



Summary of Plateau (J) Region

Located on the southern edge of the Edwards Plateau, the six-county Plateau Regional Water Planning Area stretches from the United States-Mexican border in the west to the Texas Hill Country (Kerr and Bandera counties) in the east (Figure J.1). The region includes portions of the Colorado, Guadalupe, Nueces, Rio Grande, and San Antonio river basins. Land use in the western portion of the region is primarily range land, while the eastern portion is a mix of forest land, range land, and agricultural areas. The economy of this region's six counties is based on tourism, hunting, ranching, and government (primarily Laughlin Air Force Base in Del Rio). Major cities in the region include Kerrville and Del Rio. The members of the Plateau Planning Group are listed on the last page of this summary.

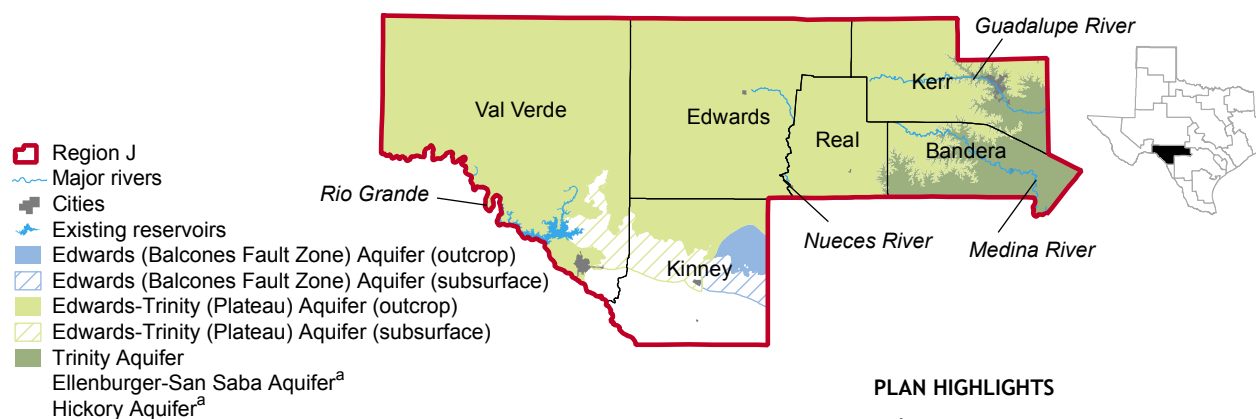
Population and Water Demands

Less than 1 percent of the state's population is projected to reside in the Plateau Region in 2010. By 2060, the region's population is projected to increase 52 percent to 205,910 (Figure J.2). Total water demands, however, will increase by only 13 percent, from 51,844 acre-feet in 2010 to 58,559 acre-feet in 2060 (Figure J.3). The greatest

increase is in County-other demand (72 percent), from 8,220 acre-feet in 2010 to 14,155 acre-feet in 2060 (Table J.1). Municipal water demand also increases over the planning horizon (21 percent), from 21,100 acre-feet to 25,477 acre-feet.

Existing Water Supplies

Over 80 percent of the region's existing water supply is obtained from groundwater. Throughout the planning period, the Plateau Planning Group estimates that regional groundwater and surface water supplies will remain constant at 88,681 acre-feet per year and 19,269 acre-feet per year, respectively (Table J.2). There are three aquifers in the region: the Edwards-Trinity (Plateau) Aquifer, underlying much of the region; the Trinity Aquifer in the southeastern portions of Kerr and Bandera counties; and the Edwards (Balcones Fault Zone) Aquifer in southern Kinney County. The principal sources of surface water in the region are the San Felipe Springs, Las Moras Creek, the Frio River, the Upper Guadalupe River, Cienagas Creek, and the Nueces River. Although the amount of surface water available is small, the region includes a number of important surface water features. The Rio Grande acts as the region's southwestern border, and the



^aMinor aquifer (only shown where there is no major aquifer).

PLAN HIGHLIGHTS

- Total capital cost \$14 million
- Expansion of surface water supply is a recommended strategy for Kerr County
- Additional groundwater use is recommended on sustainable basis to protect stream flow
- Conservation strategies recommended for municipal and irrigation water users

Figure J.1. Plateau Region.

only reservoir in the region, the International Amistad Reservoir, is an important water source for Region M. In addition, the region encompasses the headwaters for three of the state's major rivers, the Guadalupe, San Antonio, and Nueces.

Needs

Although the region as a whole appears to have enough water supply to meet demands in 2010, the total water supply is not accessible to all water users. As a result, water needs occur as early as 2010 (Figure J.4, Table J.3). By 2060, four water users in the region will face water needs: Kerrville (2,222 acre-feet), Camp Wood (167 acre-feet), and the agricultural irrigation water users in Bandera and Kerr counties (114 and 184 acre-feet, respectively).

Recommended Water Management Strategies and Cost

Water management strategies recommended by the Plateau Planning Group would result in 14,869 acre-feet of additional water supply available by the year 2060 (Figure J.5) at a total capital cost of \$14,371,600 (Appendix 2.1).

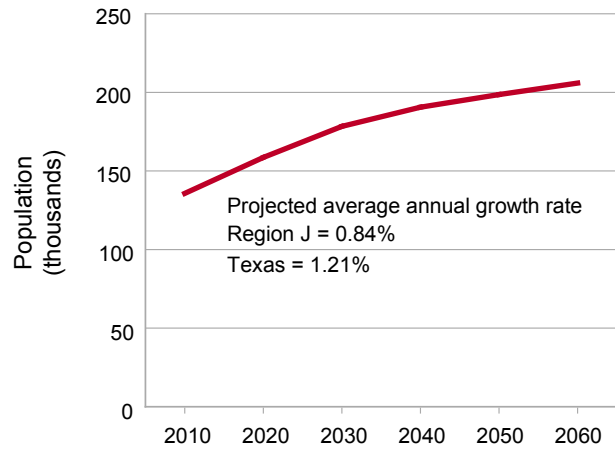


Figure J.2. Projected population for 2010-2060.

Conservation Recommendations

Conservation strategies represent 10 percent of the total volume of water associated with all recommended strategies. All four of the water users with projected needs in 2060 are anticipated to undertake conservation strategies, saving an estimated 1,507 acre-feet of water.

Table J.1. Projected water demands for 2010-2060

Category	2010 (acre-feet)	2060 (acre-feet)	Percent change in demand 2010-2060	Percent of overall demand in 2010	Percent change in relative share of overall demand, 2010-2060
Municipal	21,100	25,477	+21	+41	+3
County-other	8,220	14,155	+72	+16	+8
Manufacturing	30	44	+47	0	0
Mining	319	294	-8	+1	0
Irrigation	19,423	15,837	-18	+37	-10
Steam-electric	0	0	0	0	0
Livestock	2,752	2,752	0	+5	-1
Region	51,844	58,559	+13		

Figure J.3. Projected total water demand and existing water supplies for 2010-2060.

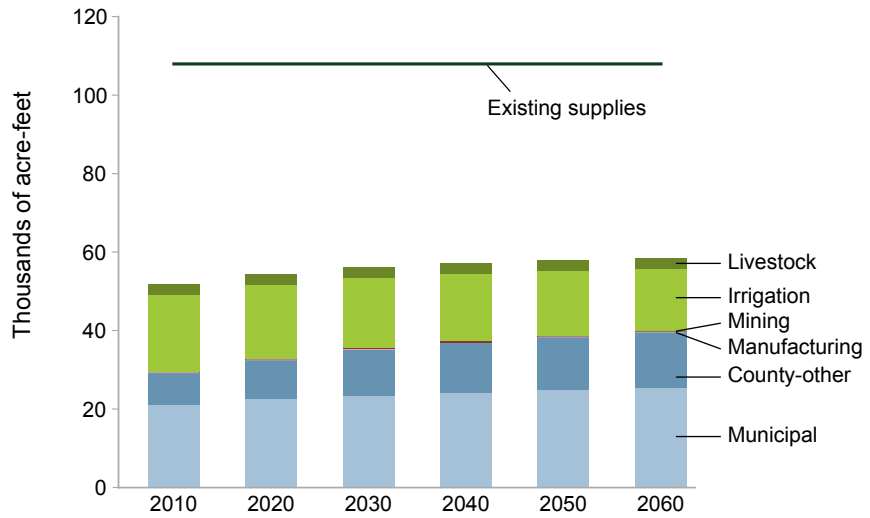


Figure J.4. Projected water needs for 2010-2060.

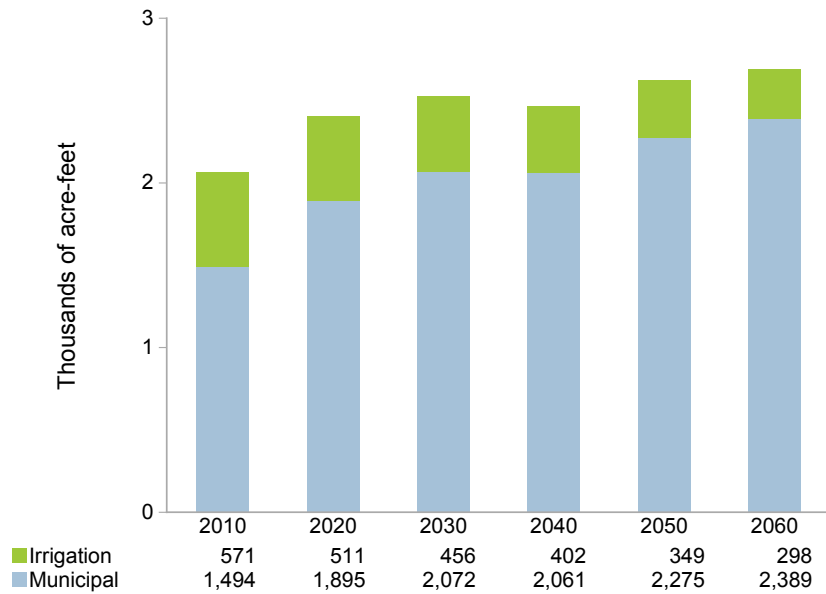


Figure J.5. Recommended water management strategy water supply volumes for 2010-2060.

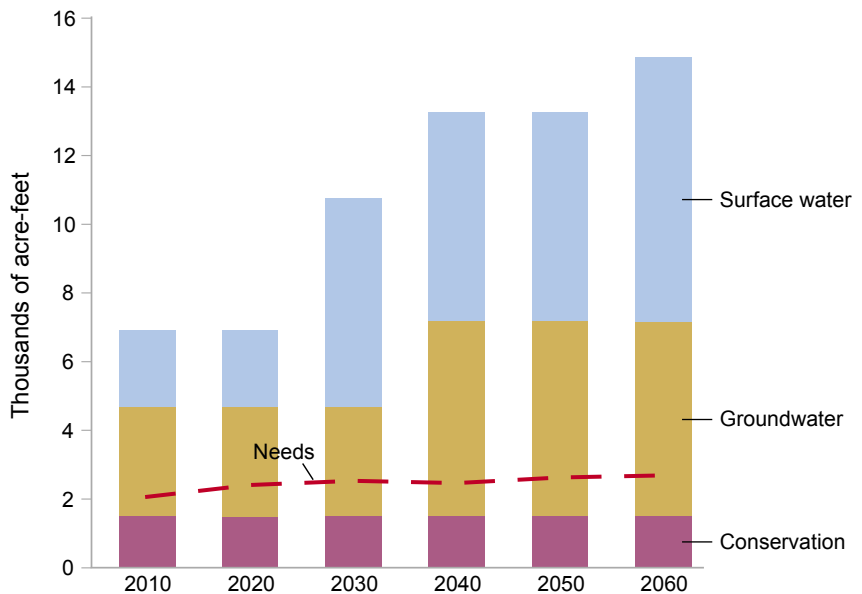


Table J.2. Existing water supply sources supplies for 2010 and 2060

Water supply source	2010 (acre-feet)	2060 (acre-feet)
Surface water		
San Felipe combined run-of-river	13,016	13,016
Other surface water	6,253	6,253
Surface water subtotal	19,269	19,269
Groundwater		
Edwards-Trinity (Plateau) Aquifer	53,677	53,677
Trinity Aquifer	23,661	23,661
Other groundwater	11,343	11,343
Groundwater subtotal	88,681	88,681
Region total	107,950	107,950

Note: Water supply sources are listed individually if 10,000 acre-feet per year or greater in 2010. Only includes supplies that are physically and legally available to users during a drought of record.

Ongoing Issues

There is a continuing need for better groundwater modeling and improvements to the existing groundwater availability models to provide more accurate data at the subregional level. Many in the region continue to be very concerned about the possible export of the region's groundwater.

Select Policy Recommendations

- Continue development of groundwater models
- Improve irrigation water use estimates
- Request more accurate water demand projections to reflect the region's seasonal influx of hunters, tourists, and weekend homeowners

Table J.3. Water needs (acre-feet per year) by county and type of use in years 2010 and 2060

County	Total		Municipal		County-other		Manufacturing		Steam-electric		Mining		Irrigation		Livestock	
	2010	2060	2010	2060	2010	2060	2010	2060	2010	2060	2010	2060	2010	2060	2010	2060
Bandera	114	114	—	—	—	—	—	—	—	—	—	—	114	114	—	—
Edwards	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerr	1,779	2,406	1,322	2,222	—	—	—	—	—	—	—	—	457	184	—	—
Kinney	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Real	172	167	172	167	—	—	—	—	—	—	—	—	—	—	—	—
Val Verde	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Region	2,065	2,687	1,494	2,389	—	—	—	—	—	—	—	—	571	298	—	—

SELECT MAJOR WATER MANAGEMENT STRATEGIES

(Dollar amounts are rounded.)

See Appendix 2.1 for all recommended strategies and actual costs.)

- ✦ *Increase of 2,240 acre-feet per year to Kerrville's treatment capacity would allow greater use of the Upper Guadalupe River and the city's aquifer storage and recovery operation—Implementation by: 2010; Capital Cost: \$7 million.*
- ✦ *Development of a Kerr-County well field would produce 5,672 acre-feet per year available to Kerrville—Implementation by: 2010; Capital Cost: \$8 million.*

Plateau Planning Group Members and Interests Represented

Voting members during adoption of 2006 Regional Water Plan:

Jonathan Letz (Chair), small business; Ray Buck, river authorities; Perry Bushong, water districts; Zach Davis, agriculture; Alejandro A. Garcia, municipalities; Otila Gonzalez, public; Howard Jackson, water utilities; David Jeffery, water districts; Ronnie Pace, industries; Thomas M. Qualia, public; W.B. "Sonny" Sansom, counties; Tully Shahan, environmental; Jerry Simpton, other; Gene Smith, municipalities; Cecil Smith, water districts; Homer T. Stevens, Jr., travel/tourism; Charlie Wiedenfeld, water utilities; William Feathergail Wilson, other

Former voting members during 2001-2006 planning cycle:

Jim Brown, river authorities; Cameron Cornett, water districts; O.J. Erlund, water utilities; Greg Etter, municipalities; Howard Jackson, municipalities; Lon Langley, water districts; Bill McCrae, municipalities