

# Aquifer Storage and Recovery: Its State in the State

*Groundwater Protection Council  
Annual Forum*

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Innovative Water Technologies

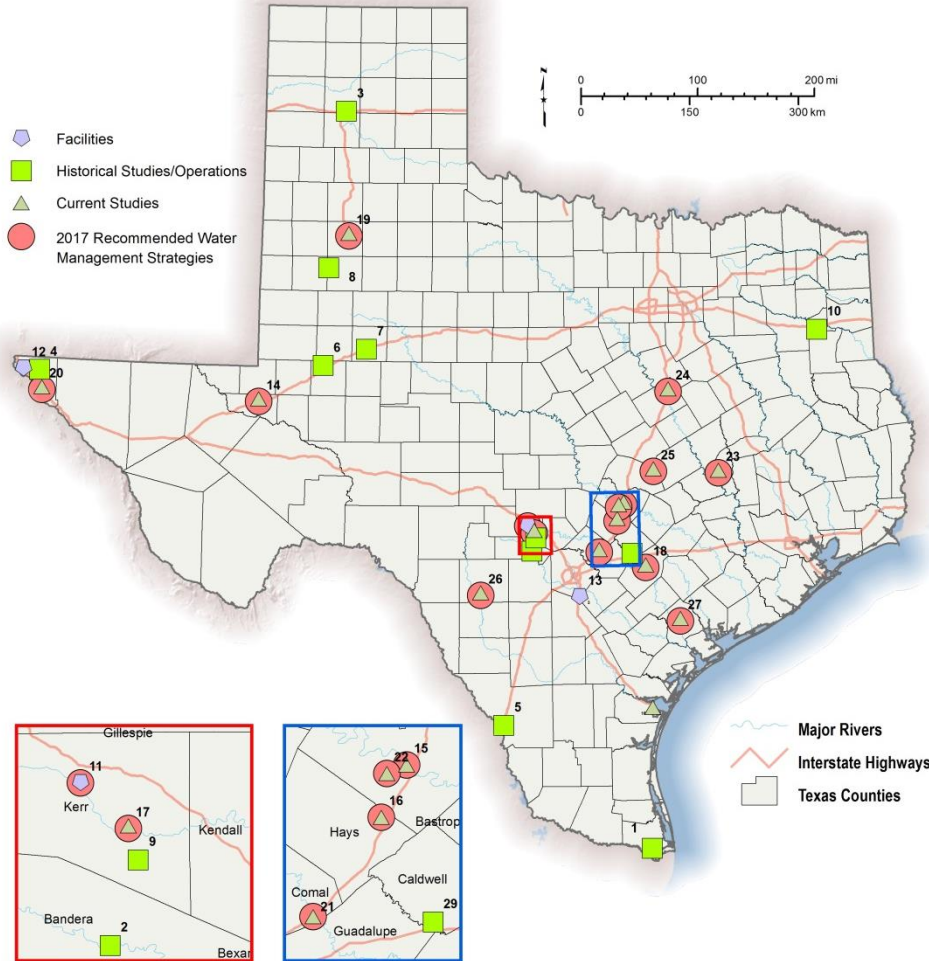
# Texas Water Development Board

The following presentation is based upon professional research and analysis within the scope of the Texas Water Development Board's statutory responsibilities and priorities but, unless specifically noted, does not necessarily reflect official Board positions or decisions.

# House Bill 655

- Texas applies a modified Rule of Capture for groundwater
- One hundred groundwater conservation districts (GCD's) with one hundred different rules
- House Bill (HB) 655, passed in 2016, amended the Texas Water Code regarding requirements for ASR projects
- The Texas Commission on Environmental Quality (TCEQ) has exclusive authority over ASR permitting via UIC Class V process
- ASR projects within the jurisdiction of a GCD are subject to GCD rules for the volume of water produced that exceeds the volume permitted by TCEQ
- Injected water now must meet requirement of the Federal Safe Drinking Water Act; previously required potable standards prior to injection

# ASR Activities in Texas



ID number	Location name (TWDB contract or project number)	Regional water planning area
<b>Historical Activity</b>		
1	Brownsville Public Utilities Board	M
2	Bandera County	J
3	City of Amarillo	A
4	City of El Paso	E
5	City of Laredo	M
6	City of Midland	F
7	Colorado River Municipal Water District	F
8	High Plains	O
9	Kerr County	J
10	Sabine River Authority	D
<b>Facilities</b>		
11	City of Kerrville (91483788)	J
12	El Paso Water Utilities	E
13	San Antonio Water System (97483215)	L
<b>Recommended Water Management Strategies</b>		
14	ASR of existing surface water supplies in Ward County well field - CRMWD	F
15	City of Austin - aquifer storage and recovery	K
11	City of Kerrville (91483788)	J
16	Edwards / Middle Trinity ASR	K/L
17	EKC/UGRA - ASR facility	J
18	GBRA - MBWSP - surface water w/ ASR (option 3c)	K/L
19	Lubbock County - Lubbock CRMWA aquifer storage and	O
20	LVWD - wastewater treatment facility and ASR	E
21	New Braunfels Utility - ASR	L
22	Saline Edwards ASR, Saline Edwards ASR (saline)	K
23	Simsboro - Brazos County ASR	G
24	Trinity - McLennan County ASR	G
25	Trinity - Williamson County ASR	G
26	Uvalde ASR	L
27	Victoria ASR	L
<b>Other Studies</b>		
28	City of Corpus Christi (1600011956)	N
29	Luling Water Treatment Plant (21698)	L

Source: Compiled from various sources.

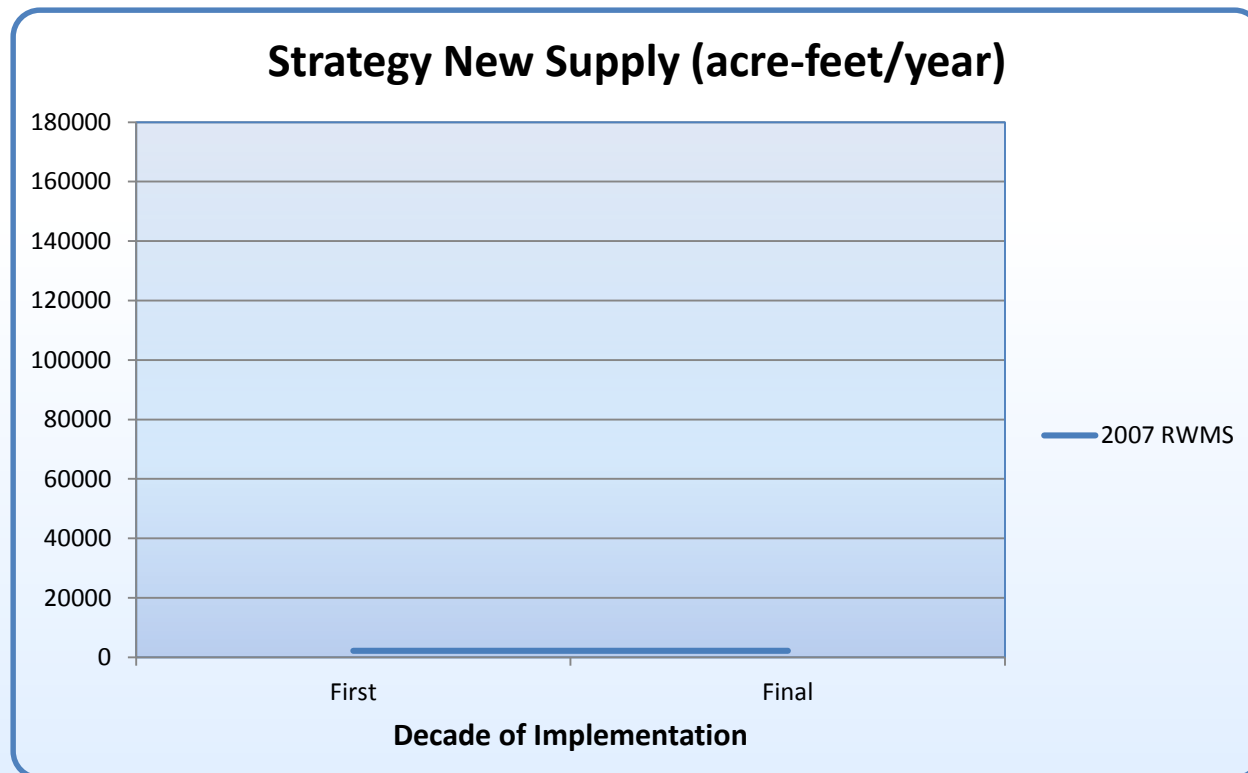
Notes:

ASR = Aquifer Storage and Recovery  
 CRMWA = Canadian River Municipal Water Authority  
 CRMWD = Colorado River Municipal Water District  
 EKC = Eastern Kerr County

GBRA = Guadalupe-Blanco River Authority  
 LVWD = Lower Valley Water District  
 MBWSP = Mid-Basin Water Supply Project  
 UGRA = Upper Guadalupe River Authority

# Recommended Strategies\*

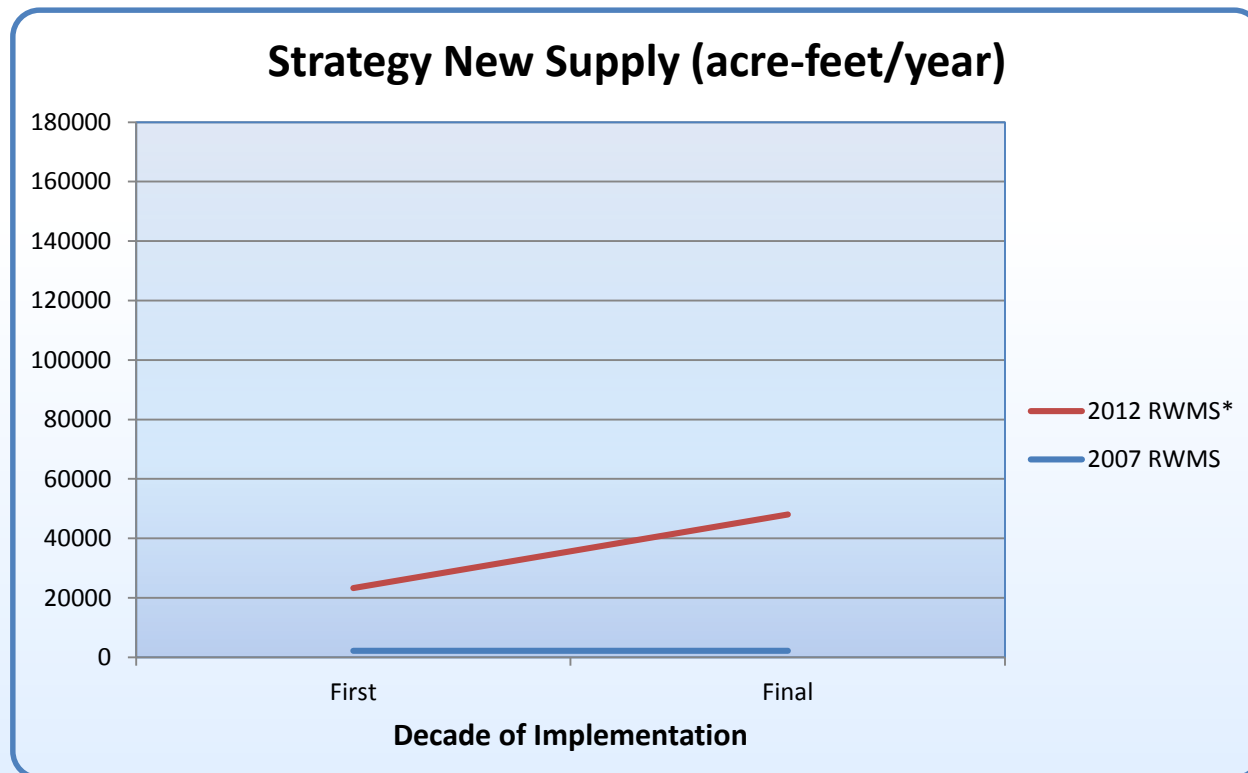
- 2007 State Water Plan - ASR projects in one planning region as a Recommended Water Management Strategy (RWMS)
  - 2,240 ac-ft first decade of use; 2,240 ac-ft fifth decade



\* Excludes infiltration basin projects

# Recommended Strategies\*

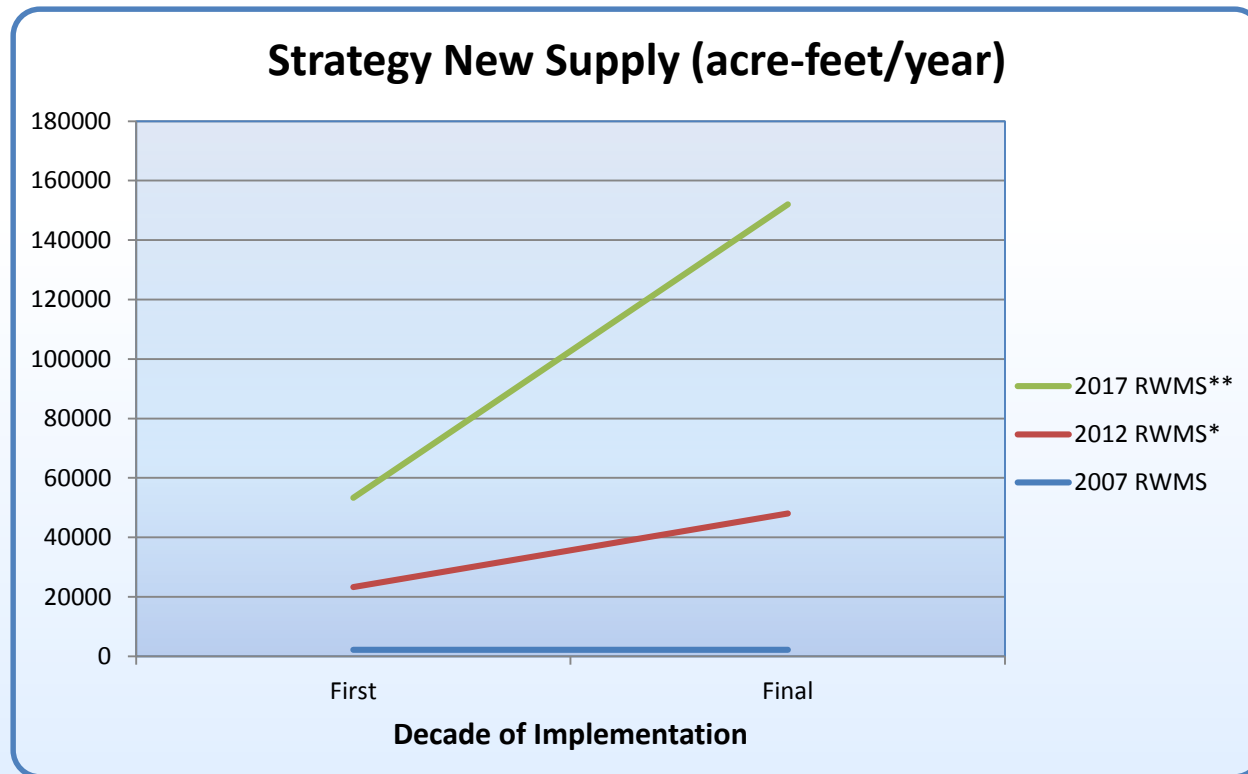
- 2012 State Water Plan – ASR projects in six planning regions as a RWMS
  - 23,260 ac-ft first decade of use; 48,084 ac-ft fifth decade



\* Excludes infiltration basin projects

# Recommended Strategies\*

- 2017 State Water Plan Recommended ASR strategies in seven regions
  - 53,341 ac-ft decade 2020; 152,000 ac-ft decade 2070
  - Triple the final decade volume from the 2012 SWP



\* Excludes infiltration basin projects

\*\* Included only supply allocated to a water user groups

# Demonstration Project Funding

- 84<sup>th</sup> Texas Legislature, House Bill 1, Rider 25
  - \$1,000,000 from General Revenue Fund
  - For innovative storage approaches, including but not exclusively, ASR
  - One-for-one matching grant funds
  - Competitive grant application process
    - Request for application notice – September 22, 2015
    - Application deadline – November 3, 2015
    - Grant approval – January 7, 2016



# Application Summary

- Six applications received
  - Four ASR field studies
  - One ASR desktop/planning study
  - One enhanced recharge field study
- Three grants awarded

Recipient	Funding		
	Total	Requested	Awarded
Edwards Aquifer Authority	\$563,000	\$281,500	\$281,500
Victoria County Groundwater Conservation District	\$570,226	\$285,112	\$285,112
Corpus Christi Aquifer Storage and Recovery Conservation District	\$1,000,000	\$500,000	\$433,388

# Texas Water Development Board

The logo graphic consists of three stylized, overlapping curved lines that resemble a wave or a fan, positioned to the right of the text.

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