

*What
Would You
Drink if the
Well Ran
Dry?*

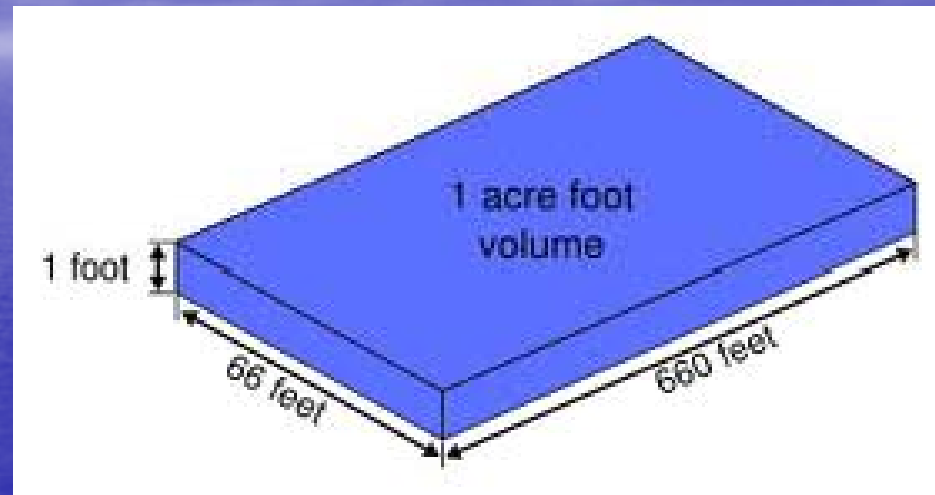
*by:
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*A presentation to residents of Haskell County
First Baptist Church of Paint Creek
September 9, 2011*



North Central Texas Water Supply and Demand

An Acre Foot is:

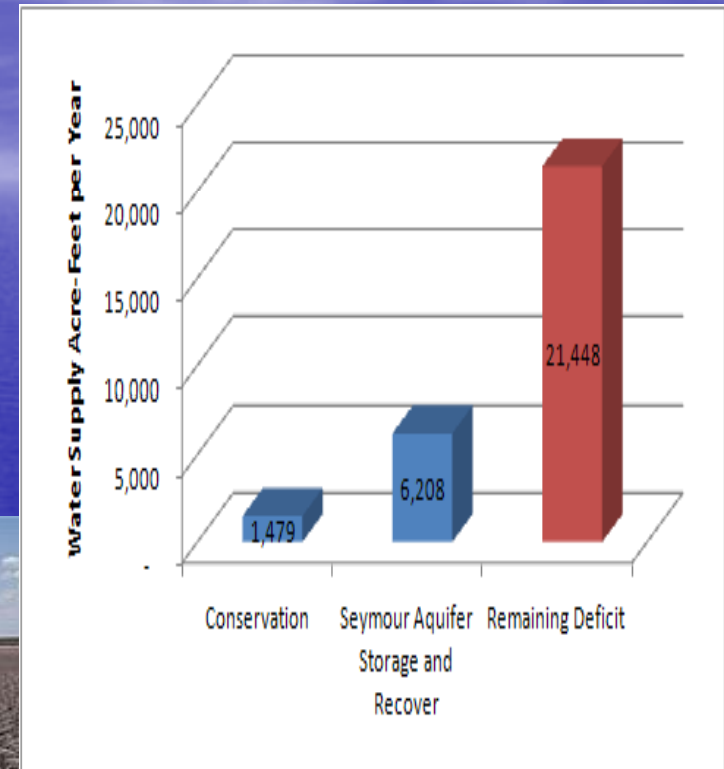


Or 326,000 gallons

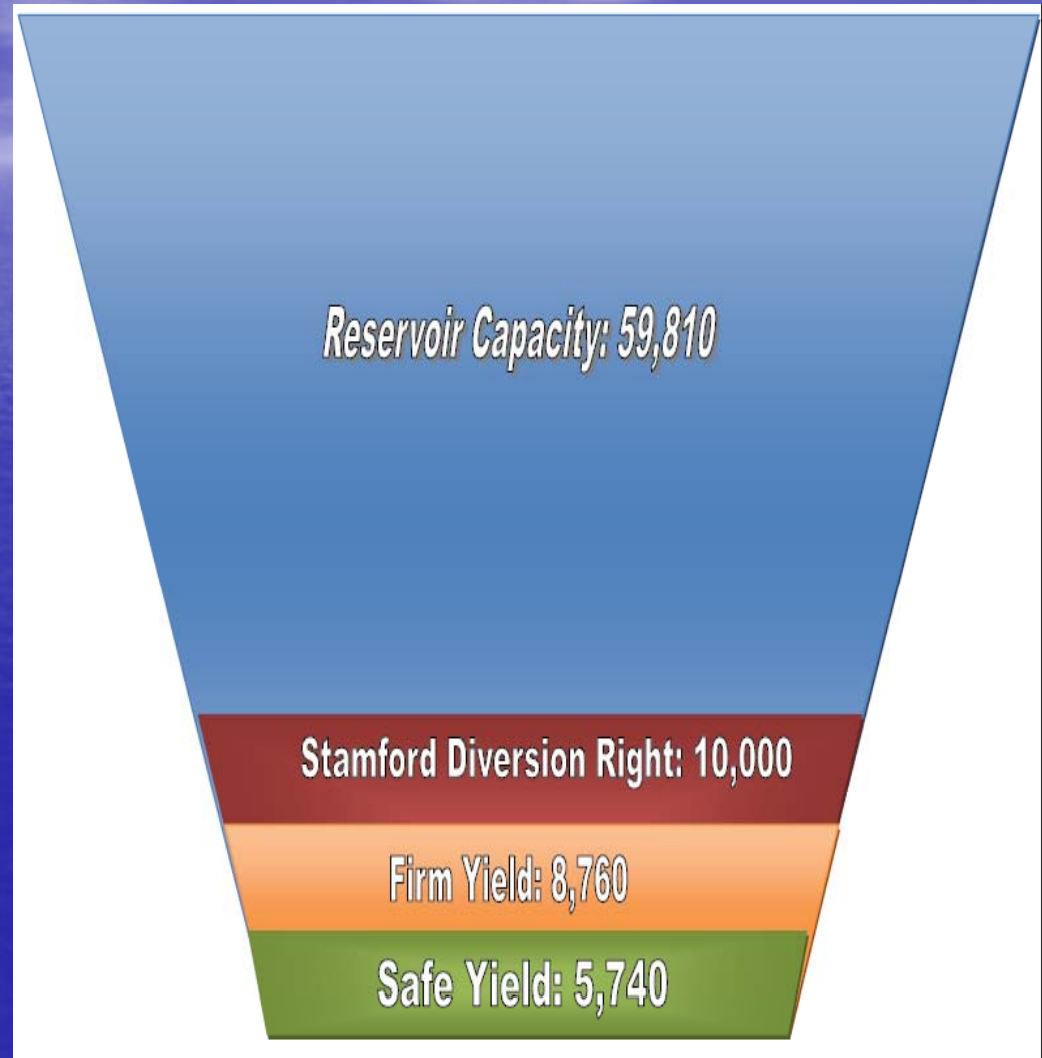
Current Haskell County Water
Deficit is 29,135 acre-feet,
mostly for agriculture



State-Wide Water Planning Proposes to Leave a Haskell County Deficit of 21,448 acre-feet in 2060

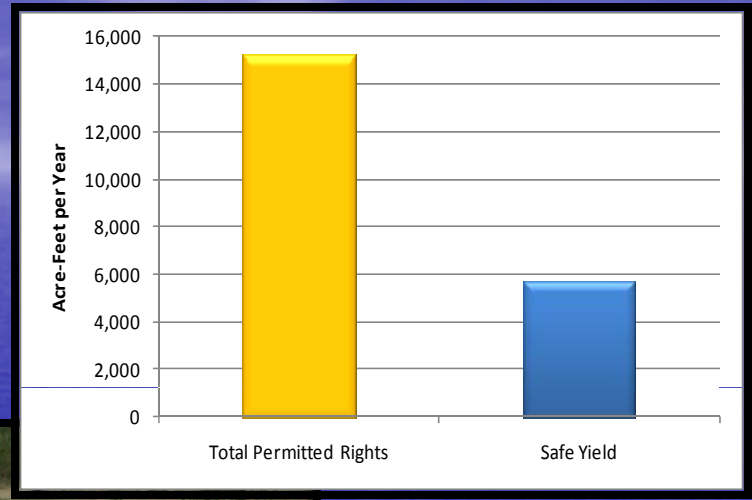


Lake Stamford Reservoir Capacity and Demands



Source: Brazos G Regional Water Plan, 2010, pages 3-26, A-9.

Lake Stamford Safe Yield Compared to Permitted Rights



Drought

The image features a monochromatic blue color scheme. The lower two-thirds of the frame are filled with a vast, textured expanse of water, likely the ocean, showing subtle ripples and a slight gradient from a lighter blue on the left to a darker blue on the right. The upper third of the frame shows a sky with wispy, white clouds scattered across a deep blue background. The overall mood is serene yet somber, consistent with the 'Drought' title.

U.S. Drought Monitor

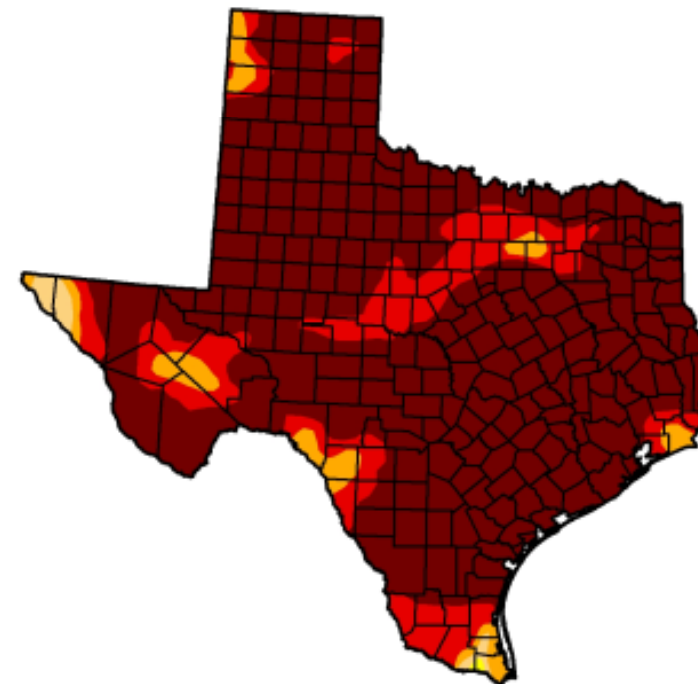
August 30, 2011

Valid 7 a.m. EST

Texas

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.92	99.01	95.04	81.08
Last Week (08/23/2011 map)	0.00	100.00	99.93	99.01	94.42	77.80
3 Months Ago (05/31/2011 map)	2.25	97.75	96.07	91.89	81.09	50.65
Start of Calendar Year (12/28/2010 map)	7.89	92.11	69.43	37.46	9.59	0.00
Start of Water Year (09/28/2010 map)	75.57	24.43	2.43	0.99	0.00	0.00
One Year Ago (08/24/2010 map)	75.51	24.49	5.52	0.68	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, September 1, 2011
Eric Luebehusen, USDA



Water Demand For Electricity Production

Water Consumption for Electricity:

Fuel Source:	Gallons per Megawatt- Hour
Nuclear	620
Coal	490
Oil	430
Natural Gas	250
Solar	30
Wind	10

Pulverized Coal Power Plant Energy Flow

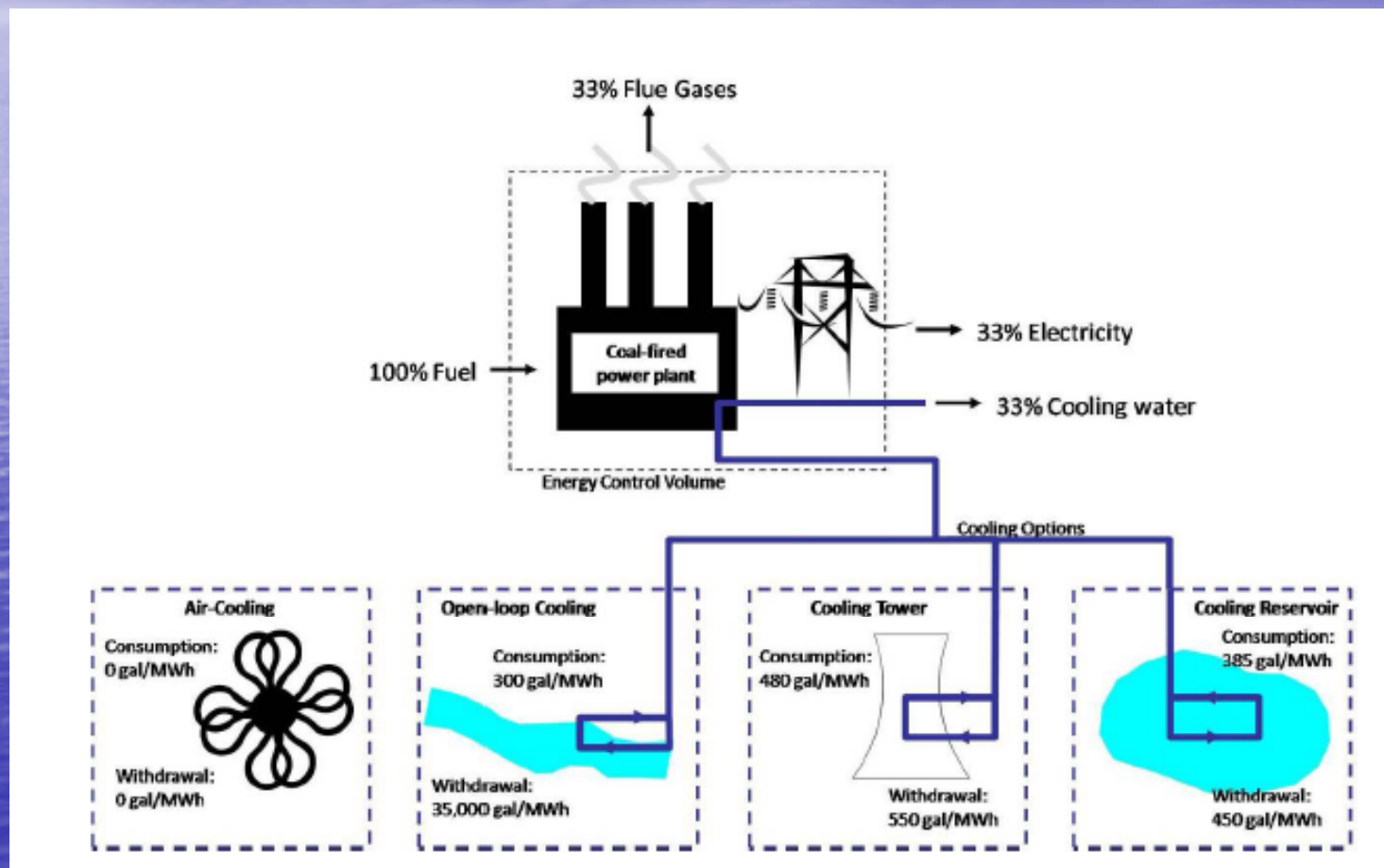


Figure from Environmental Defense Fund 2009



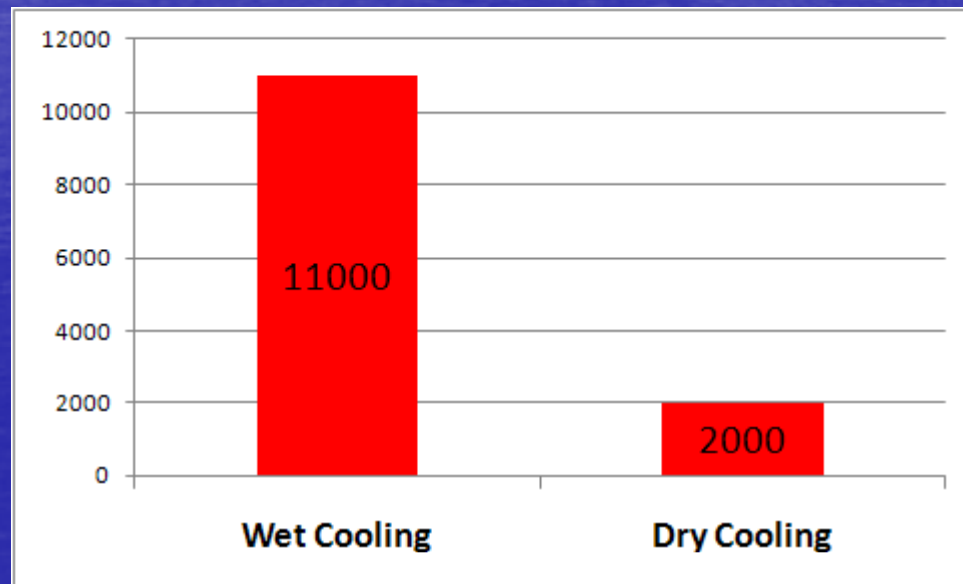
Meeting Tenaska's Water Demand

Proposed Tenaska Coal-Fired Power Plant

- Supercritical Pulverized Coal Boiler
- Steam Turbine Generation
- Gross Power Output: 900 megawatts



Tenaska's Water Needs: Dry Cooling Versus Wet Cooling Acre-feet per year



Tenaska's Water from Stamford

- 773 to 533 acre-feet per year from Lake Stamford
- 100% of City's water rights over 950 acre-feet
- 100% of Stamford's treated effluent (best estimate \approx 350 acre-feet per year)
- 100% right to consume water
- Tenaska exempted from existing or future drought contingency plans

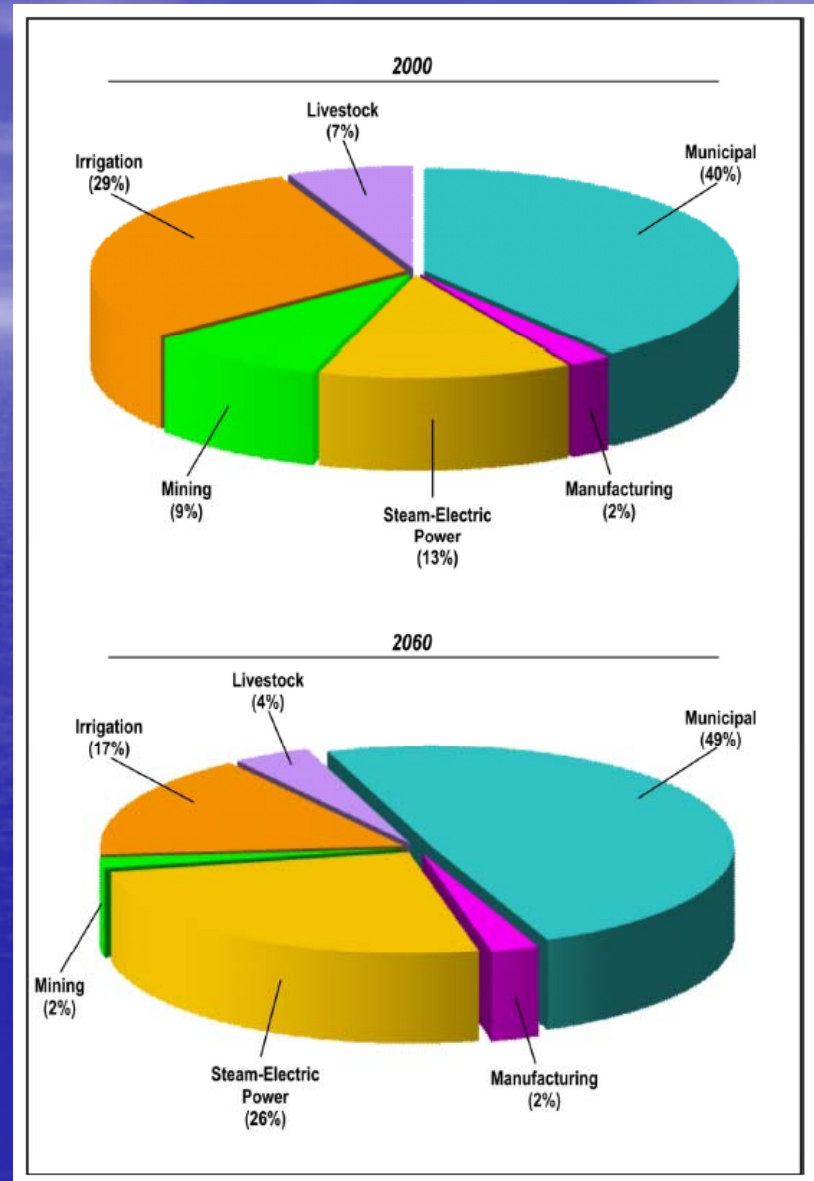
Tenaska's Water from Stamford

- *Still* about 1,000 acre-feet per year short of the water they need for dry-cooled technology.
- *Still* 10,000 acre-feet per year short of the water they need for wet-cooled technology

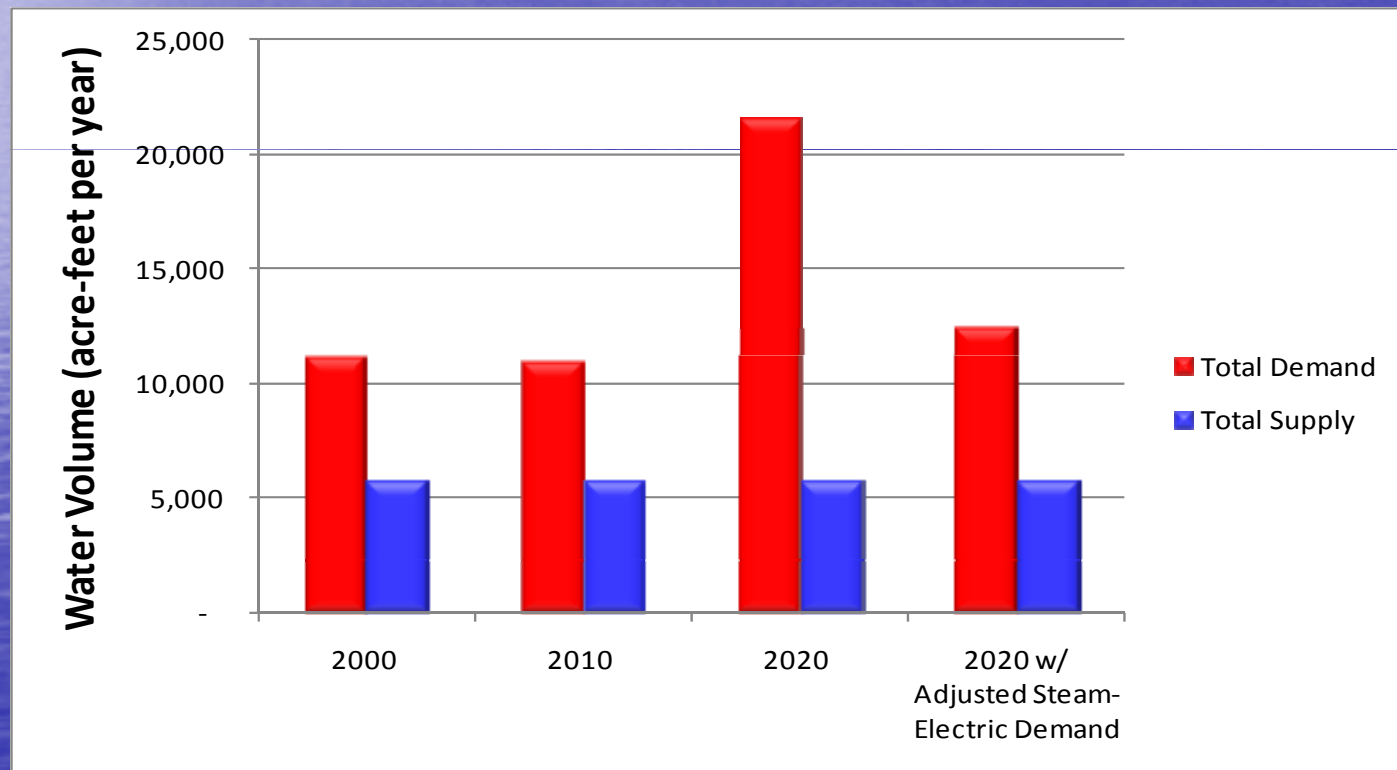
A blue-tinted photograph of a vast ocean under a cloudy sky. The text "What the Future Holds" is centered in white.

What the Future Holds

Projected Region G Water Use in 2000 and 2060



Existing and Projected Water Supply and Demand for Nolan County, Texas



References

- Ross, *What Would You Drink If the Well Went Dry*, 2011.
- Ross, *Lack of Water Availability from City of Stamford for Proposed Tenaska Coal-Fired Power Plant*, 2011.
- Environmental Defense Fund, *Energy-Water Nexus in Texas*, April 2009.
- HDR, Inc., *Initially Prepared 2011 Brazos G Regional Water Plan*, March 2010.

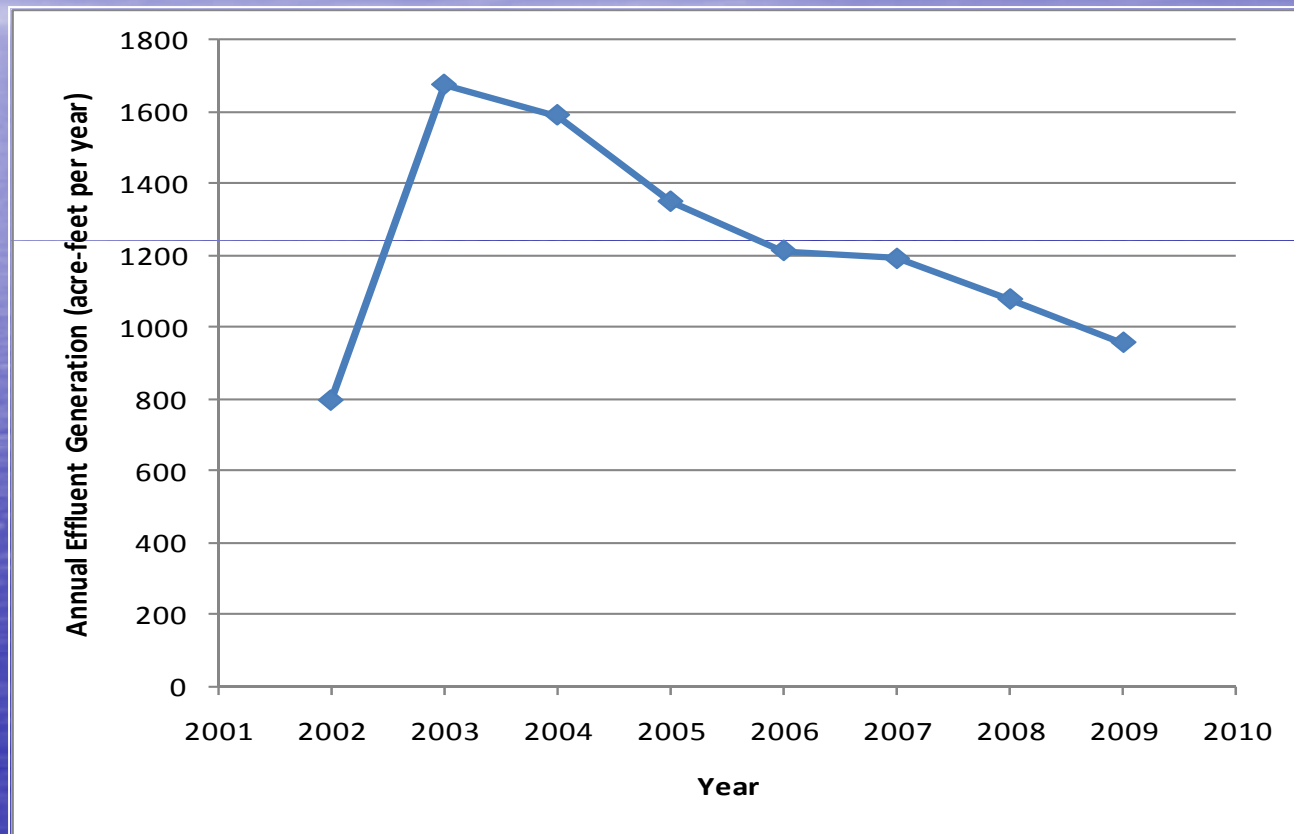
Haskell County 2010 Water Supply and Demand (acre-feet)

	Demand	Supply			Surplus/ (Shortage)
		Surface Water	Ground Water	Total	
City of Haskell	559	20		20	(539)
City of Rule	81	2	119	121	40
City of Stamford	8	17		17	9
Other County	235	73	131	204	(31)
Steam-Electric	422	898	-	898	476
Mining	93	-	108	108	15
Irrigation	49,309	844	19,360	20,204	(29,105)
Livestock	492	492	-	492	0

Nolan County 2010 Water Supply and Demand (acre-feet)

	Demand	Supply			Surplus/ (Shortage)
		Surface Water	Groundwater	Total	
Bitter Creek WSC	122	196	58	254	132
City of Roscoe	189		252	252	63
City of Sweetwater	5,367		2,000	2,000	(3,367)
Other County	199	257		257	58
Steam-Electric	807	-		-	(807)
Mining	278		170	170	(108)
Irrigation	5,138	120	3,286	3,406	(1,732)
Livestock	464	464		464	0

Sweetwater Effluent Generation



Lake Stamford Active Water Rights Permits

Permittee	Diversion Amount (acre-ft/yr)
Brazos River Authority	3,000
City of Stamford	10,000
West Texas Utilities Co.	2,200
Total Permitted Rights	15,200