Water-Data Report 2008

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^2, 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. Water-Quality Records: Chemical data: Apr. 1996 to June 1998. Biochemical data: Apr. 1996 to June 1998. Pesticide data: Dec. 1996, June 1998. Biological data: Aug. 1995, Dec. 1996. Sediment chemistry data: Aug. 1995. Sediment concentration data: Apr. 1996 to June 1998. Daily Water-Quality Record: Specific conductance: Mar. 1996 to Sept. 1998. Water temperature: Mar. 1996 to Sept. 1998. pH: 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^3/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^2 above station. Stage-discharge relation is affected at times by backwater from the Guadalupe River.

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 Remmert 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 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	433	418	418	412	396	385	367	355	308	261	291	305
2	432	419	418	411	396	386	367	354	306	263	294	303
3	431	418	416	411	397	385	366	351	305	264	294	302
4	430	419	416	411	397	378	366	351	302	265	292	301
5	430	413	416	411	397	372	367	352	301	269	291	301
6	430	408	416	411	395	372	366	352	301	271	291	304
7	429	416	416	410	394	370	365	351	305	271	290	301
8	430	419	416	410	394	371	365	349	301	275	289	301
9	428	419	416	412	394	371	364	347	298	274	291	301
10	427	419	416	410	394	385	363	346	294	276	291	301
11	426	419	416	410	394	375	361	344	294	276	287	303
12	426	420	416	408	393	375	360	344	292	276	289	304
13	426	421	414	409	392	373	358	343	290	278	289	304
14	426	418	415	408	392	374	359	345	290	276	290	303
15	426	417	414	408	392	373	355	343	290	275	289	300
16	425	417	414	406	393	372	357	342	286	274	300	300
17	425	418	414	403	393	373	357	341	284	275	294	300
18	423	419	414	402	392	378	363	343	283	274	304	299
19	423	418	414	398	391	373	358	340	273	275	300	299
20	424	418	414	399	391	372	357	338	267	275	299	300
21	425	419	414	396	391	371	357	339	269	274	296	300
22	427	416	413	e397	390	371	356	338	270	273	298	297
23	425	417	413	e398	389	370	357	333	266	273	303	299
24	424	419	413	398	389	370	358	334	265	354	308	297
25	423	419	414	398	389	368	355	333	262	301	305	296
26	423	419	413	398	386	369	361	328	262	297	303	296
27	423	418	413	398	385	369	357	326	261	295	303	297
28	423	418	413	399	385	368	358	319	262	295	305	296
29	423	417	413	399	384	369	355	318	262	295	302	294
30	422	418	412	398	---	370	355	312	260	292	305	292
31	420	---	412	397	---	369	---	311	---	293	307	---
Total	13,208	12,533	12,852	12,536	11,365	11,577	10,810	10,522	8,509	8,685	9,190	8,996
Mean	426	418	415	404	392	373	360	339	284	280	296	300
Max	433	421	418	412	397	386	367	355	308	354	308	305
Min	420	408	412	396	384	368	355	311	260	261	287	292
Ac-ft	26,200	24,860	25,490	24,870	22,540	22,960	21,440	20,870	16,880	17,230	18,230	17,840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	308	307	310	314	314	310	313	326	305	295	264	283
Max	1,662	859	467	499	527	536	531	939	565	1,336	466	663
(WY)	(1999)	(2005)	(2003)	(1968)	(1992)	(1992)	(1977)	(1972)	(2004)	(2002)	(1992)	(1952)
Min	12.5	23.7	40.9	51.5	52.5	70.6	45.2	31.7	11.5	12.0	15.4	15.0
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)

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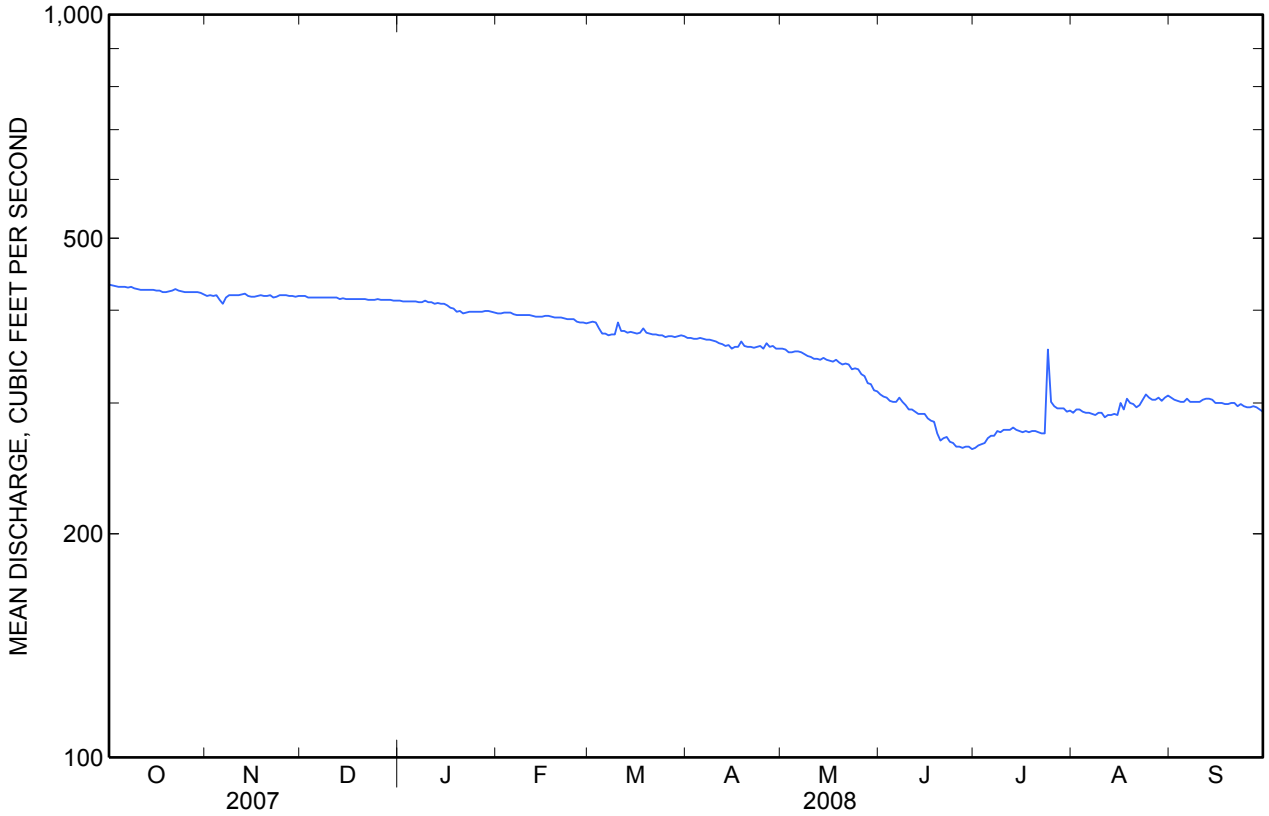
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1933 - 2008	
Annual total	139,735		130,783			
Annual mean	383		357		304	
Highest annual mean					482	1999
Lowest annual mean					50.9	1956
Highest daily mean	1,980	Jul 20	433	Oct 1	22,000	Oct 17, 1998
Lowest daily mean	251	Mar 8	260	Jun 30	5.5	Jun 7, 1956
Annual seven-day minimum	253	Mar 4	261	Jun 25	8.5	Jun 2, 1956
Maximum peak flow			738	Jul 24	73,500	Oct 17, 1998
Maximum peak stage			5.09	Jul 24	[a]39.28	Oct 17, 1998
Annual runoff (ac-ft)	277,200		259,400		220,300	
10 percent exceeds	452		419		402	
50 percent exceeds	383		368		308	
90 percent exceeds	284		284		177	

[a] From floodmark.