

Decade: 2020 2030 2040 2050 2060 2070

Theme: POPULATION DEMANDS EXISTING SUPPLIES NEEDS (POTENTIAL SHORTAGES) **STRATEGY SUPPLIES**



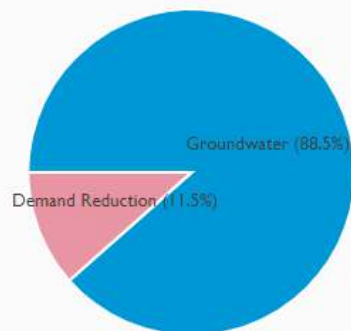
Each water user group is mapped to a single point near its primary location; therefore, an entity with a large or multiple service areas may be displayed outside the specific area being queried.

Red triangles indicate capital projects associated with strategy supplies that have been assigned to a Water User Group. [Hide Projects](#)

### BURLESON COUNTY

#### Strategy Supplies Breakdown - 2020 (acre-feet/year)

##### Share by Water Resource



##### Share by Strategy Type

Strategy Type	Amount ▼
<u>GROUNDWATER WELLS &amp; OTHER</u>	88.5% (740)
<u>MUNICIPAL CONSERVATION</u>	7.4% (62)
<u>OTHER CONSERVATION</u>	4.1% (34)

### Data by Planning Decade and Theme

Decade:
2020
2030
2040
2050
2060
2070

Theme:
POPULATION
DEMANDS
EXISTING SUPPLIES
NEEDS (POTENTIAL SHORTAGES)
STRATEGY SUPPLIES

BURLESON COUNTY

#### Raw Data - 2020 - Strategy Supplies (acre-feet/year)

WMS Type
Source
Entity
Sub Dimension...

WMS Type	Source	Entity	2020 Strategy Supplies
<u>GROUNDWATER WELLS &amp; OTHER</u>			740
	<u>SPARTA AQUIFER   BURLESON</u>		740
		<u>MANUFACTURING, BURLESON</u>	0
		<u>MINING, BURLESON</u>	740
<u>MUNICIPAL CONSERVATION</u>			62
	<u>DEMAND REDUCTION</u>		62
		<u>CALDWELL</u>	40
		<u>SNOOK</u>	11
		<u>SOMERVILLE</u>	8
		<u>SOUTHWEST MILAM WSC</u>	3
<u>OTHER CONSERVATION</u>			34
	<u>DEMAND REDUCTION</u>		34
		<u>MANUFACTURING, BURLESON</u>	4
		<u>MINING, BURLESON</u>	30

Download Data

- [Download Burleson County Population data \(Comma-Separated Values\)](#)
- [Download Burleson County Demands data \(Comma-Separated Values\)](#)

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# Questions?

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