

Groundwater Management Area Joint Planning

Temple McKinnon

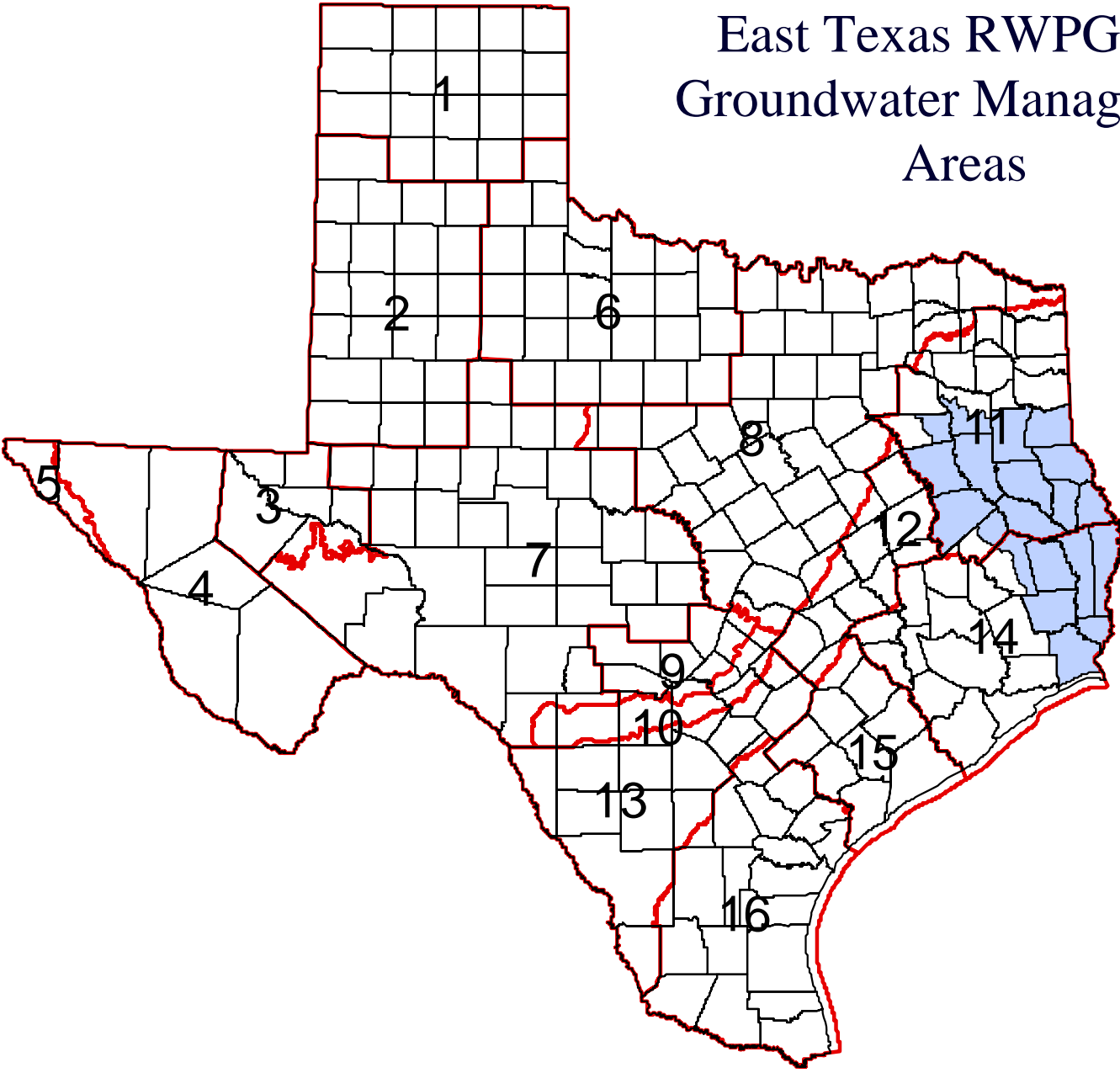
RWPG Project Manager

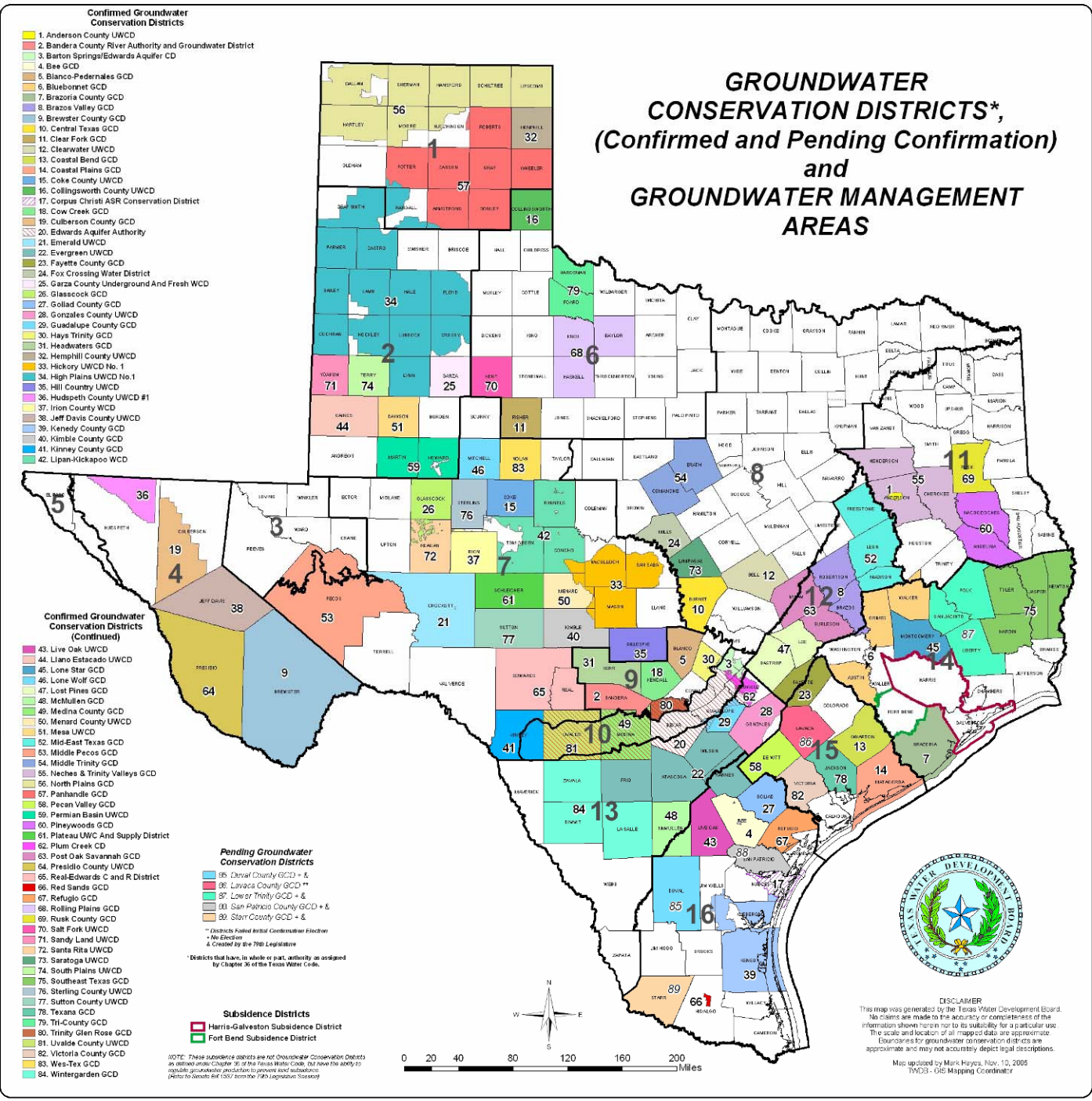
Texas Water Development Board



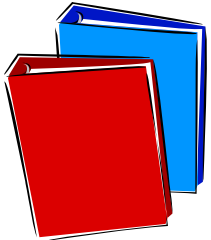
December 13, 2006

East Texas RWPG and Groundwater Management Areas





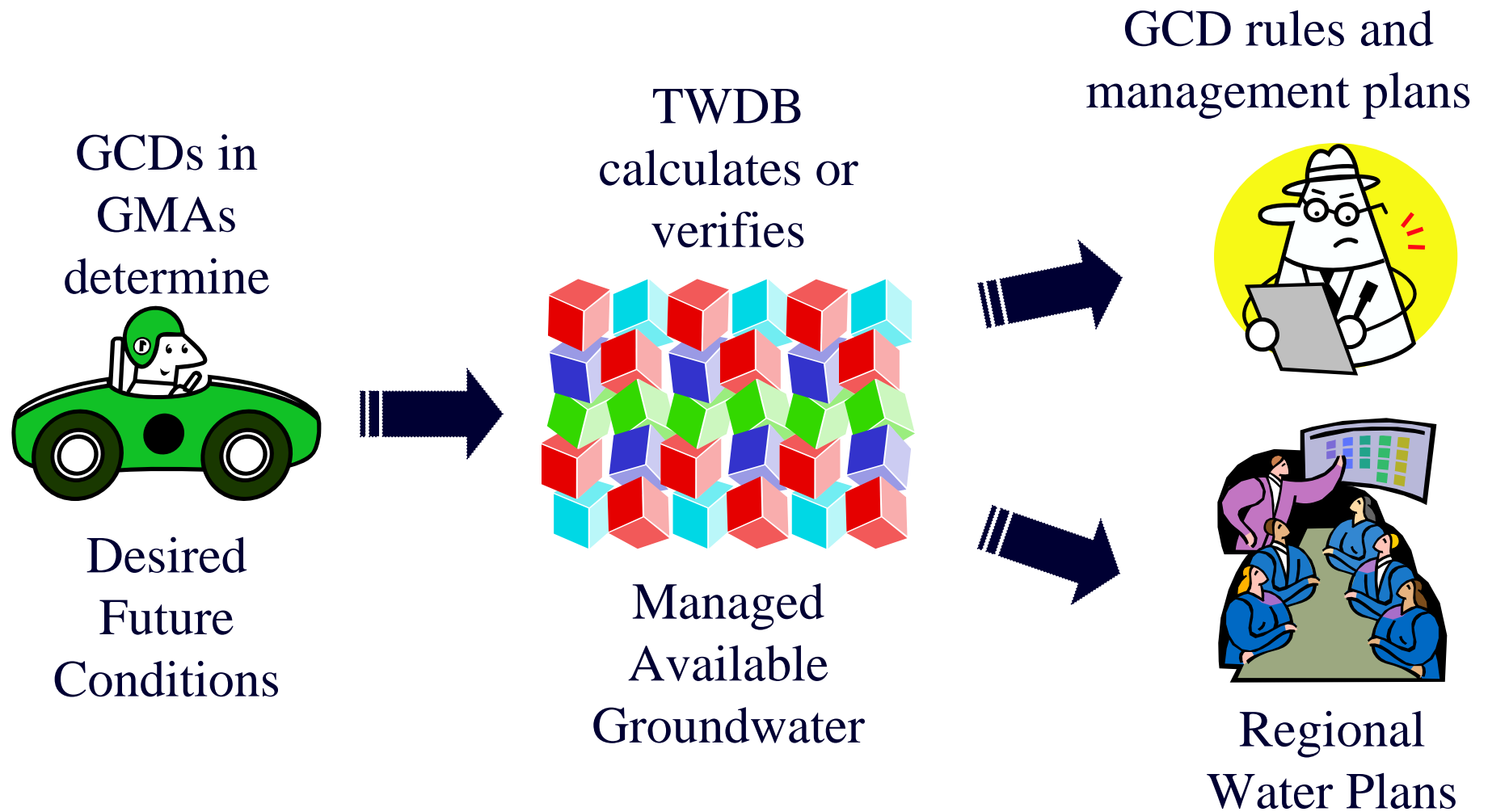
Joint Planning in a GMA



- ✓ Forward management plans to other districts
- ✓ Presiding officer or designee attend meeting
- ✓ Meet at least annually
- ✓ Review management plans and accomplishments
- ✓ Comply with Open Meetings and Open Records

And...

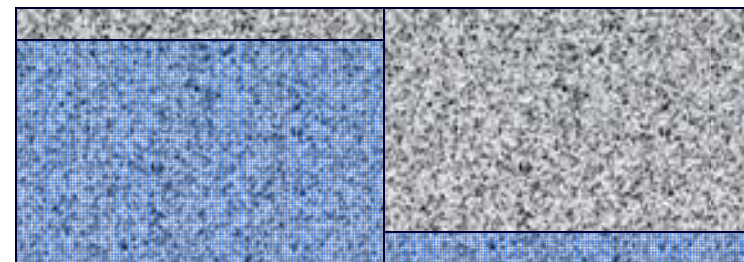
Joint Planning in a GMA



Desired Future Conditions

“the desired, quantified condition of groundwater resources ...”

“physically possible, individually and collectively, ...”



DFC 1

DFC 2



Desired Future Conditions

Water Levels

On average, water levels are 100 feet lower than current levels in 50 years

Water Quality

Total dissolved solids concentrations are not allowed to exceed 1,000 milligrams per liter in 50 years.



Desired Future Conditions

Spring Flows

Spring flows are not lower than 10% of mean values for perpetuity

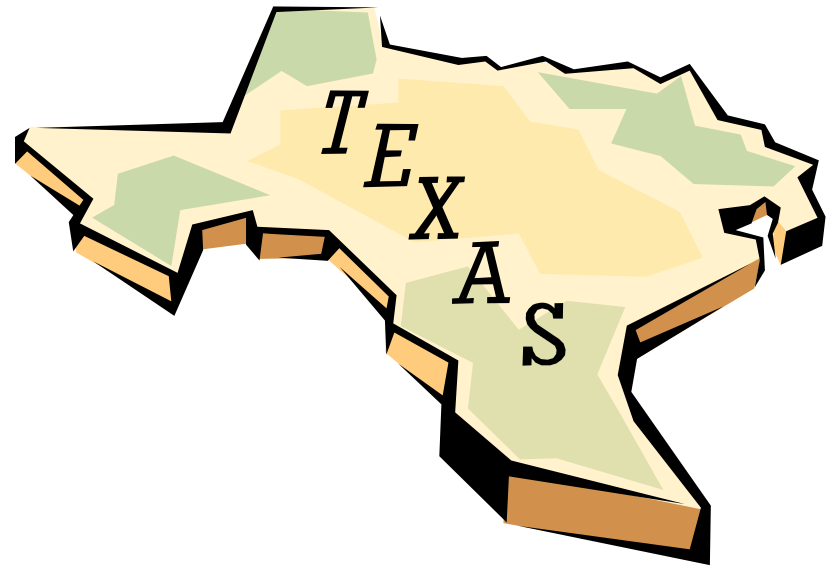
Volume

Fifty percent of the water in the aquifer is remaining after 50 years

Desired Future Conditions

May be established for:

- Aquifer
- Aquifer subdivision
- Geologic strata
- Geographic area



Managed Available Groundwater

The amount of water that may be permitted by a district for beneficial use in accordance with the desired future condition of the aquifer.





Timelines

- Statutory deadline for submission of DFCs
September 1, 2010 (and every 5 years thereafter)
- TWDB will recommend submission at end of December 2007 if GMAs wish to include in next Regional Water Plan (2011)

GMA Questions?

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GMA Liaison

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2006 RWP Groundwater Availability

- ETRWPG determined groundwater availability on a northern-southern region split. Regional availability defined as amount withdrawn not causing more than 50 feet of water table decline or 10% decrease in saturated thickness.
 - Aquifers in northern counties: Yegua-Jackson, Queen City, Sparta, Carrizo, some Gulf Coast
 - Aquifers in southern counties: Primarily Gulf Coast with some Yegua-Jackson

Table 3.5
Available Groundwater by Aquifer
(values in acre-feet per year)

County	Total Supply Available to Region I					
	Yegua	Queen city	Sparta	Carizzo	Gulf Coast	Other
Northern Region						
Anderson		18,320	600	9,830		280
Angelina	4,860	1,060	670	28,330		1,450
Cherokee		21,850	350	10,870		
Henderson (P)		14,870		4,200		
Houston	1,380	400	870	5,220		1,380
Nacogdoches	60	4,860	400	31,140		80
Panola				10,370		
Rusk		4,250		20,290		
Sabine	1,100		290	6,710	1,100	200
San Augustine	540		200	1,690		60
Shelby				12,750		
Smith (P)		17,280		18,400		80
Trinity (P)	740		600		100	280
Southern Region						
Hardin					23,500	
Jasper					52,000	6,000
Jefferson					2,500	
Newton					29,000	1,500
Orange					20,000	
Polk (P)	360				13,500	1,450
Tyler	180				30,300	1,620
TOTAL	9,220	82,890	3,980	159,800	172,000	14,380

Note: The above values are total supply available to meet both existing and projected demands and are available for each decade of the 50 year planning cycle.



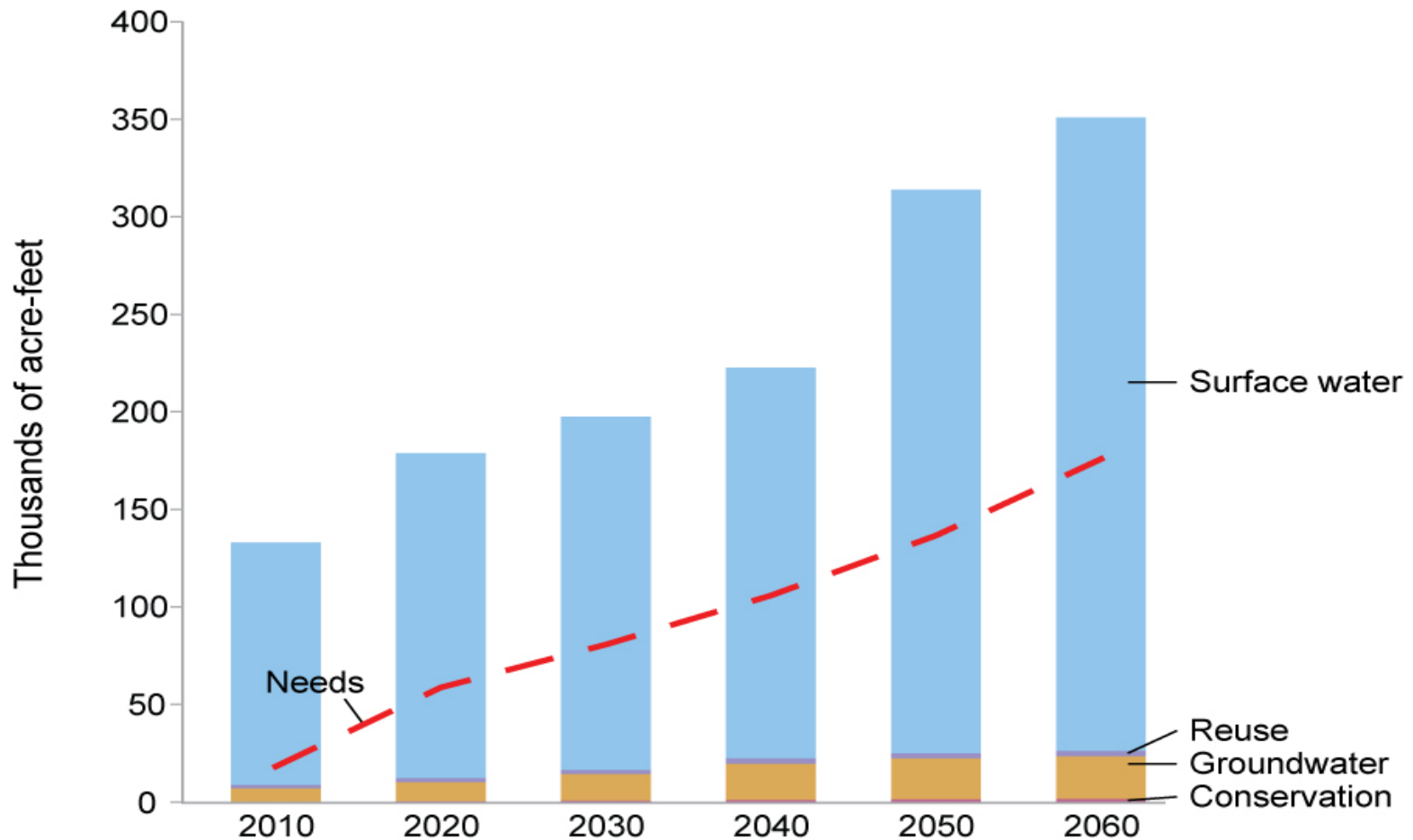
Select Water Management Strategies

- **Lake Columbia in Cherokee County**
 - Implementation 2010
 - Capital Cost: \$387 million

- **Expansion of local groundwater use throughout the region**
 - Implementation by: 2010
 - Capital Cost: \$32 million

- **Municipal conservation throughout region, composed of education programs**
 - Implementation by: 2010
 - Capital Cost: \$0

Recommended Strategy Water Supply Volumes





Select Policy Recommendations

- Encourage the legislature to allow exemptions to the interbasin transfer junior rights provision for contract water, if sufficient surface water remains in the basin of origin to meet 125 percent of the total 50-year projected demands in that basin
- Use the alternate water management strategy process to maintain flexibility in planning
- Continue funding regional water planning with local entities providing administrative costs
- Encourage all counties in the Region I planning area to join or create a groundwater conservation district



More information

- <http://www.twdb.state.tx.us/GwRD/pages/gwrdindex.html>
- <http://www.twdb.state.tx.us/GwRD/GMA/gmahome.htm>

Questions?

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