

EDWARDS UNDERGROUND WATER DISTRICT

1619 Tower Life Building
San Antonio, Texas

BULLETIN 8

GROUND-WATER DISCHARGE FROM THE EDWARDS AND ASSOCIATED LIMESTONES, SAN ANTONIO AREA, TEXAS, 1964

By

Paul Rettman, Engineering Technician,
United States Geological Survey

Prepared in cooperation with the Geological Survey,
United States Department of the Interior,
the Texas Water Commission, and
the City of San Antonio

July 1965

GROUND-WATER DISCHARGE FROM THE EDWARDS AND ASSOCIATED
LIMESTONES, SAN ANTONIO AREA, TEXAS, 1964

By

Paul Rettman, Engineering Technician,
United States Geological Survey

July 1965

Records of the ground-water discharge from the Lower Cretaceous Edwards and associated limestones in the San Antonio area are collected yearly as part of the overall hydrologic investigation by the U. S. Geological Survey in cooperation with the Edwards Underground Water District, the Texas Water Commission, and the city of San Antonio. The investigation has continued for many years and has resulted in several geologic and hydrologic reports, some of which are listed in the references. This basic-data report is one of three of its type published annually by the Edwards Underground Water District.

The total 1964 discharge from the Edwards and associated limestones in each county in the area is presented in the following table. The discharge by springs came from five sources: San Marcos Springs in Hays County, Comal Springs in Comal County, San Antonio and San Pedro Springs in Bexar County, and the Leona River Springs in Uvalde County.

Average discharge, by county and use, from the Edwards and
associated limestones in the San Antonio area, 1964,
(in millions of gallons per day)

County	U S E					T O T A L	
	Springs	Municipal and military	Irrigation	Industry	Domestic, stock, and miscel- laneous	Million gallons per day	Thousand acre- feet
Kinney	-	-	-	-	0.2	0.2	0.2
Uvalde	5.6	3.7	32.8	-	1.6	43.7	49.1
Medina	-	1.1	6.0	-	.6	7.7	8.7
Bexar	-	114.3	25.6	19.1	20.5	179.5	201.6
Comal	122.2	3.9	.1	.3	.4	126.9	142.5
Hays	62.5	2.2	.3	-	.2	65.2	73.3
Total million gallons per day	190.3	125.2	64.8	19.4	23.5	423.2	
Total thousand acre-ft	213.8	140.6	72.8	21.8	26.4		475.4

On the other hand, most of the discharge from wells originated in Bexar, Uvalde and Medina Counties. The wells in Bexar County not only provided most of the discharge used for municipal and military purposes but, together with the wells in Uvalde and Medina Counties, also met the irrigation needs of over 40,000 acres in the combined area. Most of the remaining discharge--which served industrial, domestic, stock, and miscellaneous uses--was likewise from Bexar County.

About 55 percent of the total discharge from the Edwards and associated limestones came from wells, and 77 percent of this discharge was from wells in Bexar County. Because the well discharge was slightly less than in the preceding year and because the springflow also decreased, the combined well and spring discharge for 1964 was about 41,000 acre-feet less than in 1963.

REFERENCES CITED

Garza, Sergio, 1962, Recharge, discharge and changes in ground-water storage in the Edwards and associated limestones, San Antonio area, Texas. A progress report on studies, 1955-59: Texas Board Water Engineers Bull. 6201, 42 p.

_____, 1963, Ground-water discharge from the Edwards and associated limestones, 1955-62, San Antonio area, Texas: Edwards Underground Water District Bull. 2, 4 p.

_____, 1964, Ground-water discharge from the Edwards and associated limestones, San Antonio area, Texas, 1963: Edwards Underground Water District Bull. 5, 3 p.