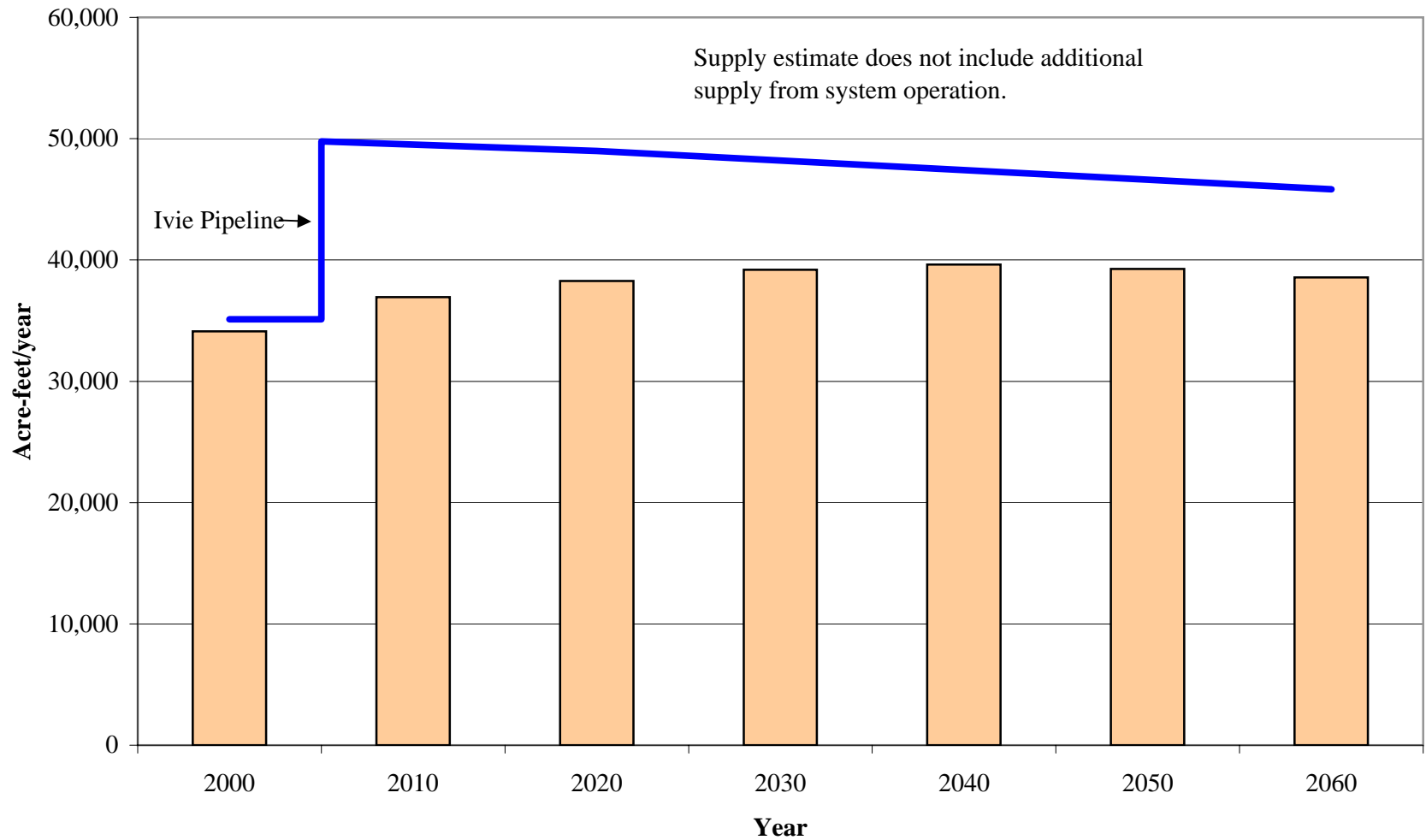


**APPENDIX D**

**SUPPLY/DEMAND COMPARISONS FOR**

**MAJOR WATER PROVIDERS**

# City of Abilene



## ABILENE

Abilene	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
City of Abilene	27,940	30,031	31,384	32,010	32,178	31,558	30,567	
Baird	291	291	291	291	291	291	291	Baird's full demand
Clyde	476	472	480	470	458	444	434	
Hamlin	0	539	551	543	531	514	487	Includes estimate of sales to Fisher County-other
Merkel	440	475	496	507	510	500	485	
Tye	167	180	189	193	194	190	184	
Eula WSC	117	117	118	116	114	111	109	40% of Callahan County-other
Callahan County WSC	103	102	103	102	99	97	96	35% of Callahan County-other
Buffalo Gap	100	100	100	100	100	100	100	300 connections at 200 gpcd
Lawn	0	100	100	100	100	100	100	300 connections at 200 gpcd
Hamby WSC	184	198	208	212	213	209	203	40% of Taylor County-other Brazos basin
Potosi WSC	415	447	468	477	478	470	454	
Steamboat Mountain WSC	501	540	565	577	581	570	552	Assume includes Tuscola
Taylor Co. FWSD #1								
Tuscola								
Sun WSC	307	307	307	307	307	307	307	Contract amount
View-Caps WSC	225	242	254	259	261	256	247	20% of Taylor County-other (Brazos basin) and 100% of Taylor County-other (Colorado basin)
Blair WSC	107	107	107	107	107	107	107	Contract Amount
Hawley WSC	419	430	443	443	437	424	408	65% of Hawley WSC projected demands Appears that population for Hawley WSC includes city of Hawley
Hawley								
Manufacturing (Taylor County)	789	972	1,081	1,177	1,270	1,349	1,462	2006 draft demands
Steam Electric (Taylor County)	31	25	20	24	28	33	39	2006 draft demands
Steam Electric (Jones County)	1,510	1,255	1,001	1,170	1,376	1,628	1,935	2006 draft demands
<b>Total</b>	<b>34,121</b>	<b>36,931</b>	<b>38,265</b>	<b>39,185</b>	<b>39,632</b>	<b>39,258</b>	<b>38,567</b>	

infrastructure to Hamlin and Lawn is not complete. Service should be in place prior to 2010.

## ABILENE

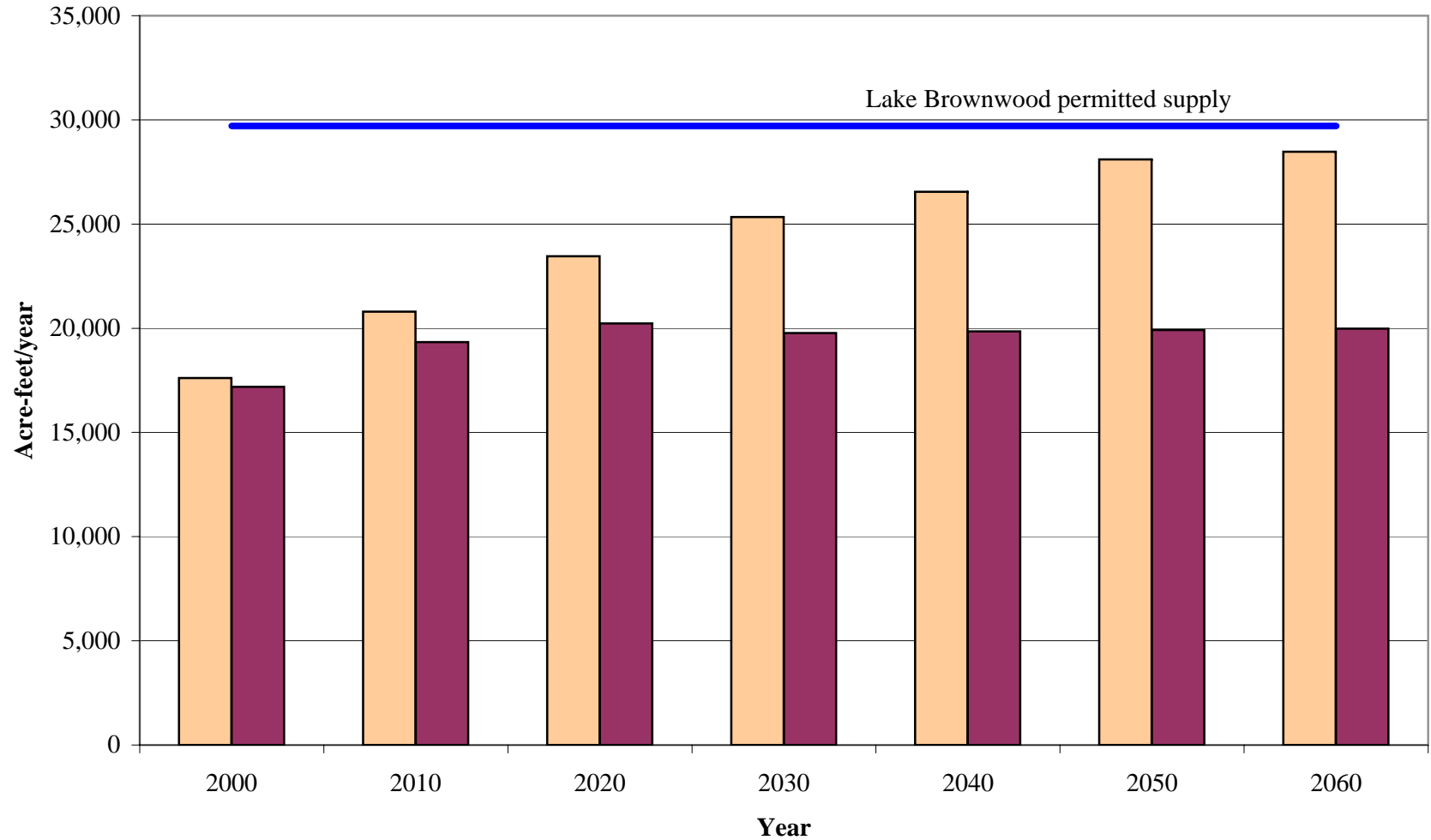
### Supplies, Current contracts

	2000	2010	2020	2030	2040	2050	2060	Comments
Lake Abilene	1,450	1,384	1,318	1,252	1,186	1,120	1,054	State plan, WAM yield > permit amount Priority order, includes diversions from Clear Fork & Deadman's Creek
Fort Phantom Hill	17,300	17,167	17,034	16,901	16,768	16,635	16,500	
Lake Kirby	NA	NA	NA	NA	NA	NA	NA	
O.H. Ivie Reservoir	0	15,000	15,000	15,000	15,000	15,000	15,000	Contract with CRMWD
West Central Texas Mwd	20,400	20,400	20,400	20,400	20,400	20,400	20,400	Contract with WCTMWD
<b>Total</b>	<b>39,150</b>	<b>53,951</b>	<b>53,752</b>	<b>53,553</b>	<b>53,354</b>	<b>53,155</b>	<b>52,954</b>	
Brazos G Supply	45,984	45,746	60,508	60,270	60,032	59,794		Includes Lake Kirby
<b>Supply - Demands</b>	<b>5,029</b>	<b>17,020</b>	<b>15,487</b>	<b>14,368</b>	<b>13,722</b>	<b>13,897</b>	<b>14,388</b>	

### Supplies, Reduced contracts

Lake Abilene	1,450	1,384	1,318	1,252	1,186	1,120	1,054	State plan, WAM yield > permit amount Priority order, includes diversions from Clear Fork & Deadman's Crk
Fort Phantom Hill	17,300	17,167	17,034	16,901	16,768	16,635	16,500	Reduction based on % reduction of safe yield under natural order
O.H. Ivie Reservoir	0	15,000	14,534	14,068	13,602	13,136	12,672	Reduction based on priority order yield and % of current contract amounts
West Central Texas Mwd	16,066	15,938	15,810	15,683	15,555	15,427	15,298	Kirby is used for reuse. Amount used in Brazos G plan
Kirby	300	300	300	300	300	300	300	
<b>Total</b>	<b>35,116</b>	<b>49,789</b>	<b>48,996</b>	<b>48,204</b>	<b>47,411</b>	<b>46,618</b>	<b>45,824</b>	
current safety factor								
priority	1.03	1.35	1.28	1.23	1.20	1.19	1.19	
natural	1.15	1.46	1.40	1.37	1.35	1.35	1.37	

# BCWID #1



## BROWN COUNTY WID#1

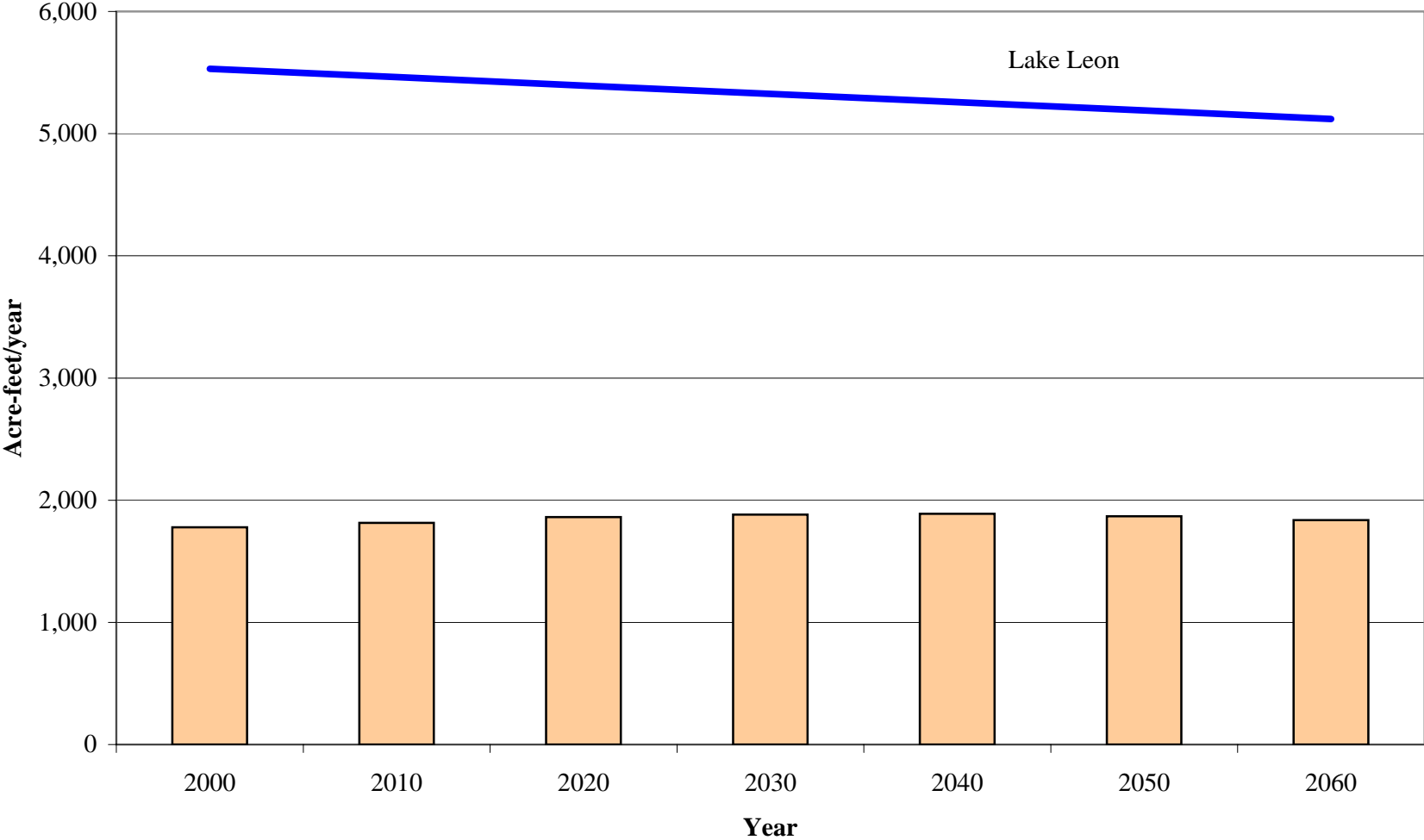
Brown County WID #1	Demands							Notes	
	2000	2010	2020	2030	2040	2050	2060		
Brownwood*	3,661	4,331	4,609	5,322	5,576	6,133	6,133	Obtained from Water Supply Assessment Study, Nov. 2001, F&N  Census data is lower than used in projections	
Brownwood -industrial	818	2,050	3,282	3,607	3,966	4,364	4,713		
Bangs	397	412	428	443	459	474	490	Census data is lower than used in projections	
Brookesmith SUD	1,273	1,442	1,609	1,778	1,946	2,114	2,114		
Santa Anna	242	251	261	271	281	290	290	Purchase through Brookesmith.	
Coleman Co. WSC	499	628	758	887	1,017	1,147	1,147		
Early	593	704	815	927	1,038	1,149	1,149	Census data is lower than used in projections	
Zephyr WSC	424	558	692	826	961	1,095	1,095	Plans on expanding service to NE Brown Co.	
Thunderbird Bay	129	451	774	774	774	774	774		
Feather Bay	80	106	117	129	142	156	156	Correctional facility and Fox Crossing To be served through Zephyr WSC	
Other contracts (potential)	520	762	1,003	1,246	1,246	1,246	1,246		
Other potential (NE Brown Co.)			assumed included with Zephyr growth						
Other potential (city of May)	57	62	69	75	83	91	93		
Vulcan Materials (White Mine)	2,000	2,000	2,000	2,000	2,000	2,000	2,000		
Irrigation	6,901	7,015	7,025	7,034	7,044	7,055	7,055		
TX Hwy dept	20	20	20	20	20	20	20		
<b>Total</b>	<b>17,614</b>	<b>20,792</b>	<b>23,462</b>	<b>25,339</b>	<b>26,553</b>	<b>28,108</b>	<b>28,475</b>	<b>Brown County WID #1 Projections</b>	
* 25% of Zephyr connections included in Brownwood									
<b>Supplies</b>									
Lake Brownwood	29,712	29,712	29,712	29,712	29,712	29,712	29,712	Permitted diversions	

## BROWN COUNTY WID#1

### BCWID Demand using TWDB population projections for selected BCWID customers

Brownwood	3754	3918	4045	4081	4081	4081	4081	
Bangs	260	271	280	282	282	282	282	
Brookesmith SUD	1241	1295	1337	1349	1350	1349	1349	
Santa Anna	206	200	197	193	190	187	187	
Coleman Co. WSC	469	470	490	495	499	502	506	
Early	513	536	553	558	558	558	558	
Zephyr WSC	557	581	600	605	605	605	605	
Brown County manufacturing	479	577	636	686	734	775	837	
Irrigation	6,901	7,015	7,025	7,034	7,044	7,055	7,055	Taken from F&N report estimate
<i>Subtotal</i>	<i>14,380</i>	<i>14,863</i>	<i>15,163</i>	<i>15,283</i>	<i>15,343</i>	<i>15,394</i>	<i>15,460</i>	
Other current contracts:								
Thunderbird Bay	129	451	774	774	774	774	774	
Feather Bay	80	106	117	129	142	156	156	
Texas Hwy Dept	20	20	20	20	20	20	20	
<i>Subtotal</i>	<i>14,609</i>	<i>15,440</i>	<i>16,074</i>	<i>16,206</i>	<i>16,279</i>	<i>16,344</i>	<i>16,410</i>	
Potential future contracts								
Other contracts (potential)	520	762	1,003	1,246	1,246	1,246	1,246	
Other potential (NE Brown Co.)		1,074	1,084	246	240	238	238	
Other potential (city of May)	57	62	69	75	83	91	93	
Vulcan Materials (White Mine)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
<b>Total</b>	<b>17,186</b>	<b>19,338</b>	<b>20,230</b>	<b>19,773</b>	<b>19,848</b>	<b>19,919</b>	<b>19,987</b>	<b>TWDB Projections</b>
<b>Historical use</b>	<b>14,235</b>							
current safety factor permit	1.69	1.43	1.27	1.17	1.12	1.06	1.04	

# Eastland County WSD

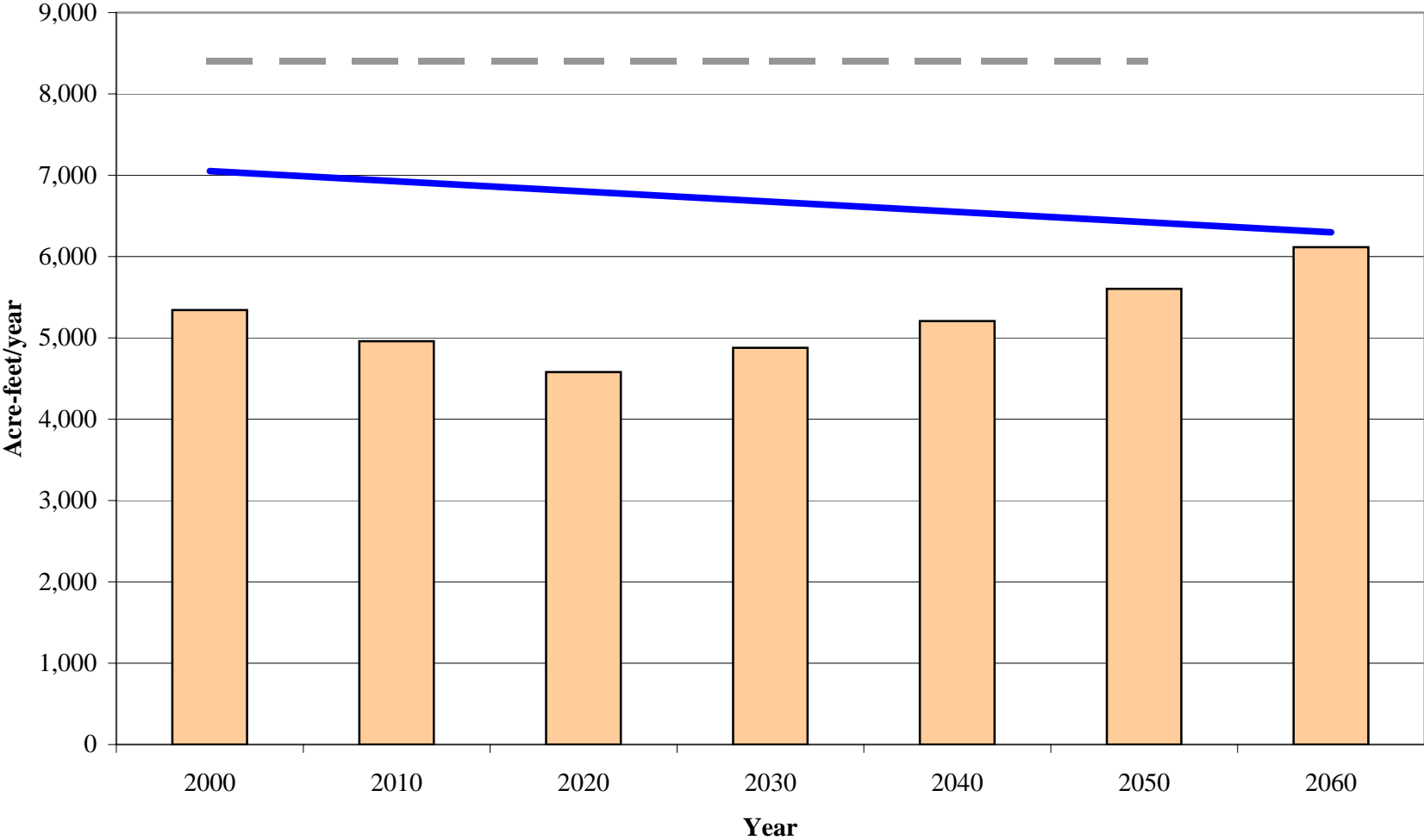




## EASTLAND COUNTY WSD

Eastland Co WSD	Demands							Comments	
	2000	2010	2020	2030	2040	2050	2060		
Eastland	870	872	874	859	835	808	772	Demands are based on historical use and projected county growth	
Ranger	434	435	436	429	417	403	385		
Eastland County-other (Brazos)	437	464	505	545	584	603	621		
Carbon	90	90	90	90	90	89	89		
Olden	80	80	80	80	80	79	79		
Morton Valley	95	95	95	95	95	94	94		
Staff Lacasa	120	120	120	120	120	119	119		
Westbound WSC	52	79	120	160	201	221	241		Provides a small amt to Comanche Co. WSC (included)
Manufacturing - Eastland Co.	36	43	47	50	53	55	59		Draft 2006 numbers
<b>Total</b>	<b>1,777</b>	<b>1,814</b>	<b>1,862</b>	<b>1,883</b>	<b>1,889</b>	<b>1,869</b>	<b>1,837</b>		
<b>Supplies</b>									
Lake Leon	5,530	5,462	5,394	5,326	5,258	5,190	5,119	WAM 3, priority order	
	5,640	5,578	5,516	5,454	5,392	5,330	5,265	WAM 3, natural order	
	9,100	9,100	9,100	9,100	9,100	9,100	9,100	Brazos G report ( table 4)	
<b>Supplies - Demands</b>	<b>3,753</b>	<b>3,648</b>	<b>3,532</b>	<b>3,443</b>	<b>3,369</b>	<b>3,321</b>	<b>3,282</b>		
<b>Historical use</b>	<b>1,768</b>								
current safety factor									
priority	3.11	3.01	2.90	2.83	2.78	2.78	2.79		
natural	3.17	3.07	2.96	2.90	2.85	2.85	2.87		

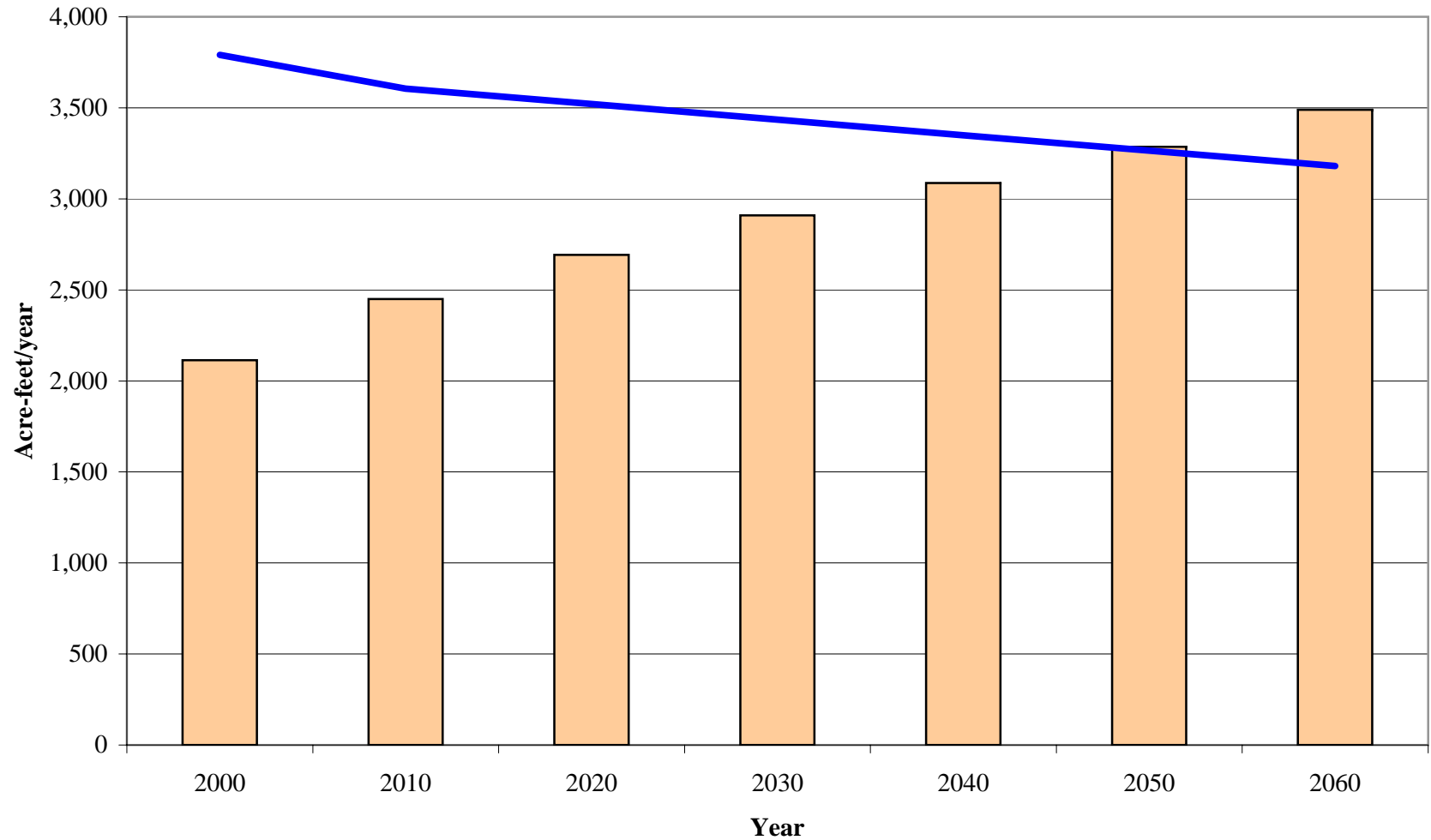
# City of Graham



## GRAHAM

	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
<b>Graham</b>								
City of Graham	2,032	2,052	2,097	2,100	2,076	2,045	2,026	
Ft. Belknap WSC	438	445	455	456	451	443	439	
Newcastle	77	78	80	80	79	78	77	
Throckmorton	80	100	100	100	100	100	100	Currently provides approx 80 af/y.
Graham-East WSC	80	80	80	80	80	80	80	
Manufacturing	27	33	36	39	42	44	48	Assume Graham provides for all of the manufacturing demands
Steam Electric Power	2,610	2,170	1,730	2,023	2,379	2,814	3,344	2006 projections
<b>Total</b>	<b>5,344</b>	<b>4,958</b>	<b>4,578</b>	<b>4,878</b>	<b>5,207</b>	<b>5,604</b>	<b>6,114</b>	
Other potential users - Graham								
Young County-Other	98	99	104	104	101	99	97	
<b>Supplies</b>								
Lake Graham	7,050	6,925	6,800	6,675	6,550	6,425	6,300	WAM Run 3, priority
	7,815	7,722	7,629	7,536	7,443	7,350	7,259	WAM Run 3, natural
	8,400	8,400	8,400	8,400	8,400	8,400		Brazos G Supply
<b>Historical Use</b>	<b>4,658</b>							
current safety factor								
priority	1.32	1.40	1.49	1.37	1.26	1.15	1.03	
natural	1.46	1.56	1.67	1.54	1.43	1.31	1.19	

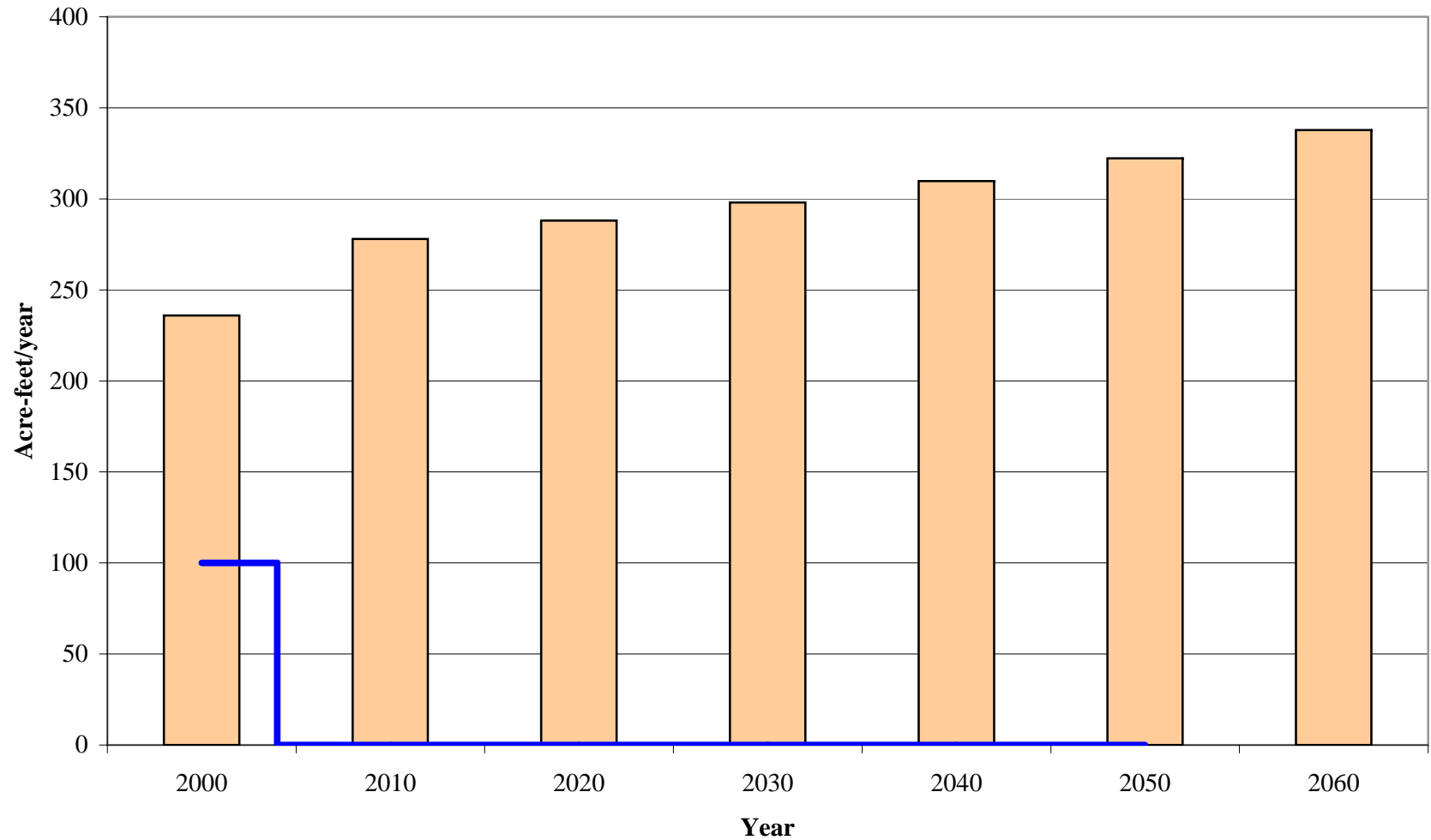
# Midway Group



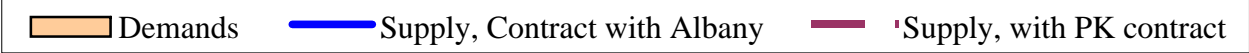
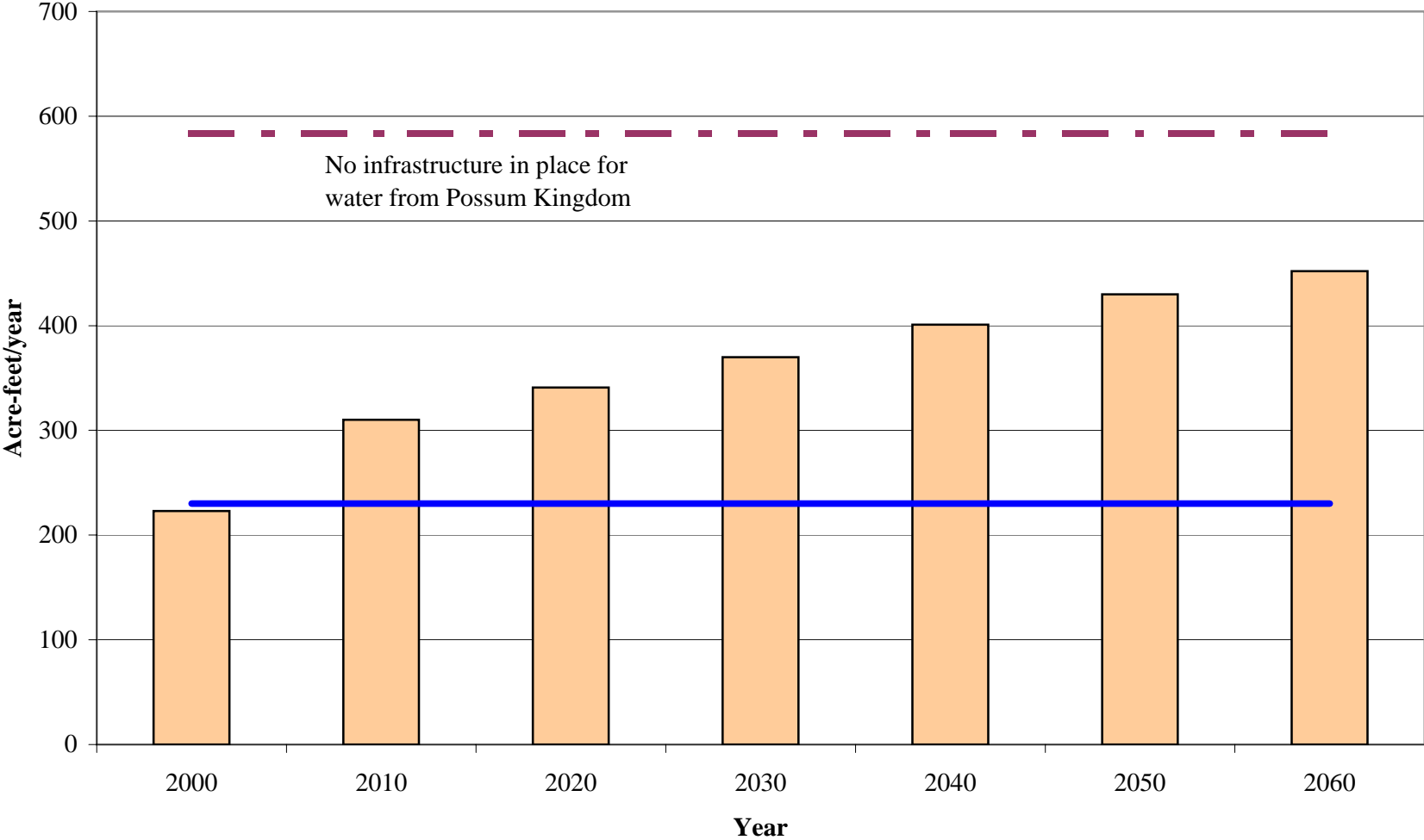
## MIDWAY GROUP

	<b>Demands</b>							
<b>Midway Group</b>	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>Comments</b>
Stephens Co. Rural	264	381	480	547	617	696	768	Revised projections
Woodson	35	36	37	38	38	39	40	
Shackelford	223	310	341	370	401	430	452	Revised projections
Moran								
Breckenridge	1,351	1,440	1,542	1,651	1,716	1,794	1,886	Revised projections
High Mesa	5	5	5	5	5	5	5	
Stephens Co. Rural				SEE ABOVE				
Throckmorton	236	278	288	298	310	322	338	Revised projections
<b>Total</b>	<b>2,114</b>	<b>2,450</b>	<b>2,693</b>	<b>2,909</b>	<b>3,087</b>	<b>3,286</b>	<b>3,489</b>	
<b>Supplies, natural order</b>								
Lake Graham	100	0	0	0	0	0	0	Assumes contract is not renewed
Lake Daniel	1,160	1,095	1,030	965	900	835	770	Natural order yield
Hubbard Creek	2,487	2,487	2,487	2,487	2,487	2,487	2,487	Contract amount = 2.57 mgd. WCTMWD report = 2487 af/y, survey shows contract max = 2,934
Sales from Albany	230	230	230	230	230	230	230	
Total supply	3,977	3,812	3,747	3,682	3,617	3,552	3,487	
<b>Supply, priority order</b>								
Lake Graham	100							
Lake Daniel	1,160	1,100	1,040	980	920	860	800	
Hubbard Creek	2,300	2,282	2,264	2,246	2,227	2,209	2,191	Reduced supply in proportion to WAM yield
Sales from Albany	230	228	226	225	223	221	219	Reduced supply in proportion to WAM yield
Total supply	3,790	3,610	3,530	3,451	3,370	3,290	3,210	
current safety factor								
priority	1.79	1.47	1.31	1.19	1.09	1.00	0.92	
natural	1.88	1.56	1.39	1.27	1.17	1.08	1.00	

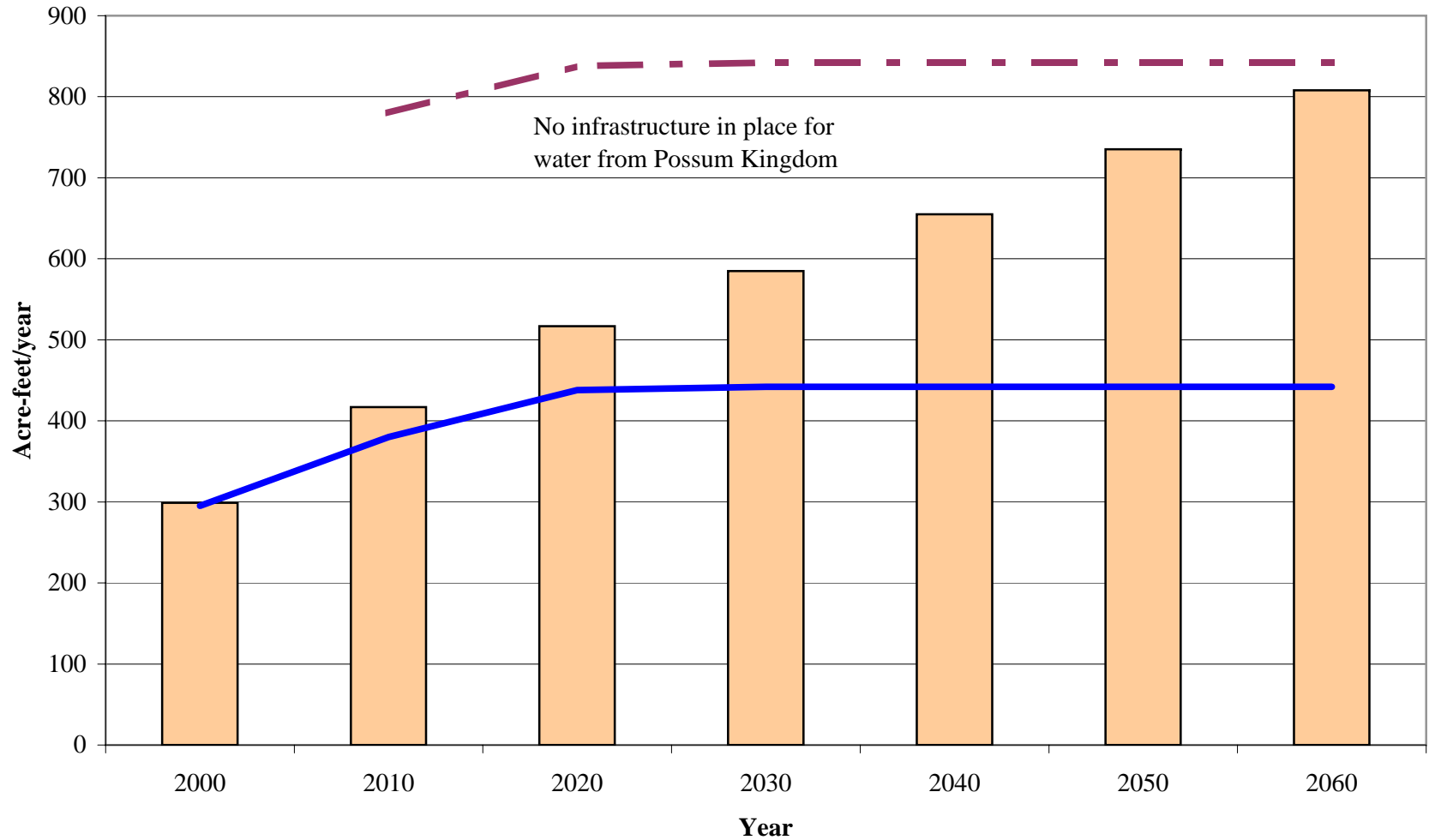
# Throckmorton



# Shackelford WSC

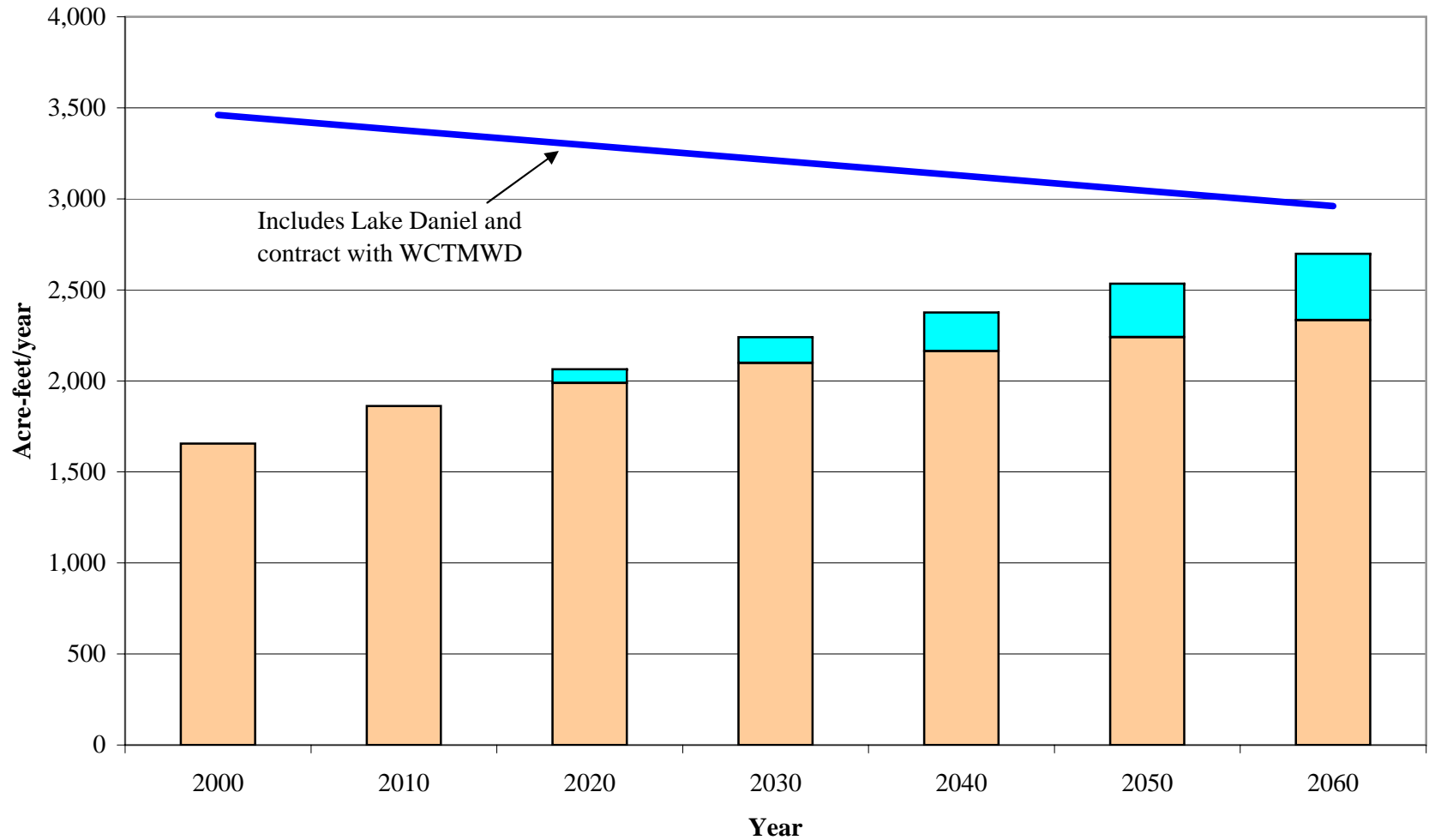


# Stephens County RWSC



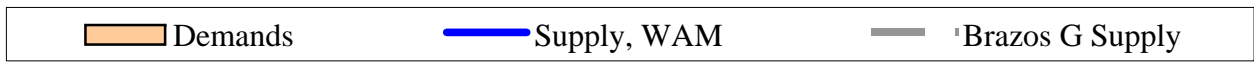
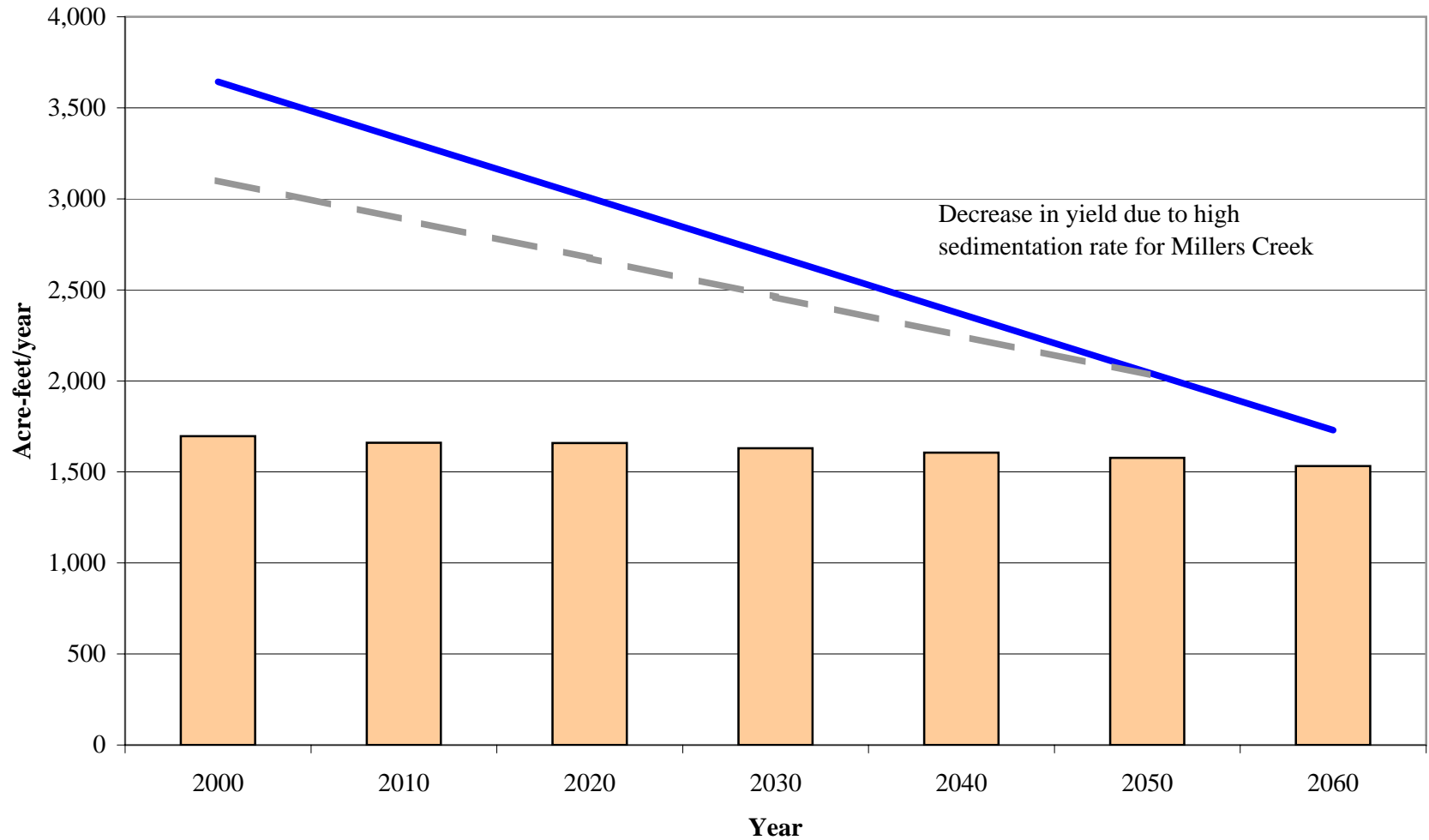


# Breckenridge



Demands, Current contracts    Additional demands    Supply, WAM

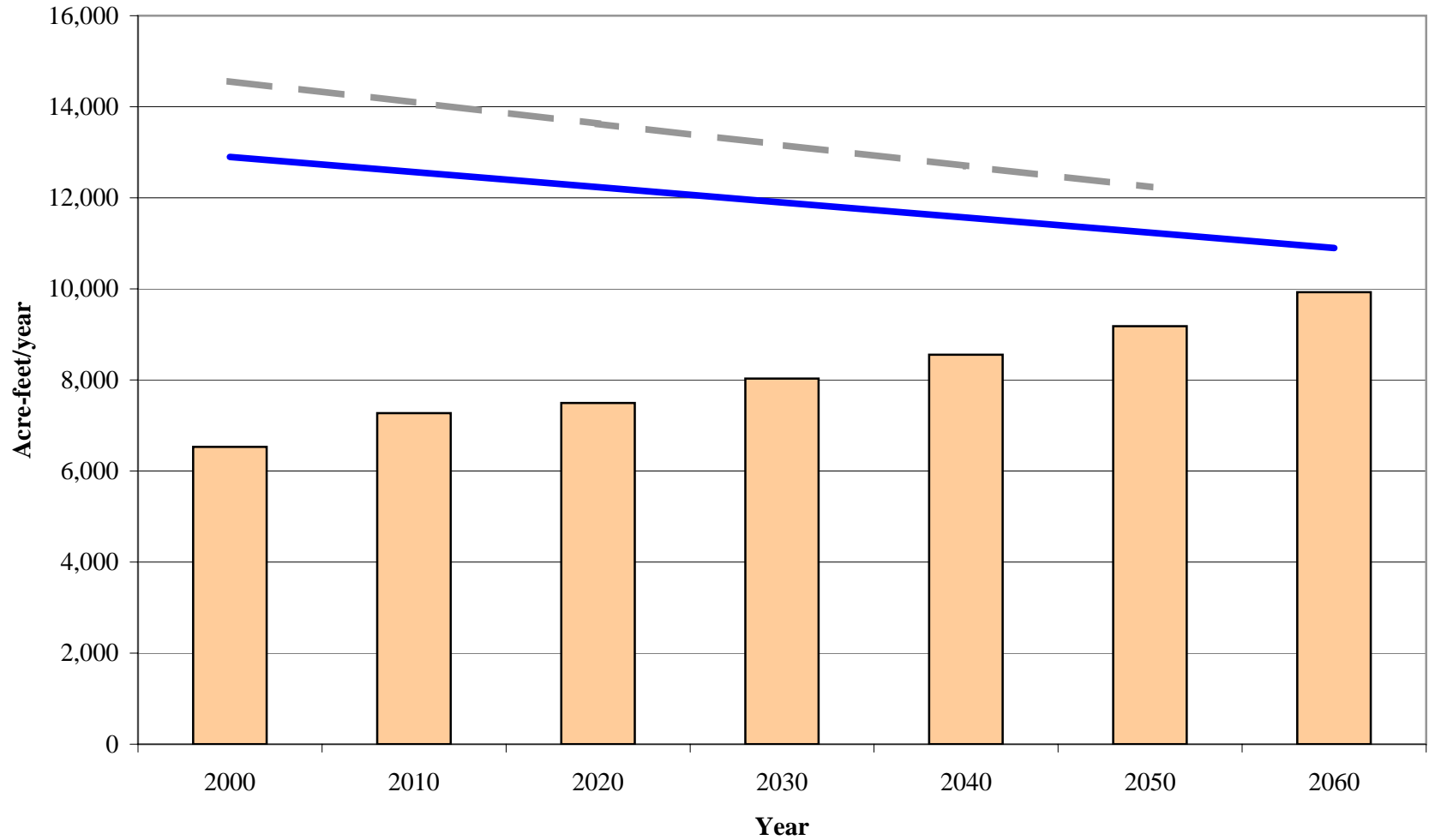
# NCTMWA



## NORTH CENTRAL TEXAS MWA

North Central Texas MWA	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
Knox City	195	192	199	199	200	199	197	
Munday	300	298	301	301	301	301	300	
Knox County-Other	171	168	174	174	174	174	172	Assume 67% of demands supplied by NCTMWA. 33% supplied by RRA
Goree								
Rhineland WSC								
Benjamin								
Aspermont	240	239	232	221	206	194	181	
Haskell	585	569	562	551	545	535	518	
Rule	110	106	104	101	99	96	92	
Haskell County-Other	95	89	87	83	81	78	72	Assume 33% of county-other - NCTMWA
O'Brien								
Paint Creek								
Rochester								
<b>Total</b>	<b>1,696</b>	<b>1,661</b>	<b>1,659</b>	<b>1,630</b>	<b>1,606</b>	<b>1,577</b>	<b>1,532</b>	
<b>Supplies</b>								
Millers Creek (WAM Run 3)	3,643	3,324	3,005	2,686	2,367	2,048	1,729	
Millers Creek (Run 3 natural order)	7,211	6,788	6,364	5,941	5,517	5,094	4,670	
Brazos G Supply	3,100	2,887	2,674	2,460	2,247	2,034		
<b>Supply - Demand</b>	<b>1,947</b>	<b>1,663</b>	<b>1,346</b>	<b>1,056</b>	<b>761</b>	<b>471</b>	<b>197</b>	
<b>Historical use</b>								
<b>Miller Creek</b>	<b>1,429</b>							
current safety factor								
priority	2.15	2.00	1.81	1.65	1.47	1.30	1.13	
natural	4.25	4.09	3.84	3.64	3.44	3.23	3.05	

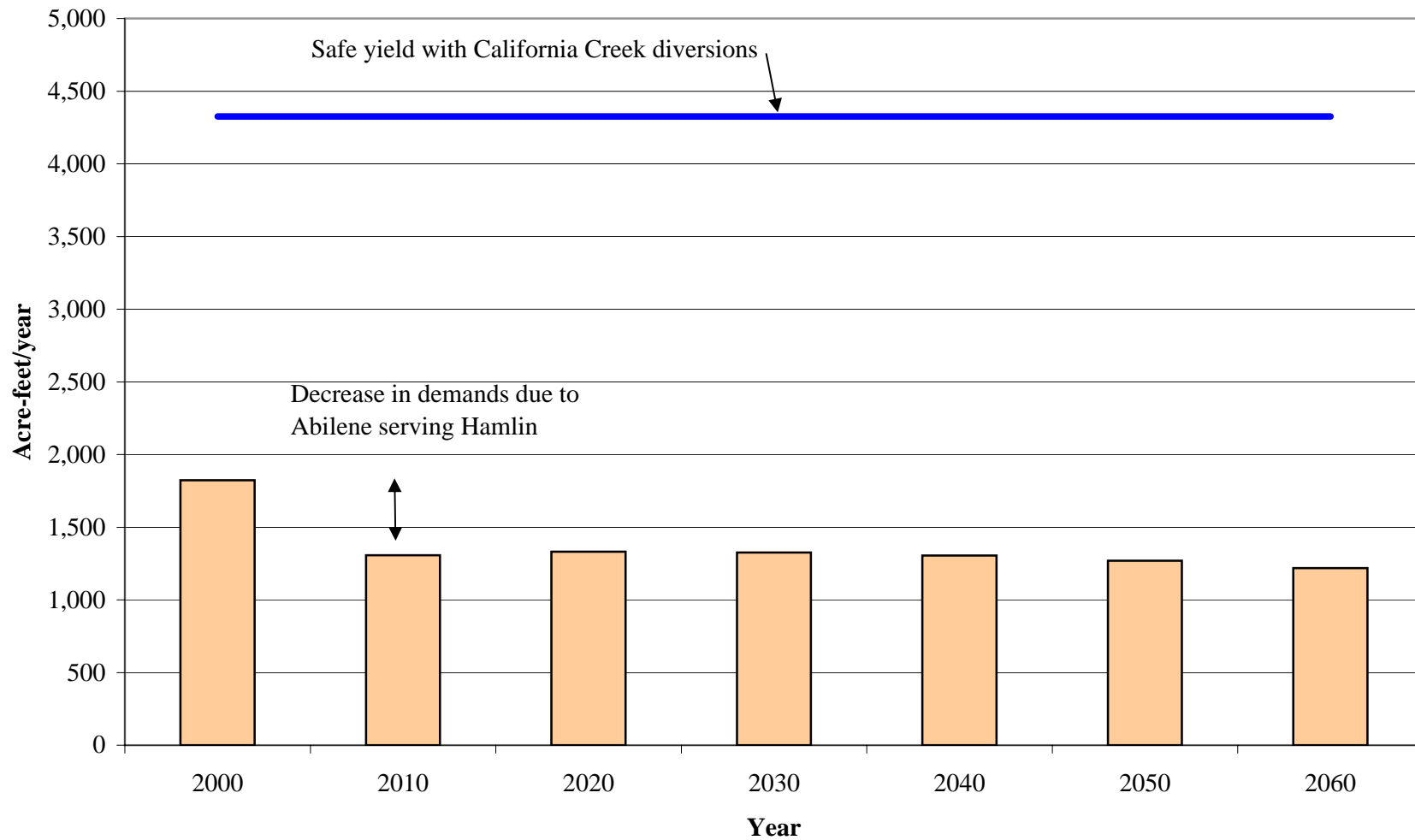
# Palo Pinto WSD



## PALO PINTO MWD #1

Palo Pinto MWD #1	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
Mineral Wells	3,286	3,699	3,769	3,829	3,887	3,955	4,034	
Palo Pinto County-other	1,476	1,680	1,928	2,137	2,339	2,578	2,854	Assume provides 90% of county-other
North Rural WSC								
Santo WSC								
Sturdivant-Progress								
Palo Pinto WSC								
Lake Palo Pinto Area WSC								
Graford	73	75	77	79	81	83	86	
Parker County-Other	297	422	435	490	490	490	490	SB1 supply available from Lake Palo Pinto for Parker Co.
Millsap								
Parker Co. WSC								
Manufacturing	23	29	33	36	39	42	46	Draft 2006 numbers
Steam Electric Power	1,378	1,365	1,250	1,461	1,719	2,033	2,416	Draft 2006 numbers
Irrigation								
<b>Total</b>	<b>6,533</b>	<b>7,270</b>	<b>7,492</b>	<b>8,032</b>	<b>8,555</b>	<b>9,181</b>	<b>9,926</b>	
<b>Supplies available</b>								
Lake Palo Pinto (natural order)	12,850	12,608	12,367	12,125	11,883	11,642	11,400	Firm yield with 1985 HDR Area-capacity survey, extended hydrology
Wam Run 3, priority order	12,900	12,567	12,233	11,900	11,567	11,233	10,900	Estimated inflows for 1998 - July, 2002
Brazos G supply	14,560	14,095	13,629	13,164	12,698	12,233		
<b>Supplies - Demands</b>	<b>6,317</b>	<b>5,338</b>	<b>4,875</b>	<b>4,093</b>	<b>3,328</b>	<b>2,461</b>	<b>1,474</b>	
<b>Historical use</b>	<b>5,939</b>							
current safety factor								
priority	1.97	1.73	1.63	1.48	1.35	1.22	1.10	
natural	1.97	1.73	1.65	1.51	1.39	1.27	1.15	

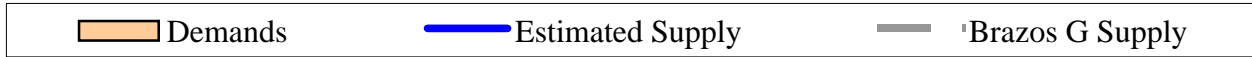
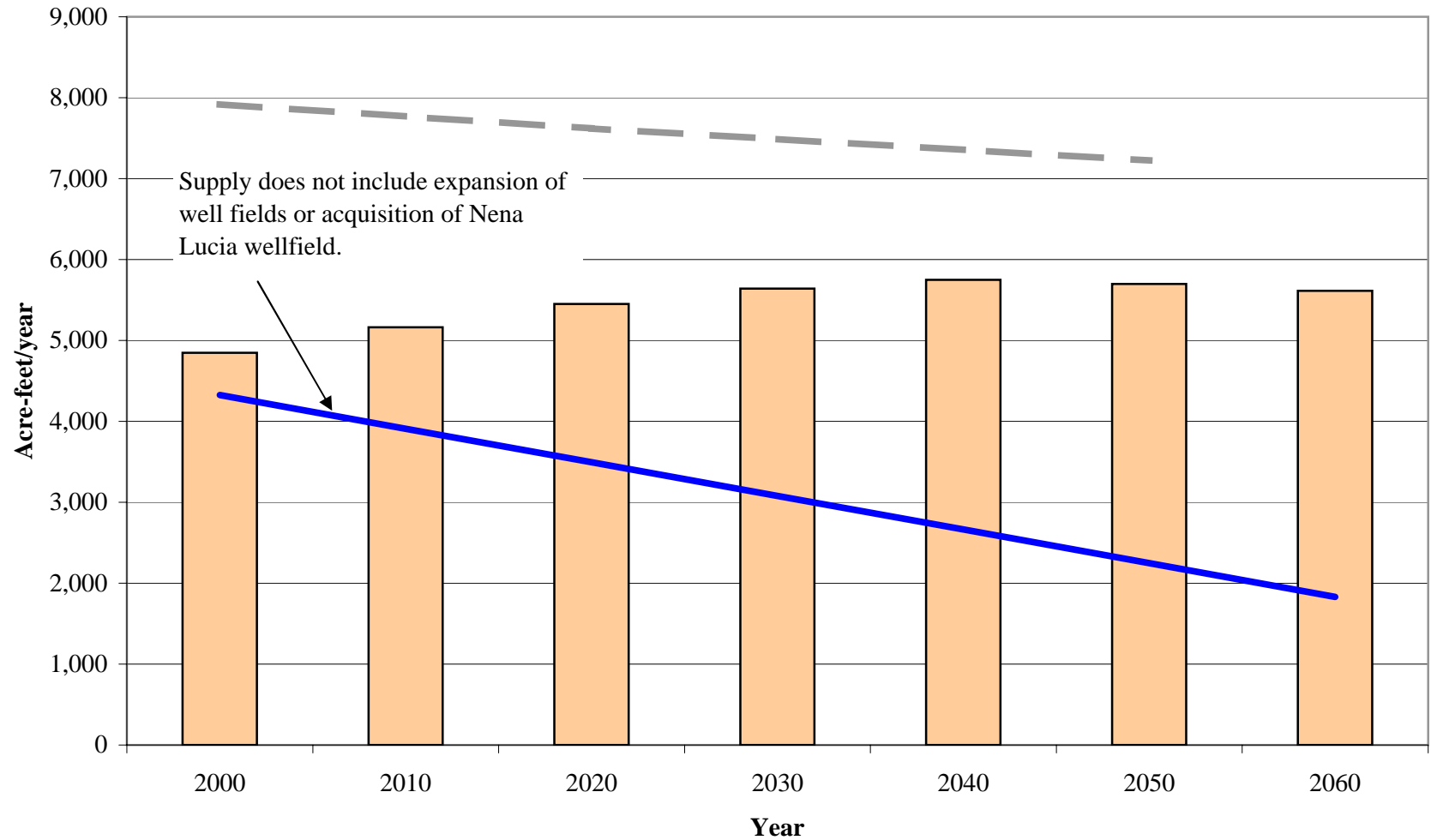
# City of Stamford



## STAMFORD

<b>Stamford</b>	<b>Demands</b>							<b>Comments</b>
	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	
City of Stamford	1,027	1,049	1,074	1,073	1,057	1,027	988	
Ericksdahl WSC	84	86	88	88	86	83	80	60% of Jones County-other
Hamlin	533	0	0	0	0	0	0	Abilene will serve Hamlin when pipeline completed.
Lueders	49	49	49	49	49	49	49	Service population = 365 @ 120gpcd
Paint Creek WSC	15	15	15	15	15	15	15	Small amount provided by Stamford
County-other (Haskell)	115	108	105	101	98	94	87	Sagerton WSC, Lakeshore sites, Stamford out of city users
Steam Electric power (Haskell)	507	422	336	393	462	547	650	SEP plant is currently mothballed.
<b>Total</b>	<b>2,330</b>	<b>1,729</b>	<b>1,667</b>	<b>1,719</b>	<b>1,767</b>	<b>1,815</b>	<b>1,869</b>	
Total without SEP	1,823	1,307	1,331	1,326	1,305	1,268	1,219	
<b>Supplies</b>								
Lake Stamford	4,325	4,325	4,325	4,325	4,325	4,325	4,325	Safe yield with Paint Creek diversion
<b>Historical Use</b>	<b>1,777</b>							

# City of Sweetwater

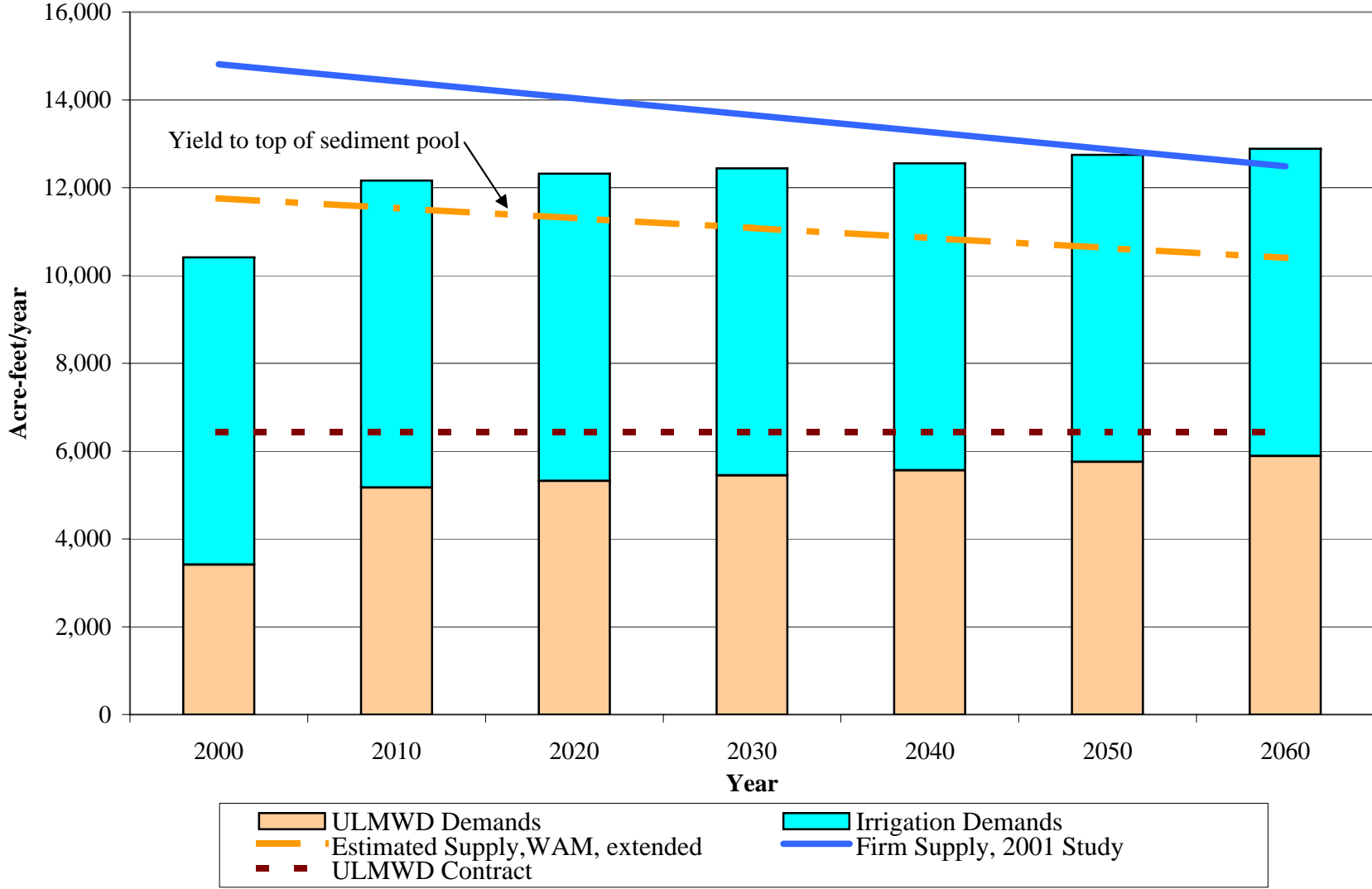




## SWEETWATER

City of Sweetwater	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
Sweetwater	3,314	3,471	3,602	3,663	3,652	3,512	3,346	
County-other Nolan Nolan Co. FWSD #1 County-other Fisher/Nolan	270	283	293	299	298	286	273	Assume 90% provided by Sweetwater during drought
Bitter Creek WSC	345	356	362	371	373	368	364	Assume 75% provided by Sweetwater during drought
Roby	113	115	115	118	120	122	125	Assume 100% provided by Sweetwater during drought
Sales from Roby	115	108	107	93	83	77	60	Assume 75% of county-other
Trent	47	51	55	59	64	69	74	
MANUFACTURING	643	779	915	1,038	1,159	1,266	1,372	2006 draft numbers Oak Creek power plant is currently moth-balled.
Steam Electric	1,093	1,315	1,882	2,200	2,588	3,061	3,638	
<b>Total</b>	<b>5,940</b>	<b>6,477</b>	<b>7,332</b>	<b>7,840</b>	<b>8,336</b>	<b>8,761</b>	<b>9,251</b>	
Without SEP	4,847	5,162	5,450	5,640	5,748	5,700	5,613	
<b>Supplies (Priority Order)</b>								
Oak Creek	0	0	0	0	0	0	0	Priority order
Lake Sweetwater	1,424	1,409	1,394	1,379	1,364	1,349	1,332	Priority order
Groundwater	2,900	2,500	2,100	1,700	1,300	900	500	Can increase groundwater usage for some years, but unknown for long-term
Total	4,324	3,909	3,494	3,079	2,664	2,249	1,832	
Brazos G Supply	7,920	7,770	7,619	7,487	7,355	7,223		
<b>Supply - Demands</b>	<b>-523</b>	<b>-1,253</b>	<b>-1,956</b>	<b>-2,561</b>	<b>-3,084</b>	<b>-3,451</b>	<b>-3,781</b>	
<b>Supplies (natural order)</b>								
Oak Creek	3,914	3,820	3,726	3,632	3,538	3,444	3,350	
Lake Sweetwater	1,442	1,437	1,432	1,427	1,422	1,417	1,412	
Groundwater	2,900	2,500	2,100	1,700	1,300	900	500	
Total	8,256	7,757	7,258	6,759	6,260	5,761	5,262	Natural order
current safety factor								
priority	0.89	0.76	0.64	0.55	0.46	0.39	0.33	
natural	1.70	1.50	1.33	1.20	1.09	1.01	0.94	

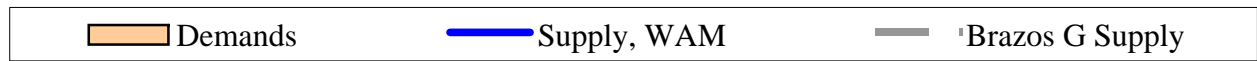
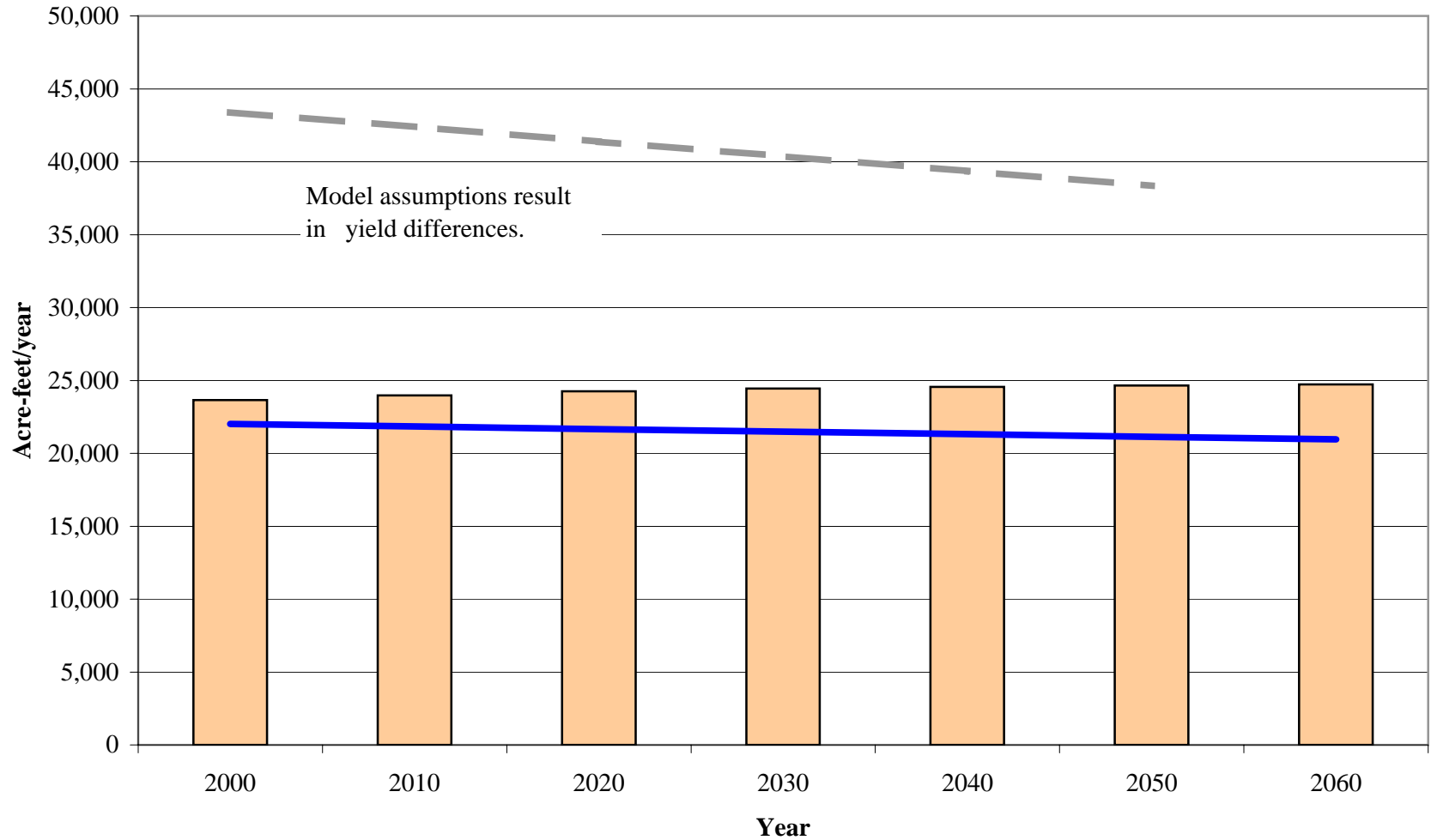
# Lake Proctor



## UPPER LEON MWD

Upper Leon MWD	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
De Leon	305	311	321	324	323	316	306	
Comanche	628	639	659	665	663	649	629	
Comanche Co. -Other (Mun sales)	125	128	131	134	137	140	144	Includes sales directly from ULMWD, Comanche, DeLeon
Gorman	164	164	164	162	158	154	148	Includes 25 af/y for industrial sales
Dublin	548	608	673	733	794	939	1,037	
local irrigation	200	200	200	200	200	200	200	Country club and pecan growers
Hamilton	851	870	897	927	963	1,000	1,043	
Stephenville	0	1,357	1,357	1,357	1,357	1,357	1,357	Assume average amount of contract (peak factor =2)
System losses (approx 20%)	569	862	887	908	927	959	982	
Manufacturing - Comanche	26	31	34	37	39	41	44	Draft 2006 numbers
<b>Total</b>	<b>3,416</b>	<b>5,170</b>	<b>5,323</b>	<b>5,447</b>	<b>5,561</b>	<b>5,755</b>	<b>5,890</b>	
<b>Irrigation (NLRIC)</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	Contracts for Proctor Irr Auth, N. Leon R. Irr Corp., Pecan Valley Nut Corp. (other contracts total 873 af/y)
<b>Total - Lake Proctor</b>	<b>10,411</b>	<b>12,165</b>	<b>12,318</b>	<b>12,442</b>	<b>12,556</b>	<b>12,750</b>	<b>12,885</b>	
<b>Supplies available</b>								
Lake Proctor	12,260	12,004	11,748	11,493	11,237	10,981	10,725	Natural order yield to top of sediment pool
	11,760	11,533	11,307	11,080	10,853	10,627	10,400	Priority order yield, top of sediment
	14,812	14,425	14,038	13,651	13,264	12,877	12,490	Natural order yield, reservoir empty
ULMWD Contract with BRA	6,437	6,437	6,437	6,437	6,437	6,437	6,437	from information provided by BRA
	5,323	5,096	4,870	4,643	4,416	4,190	3,963	
<b>Supplies - Demands</b>	<b>1,849</b>	<b>-160</b>	<b>-570</b>	<b>-949</b>	<b>-1,319</b>	<b>-1,769</b>	<b>-2,160</b>	
<b>Historical use</b>	<b>9,491</b>							
NLRIC	5,701							
ULRMWD	3,790							
current safety factor								
priority	1.13	0.95	0.92	0.89	0.86	0.83	0.81	
natural	1.42	1.19	1.14	1.10	1.06	1.01	0.97	Reservoir empty
natural	1.18	0.99	0.95	0.92	0.89	0.86	0.83	Top of sediment pool
ULMWD safety factor contract	1.88	1.25	1.21	1.18	1.16	1.12	1.09	

# WCTMWD



## WEST CENTRAL TEXAS MWD

	<b>Demands</b>							
<b>West Central Texas</b>	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>Comments</b>
Anson	524	535	548	547	539	523	503	
Hawley WSC	225	232	238	238	235	228	219	
Albany	614	636	660	647	608	531	446	85% of Albany's demands
Shackelford	223	310	341	370	401	430	452	Midway projections
Breckenridge	1,361	1,450	1,552	1,661	1,726	1,804	1,896	Midway projections
Stephens Co. Rural	299	417	517	585	655	735	808	Midway projections
Abilene	20,400	20,400	20,400	20,400	20,400	20,400	20,400	contract amount (historically has taken more in some years)
<b>Total</b>	<b>23,646</b>	<b>23,980</b>	<b>24,256</b>	<b>24,448</b>	<b>24,564</b>	<b>24,651</b>	<b>24,724</b>	
<b>Supplies</b>								
Hubbard Creek (WAM Run 3)	22,014	21,839	21,664	21,489	21,314	21,139	20,962	
Hubbard Creek (WAM Run 3 natural)	43,300	43,127	42,954	42,781	42,608	42,435	42,260	
Brazos G Supply	43,399	42,389	41,379	40,369	39,359	38,349		
Hubbard Creek Safe yield - natural	32,895							
Supply - Demands (natural)	19,654	19,147	18,698	18,333	18,044	17,784	17,536	
Supply - Demands (priority)	-1,632	-2,141	-2,592	-2,959	-3,250	-3,512	-3,762	
 <b>Historical use</b>	 <b>27,843</b>							Abilene used more than contract amount (17362)
<b>Contracts</b>								
	<b>ac-ft/yr</b>	<b>%</b>						
Breckenridge	2916	10.45%						From WCTMWD contract
Anson	2061	7.39%						From Region G plan (table 3)
Albany	1882	6.75%						From Region G plan (table 3)
Abilene	20400	72.98%						From WCTMWD contract
Allocated safe yield of Hubbard Creek	27900	97.56%						
<b>Amount available under priority system yield</b>								
Breckenridge	2,300	2,282	2,264	2,246	2,227	2,209	2,191	
Anson	1,626	1,613	1,600	1,587	1,574	1,562	1,548	
Albany	1,485	1,473	1,461	1,450	1,438	1,426	1,414	
Abilene	16,066	15,938	15,810	15,683	15,555	15,427	15,298	
current safety factor								
priority	0.93	0.91	0.89	0.88	0.87	0.86	0.85	
natural	1.83	1.80	1.77	1.75	1.73	1.72	1.71	

Summary of Demands for Water Providers

	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
Abilene	34,121	36,931	38,265	39,185	39,632	39,258	38,567
Brown County WID #1	17,186	19,338	20,230	19,773	19,848	19,919	19,987
Eastland County WSC	1,777	1,814	1,862	1,883	1,889	1,869	1,837
Graham	5,344	4,958	4,578	4,878	5,207	5,604	6,114
NCTMWA	1,696	1,661	1,659	1,630	1,606	1,577	1,532
Palo Pinto MWD	6,533	7,270	7,492	8,032	8,555	9,181	9,926
Stamford	2,330	1,729	1,667	1,719	1,767	1,815	1,869
Sweetwater	4,847	5,162	5,450	5,640	5,748	5,700	5,613
Upper Leon MWD	3,416	5,170	5,323	5,447	5,561	5,755	5,890
WCTMWD	23,646	23,980	24,256	24,448	24,564	24,651	24,724
Midway Group							
Breckenridge	1,655	1,862	1,989	2,098	2,163	2,241	2,333
Throckmorton	236	278	288	298	310	322	338
Shackelford Co. WSC	223	310	341	370	401	430	452
Stephens Co. RWSC	299	417	517	585	655	735	808
Cisco							
Snyder (provided by CRN)	2,816	2,920	3,018	3,070	3,097	3,115	3,115
Olney							
Scurry County-other							
Fisher County-other							
Nolan County-Other							
Kent							
Stonewall							
Haskell							

Summary of Shortages for Water Providers

	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
Throckmorton	-136	-278	-288	-298	-310	-322	-338
Shackelford Co. WSC		-80	-111	-140	-171	-200	-222
Stephens Co. RWSC	-4	-37	-79	-143	-213	-293	-366
WCTMWD	-1,632	-2,141	-2,592	-2,959	-3,250	-3,512	-3,762
Sweetwater	-523	-1,253	-1,956	-2,561	-3,084	-3,451	-3,781

Strawn		-2	-9	-15	-21	-28	-36
Northeast Brown County	-135	-170	-170	-170	-170	-170	-170
	-2429.75	-3961.1	-5204.9	-6286.3	-7218.9	-7976.2	-8675.2
<b>Reserve Shortages</b>							
Throckmorton	195	347.5	360	372.5	387.188	402.813	422.188
Shackelford Co. WSC	48.75	157.5	196.25	232.5	271.25	307.5	335
Stephens Co. RWSC	78.75	141.25	208.25	289.25	376.75	476.75	568
WCTMWD	7543.5	8136	8656	9071	9391	9674.75	9943
Sweetwater	1734.44	2543.63	3318.38	3971.38	4521.19	4875.94	5184.81
Strawn	35	42.5	51.25	58.75	66.25	75	85
Northeast Brown County	170	170	170	170	170	170	170
Rising Star	150	150	150	150	150	150	150
Lawn	125	125	125	125	125	125	125
ULMWD		25	217	371.5	514	757	925
Abilene				776.688	2129.13	2454.69	2384.13
BCWID #1				1961.75	3479.25	5423	5881.9
Graham						380	1104.5
Palo Pinto MWD							1007.38
NCTMWA							186
<b>Total reserve shortage</b>	<b>10080.4</b>	<b>11838.4</b>	<b>13452.1</b>	<b>17550.3</b>	<b>21581</b>	<b>25272.4</b>	<b>28471.9</b>
Firm yield shortage	2429.75	3961.1	5204.9	6286.3	7218.9	7976.2	8675.2
Additional - reserve	7650.69	7877.28	8247.23	11264	14362.1	17296.2	19796.7

Anson

Summary of Supplies for Water Providers

<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
36,112	50,913	50,714	50,515	50,316	50,117	49,916
29,712	29,712	29,712	29,712	29,712	29,712	29,712
5,530	5,462	5,394	5,326	5,258	5,190	5,119
7,050	6,965	6,880	6,795	6,710	6,625	6,538
3,643	3,324	3,005	2,686	2,367	2,048	1,729
12,898	12,566	12,234	11,902	11,570	11,238	10,906
4,325	4,325	4,325	4,325	4,325	4,325	4,325
4,324	3,909	3,494	3,079	2,664	2,249	1,832
6,437	6,437	6,437	6,437	6,437	6,437	6,437
22,014	21,839	21,664	21,489	21,314	21,139	20,962
3,461	3,378	3,294	3,211	3,128	3,044	2,961
100	0	0	0	0	0	0
230	230	230	230	230	230	230
295	380	438	442	442	442	442
1316	1316	1316	1316	1316	1316	1316
2816	2920	3018	3070	3097	3115	3115
810	810	810	810	810	810	810
827	824	817	812	804	805	805
500	500	500	500	500	500	500
500	501	502	503	504	505	506
443	443	443	443	443	443	443
335	335	335	335	335	335	335
115	115	115	115	115	115	115
143,793	157,204	155,677	154,053	152,397	150,740	149,054



<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
-195	-348	-360	-373	-387	-403	-422
-49	-158	-196	-233	-271	-308	-335
-79	-141	-208	-289	-377	-477	-568
-7,544	-8,136	-8,656	-9,071	-9,391	-9,675	-9,943
-1,734	-2,544	-3,318	-3,971	-4,521	-4,876	-5,185
-35	-43	-51	-59	-66	-75	-85
-170	-170	-170	-170	-170	-170	-170
-150	-150	-150	-150	-150	-150	-150
-125	-125	-125	-125	-125	-125	-125
0	-25	-217	-372	-514	-757	-925
0	0	0	-777	-2,129	-2,455	-2,384
0	0	0	-1,962	-3,479	-5,423	-5,882
0	0	0	0	0	-380	-1,105
0	0	0	0	0	0	-1,007
0	0	0	0	0	0	-186
<b>-10,080</b>	<b>-11,838</b>	<b>-13,452</b>	<b>-17,550</b>	<b>-21,581</b>	<b>-25,272</b>	<b>-28,472</b>

Summary of Needs for Water Providers

<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
1,991	13,982	12,449	11,330	10,684	10,859	11,350
12,526	10,375	9,482	9,939	9,864	9,793	9,725
3,753	3,648	3,532	3,443	3,369	3,321	3,282
1,706	2,007	2,302	1,917	1,503	1,021	424
1,947	1,663	1,346	1,056	761	471	197
6,365	5,296	4,742	3,870	3,015	2,057	980
1,995	2,596	2,658	2,606	2,558	2,510	2,456
-523	-1,253	-1,956	-2,561	-3,084	-3,451	-3,781
3,021	1,267	1,114	990	876	682	547
-1,632	-2,141	-2,592	-2,959	-3,250	-3,512	-3,762
1,806	1,516	1,305	1,113	965	803	628
-136	-278	-288	-298	-310	-322	-338
7	-80	-111	-140	-171	-200	-222
-4	-37	-79	-143	-213	-293	-366



Summary of Municipal Demands for WCB study area

**Data**

County Name	Sum of D.	Sum of D.	Sum of D.	Sum of D.	Sum of D.	Sum of D.	Sum of D.
BROWN	6,888	7,189	7,422	7,487	7,487	7,487	7,487
CALLAHAN	1,744	1,735	1,755	1,726	1,691	1,655	1,625
COLEMAN	379	375	376	376	376	376	376
COMANCHE	1,825	1,858	1,916	1,934	1,928	1,887	1,828
EASTLAND	2,978	2,985	2,993	2,942	2,861	2,767	2,645
FISHER	738	727	725	700	682	673	643
HASKELL	994	959	942	918	904	881	843
JONES	4,192	4,279	4,383	4,374	4,309	4,183	4,019
KENT	181	177	172	154	126	112	98
KNOX	750	740	759	759	761	760	754
MILLS	6	6	7	7	8	7	7
NOLAN	4,076	4,269	4,430	4,506	4,491	4,319	4,115
PALO PINTO	4,735	5,031	5,386	5,688	5,980	6,322	6,721
PARKER	422	776	776	776	776	776	776
RUNNELS	15	18	32	42	53	62	73
SCURRY	3,648	3,788	3,920	3,989	4,027	4,051	4,051
SHACKELFORD	934	1,011	1,100	1,155	1,188	1,190	1,192
STEPHENS	1,670	1,851	2,032	2,185	2,301	2,429	2,563
STONEWALL	334	333	323	308	287	270	252
TAYLOR	28,909	31,152	32,587	33,271	33,474	32,844	31,824
THROCKMORTON	383	412	441	466	492	523	557
YOUNG	3,518	3,554	3,633	3,639	3,596	3,543	3,511
Grand Total	69,319	73,225	76,110	77,402	77,798	77,117	75,960
Safety factor - study area	2.07	2.15	2.05	1.99	1.96	1.95	1.96





Summary of Demands for Water Providers

	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
Abilene	34,121	36,931	38,265	39,185	39,632	39,258	38,567
Brown County WID #1	17,186	19,338	20,230	19,773	19,848	19,919	19,987
Eastland County WSC	1,777	1,814	1,862	1,883	1,889	1,869	1,837
Graham	5,344	4,958	4,578	4,878	5,207	5,604	6,114
NCTMWA	1,696	1,661	1,659	1,630	1,606	1,577	1,532
Palo Pinto MWD	6,533	7,270	7,492	8,032	8,555	9,181	9,926
Stamford	2,330	1,729	1,667	1,719	1,767	1,815	1,869
Sweetwater	5,940	6,477	7,332	7,840	8,336	8,761	9,251
Upper Leon MWD	3,416	5,170	5,323	5,447	5,561	5,755	5,890
WCTMWD	23,646	23,980	24,256	24,448	24,564	24,651	24,724
Midway Group							
Breckenridge	1,655	1,862	1,989	2,098	2,163	2,241	2,333
Throckmorton	236	278	288	298	310	322	338
Shackelford Co. WSC	223	310	341	370	401	430	452
Stephens Co. RWSC	299	417	517	585	655	735	808
Cisco							
Snyder (provided by CRN)	2,816	2,920	3,018	3,070	3,097	3,115	3,115
Olney							
Scurry County-other							
Fisher County-other							
Nolan County-Other							
Kent							
Stonewall							
Haskell							

Summary of Shortages for Water Providers

	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
Throckmorton	-136	-239	-243	-247	-252	-257	-265
Shackelford Co. WSC		-80	-111	-140	-171	-200	-222
Stephens Co. RWSC			-75	-143	-213	-293	-366
WCTMWD					-212	-474	-724
Sweetwater	-523	-1,253	-1,956	-2,561	-3,084	-3,451	-3,781

Strawn				-1	-6	-13	-20
Northeast Brown County	-135	-321	-447	-570	-581	-525	
	-793.75	-1893.1	-2831.9	-3662.3	-4519.15	-5212.95	-5378.45



Summary of Supplies for Water Providers - adjusted for municipal supplies

<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
33,782	48,661	48,612	48,144	47,642	47,107	46,480
21,993	20,647	19,405	19,071	18,702	18,293	17,944
5,530	5,462	5,394	5,326	5,258	5,190	5,119
4,413	4,762	5,114	4,733	4,289	3,767	3,146
3,643	3,324	3,005	2,686	2,367	2,048	1,729
11,497	11,172	10,951	10,405	9,812	9,163	8,444
4,325	4,325	4,325	4,325	4,325	4,325	4,325
3,681	3,130	2,579	2,041	1,505	983	460
5,842	5,544	5,516	5,492	5,471	5,437	5,411
22,014	21,839	21,664	21,489	21,314	21,139	20,962
1,160	1,095	1,030	965	900	835	770
1316	1316	1316	1316	1316	1316	1316
2816	2920	3018	3070	3097	3115	3115
810	810	810	810	810	810	810
827	824	817	812	804	805	805
500	500	500	500	500	500	500
500	501	502	503	504	505	506
443	443	443	443	443	443	443
335	335	335	335	335	335	335
115	115	115	115	115	115	115
125,542	137,725	135,451	132,581	129,509	126,231	122,735



Summary of Municipal Demands for WCB study area

County Name	<b>Data</b>			
	Sum of D200C	Sum of D201C	Sum of D202C	Sum of D203C
BROWN	6,888	7,189	7,422	7,487
CALLAHAN	1,744	1,735	1,755	1,726
COLEMAN	379	375	376	376
COMANCHE	1,825	1,858	1,916	1,934
EASTLAND	2,978	2,985	2,993	2,942
FISHER	738	727	725	700
HASKELL	994	959	942	918
JONES	4,192	4,279	4,383	4,374
KENT	181	177	172	154
KNOX	750	740	759	759
MILLS	6	6	7	7
NOLAN	4,076	4,269	4,430	4,506
PALO PINTO	4,735	5,031	5,386	5,688
PARKER	422	776	776	776
RUNNELS	15	18	32	42
SCURRY	3,648	3,788	3,920	3,989
SHACKELFORD	934	1,011	1,100	1,155
STEPHENS	1,670	1,851	2,032	2,185
STONEWALL	334	333	323	308
TAYLOR	28,909	31,152	32,587	33,271
THROCKMORTON	383	412	441	466
YOUNG	3,518	3,554	3,633	3,639
Grand Total	69,319	73,225	76,110	77,402
	68,497	72,050	74,919	76,201
Safety factor - study area	1.81	1.88	1.78	1.71



Sum of D204C	Sum of D205C	Sum of D2060
7,487	7,487	7,487
1,691	1,655	1,625
376	376	376
1,928	1,887	1,828
2,861	2,767	2,645
682	673	643
904	881	843
4,309	4,183	4,019
126	112	98
761	760	754
8	7	7
4,491	4,319	4,115
5,980	6,322	6,721
776	776	776
53	62	73
4,027	4,051	4,051
1,188	1,190	1,192
2,301	2,429	2,563
287	270	252
33,474	32,844	31,824
492	523	557
3,596	3,543	3,511
77,798	77,117	75,960
76,585	75,896	74,728
1.66	1.64	1.62

## BROWN COUNTY WID#1

Brown County WID #1	Demands							Notes	
	2000	2010	2020	2030	2040	2050	2060		
Brownwood*	3,661	4,331	4,609	5,322	5,576	6,133	6,133	Obtained from Water Supply Assessment Study, Nov. 2001, F&N  Census data is lower than used in projections	
Brownwood -industrial	818	2,050	3,282	3,607	3,966	4,364	4,713		
Bangs	397	412	428	443	459	474	490	Census data is lower than used in projections	
Brookesmith SUD	1,273	1,442	1,609	1,778	1,946	2,114	2,114		
Santa Anna	242	251	261	271	281	290	290	Purchase through Brookesmith.	
Coleman Co. WSC	499	628	758	887	1,017	1,147	1,147		
Early	593	704	815	927	1,038	1,149	1,149	Census data is lower than used in projections	
Zephyr WSC	424	558	692	826	961	1,095	1,095	Plans on expanding service to NE Brown Co.	
Thunderbird Bay	129	451	774	774	774	774	774		
Feather Bay	80	106	117	129	142	156	156	Correctional facility and Fox Crossing To be served through Zephyr WSC	
Other contracts (potential)	520	762	1,003	1,246	1,246	1,246	1,246		
Other potential (NE Brown Co.)			assumed included with Zephyr growth						
Other potential (city of May)	57	62	69	75	83	91	93		
Vulcan Materials (White Mine)	2,000	2,000	2,000	2,000	2,000	2,000	2,000		
Irrigation	6,901	7,015	7,025	7,034	7,044	7,055	7,055		
TX Hwy dept	20	20	20	20	20	20	20		
<b>Total</b>	<b>17,614</b>	<b>20,792</b>	<b>23,462</b>	<b>25,339</b>	<b>26,553</b>	<b>28,108</b>	<b>28,475</b>	<b>Brown County WID #1 Projections</b>	
* 25% of Zephyr connections included in Brownwood									
<b>Supplies</b>									
Lake Brownwood	29,712	29,712	29,712	29,712	29,712	29,712	29,712	Permitted diversions	

## BROWN COUNTY WID#1

### BCWID Demand using TWDB population projections for selected BCWID customers

Brownwood	3754	3918	4045	4081	4081	4081	4081	
Bangs	260	271	280	282	282	282	282	
Brookesmith SUD	1241	1295	1337	1349	1350	1349	1349	
Santa Anna	206	200	197	193	190	187	187	
Coleman Co. WSC	469	470	490	495	499	502	506	
Early	513	536	553	558	558	558	558	
Zephyr WSC	557	581	600	605	605	605	605	
Brown County manufacturing	479	577	636	686	734	775	837	
Irrigation	6,901	7,015	7,025	7,034	7,044	7,055	7,055	Taken from F&N report estimate
<i>Subtotal</i>	<i>14,380</i>	<i>14,863</i>	<i>15,163</i>	<i>15,283</i>	<i>15,343</i>	<i>15,394</i>	<i>15,460</i>	
Other current contracts:								
Thunderbird Bay	129	451	774	774	774	774	774	
Feather Bay	80	106	117	129	142	156	156	
Texas Hwy Dept	20	20	20	20	20	20	20	
<i>Subtotal</i>	<i>14,609</i>	<i>15,440</i>	<i>16,074</i>	<i>16,206</i>	<i>16,279</i>	<i>16,344</i>	<i>16,410</i>	
Potential future contracts								
Other contracts (potential)	520	762	1,003	1,246	1,246	1,246	1,246	
Other potential (NE Brown Co.)		1,074	1,084	246	240	238	238	
Other potential (city of May)	57	62	69	75	83	91	93	
Vulcan Materials (White Mine)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
<b>Total</b>	<b>17,186</b>	<b>19,338</b>	<b>20,230</b>	<b>19,773</b>	<b>19,848</b>	<b>19,919</b>	<b>19,987</b>	<b>TWDB Projections</b>
<b>Historical use</b>	<b>14,235</b>							
current safety factor permit	1.69	1.43	1.27	1.17	1.12	1.06	1.04	

## UPPER LEON MWD

Upper Leon MWD	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
De Leon	305	311	321	324	323	316	306	
Comanche	628	639	659	665	663	649	629	
Comanche Co. -Other (Mun sales)	125	128	131	134	137	140	144	Includes sales directly from ULMWD, Comanche, DeLeon
Gorman	164	164	164	162	158	154	148	Includes 25 af/y for industrial sales
Dublin	548	608	673	733	794	939	1,037	
local irrigation	200	200	200	200	200	200	200	Country club and pecan growers
Hamilton	851	870	897	927	963	1,000	1,043	
Stephenville	0	1,357	1,357	1,357	1,357	1,357	1,357	Assume average amount of contract (peak factor =2)
System losses (approx 20%)	569	862	887	908	927	959	982	
Manufacturing - Comanche	26	31	34	37	39	41	44	Draft 2006 numbers
<b>Total</b>	<b>3,416</b>	<b>5,170</b>	<b>5,323</b>	<b>5,447</b>	<b>5,561</b>	<b>5,755</b>	<b>5,890</b>	
<b>Irrigation (NLRIC)</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	<b>6,995</b>	Contracts for Proctor Irr Auth, N. Leon R. Irr Corp., Pecan Valley Nut Corp. (other contracts total 873 af/y)
<b>Total - Lake Proctor</b>	<b>10,411</b>	<b>12,165</b>	<b>12,318</b>	<b>12,442</b>	<b>12,556</b>	<b>12,750</b>	<b>12,885</b>	
<b>Supplies available</b>								
Lake Proctor	12,260	12,004	11,748	11,493	11,237	10,981	10,725	Natural order yield to top of sediment pool
	11,760	11,533	11,307	11,080	10,853	10,627	10,400	Priority order yield, top of sediment
	14,812	14,425	14,038	13,651	13,264	12,877	12,490	Natural order yield, reservoir empty
ULMWD Contract with BRA	6,437	6,437	6,437	6,437	6,437	6,437	6,437	from information provided by BRA
	5,323	5,096	4,870	4,643	4,416	4,190	3,963	
<b>Supplies - Demands</b>	<b>1,849</b>	<b>-160</b>	<b>-570</b>	<b>-949</b>	<b>-1,319</b>	<b>-1,769</b>	<b>-2,160</b>	
<b>Historical use</b>	<b>9,491</b>							
NLRIC	5,701							
ULRMWD	3,790							
current safety factor								
priority	1.13	0.95	0.92	0.89	0.86	0.83	0.81	
natural	1.42	1.19	1.14	1.10	1.06	1.01	0.97	Reservoir empty
natural	1.18	0.99	0.95	0.92	0.89	0.86	0.83	Top of sediment pool
ULMWD safety factor contract	1.88	1.25	1.21	1.18	1.16	1.12	1.09	



## EASTLAND COUNTY WSD

Eastland Co WSD	Demands							Comments	
	2000	2010	2020	2030	2040	2050	2060		
Eastland	870	872	874	859	835	808	772	Demands are based on historical use and projected county growth	
Ranger	434	435	436	429	417	403	385		
Eastland County-other (Brazos)	437	464	505	545	584	603	621		
Carbon	90	90	90	90	90	89	89		
Olden	80	80	80	80	80	79	79		
Morton Valley	95	95	95	95	95	94	94		
Staff Lacasa	120	120	120	120	120	119	119		
Westbound WSC	52	79	120	160	201	221	241		Provides a small amt to Comanche Co. WSC (included)
Manufacturing - Eastland Co.	36	43	47	50	53	55	59		Draft 2006 numbers
<b>Total</b>	<b>1,777</b>	<b>1,814</b>	<b>1,862</b>	<b>1,883</b>	<b>1,889</b>	<b>1,869</b>	<b>1,837</b>		
<b>Supplies</b>									
Lake Leon	5,530	5,462	5,394	5,326	5,258	5,190	5,119	WAM 3, priority order	
	5,640	5,578	5,516	5,454	5,392	5,330	5,265	WAM 3, natural order	
	9,100	9,100	9,100	9,100	9,100	9,100	9,100	Brazos G report ( table 4)	
<b>Supplies - Demands</b>	<b>3,753</b>	<b>3,648</b>	<b>3,532</b>	<b>3,443</b>	<b>3,369</b>	<b>3,321</b>	<b>3,282</b>		
<b>Historical use</b>	<b>1,768</b>								
current safety factor									
priority	3.11	3.01	2.90	2.83	2.78	2.78	2.79		
natural	3.17	3.07	2.96	2.90	2.85	2.85	2.87		

## PALO PINTO MWD #1

Palo Pinto MWD #1	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
Mineral Wells	3,286	3,699	3,769	3,829	3,887	3,955	4,034	
Palo Pinto County-other	1,476	1,680	1,928	2,137	2,339	2,578	2,854	Assume provides 90% of county-other
North Rural WSC								
Santo WSC								
Sturdivant-Progress								
Palo Pinto WSC								
Lake Palo Pinto Area WSC								
Graford	73	75	77	79	81	83	86	
Parker County-Other	297	422	435	490	490	490	490	SB1 supply available from Lake Palo Pinto for Parker Co.
Millsap								
Parker Co. WSC								
Manufacturing	23	29	33	36	39	42	46	Draft 2006 numbers
Steam Electric Power	1,378	1,365	1,250	1,461	1,719	2,033	2,416	Draft 2006 numbers
Irrigation								
<b>Total</b>	<b>6,533</b>	<b>7,270</b>	<b>7,492</b>	<b>8,032</b>	<b>8,555</b>	<b>9,181</b>	<b>9,926</b>	
<b>Supplies available</b>								
Lake Palo Pinto (natural order)	12,830	12,592	12,353	12,115	11,877	11,638	11,400	Firm yield with 1985 HDR Area-capacity survey, extended hydrology
Wam Run 3, priority order	12,898	12,566	12,234	11,902	11,570	11,238	10,906	Estimated inflows for 1998 - July, 2002
Brazos G supply	14,560	14,095	13,629	13,164	12,698	12,233		
<b>Supplies - Demands</b>	<b>6,297</b>	<b>5,321</b>	<b>4,862</b>	<b>4,083</b>	<b>3,322</b>	<b>2,458</b>	<b>1,474</b>	
<b>Historical use</b>	<b>5,939</b>							
current safety factor								
priority	1.97	1.73	1.63	1.48	1.35	1.22	1.10	
natural	1.96	1.73	1.65	1.51	1.39	1.27	1.15	

## WEST CENTRAL TEXAS MWD

West Central Texas	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
Anson	524	535	548	547	539	523	503	
Hawley WSC	225	232	238	238	235	228	219	
Albany	614	636	660	647	608	531	446	85% of Albany's demands
Shackelford	223	310	341	370	401	430	452	Midway projections
Breckenridge	1,361	1,450	1,552	1,661	1,726	1,804	1,896	Midway projections
Stephens Co. Rural	299	417	517	585	655	735	808	Midway projections
Abilene	20,400	20,400	20,400	20,400	20,400	20,400	20,400	contract amount (historically has taken more in some years)
<b>Total</b>	<b>23,646</b>	<b>23,980</b>	<b>24,256</b>	<b>24,448</b>	<b>24,564</b>	<b>24,651</b>	<b>24,724</b>	
<b>Supplies</b>								
Hubbard Creek (WAM Run 3)	22,014	21,839	21,664	21,489	21,314	21,139	20,962	
Hubbard Creek (WAM Run 3 natural)	42,016	42,057	42,098	42,139	42,180	42,221	42,260	
Brazos G Supply	43,399	42,389	41,379	40,369	39,359	38,349		
Hubbard Creek Safe yield - natural	32,895							
Supply - Demands (natural)	18,370	18,077	17,842	17,691	17,616	17,570	17,536	
Supply - Demands (priority)	-1,632	-2,141	-2,592	-2,959	-3,250	-3,512	-3,762	
<b>Historical use</b>	<b>27,843</b>							Abilene used more than contract amount (17362)
<b>Contracts</b>								
	<b>ac-ft/yr</b>	<b>%</b>						
Breckenridge	2916	10.45%						WCTMWD contracts (new)
Anson	2061	7.39%						From Region G plan (table 3)
Albany	1882	6.75%						From Region G plan (table 3)
Abilene	20400	72.98%						WCTMWD contracts (new)
Allocated safe yield	27900							
<b>Amount available under priority system yield</b>								
Breckenridge	2,301	2,283	2,264	2,246	2,228	2,209	2,191	
Anson	1,626	1,613	1,600	1,587	1,574	1,562	1,548	
Albany	1,485	1,473	1,461	1,450	1,438	1,426	1,414	
Abilene	16,066	15,938	15,810	15,683	15,555	15,427	15,298	
current safety factor								
priority	0.93	0.91	0.89	0.88	0.87	0.86	0.85	
natural	1.78	1.75	1.74	1.72	1.72	1.71	1.71	

## SWEETWATER

City of Sweetwater	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
Sweetwater	3,314	3,471	3,602	3,663	3,652	3,512	3,346	
County-other Nolan Nolan Co. FWSD #1 County-other Fisher/Nolan	270	283	293	299	298	286	273	Assume 90% provided by Sweetwater during drought
Bitter Creek WSC	345	356	362	371	373	368	364	Assume 75% provided by Sweetwater during drought
Roby	113	115	115	118	120	122	125	Assume 100% provided by Sweetwater during drought
Sales from Roby	115	108	107	93	83	77	60	Assume 75% of county-other
Trent	47	51	55	59	64	69	74	
MANUFACTURING	643	779	915	1,038	1,159	1,266	1,372	2006 draft numbers Oak Creek power plant is currently moth-balled.
Steam Electric	1,093	1,315	1,882	2,200	2,588	3,061	3,638	
<b>Total</b>	<b>5,940</b>	<b>6,477</b>	<b>7,332</b>	<b>7,840</b>	<b>8,336</b>	<b>8,761</b>	<b>9,251</b>	
Without SEP	4,847	5,162	5,450	5,640	5,748	5,700	5,613	
<b>Supplies (Priority Order)</b>								
Oak Creek	0	0	0	0	0	0	0	Priority order
Lake Sweetwater	1,424	1,409	1,394	1,379	1,364	1,349	1,332	Priority order
Groundwater	2,900	2,500	2,100	1,700	1,300	900	500	Can increase groundwater usage for some years, but unknown for long-term
Total	4,324	3,909	3,494	3,079	2,664	2,249	1,832	
Brazos G Supply	7,920	7,770	7,619	7,487	7,355	7,223		
<b>Supply - Demands</b>	<b>-523</b>	<b>-1,253</b>	<b>-1,956</b>	<b>-2,561</b>	<b>-3,084</b>	<b>-3,451</b>	<b>-3,781</b>	
<b>Supplies (natural order)</b>								
Oak Creek	3,914	3,820	3,726	3,632	3,538	3,444	3,350	
Lake Sweetwater	1,442	1,437	1,432	1,427	1,422	1,417	1,412	
Groundwater	2,900	2,500	2,100	1,700	1,300	900	500	
Total	8,256	7,757	7,258	6,759	6,260	5,761	5,262	Natural order
current safety factor								
priority	0.89	0.76	0.64	0.55	0.46	0.39	0.33	
natural	1.70	1.50	1.33	1.20	1.09	1.01	0.94	

## GRAHAM

	<b>Demands</b>							<b>Comments</b>
	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	
<b>Graham</b>								
City of Graham	2,032	2,052	2,097	2,100	2,076	2,045	2,026	
Ft. Belknap WSC	438	445	455	456	451	443	439	
Newcastle	77	78	80	80	79	78	77	
Throckmorton	80	100	100	100	100	100	100	Currently provides approx 80 af/y.
Graham-East WSC	80	80	80	80	80	80	80	
Manufacturing	27	33	36	39	42	44	48	Assume Graham provides for all of the manufacturing demands
Steam Electric Power	2,610	2,170	1,730	2,023	2,379	2,814	3,344	2006 projections
<b>Total</b>	<b>5,344</b>	<b>4,958</b>	<b>4,578</b>	<b>4,878</b>	<b>5,207</b>	<b>5,604</b>	<b>6,114</b>	
Other potential users - Graham								
Young County-Other	98	99	104	104	101	99	97	
<b>Supplies</b>								
Lake Graham	7,050	6,965	6,880	6,795	6,710	6,625	6,538	WAM Run 3, priority
	7,815	7,722	7,629	7,536	7,443	7,350	7,259	WAM Run 3, natural
	8,400	8,400	8,400	8,400	8,400	8,400		Brazos G Supply
<b>Historical Use</b>	<b>4,658</b>							
current safety factor								
priority	1.32	1.40	1.50	1.39	1.29	1.18	1.07	
natural	1.46	1.56	1.67	1.54	1.43	1.31	1.19	

## ABILENE

Abilene	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
City of Abilene	27,940	30,031	31,384	32,010	32,178	31,558	30,567	
Baird	291	291	291	291	291	291	291	Baird's full demand
Clyde	476	472	480	470	458	444	434	
Hamlin	0	539	551	543	531	514	487	Includes estimate of sales to Fisher County-other
Merkel	440	475	496	507	510	500	485	
Tye	167	180	189	193	194	190	184	
Eula WSC	117	117	118	116	114	111	109	40% of Callahan County-other
Callahan County WSC	103	102	103	102	99	97	96	35% of Callahan County-other
Buffalo Gap	100	100	100	100	100	100	100	300 connections at 200 gpcd
Lawn	0	100	100	100	100	100	100	300 connections at 200 gpcd
Hamby WSC	184	198	208	212	213	209	203	40% of Taylor County-other Brazos basin
Potosi WSC	415	447	468	477	478	470	454	
Steamboat Mountain WSC	501	540	565	577	581	570	552	Assume includes Tuscola
Taylor Co. FWSD #1								
Tuscola								
Sun WSC	307	307	307	307	307	307	307	Contract amount
View-Caps WSC	225	242	254	259	261	256	247	20% of Taylor County-other (Brazos basin) and 100% of Taylor County-other (Colorado basin)
Blair WSC	107	107	107	107	107	107	107	Contract Amount
Hawley WSC	419	430	443	443	437	424	408	65% of Hawley WSC projected demands Appears that population for Hawley WSC includes city of Hawley
Hawley								
Manufacturing (Taylor County)	789	972	1,081	1,177	1,270	1,349	1,462	2006 draft demands
Steam Electric (Taylor County)	31	25	20	24	28	33	39	2006 draft demands
Steam Electric (Jones County)	1,510	1,255	1,001	1,170	1,376	1,628	1,935	2006 draft demands
<b>Total</b>	<b>34,121</b>	<b>36,931</b>	<b>38,265</b>	<b>39,185</b>	<b>39,632</b>	<b>39,258</b>	<b>38,567</b>	

infrastructure to Hamlin and Lawn is not complete. Service should be in place prior to 2010.

## ABILENE

### Supplies, Current contracts

	2000	2010	2020	2030	2040	2050	2060	Comments
Lake Abilene	1,450	1,384	1,318	1,252	1,186	1,120	1,054	State plan, WAM yield > permit amount Priority order, includes diversions from Clear Fork & Deadman's Creek
Fort Phantom Hill	17,300	17,167	17,034	16,901	16,768	16,635	16,500	
Lake Kirby	NA	NA	NA	NA	NA	NA	NA	
O.H. Ivie Reservoir	0	15,000	15,000	15,000	15,000	15,000	15,000	Contract with CRMWD
West Central Texas Mwd	17,362	17,362	17,362	17,362	17,362	17,362	17,362	Contract with WCTMWD
<b>Total</b>	<b>36,112</b>	<b>50,913</b>	<b>50,714</b>	<b>50,515</b>	<b>50,316</b>	<b>50,117</b>	<b>49,916</b>	
Brazos G Supply	45,984	45,746	60,508	60,270	60,032	59,794		Includes Lake Kirby
<b>Supply - Demands</b>	<b>1,991</b>	<b>13,982</b>	<b>12,449</b>	<b>11,330</b>	<b>10,684</b>	<b>10,859</b>	<b>11,350</b>	

### Supplies, Reduced contracts

Lake Abilene	1,450	1,384	1,318	1,252	1,186	1,120	1,054	State plan, WAM yield > permit amount Priority order, includes diversions from Clear Fork & Deadman's Crk
Fort Phantom Hill	17,300	17,167	17,034	16,901	16,768	16,635	16,500	Reduction based on % reduction of safe yield under natural order
O.H. Ivie Reservoir	0	15,000	14,534	14,068	13,602	13,136	12,672	Reduction based on priority order yield and % of current contract amounts
West Central Texas Mwd	16,066	15,938	15,810	15,683	15,555	15,427	15,298	Kirby is used for reuse. Amount used in Brazos G plan
Kirby	300	300	300	300	300	300	300	
<b>Total</b>	<b>35,116</b>	<b>49,789</b>	<b>48,996</b>	<b>48,204</b>	<b>47,411</b>	<b>46,618</b>	<b>45,824</b>	
current safety factor								
priority	1.03	1.35	1.28	1.23	1.20	1.19	1.19	
natural	1.06	1.38	1.33	1.29	1.27	1.28	1.29	

## STAMFORD

<b>Stamford</b>	<b>Demands</b>							<b>Comments</b>
	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	
City of Stamford	1,027	1,049	1,074	1,073	1,057	1,027	988	
Ericksdahl WSC	84	86	88	88	86	83	80	60% of Jones County-other
Hamlin	533	0	0	0	0	0	0	Abilene will serve Hamlin when pipeline completed.
Lueders	49	49	49	49	49	49	49	Service population = 365 @ 120gpcd
Paint Creek WSC	15	15	15	15	15	15	15	Small amount provided by Stamford
County-other (Haskell)	115	108	105	101	98	94	87	Sagerton WSC, Lakeshore sites, Stamford out of city users
Steam Electric power (Haskell)	507	422	336	393	462	547	650	SEP plant is currently mothballed.
<b>Total</b>	<b>2,330</b>	<b>1,729</b>	<b>1,667</b>	<b>1,719</b>	<b>1,767</b>	<b>1,815</b>	<b>1,869</b>	
Total without SEP	1,823	1,307	1,331	1,326	1,305	1,268	1,219	
<b>Supplies</b>								
Lake Stamford	4,325	4,325	4,325	4,325	4,325	4,325	4,325	Safe yield with Paint Creek diversion
<b>Historical Use</b>	<b>1,777</b>							

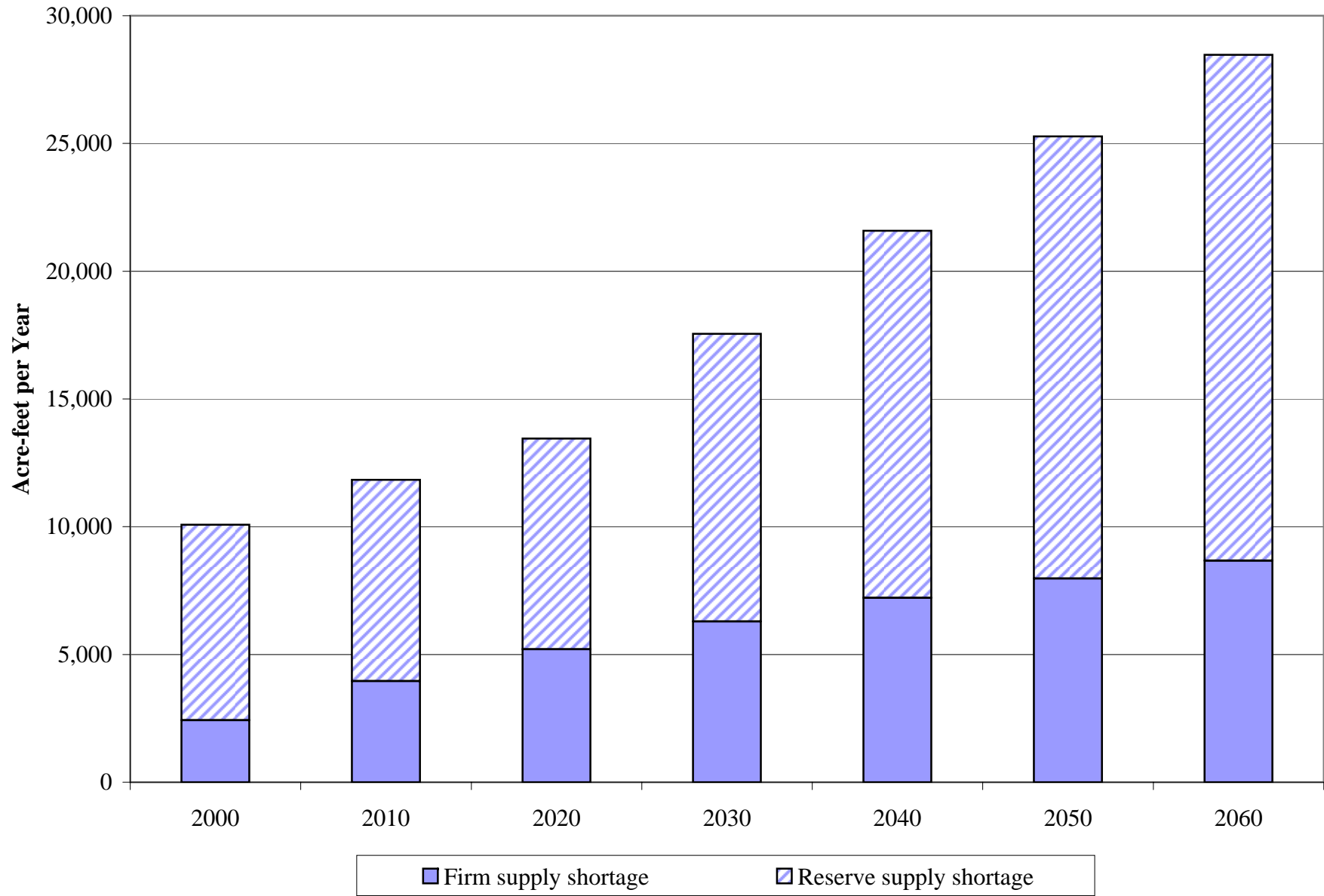


## NORTH CENTRAL TEXAS MWA

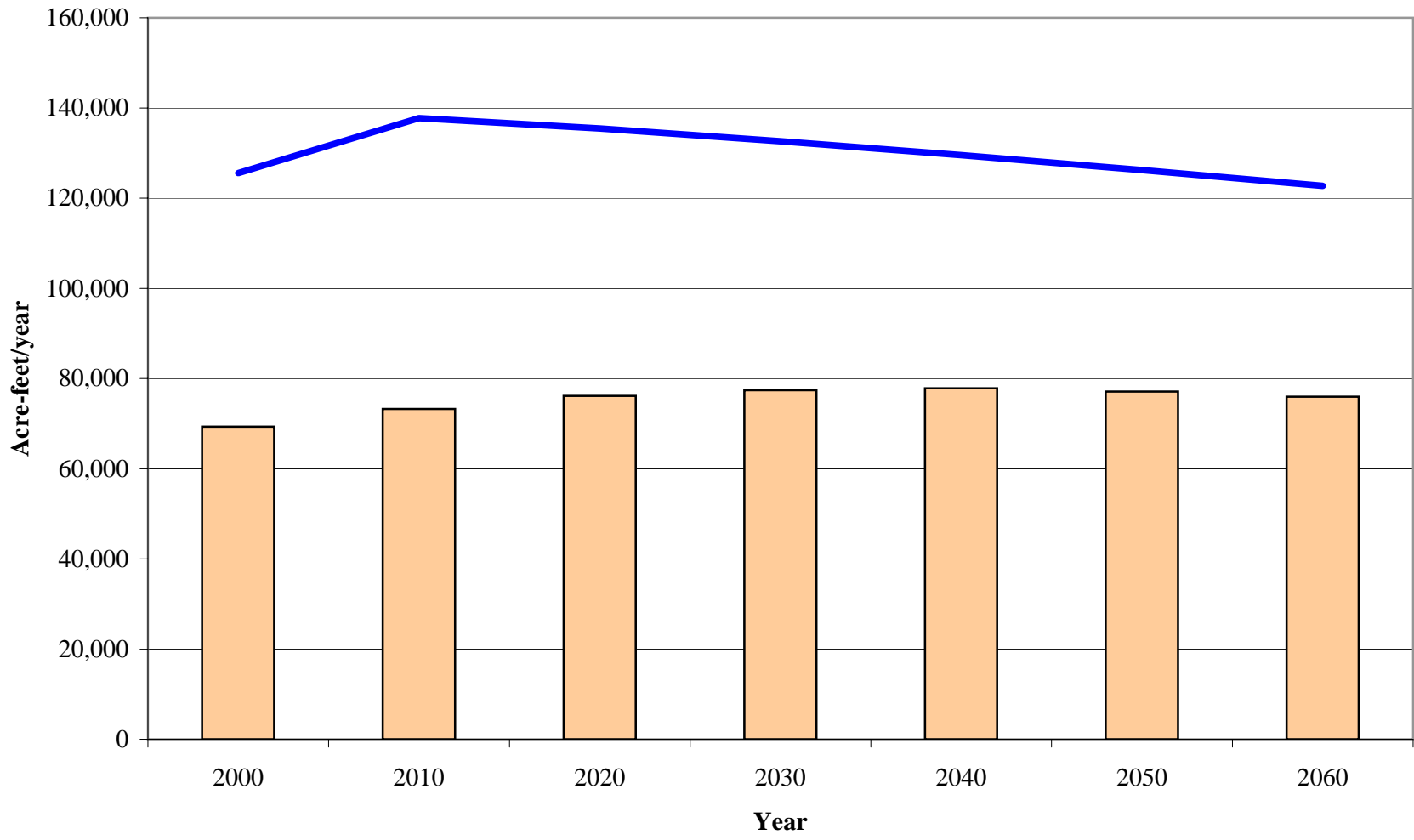
North Central Texas MWA	Demands							Comments
	2000	2010	2020	2030	2040	2050	2060	
Knox City	195	192	199	199	200	199	197	
Munday	300	298	301	301	301	301	300	
Knox County-Other	171	168	174	174	174	174	172	Assume 67% of demands supplied by NCTMWA. 33% supplied by RRA
Goree								
Rhineland WSC								
Benjamin								
Aspermont	240	239	232	221	206	194	181	
Haskell	585	569	562	551	545	535	518	
Rule	110	106	104	101	99	96	92	
Haskell County-Other	95	89	87	83	81	78	72	Assume 33% of county-other - NCTMWA
O'Brien								
Paint Creek								
Rochester								
<b>Total</b>	<b>1,696</b>	<b>1,661</b>	<b>1,659</b>	<b>1,630</b>	<b>1,606</b>	<b>1,577</b>	<b>1,532</b>	
<b>Supplies</b>								
Millers Creek (WAM Run 3)	3,643	3,324	3,005	2,686	2,367	2,048	1,729	
Millers Creek (Run 3 natural order)	7,211	6,788	6,364	5,941	5,517	5,094	4,670	
Brazos G Supply	3,100	2,887	2,674	2,460	2,247	2,034		
<b>Supply - Demand</b>	<b>1,947</b>	<b>1,663</b>	<b>1,346</b>	<b>1,056</b>	<b>761</b>	<b>471</b>	<b>197</b>	
<b>Historical use</b>								
<b>Miller Creek</b>	<b>1,429</b>							
current safety factor								
priority	2.15	2.00	1.81	1.65	1.47	1.30	1.13	
natural	4.25	4.09	3.84	3.64	3.44	3.23	3.05	

## MIDWAY GROUP

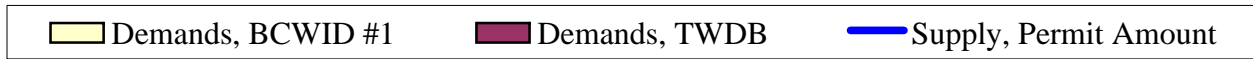
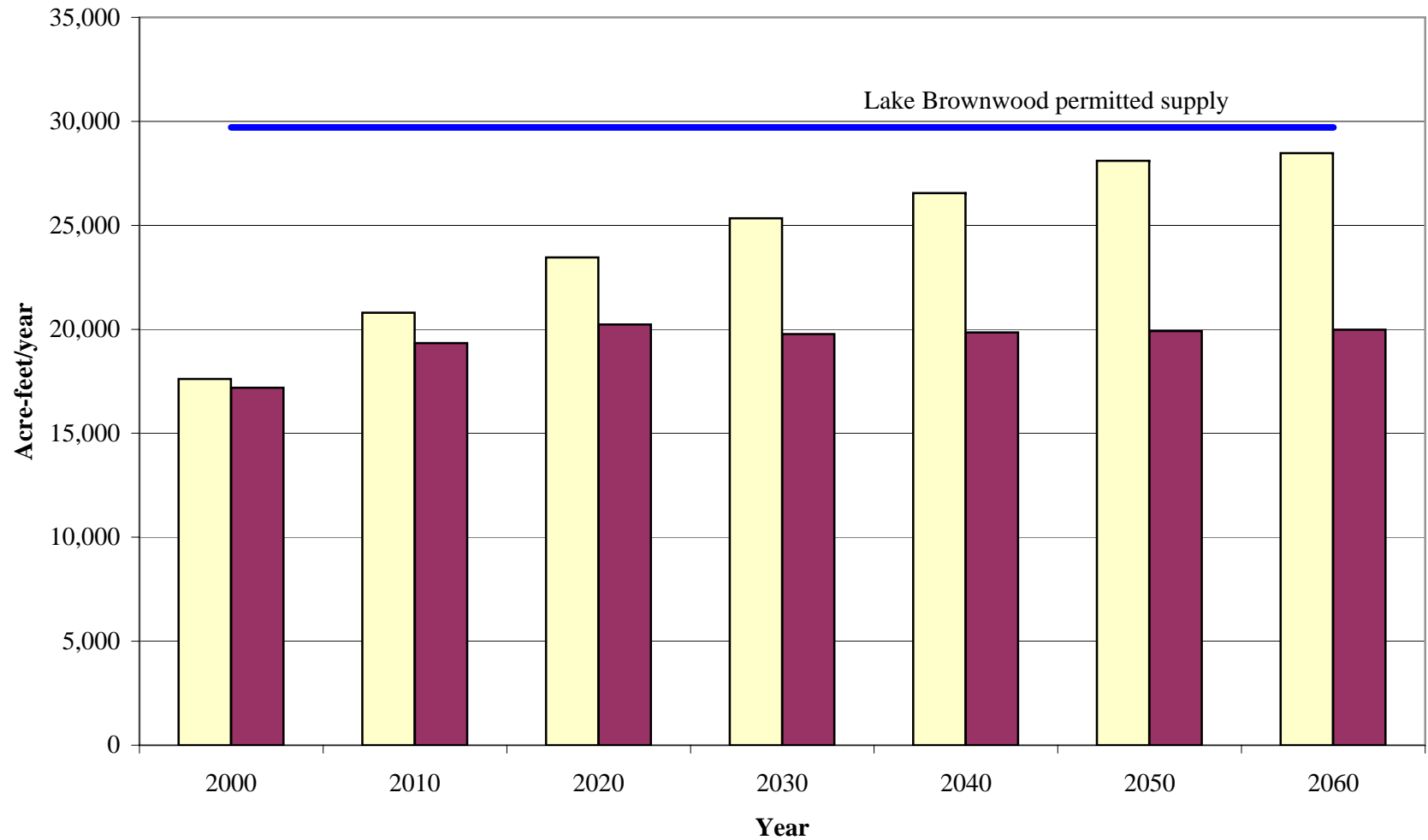
	<b>Demands</b>							
<b>Midway Group</b>	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>Comments</b>
Stephens Co. Rural	264	381	480	547	617	696	768	Revised projections
Woodson	35	36	37	38	38	39	40	
Shackelford	223	310	341	370	401	430	452	Revised projections
Moran								
Breckenridge	1,351	1,440	1,542	1,651	1,716	1,794	1,886	Revised projections
High Mesa	5	5	5	5	5	5	5	
Stephens Co. Rural				SEE ABOVE				
Throckmorton	236	278	288	298	310	322	338	Revised projections
<b>Total</b>	<b>2,114</b>	<b>2,450</b>	<b>2,693</b>	<b>2,909</b>	<b>3,087</b>	<b>3,286</b>	<b>3,489</b>	
<b>Supplies, natural order</b>								
Lake Graham	100	0	0	0	0	0	0	Assumes contract is not renewed
Lake Daniel	1,160	1,095	1,030	965	900	835	770	Natural order yield
Hubbard Creek	2,487	2,487	2,487	2,487	2,487	2,487	2,487	Contract amount = 2.57 mgd. WCTMWD report = 2487 af/y, survey shows contract max = 2,934
Sales from Albany	230	230	230	230	230	230	230	
Total supply	3,977	3,812	3,747	3,682	3,617	3,552	3,487	
<b>Supply, priority order</b>								
Lake Graham	100							
Lake Daniel	1,160	1,100	1,040	980	920	860	800	
Hubbard Creek	2,301	2,283	2,264	2,246	2,228	2,209	2,191	Reduced supply in proportion to WAM yield
Sales from Albany	230	228	226	225	223	221	219	Reduced supply in proportion to WAM yield
Total supply	3,791	3,611	3,530	3,451	3,371	3,290	3,210	
current safety factor								
priority	1.79	1.47	1.31	1.19	1.09	1.00	0.92	
natural	1.88	1.56	1.39	1.27	1.17	1.08	1.00	



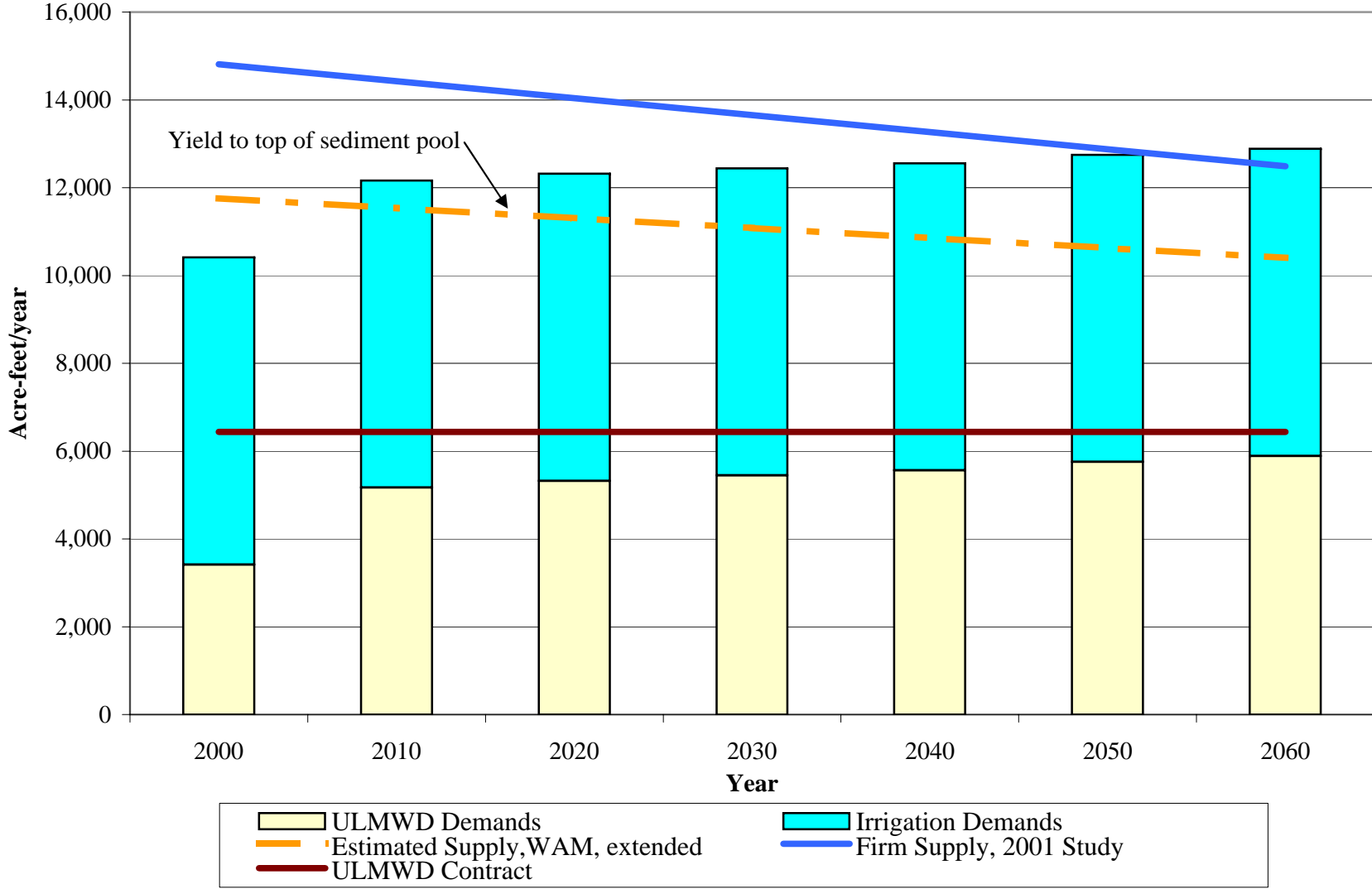
### West Central Brazos Study Area



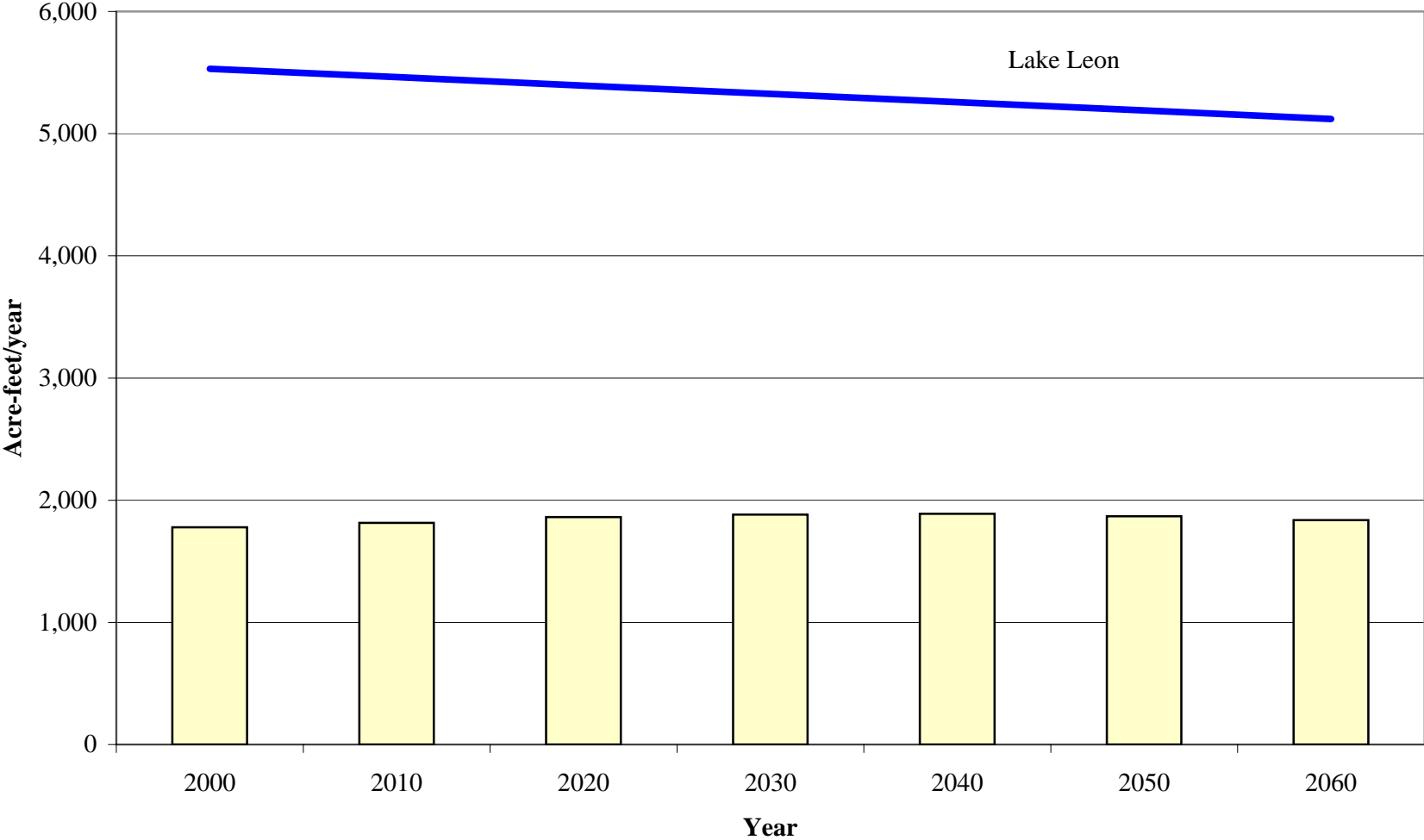
# BCWID #1



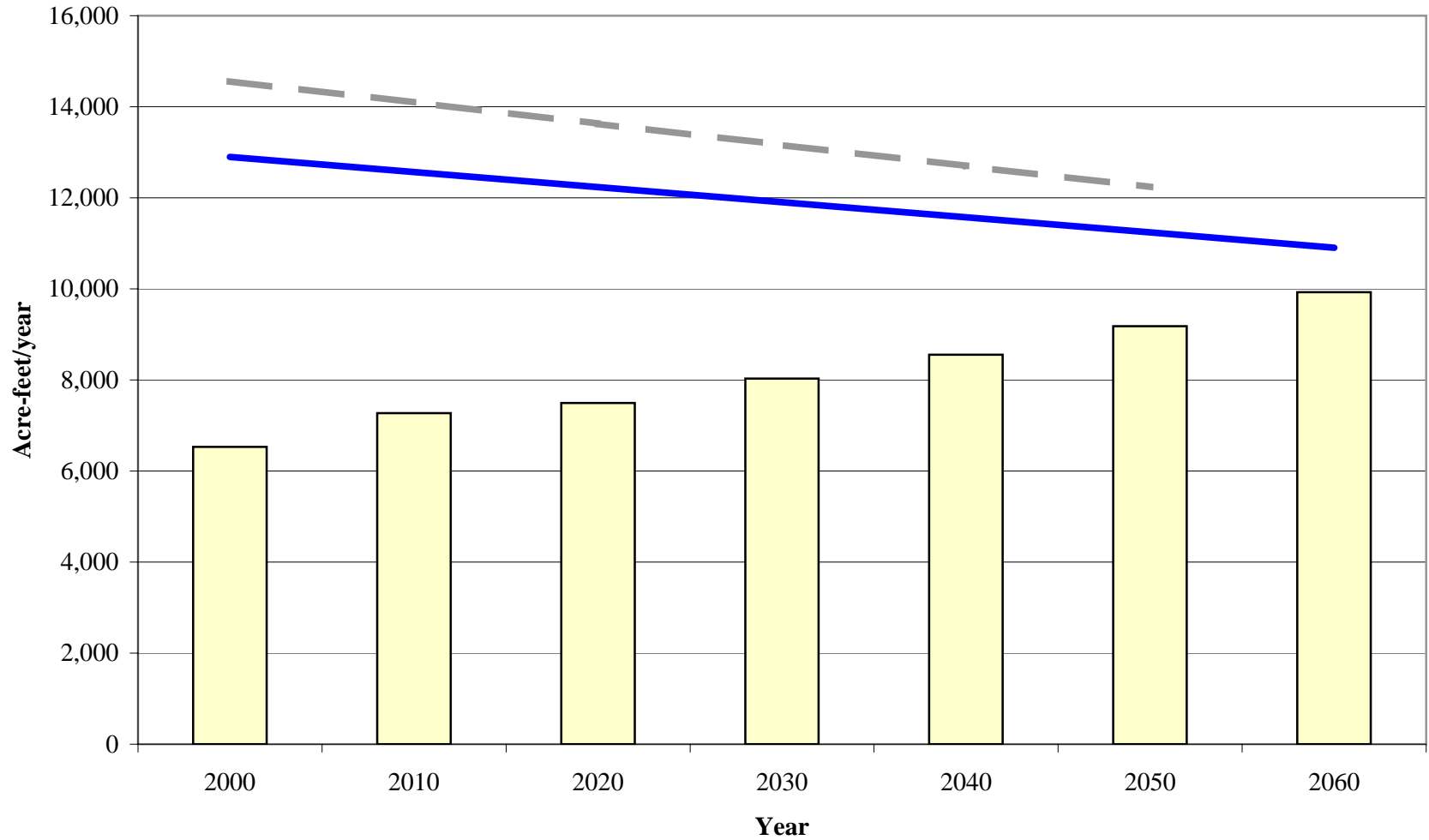
# Lake Proctor



# Eastland County WSD

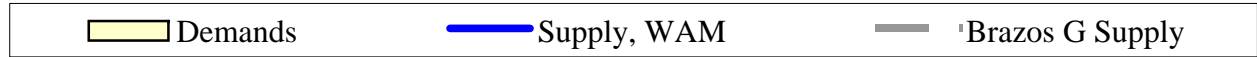
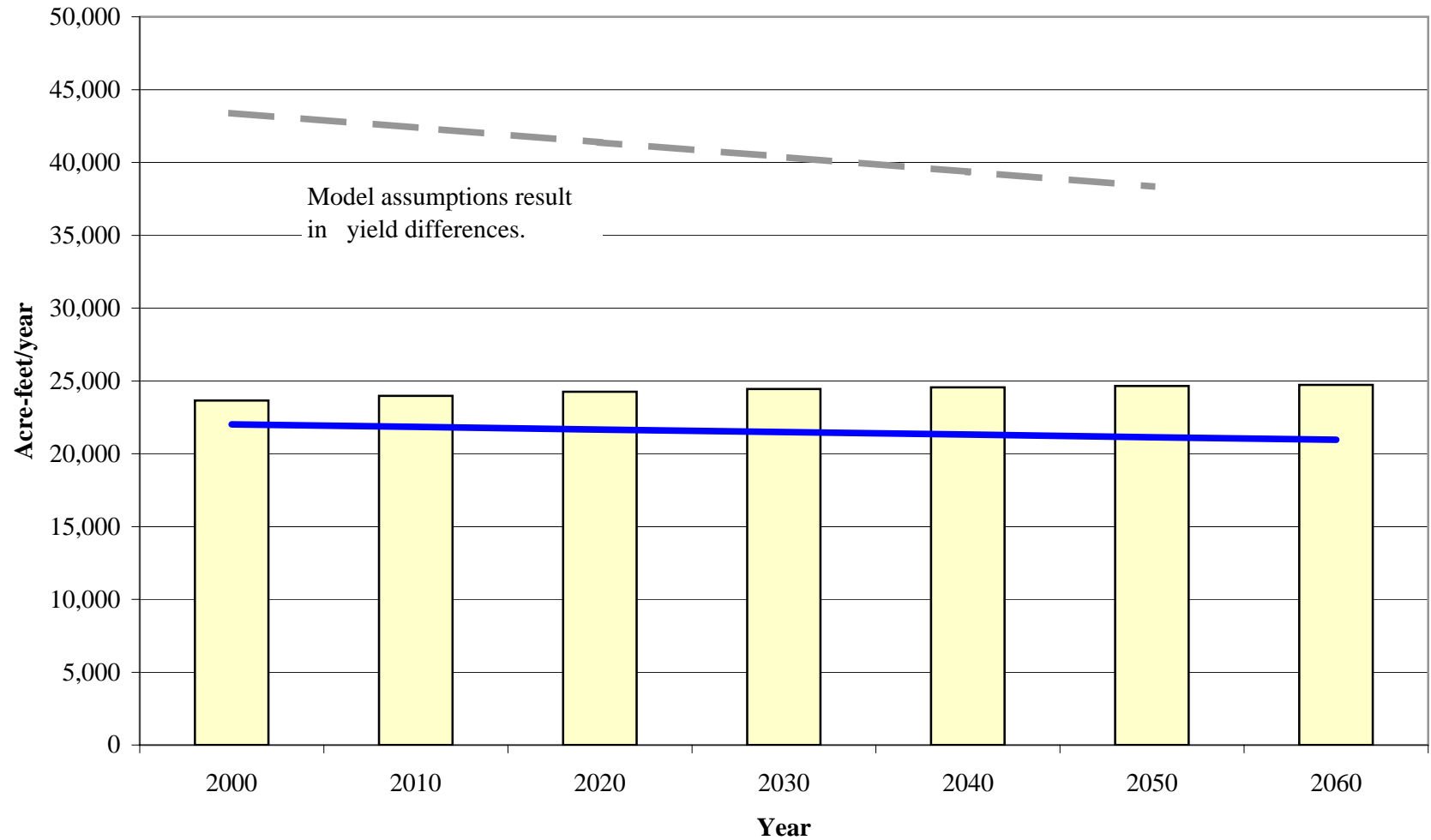


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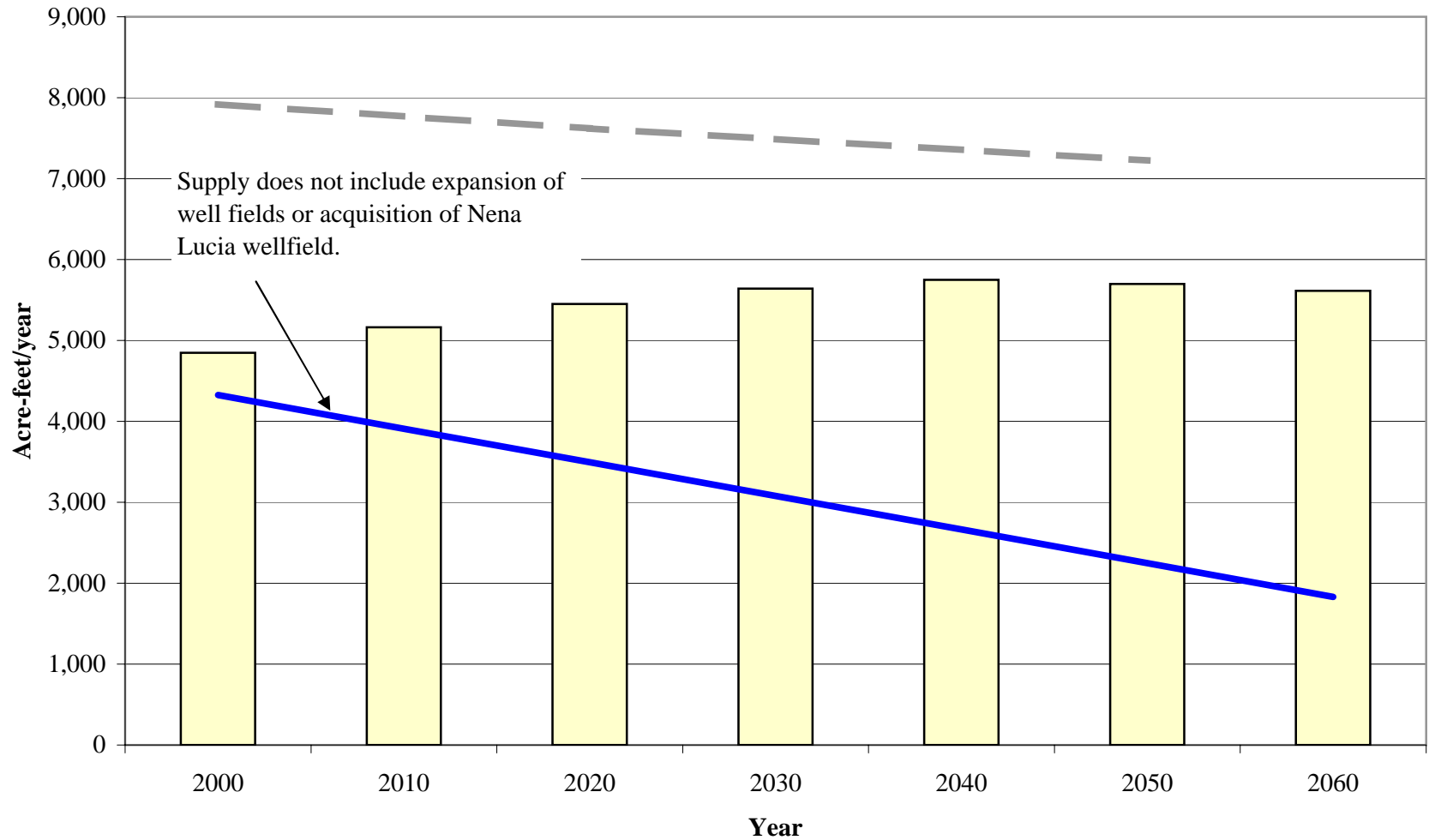




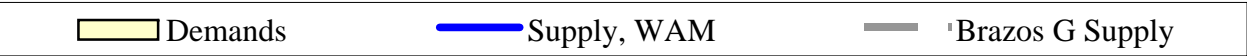
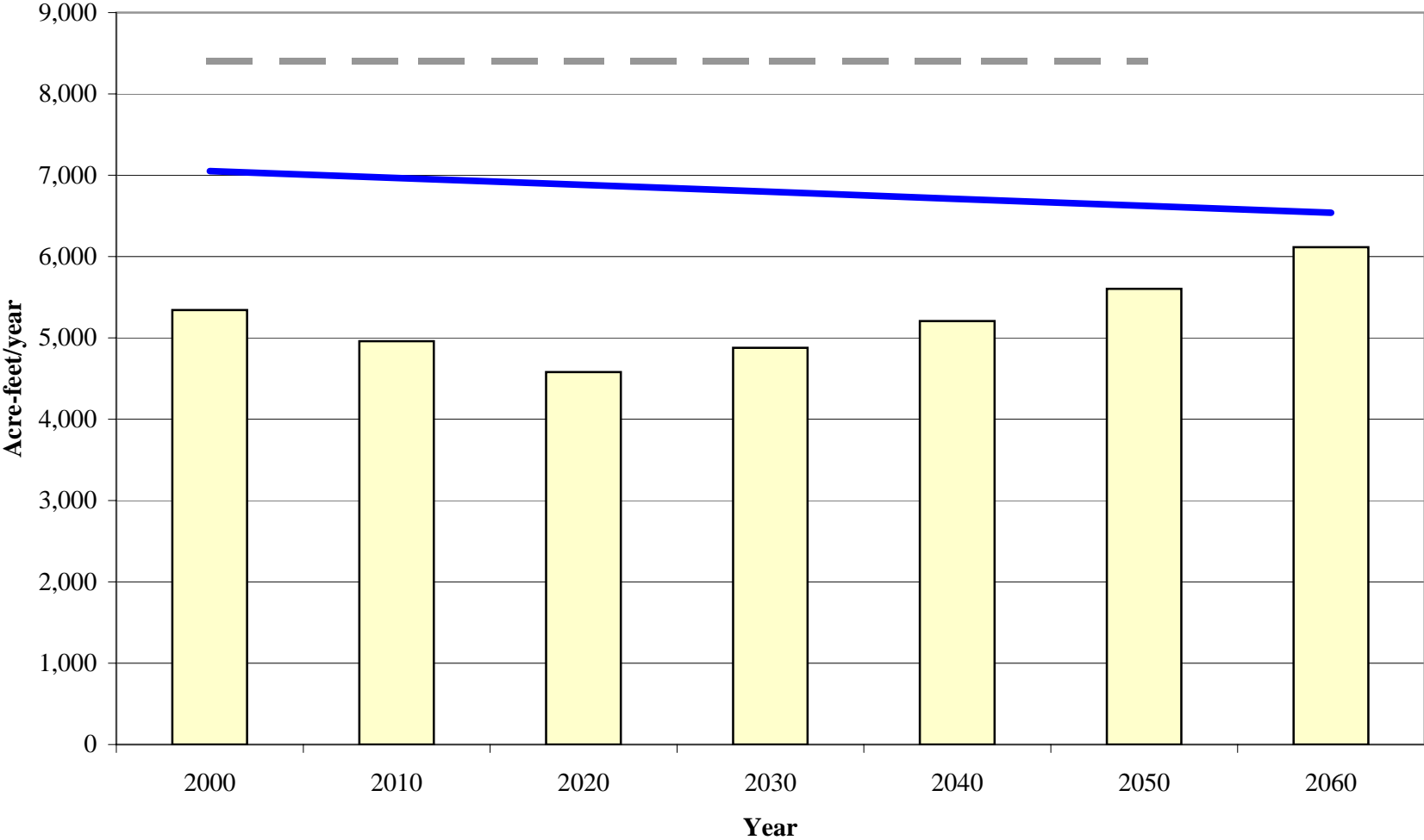
# WCTMWD



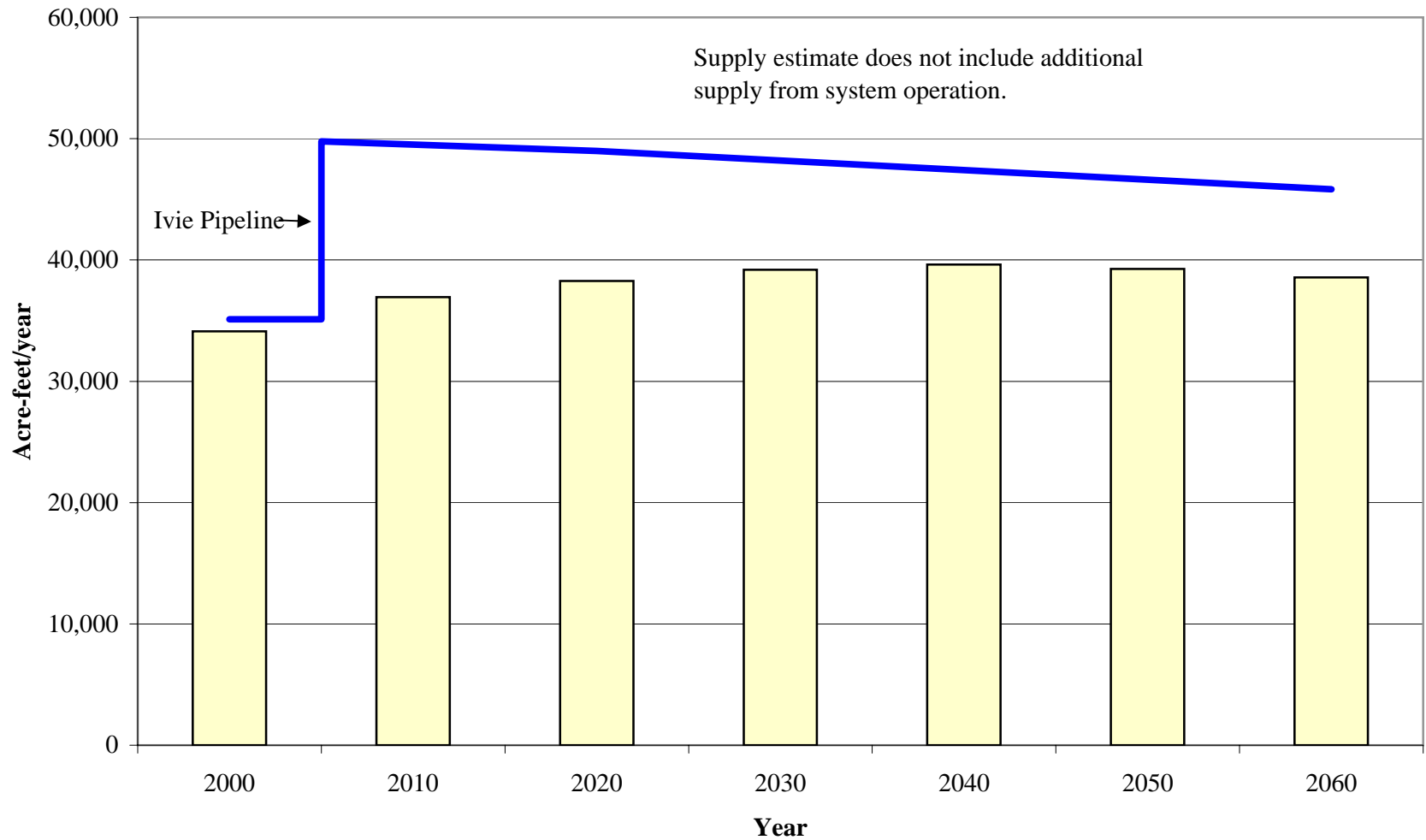
# City of Sweetwater



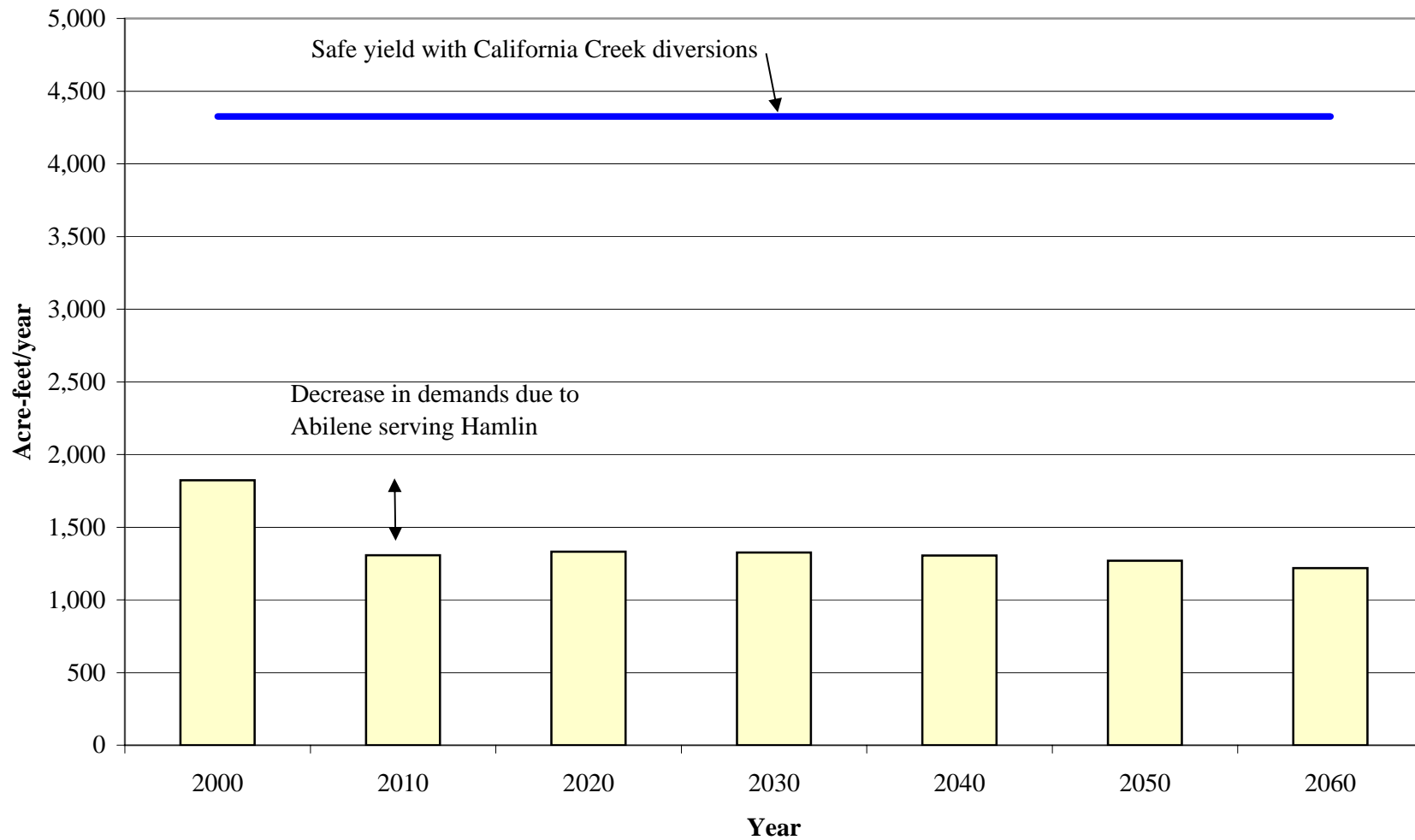
# City of Graham



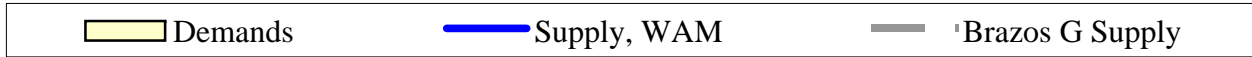
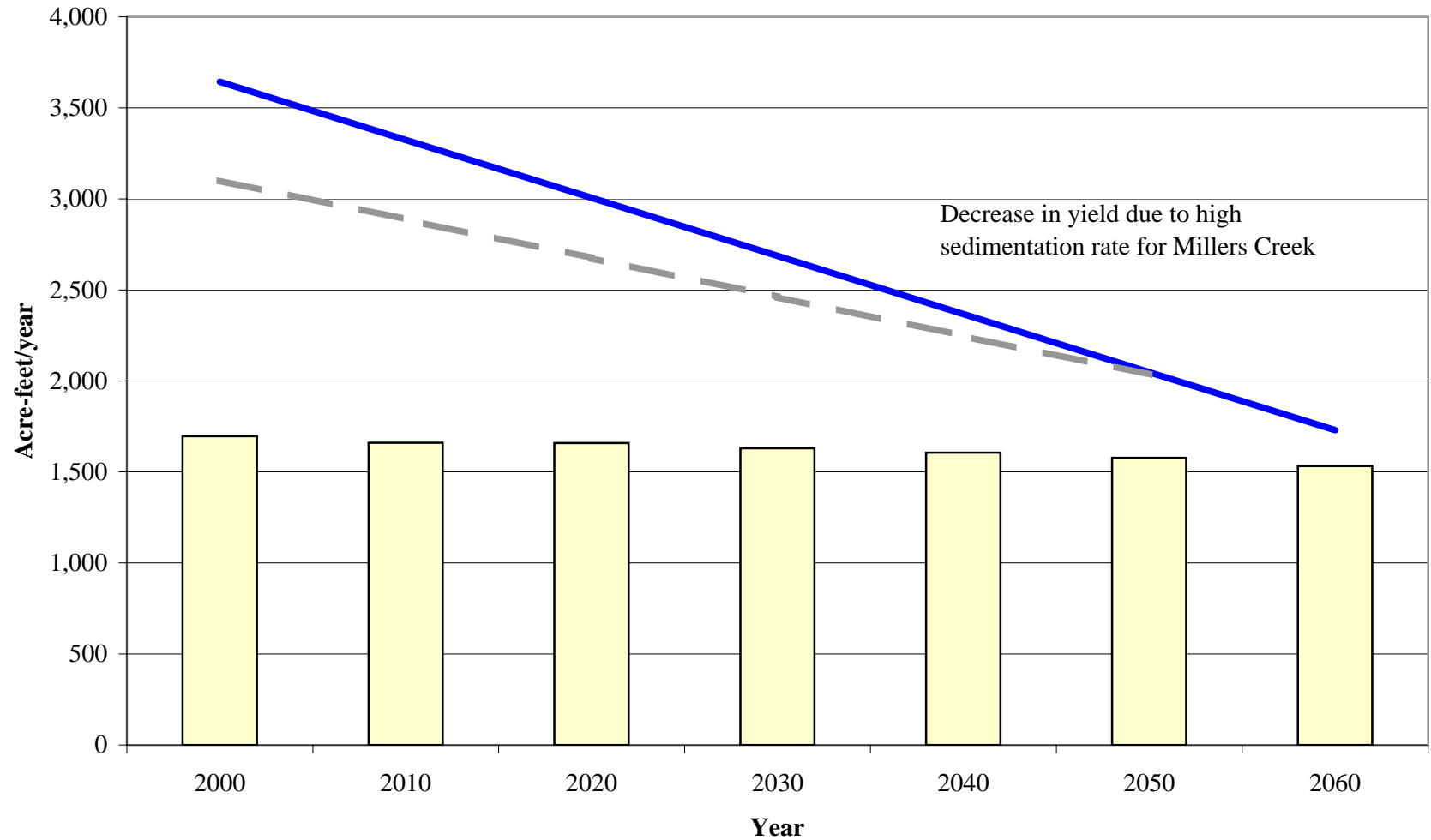
# City of Abilene



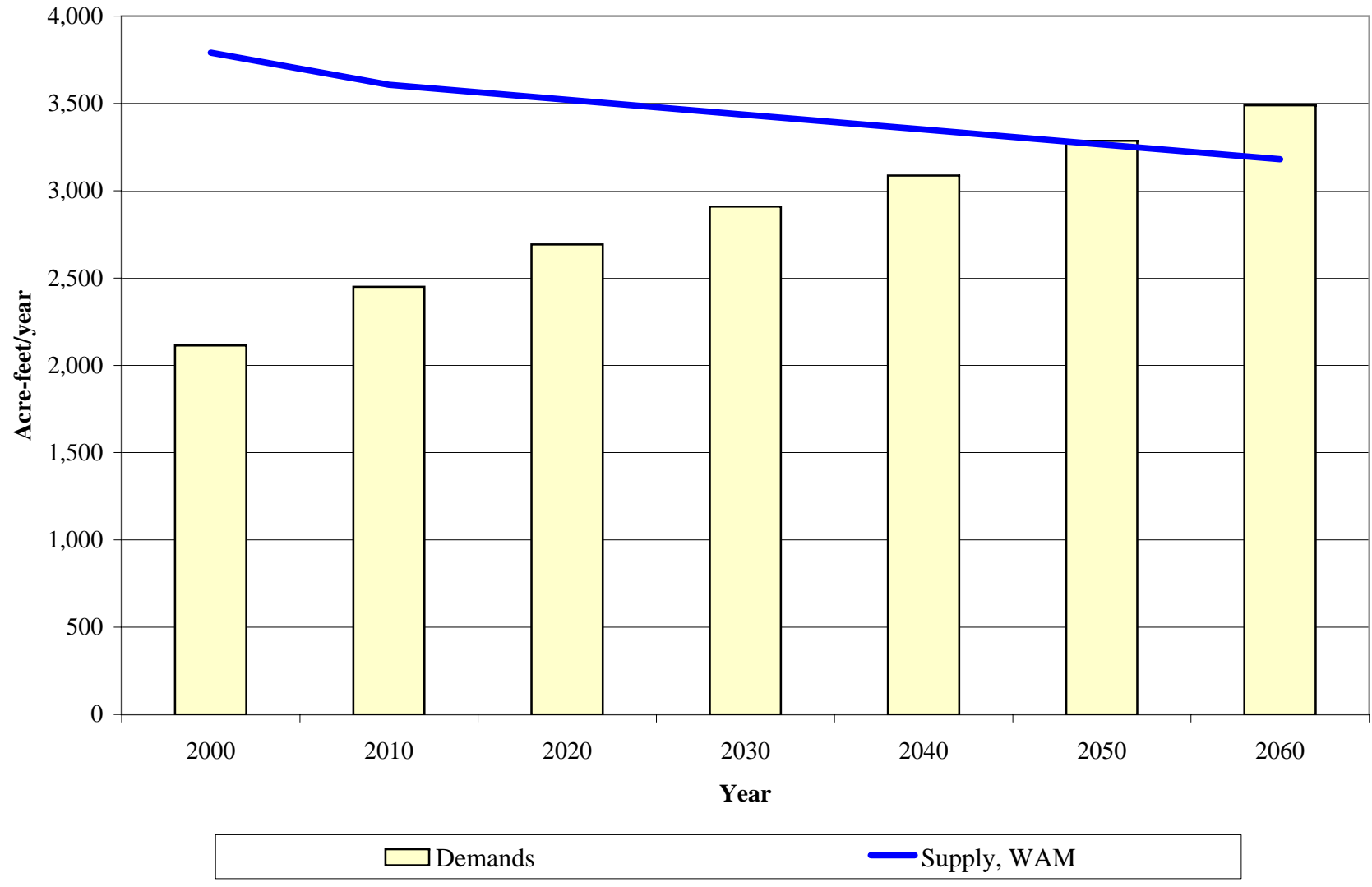
# City of Stamford



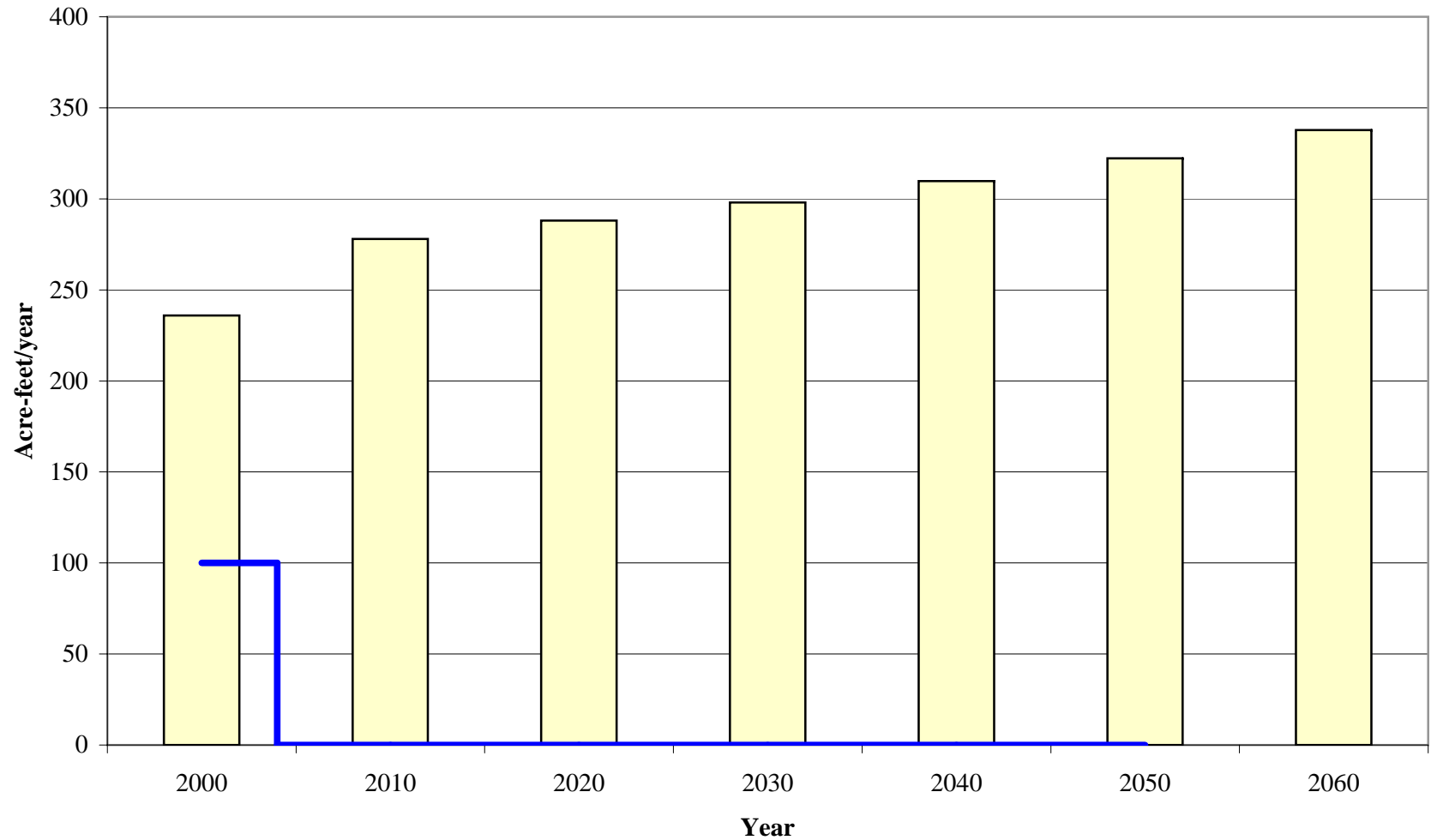
# NCTMWA



# Midway Group

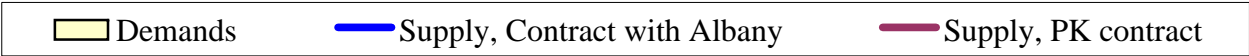
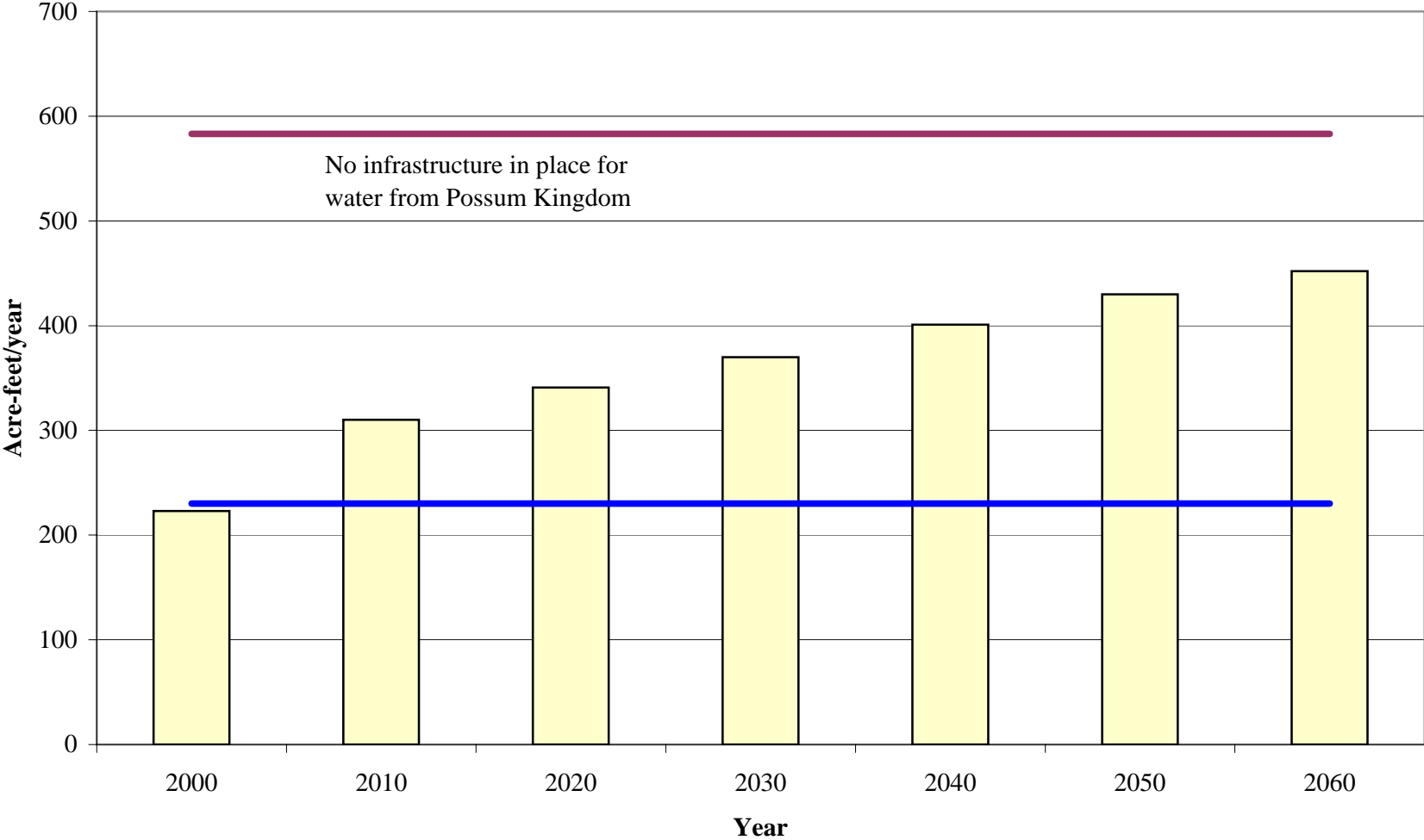


# Throckmorton

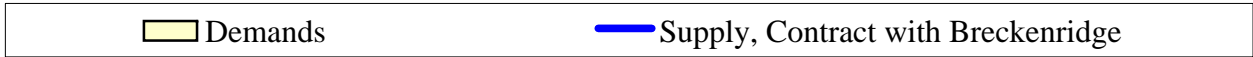
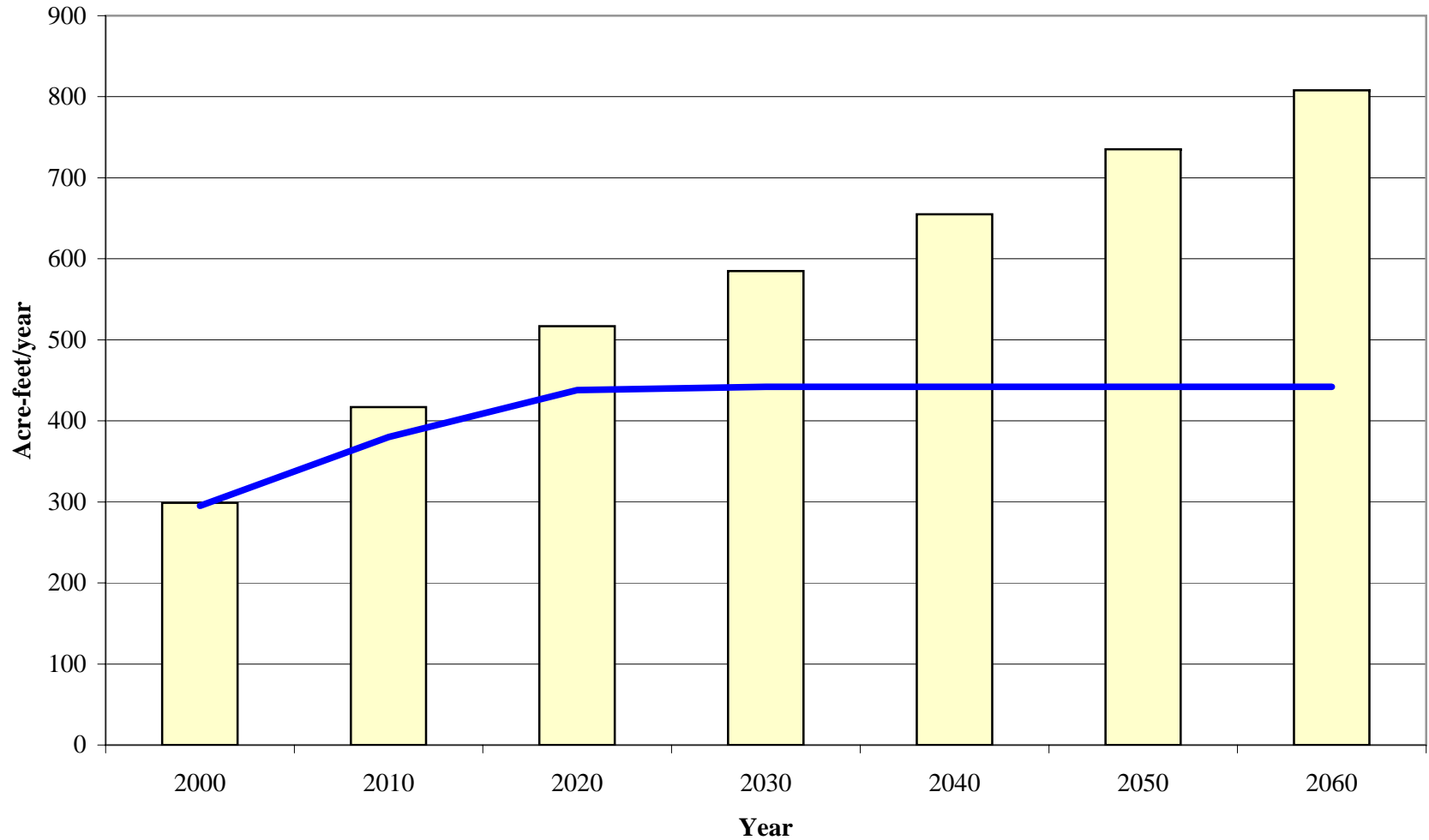




# Shackelford WSC



# Stephens County RWSC



# Breckenridge

