





2016 SOUTH CENTRAL TEXAS (REGION L) INITIALLY PREPARED PLAN

Public Hearings



***June 8, 2015 – San Antonio
June 10, 2015 – San Marcos
June 11, 2015 – Victoria***

www.regionltexas.org





Regional Water Planning Senate Bill 1

- In 1997, the 75th Texas Legislature enacted Senate Bill 1 calling for increased public involvement in preparing the State Water Plan.
- A major impetus behind this legislation was the 1996 drought.
- Senate Bill 1 was signed into law by Governor Bush in June 1997.

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Interests Represented on Planning Groups

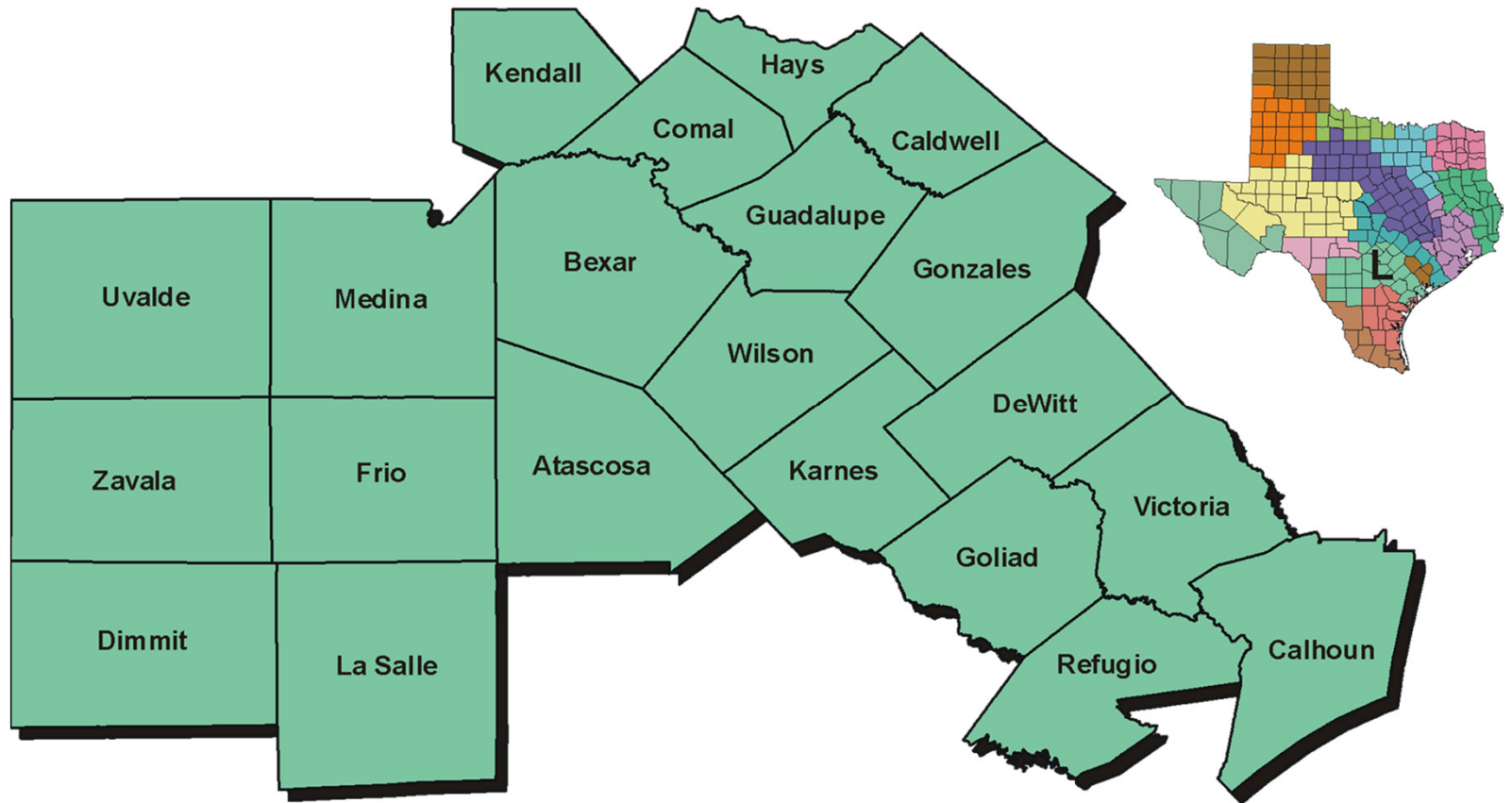
- Public
- Counties
- Municipalities
- Industry
- Agriculture
- Environment
- Small Business
- Electric Generating Utilities
- River Authorities
- Water Districts
- Water Utilities
- Groundwater Management Areas

30 Planning Group Members

Planning Cycles

- Regional and state water plans are prepared in five year cycles.
- The first Region L water plan was completed in 2001 and updated in 2006 and 2011.
- The South Central Texas Regional Water Planning Group is currently working on the 2016 Region L Water Plan. An Initially Prepared 2016 Region L Water Plan was issued for public comment on May 1, 2015.

South Central Texas Planning Region (Region L)

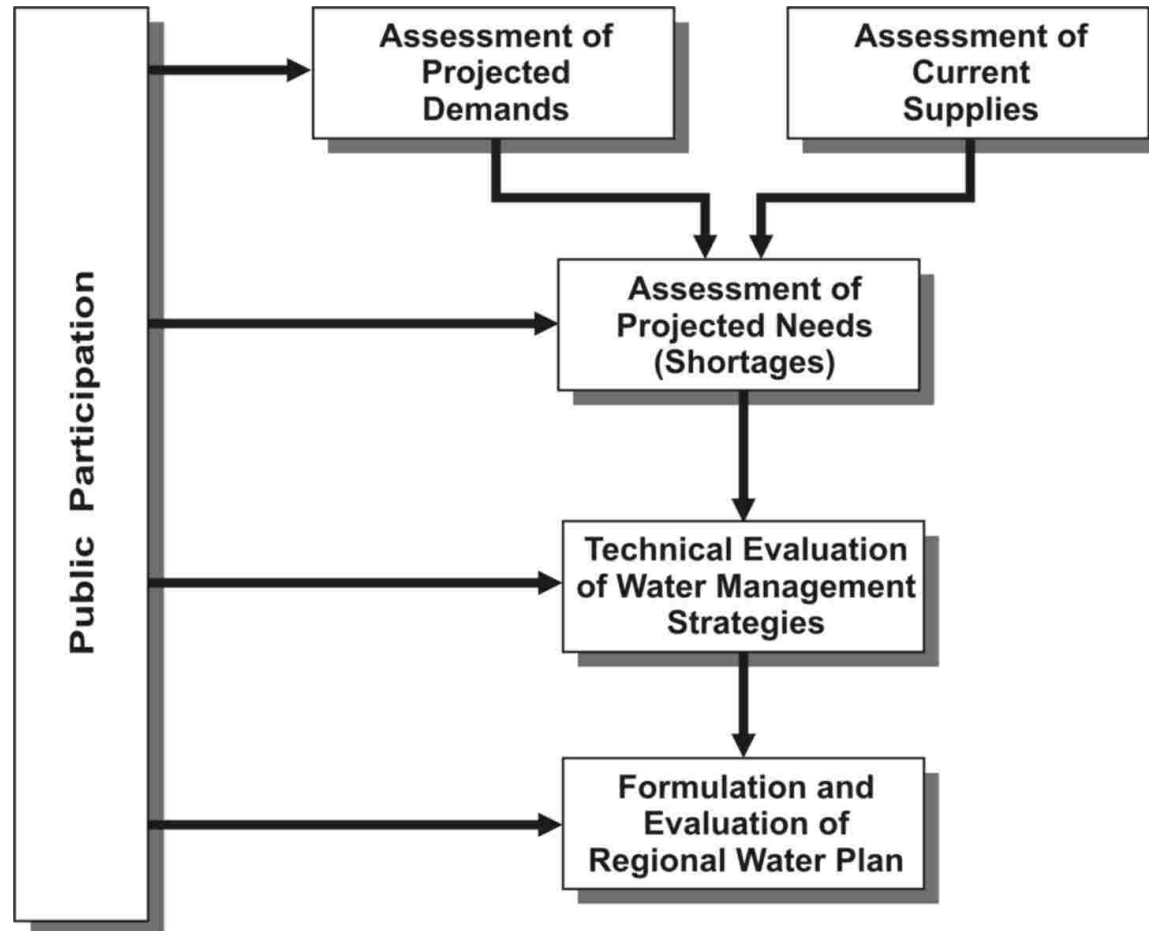


Regional Planning Process

- 50 year planning period.
- Project population.
- Project drought water demand for municipal, industrial, steam-electric power generation, irrigation, mining, and livestock uses.
- Quantify existing reliable water supplies.
- Calculate needs for additional water supplies.
- Evaluate and recommend water management strategies to meet projected needs.



Regional Planning Process



Public Participation

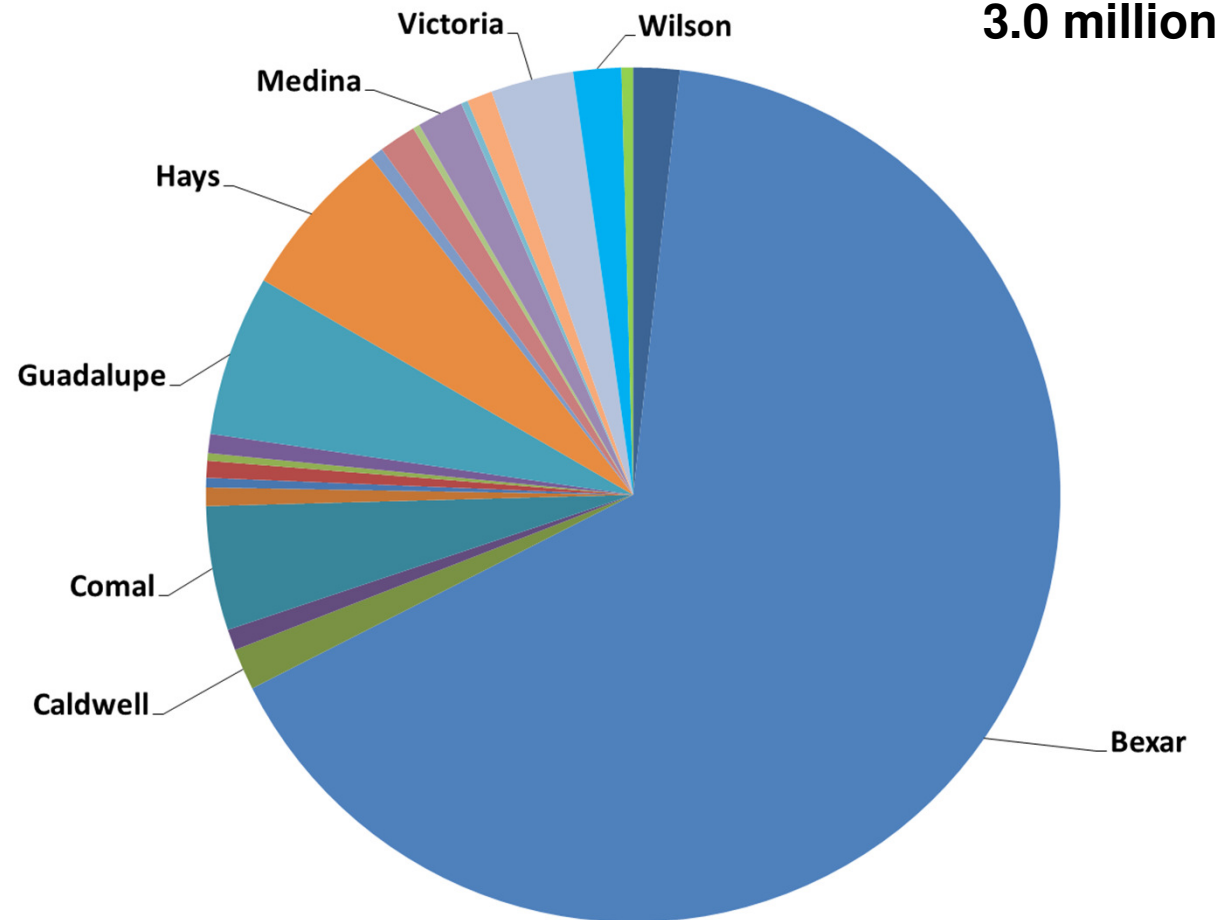
- Public involvement in Region L planning is important.
- All planning group meetings are posted and open to the public.
- Public comments are taken before, during, and after meetings.
- Public hearings are held on the draft plan, usually in three locations in the planning area.



2016 Plan Overview

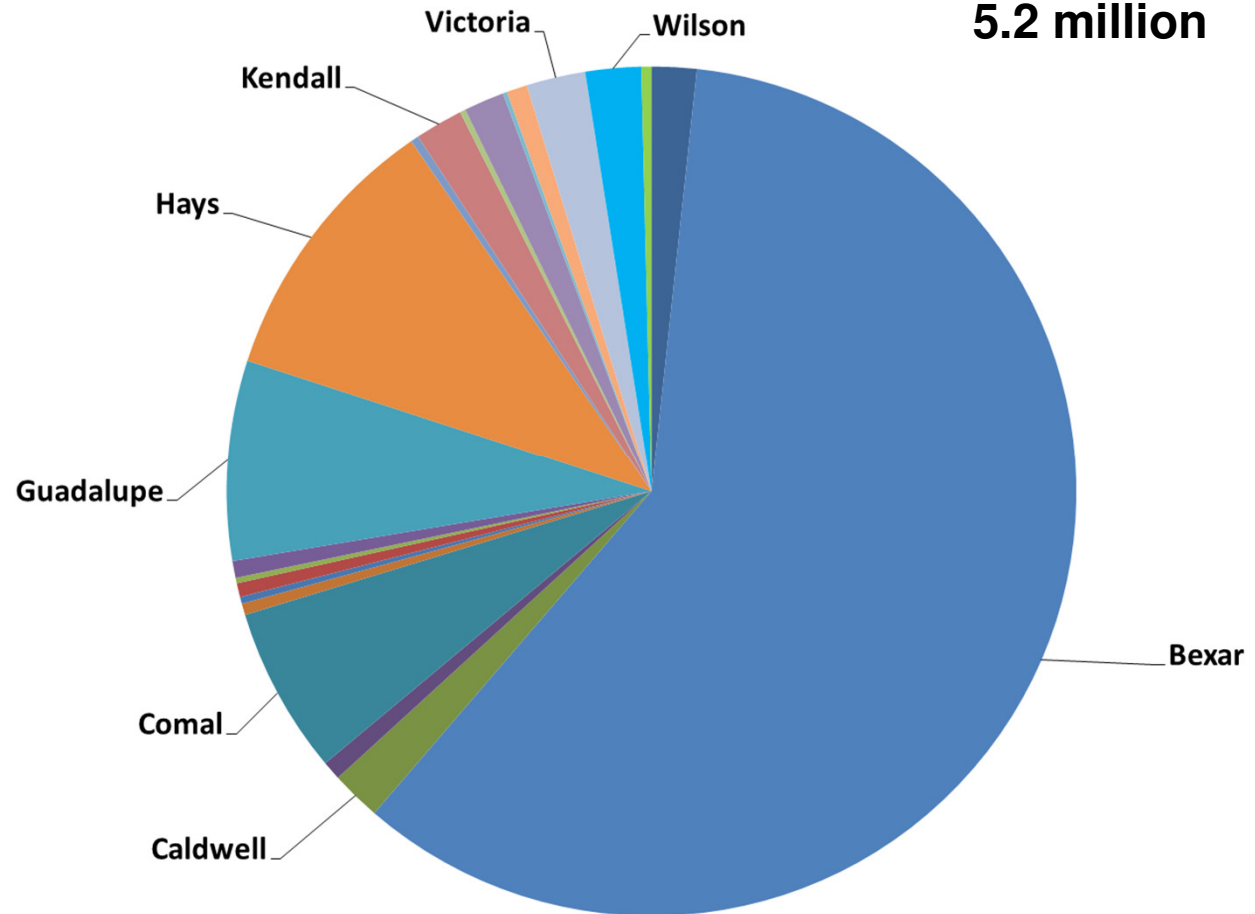
- There are about 245 water user groups (~140 municipal) in the region for which water demands are projected and for which supplies are identified to meet the demands.
- Over the 50 year planning horizon, the population of this region is expected to grow by about 75%, reaching about 5.2 million people by 2070.
- Most of these people will live in the San Antonio metropolitan area and along the IH 35 corridor between San Antonio and Austin.

Population at Year 2020



Population at Year 2070

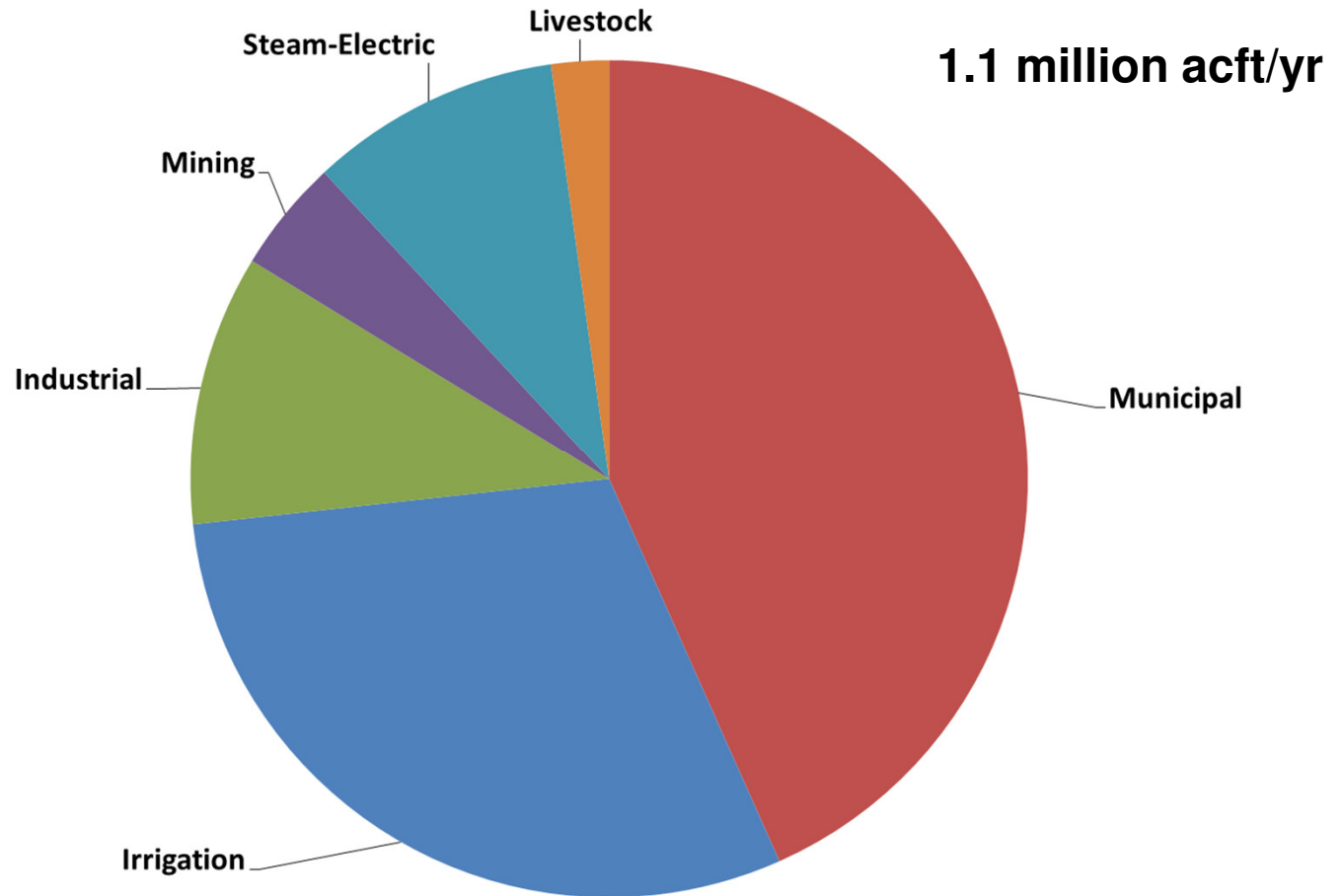
5.2 million



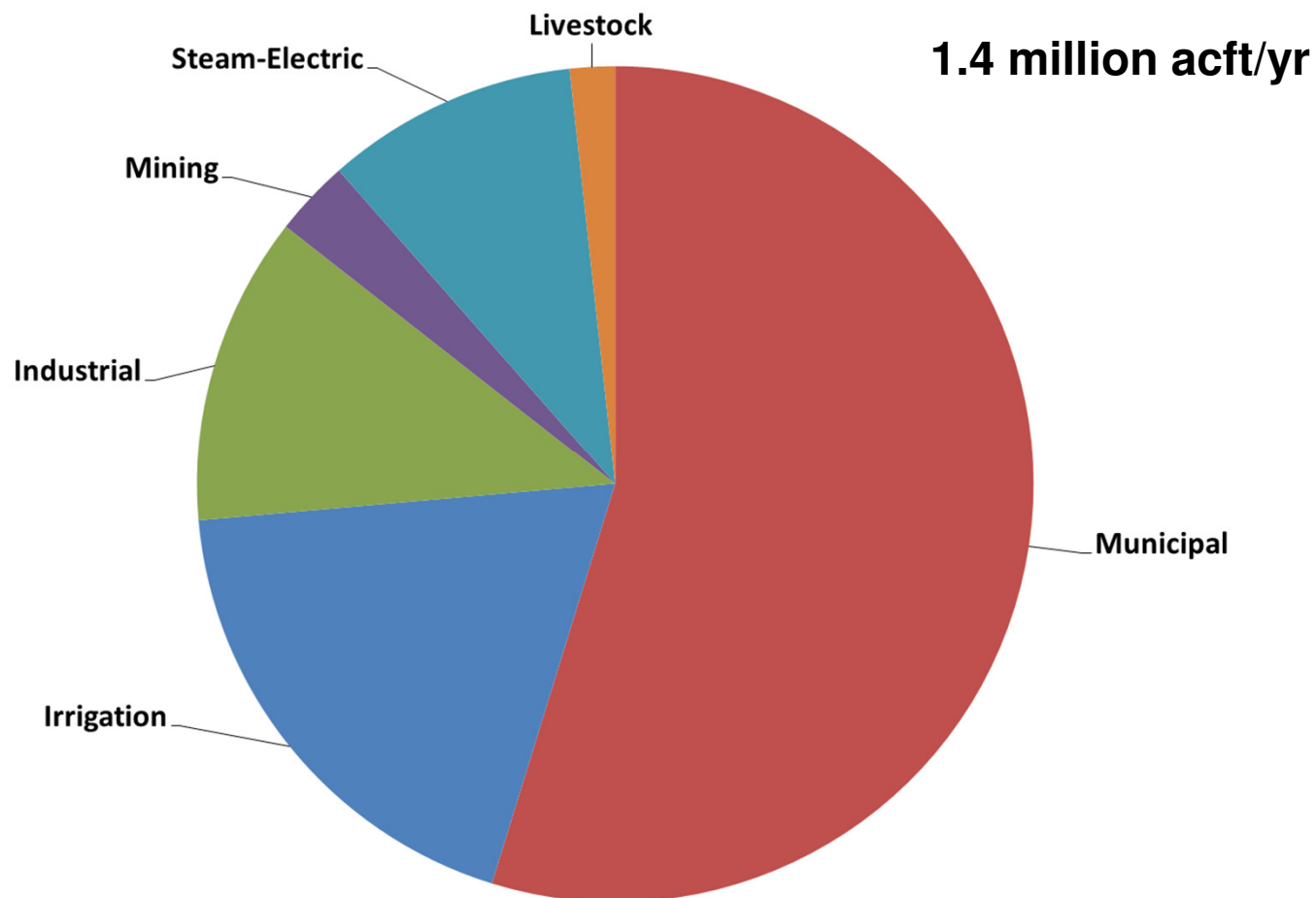
2016 Plan Overview (Cont'd)

- Municipal water demand in the entire region will grow by about 60% during the planning period, from about 469,000 acre-feet annually to about 754,000 acre-feet annually.
- Region L recommends Water Conservation and Drought Management as strategies that could meet about 22% of future needs.

Water Demand at Year 2020



Water Demand at Year 2070



Water Demand @ Year 2070

Municipal Top 5 Counties

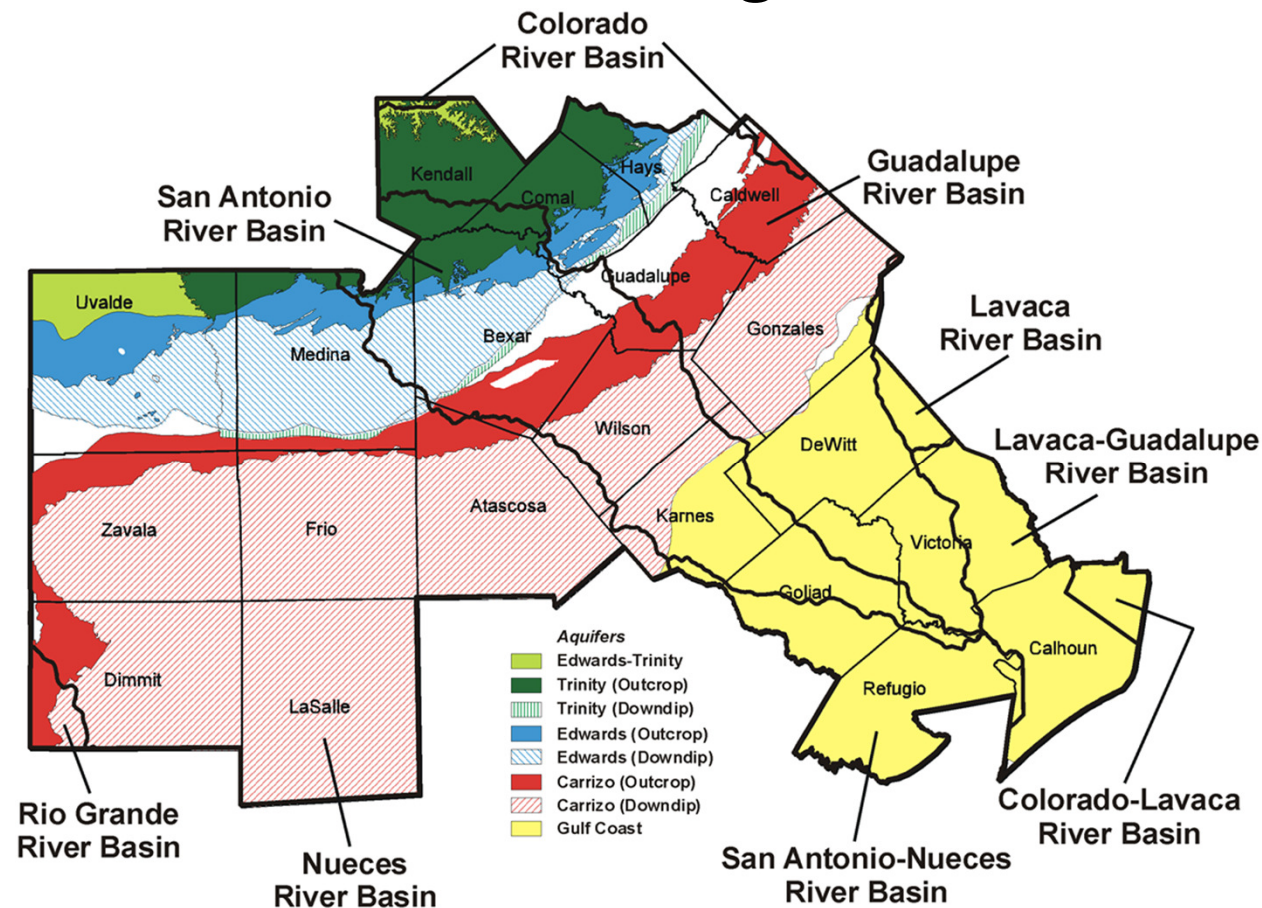
- Bexar (443)
- Hays (Part) (68)
- Comal (55)
- Guadalupe (53)
- Victoria (24)

Industrial Top 5 Counties

- Calhoun (76)
- Victoria (45)
- Bexar (35)
- Comal (13)
- Guadalupe (5)

Units = 1000 acft/yr

Aquifers & River Basins of the South-Central Texas Region





Sources of Supply

- Groundwater
 - Edwards Aquifer
 - Carrizo-Wilcox Aquifer
 - Trinity Aquifer
 - Gulf Coast Aquifer
 - Others

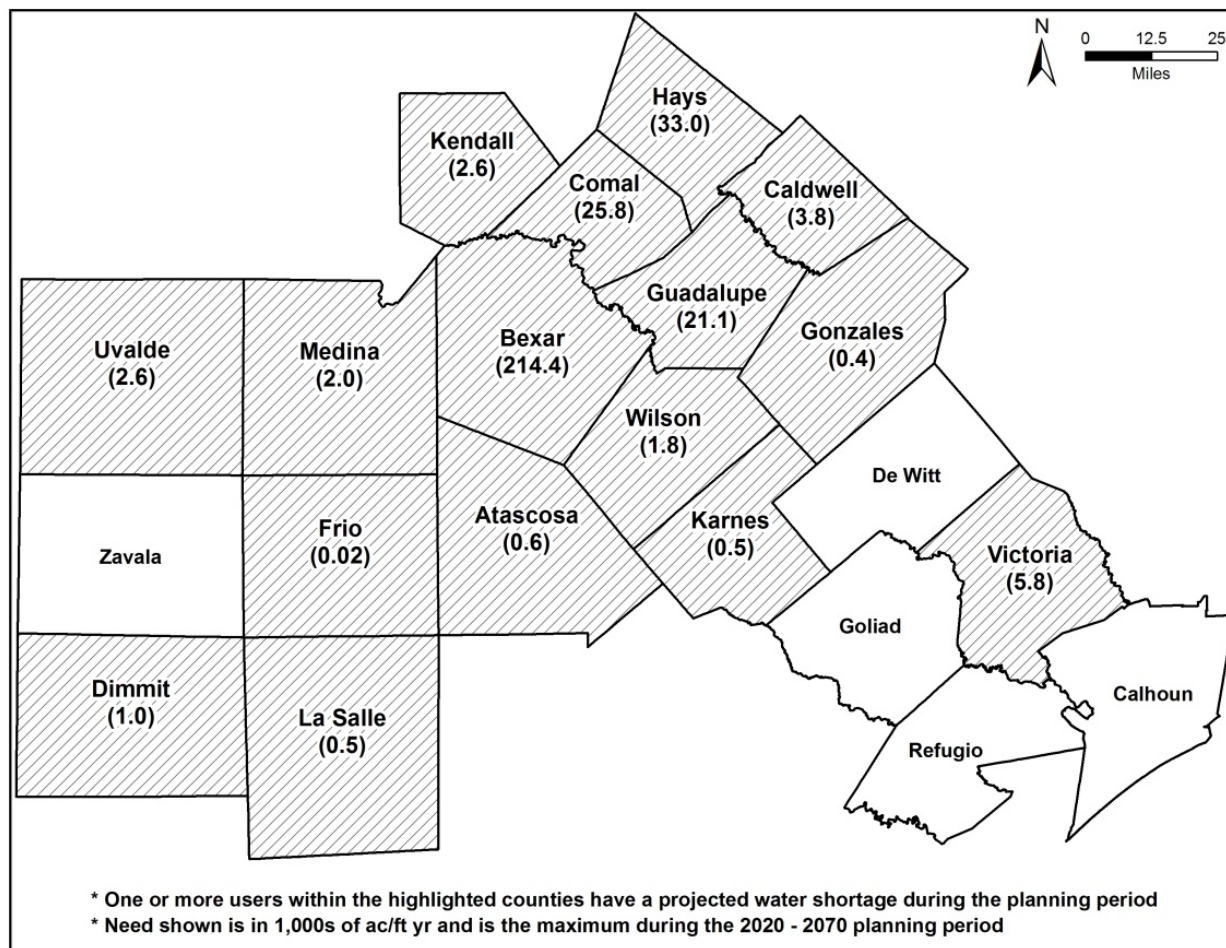
Sources of Supply (Cont'd)

- Surface Water
 - Canyon Reservoir
 - Calaveras Lake
 - Lake Braunig
 - Coletto Creek Reservoir
 - Run-of-River Water Rights

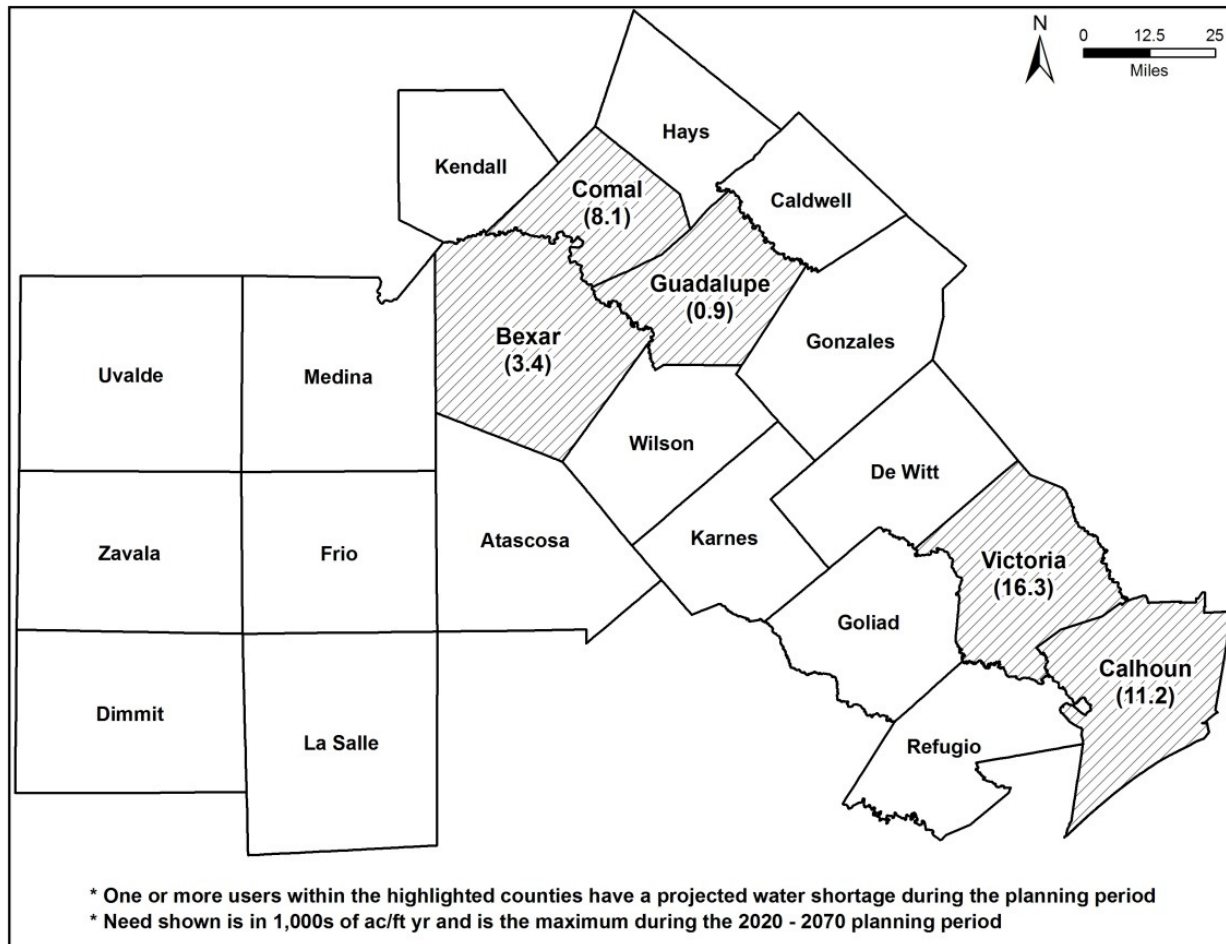
- Reuse/Recycle Water



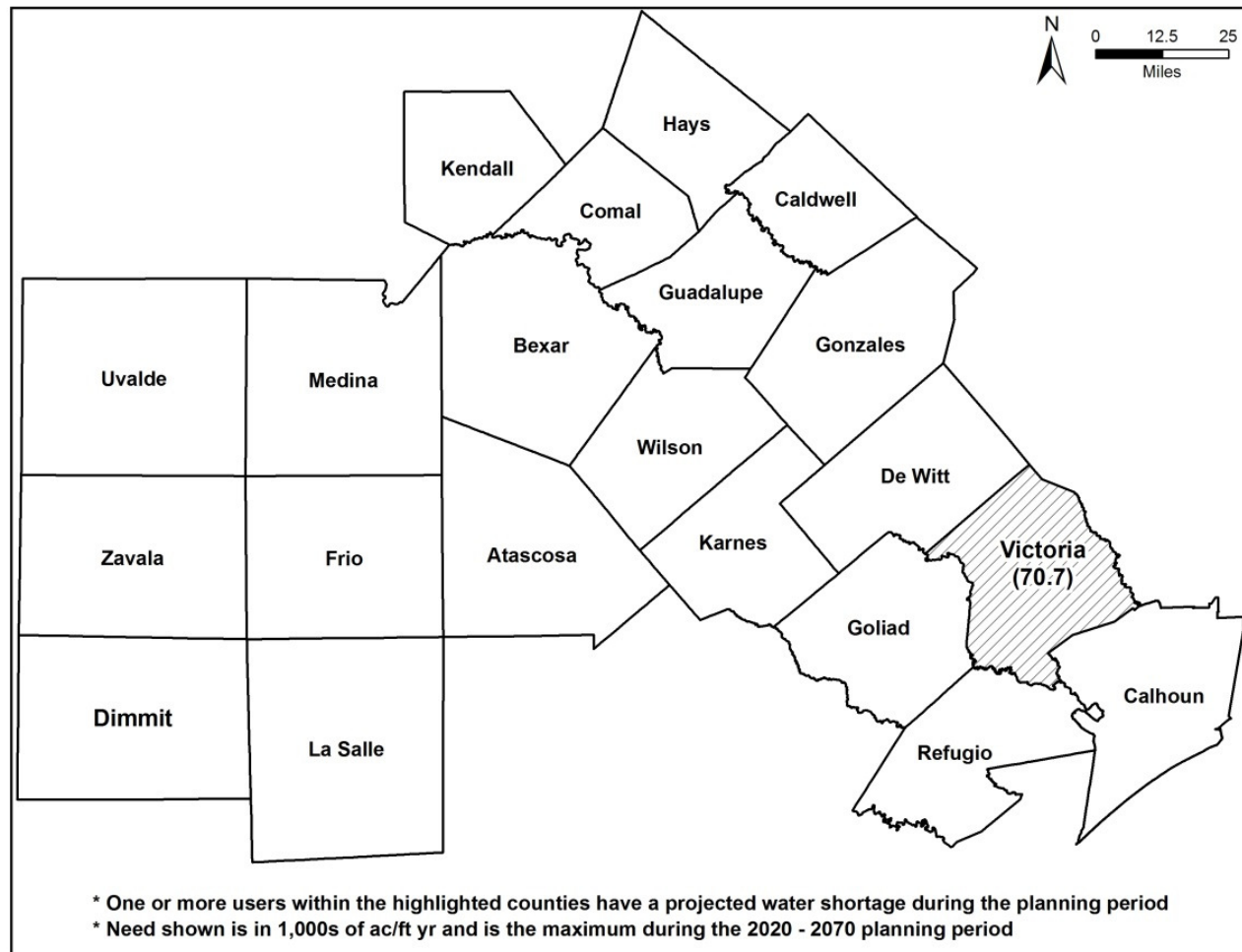
Municipal Water Needs



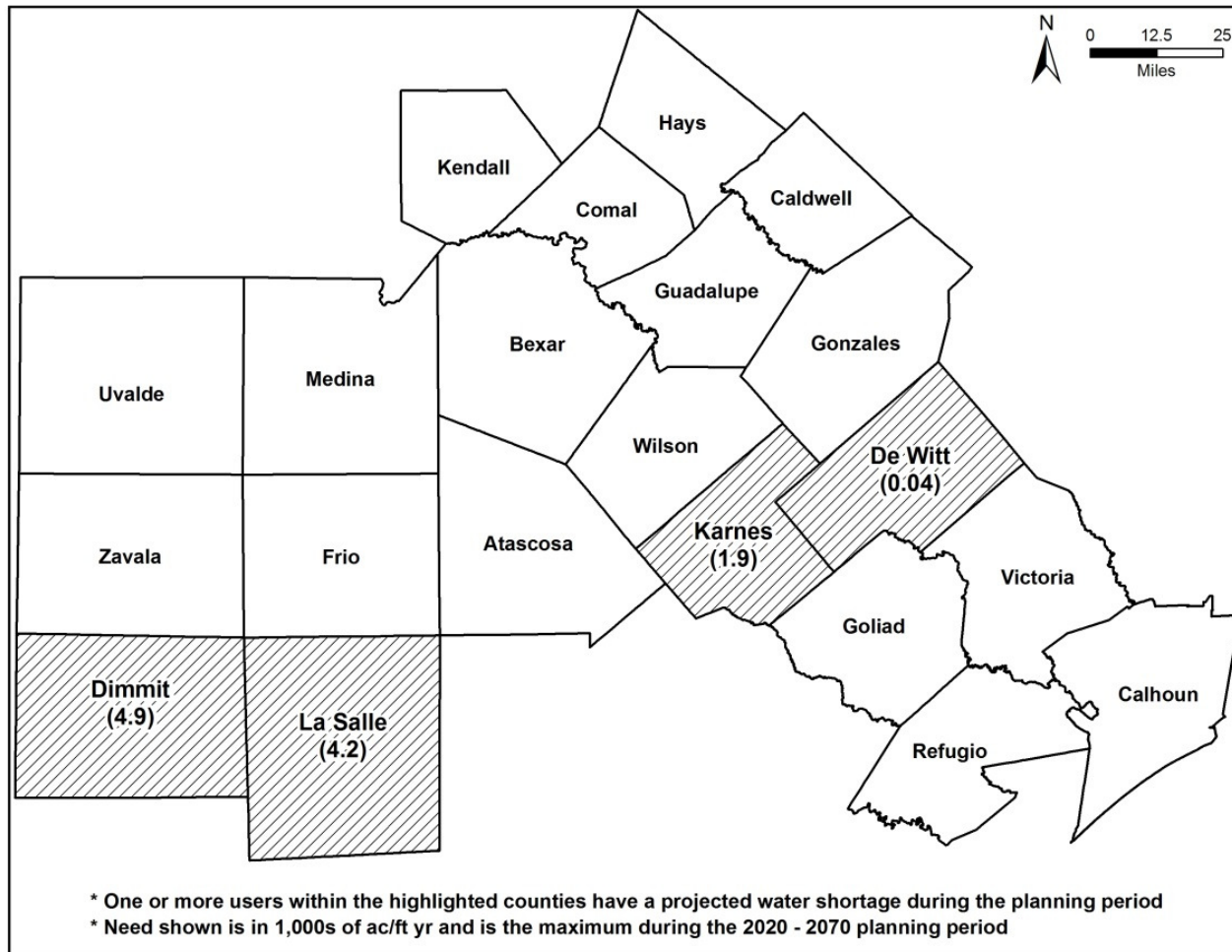
Industrial Water Needs



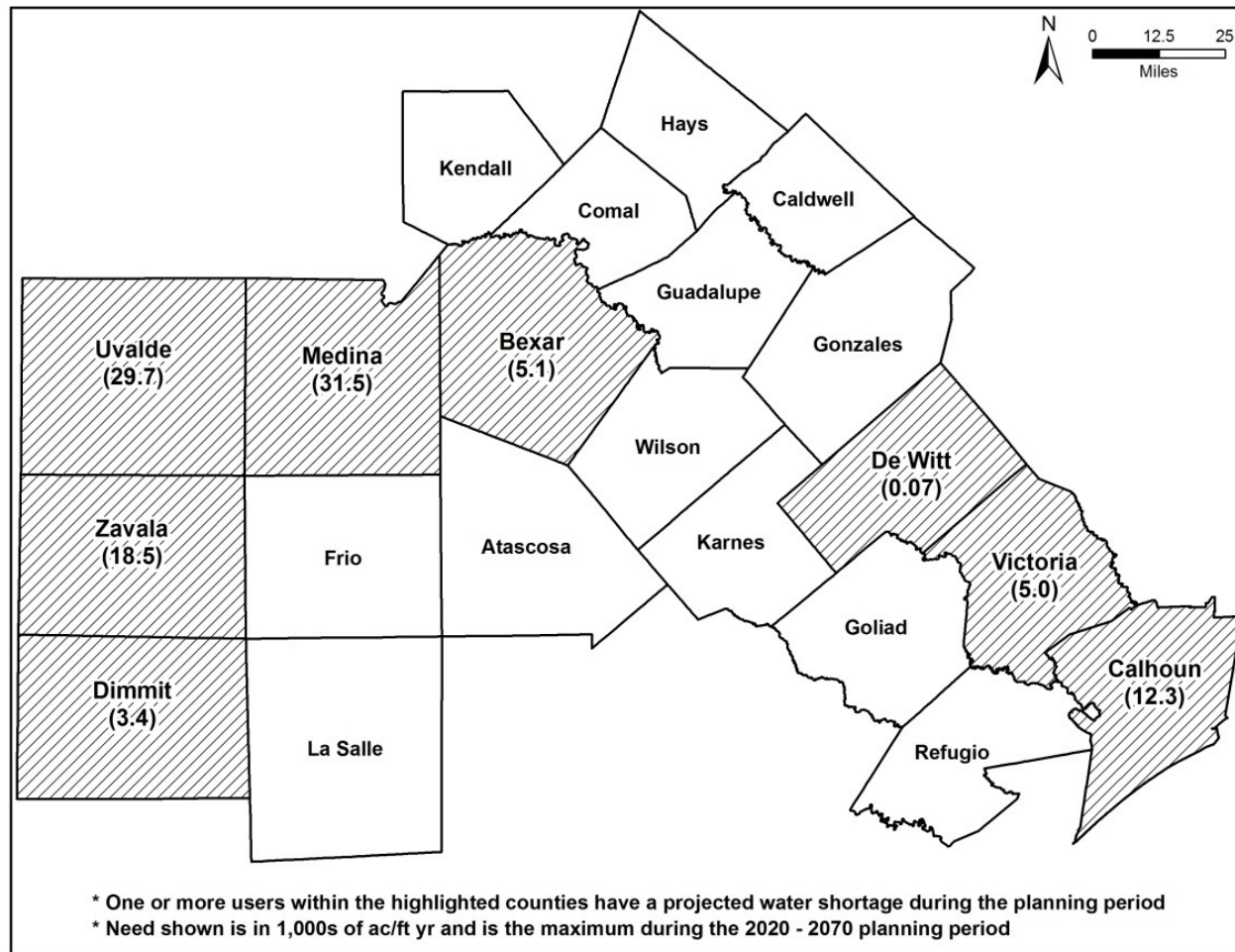
Steam-Electric Water Needs



Mining Water Needs



Irrigation Water Needs



2016 Plan Overview (Cont'd)

- The need for new supplies in the region for all water use categories except irrigation and livestock is expected to grow from about 102,000 acft/yr in 2020 to about 427,000 acft/yr in 2070.
- Water management strategies in the 2016 Plan recommended to meet projected needs could produce new supplies in excess of 799,000 acre-feet/year by 2070.



2016 Plan Overview (Cont'd)

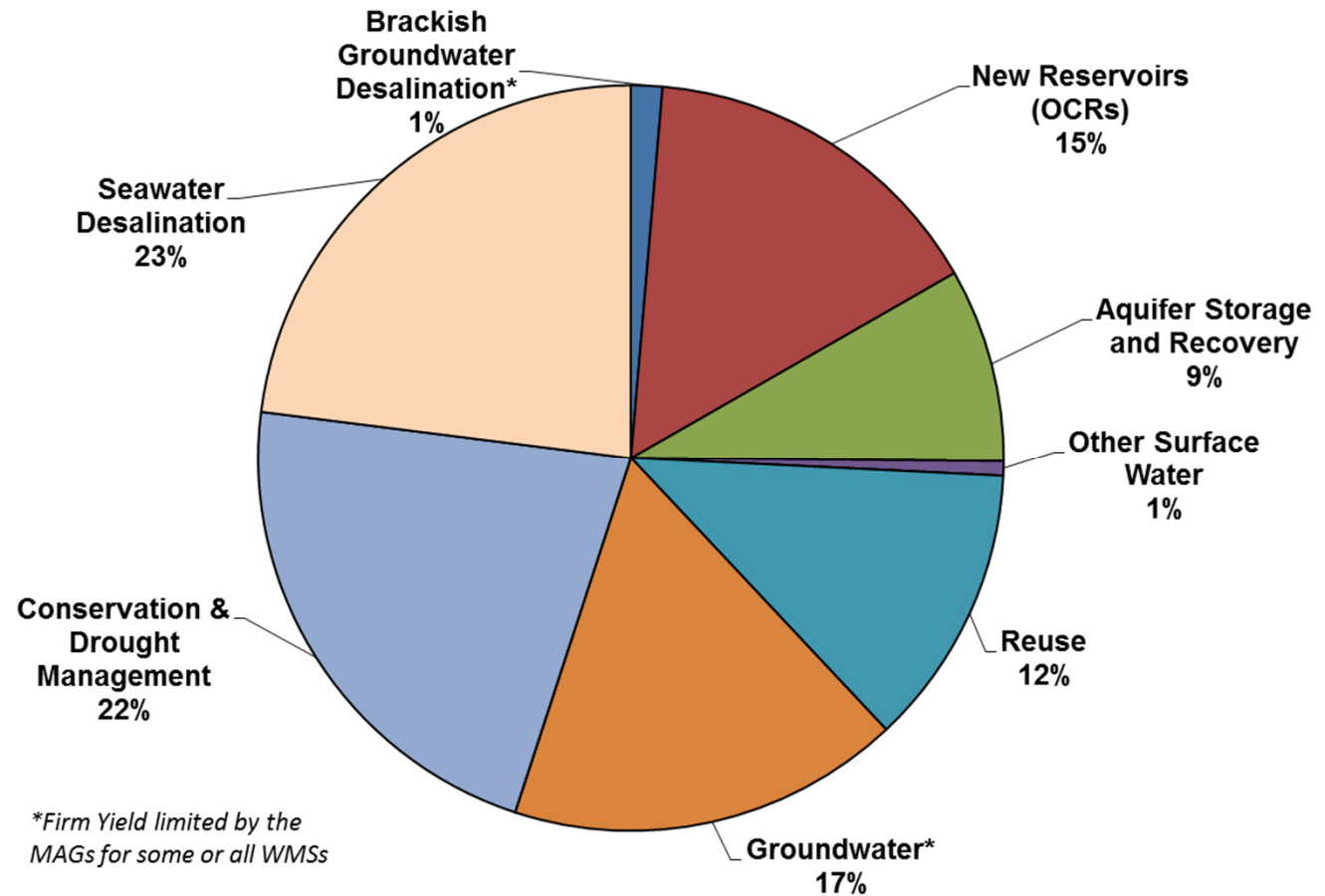
- The Plan, purposefully, includes Management Supplies (an apparent surplus of water projects) recognizing:
 - Regulatory uncertainty;
 - New drought of record; and
 - Flexibility to choose the most feasible project(s) to meet needs.

Recommended Water Management Strategies

- Conservation
- Reuse
- Fresh Groundwater
- Brackish Groundwater
- Surface Water
- New Reservoirs
- Aquifer Storage & Recovery (ASR)
- Seawater Desalination
- Reallocation of Existing Sources



Sources of New Supply



Recommended Water Management Strategies (Cont'd)

- Conservation (~96 kacft/yr)
- Drought Management (~71 kacft/yr)
- Reuse
 - SAWS, SARA, NBU, San Marcos, Kyle, and CCMA
 - Direct, non-potable
 - ~98 kacft/yr



Recommended Water Management Strategies (Cont'd)

*** MAG-Limited**

▪ Fresh Groundwater

- Vista Ridge Project (34,894 acft/yr)*
- Hays/Caldwell PUA Project (21,833 acft/yr)*
- TWA Regional Carrizo – MAG Limited (15,000 acft/yr)*
- Hays Forestar Project (12,356 acft/yr)*
- Cibolo Valley LGC Carrizo Project (10,000 acft/yr)*
- Victoria Groundwater-Surface Water Exchange (8,544 acft/yr)
- Local Groundwater Supplies (7,837 acft/yr)
- CRWA Wells Ranch Project – Phase 2 (7,829)*
- Regional Carrizo for SSLGC Project Expansion (6,500 acft/yr)
- Expanded Local Carrizo for SAWS (5,419 acft/yr)*
- TWA Trinity Project (5,000 acft/yr)
- New Braunfels Trinity (1,090 acft/yr)

Recommended Water Management Strategies (Cont'd)

* **MAG-Limited**

▪ Brackish Groundwater

- Brackish Wilcox Groundwater for SAWS (5,622 acft/yr)*
- Brackish Wilcox Groundwater for CRWA (3,839 acft/yr)*
- Brackish Wilcox (Gonzales Co.) (1,392 acft/yr)*
- Expanded Brackish Project for SAWS (0 acft/yr)*
- Brackish Wilcox Groundwater for SSWSC (0 acft/yr)*

▪ Surface Water

- CRWA Siesta Project (5,042 acft/yr)



Recommended Water Management Strategies (Cont'd)

- **New Reservoirs (Off-Channel)**
 - GBRA Lower Basin Storage (51,800 acft/yr)
 - GBRA New Appropriation (Lower Basin) (42,000 acft/yr)
 - Victoria County Steam-Electric (29,100 acft/yr)

- **Aquifer Storage & Recovery (ASR)**
 - GBRA Mid-Basin Project – ASR (50,000 acft/yr)
 - New Braunfels ASR + WTP Expansion (8,300 acft/yr)
 - Victoria ASR (7,900 acft/yr)
 - Uvalde ASR (1,155 acft/yr)

Recommended Water Management Strategies (Cont'd)

- Seawater Desalination
 - GBRA Integrated Water-Power Project (100,000 acft/yr)
 - SAWS Seawater Desalination (84,023 acft/yr)

- Reallocation and Management of Existing Sources
 - EAHCP
 - Edwards Transfers
 - Carrizo Conversions
 - Facilities Expansions
 - Others



Estimated Unit Costs of Water Management Strategies

Less Expensive

- GBRA LB Storage
- Victoria ASR
- Conservation & DM
- EAHCP
- NBU ASR

More Expensive

- SSLGC Brackish Wilcox
- Local GW (Leona)
- Uvalde ASR
- SAWS Seawater Desalination
- Brackish Wilcox Groundwater for CRWA

Public Participation

- Public hearings for the 2016 South Central Texas (Region L) Water Plan will be held at the following locations on the indicated dates:
 - San Antonio Water System: Monday, June 8, 2015 @ 6 PM
 - San Marcos Activities Center: Wednesday, June 10, 2015 @ 6 PM
 - Victoria Community Center: Thursday, June 11, 2015 @ 6 PM
- Written public comment accepted through Friday August 14, 2015:

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Public Participation

- The South Central Texas Regional Water Planning Group will consider public comments and appropriate responses during its meetings of September 3, 2015 and November 5, 2015.
- The adopted 2016 South Central Texas Regional Water Plan will be submitted to the Texas Water Development Board on or before December 1, 2015 for approval and integration into the 2017 State Water Plan.

