

Water-Data Report 2013

## 08169000 Comal River at New Braunfels, TX

Guadalupe Basin  
Middle Guadalupe Subbasin

LOCATION.--Lat 29°42'21", long 98°07'20" referenced to North American Datum of 1927, Comal County, TX, Hydrologic Unit 12100202, on right bank 200 ft upstream from San Antonio Street viaduct in New Braunfels and 1.1 mi upstream from mouth.

DRAINAGE AREA.--130 mi<sup>2</sup>, of contributing surface drainage, however, most of the time flow is solely from Comal Springs.

### SURFACE-WATER RECORDS

PERIOD OF RECORD.--1882 to Nov. 1927 (discharge measurements only), Dec. 1927 to Sept. 1932 (daily mean discharges below base, and stage-discharge relation is not affected by backwater from Guadalupe River), Oct. 1932 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Apr. 1996 to June 1998.  
BIOCHEMICAL DATA: Apr. 1996 to June 1998.  
BIOLOGICAL DATA: Aug. 1995 to Dec. 1996.  
PESTICIDE DATA: Dec. 1996 to June 1998.  
RADIOCHEMICAL DATA: Aug. 1995 to Dec. 1996.  
STABLE ISOTOPE DATA: Feb. 1998 to Mar. 1998.  
SEDIMENT DATA: Aug. 1995, Apr. 1996 to June 1998.

PERIOD OF DAILY RECORD, Water-Quality.--

SPECIFIC CONDUCTANCE: Mar. 1996 to Sept. 1998.  
pH: Mar. 1996 to Sept. 1998.  
WATER TEMPERATURE: Mar. 1996 to Sept. 1998.  
DISSOLVED OXYGEN: Mar. 1996 to Sept. 1998.

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Prior to Jan. 7, 1928, nonrecording gage at same site. Concrete control since Oct. 3, 1955. Datum of gage is 582.80 ft above NGVD of 1929. Datum originally 0.19 ft lower was revised to current level effective Oct. 1, 1936. Satellite telemeter at station.

REMARKS.--Records good, except for those discharges above 1,000 ft<sup>3</sup>/s, which are poor. Entire flow of river is from Comal Springs except during periods of local runoff. Comal Springs emerge from the Edwards and associated limestones in the Balcones Fault Zone about 1.0 mi upstream. Flow is affected at times by cleanup operations by the city of New Braunfels at Landa Park Lake and at times by discharge from the flood-detention pools of five floodwater-retarding structures. These structures control runoff from 74.6 mi<sup>2</sup> above station. Stage-discharge relation is affected at times by backwater from the Guadalupe River. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood information begins with flood of July 8, 1869, which reached a stage of 36.91 ft, from painted and dated marks in old Rimmert Brewery 0.5 mi downstream; the flood of Oct. 17, 1870, reached a stage of 37.65 ft at same site (probably some backwater from Guadalupe River).

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	211	199	205	211	221	213	194	195	205	182	145	117
2	212	198	206	210	222	213	195	199	208	182	142	117
3	213	199	206	210	222	213	204	195	210	178	145	113
4	215	201	206	209	223	212	197	199	209	179	145	111
5	216	201	205	210	222	209	199	200	208	180	143	112
6	215	200	205	210	221	207	200	199	211	178	140	112
7	216	200	206	211	221	206	202	195	210	175	131	113
8	216	199	207	213	221	205	200	193	211	175	131	116
9	215	200	208	269	222	206	198	191	211	174	131	116
10	214	199	207	229	223	219	198	205	210	170	132	116
11	219	201	207	225	223	209	197	197	209	169	131	115
12	213	202	207	225	222	209	196	196	206	165	130	116
13	212	199	207	224	221	208	197	197	208	167	130	114
14	215	200	207	225	220	207	198	197	207	168	125	116
15	213	200	208	224	220	208	198	196	205	180	125	118
16	211	200	209	225	220	206	195	195	206	217	124	119
17	210	202	208	225	220	206	194	193	208	200	125	121
18	209	202	208	225	220	205	195	191	206	172	126	122
19	208	202	208	225	218	202	195	193	204	167	125	123
20	208	199	207	225	218	200	195	190	202	167	123	125
21	208	199	208	226	218	201	196	185	198	166	120	127
22	206	200	208	225	217	201	194	183	197	165	120	127
23	205	202	209	225	217	202	193	183	198	162	119	128
24	202	202	209	225	216	201	191	196	196	160	119	126
25	201	204	208	224	215	200	191	302	194	159	119	124
26	201	205	208	225	215	198	190	229	190	156	122	123
27	203	202	209	225	214	196	191	205	188	155	120	124
28	204	203	209	225	214	196	195	206	187	158	118	131
29	201	203	208	224	---	195	196	207	186	156	118	236
30	200	204	209	222	---	192	195	210	185	150	115	153
31	199	---	211	222	---	194	---	208	---	147	113	---
<b>Total</b>	6,491	6,027	6,433	6,898	6,146	6,339	5,879	6,230	6,073	5,279	3,952	3,731
<b>Mean</b>	209	201	208	223	220	204	196	201	202	170	127	124
<b>Max</b>	219	205	211	269	223	219	204	302	211	217	145	236
<b>Min</b>	199	198	205	209	214	192	190	183	185	147	113	111
<b>Ac-ft</b>	12,870	11,950	12,760	13,680	12,190	12,570	11,660	12,360	12,050	10,470	7,840	7,400

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2013, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	307	304	308	312	313	308	311	321	304	290	260	279
<b>Max</b>	1,662	859	467	499	527	536	531	939	664	1,336	466	663
<b>(WY)</b>	(1999)	(2005)	(2003)	(1968)	(1992)	(1992)	(1977)	(1972)	(2010)	(2002)	(1992)	(1952)
<b>Min</b>	12.5	23.7	40.9	51.5	52.5	70.6	45.2	31.7	11.5	12.0	15.4	15.0
<b>(WY)</b>	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1933 - 2013	
<b>Annual total</b>	81,259		69,478			
<b>Annual mean</b>	222		190		301	
<b>Highest annual mean</b>					482	1999
<b>Lowest annual mean</b>					50.9	1956
<b>Highest daily mean</b>	513	Mar 20	302	May 25	22,000	Oct 17, 1998
<b>Lowest daily mean</b>	155	Sep 13	111	Sep 4	5.5	Jun 7, 1956
<b>Annual seven-day minimum</b>	157	Sep 7	113	Sep 3	8.5	Jun 2, 1956
<b>Maximum peak flow</b>			620	May 25	73,500	Oct 17, 1998
<b>Maximum peak stage</b>			4.91	May 25	<sup>a</sup> 39.28	Oct 17, 1998
<b>Annual runoff (ac-ft)</b>	161,200		137,800		218,300	
<b>10 percent exceeds</b>	266		221		401	
<b>50 percent exceeds</b>	213		201		306	
<b>90 percent exceeds</b>	176		125		175	

<sup>a</sup> From floodmark.

