

San Antonio Water System 2002 Statsbook

Appendix



SAN ANTONIO WATER SYSTEM
SAN ANTONIO, TEXAS
APPENDIX

DEFINITIONS :

- 1) **ACRE FOOT** - The quantity of water required to cover one acre of land one foot deep. An acre foot is equivalent to 325,851 gallons.
- 2) **ARTESIAN** - A confined Aquifer or well in which the pressure at the surface is greater than the atmospheric pressure. This pressure causes the water to rise towards the surface without being pumped.
- 3) **ARTESIAN ZONE** - This area of the Edwards Aquifer consists of about 2100 square miles, south of the recharge zone; This is where the high quality water is stored.
- 4) **AVERAGE YIELD** - The average quantity of water which can be provided by a water supply over the long term.
- 5) **BAD WATER LINE** - Is the boundary of the Edwards Aquifer between the high quality water and the low quality saline water. This line extends along the southern portion of the artesian zone.
- 6) **BOD** - Biochemical Oxygen demand; The measure of the quality of dissolved oxygen in mg/l necessary for the decomposition of organic matter by microorganisms.
- 7) **CONSERVATION** - The practices, techniques, and technologies that will reduces the consumption of water and eliminate the loss or waste of water.
- 8) **CFS**(cubic feet per second) - The rate of discharge representing a volume of one cubic foot passing a given point in one second.
- 9) **DISCHARGE** - The volume of liquid that passes a given point within a given period of time.

- 10) **DRAINAGE AREA** - This consists of an area of the Edwards Aquifer of about 4,400 sq.miles north of the recharge zone. This is where storm water runoff is funneled into streams that flow across the recharge area.
- 11) **FIRM YIELD** - The minimum quantity of water which can be provided by a water supply in prolonged drought conditions.
- 12) **GPCD**(gallons per capita per day) - A measure used as an average municipal and industrial water consumption measure obtained by dividing metered consumption by number of customers.
- 13) **MG**(Million Gallons) - The equivalent of one million gallons or 3.07 acre feet.
- 14) **MGD**(Million gallons per day) - used as a common unit of measure in municipal consumption or pumpage; the amount of water used in million gallons in one day.
- 15) **MG/L**(milligrams per liter) - Represent the mass of solute per unit volume (liter) of water, which is equivalent to one thousandths of a gram per liter.
- 16) **MSL**(mean sea level) - Elevation in feet above mean sea level, the traditional measure of the level of a water well.
- 17) **RECHARGE ZONE** - An area of the Edwards Aquifer about 1500 square miles directly south of the drainage area; This is the area where the Aquifer is able to replenish itself.
- 18) **REUSE** - The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose.

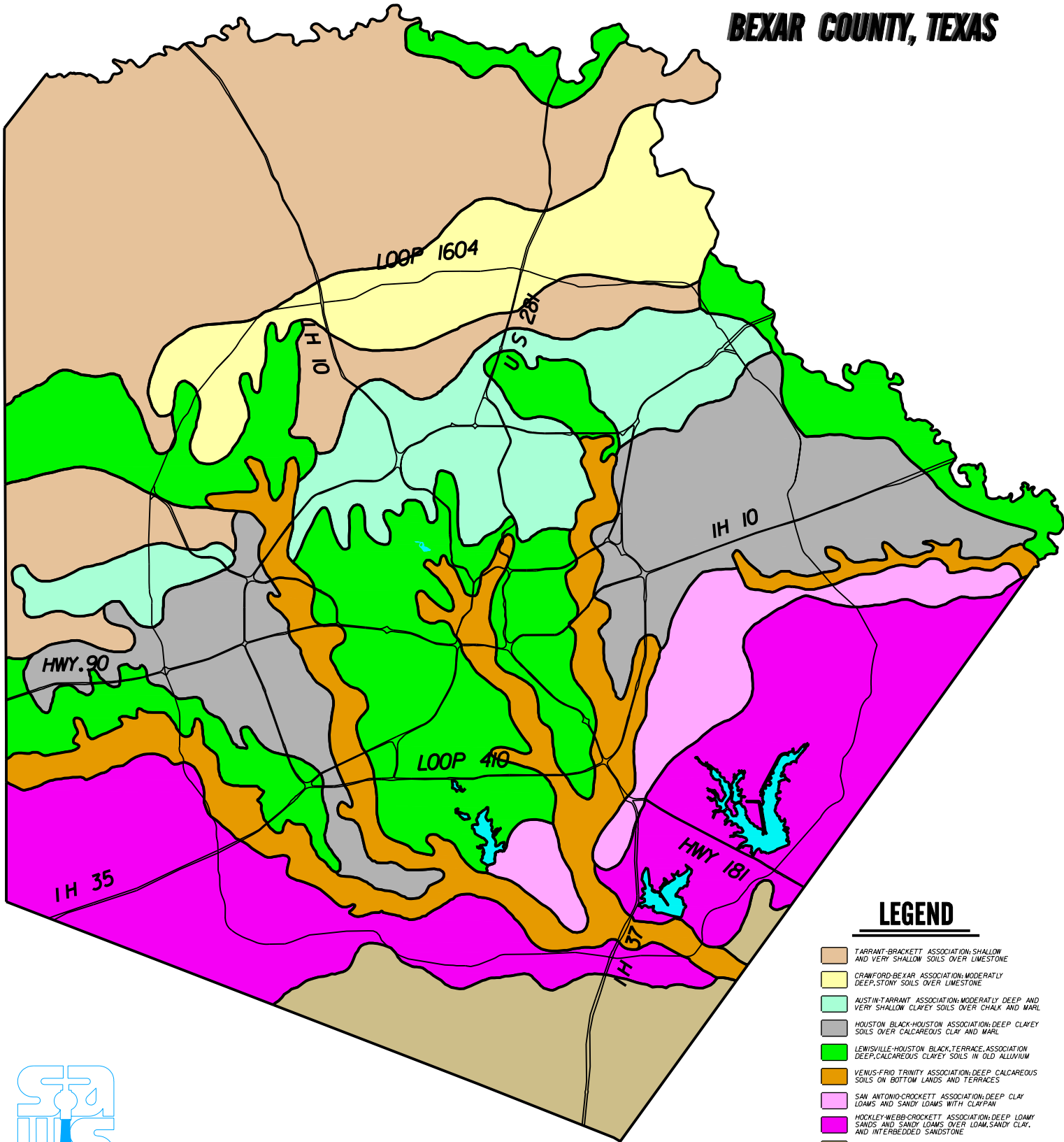
**SAN ANTONIO WATER SYSTEM
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CONVERSION SCALE

1 cubic foot.....	=	7.48 gallons	=62.4 pounds
1 acre-foot.....	=	43,560 cubic feet	=325,851 gallons
1 cubic foot / second (cfs) for 1 minute....	=		449 gallons
1 cubic foot / second (cfs).....	=		646,360 gallons / day
		For 24 hours.....	=1.983 acre-feet
		For 30 days.....	=59.5 acre-feet
		For 1 year.....	=724 acre-feet
1 million gallons.....	=		3.07 acre-feet
1 million gallons per day.....	=		1,121 acre-feet / year
1,000 gallons / minute (gpm).....	=		2.23 cfs
1,000 gpm.....	=		4.42 acre-feet / day

GENERAL SOIL MAP

BEXAR COUNTY, TEXAS



LEGEND

- TARRANT-BRACKETT ASSOCIATION; SHALLOW AND VERY SHALLOW SOILS OVER LIMESTONE
- CRAWFORD-BEXAR ASSOCIATION; MODERATELY DEEP, STONY SOILS OVER LIMESTONE
- AUSTIN-TARRANT ASSOCIATION; MODERATELY DEEP AND VERY SHALLOW CLAYEY SOILS OVER CHALK AND MARL
- HOUSTON-BLACK-HOUSTON ASSOCIATION; DEEP CLAYEY SOILS OVER CALCAREOUS CLAY AND MARL
- LEWISVILLE-HOUSTON-BLACK-TERRACE ASSOCIATION; DEEP, CALCAREOUS CLAYEY SOILS IN OLD ALLUVIUM
- VENUS-FRIO TRINITY ASSOCIATION; DEEP CALCAREOUS SOILS ON BOTTOM LANDS AND TERRACES
- SAN ANTONIO-CROCKETT ASSOCIATION; DEEP CLAY LOAMS AND SANDY LOAMS WITH CLAYPAN
- HOCKLEY-WEBB-CROCKETT ASSOCIATION; DEEP LOAMY SANDS AND SANDY LOAMS OVER LOAM, SANDY CLAY, AND INTERBEDDED SANDSTONE
- EUFAULA ASSOCIATION; DEEP FINE SANDS WITH LOAMY SUBSOIL
- SURFACE WATER



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 Updated: August 12, 2002

NOTE:
 THIS MAP HAS BEEN PREPARED FOR INTERNAL USE WITHIN THE SAN ANTONIO WATER SYSTEM.
 ACCURACY IS LIMITED TO THE VALIDITY OF AVAILABLE DATA AS OF DATES SHOWN.
 SOURCE: U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE, SEPT. 1965