



Water-Data Report 2006

**09328500 SAN RAFAEL RIVER NEAR GREEN RIVER, UT**

Lower Green Basin  
San Rafael Subbasin

LOCATION.--Lat 38°51'30", long 110°22'10" referenced to North American Datum of 1927, in SE ¼ SE ¼ NW ¼ sec.34, T.22 S., R.14 E., Emery County, UT, Hydrologic Unit 14060009, on left bank 300 ft upstream from bridge on State Highway 24, 14.0 mi southwest of Green River, and 34.3 mi upstream from mouth.

DRAINAGE AREA.--1,628 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--May 1909 to September 1918, September 1919 to July 1920 (gage heights only), October 1945 to current year.

REVISED RECORDS.--WDR UT-77-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,190 ft above NGVD of 1929, from topographic map. May 5, 1909 to September 10, 1918, staff gage, and September 10, 1919 to July 10, 1920, tape-weight gage. November 29, 1945 to July 7 1976, water-stage recorder at various sites and datums about 1 mi upstream.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 42,000 acres. Several small transmountain diversions from tributaries for irrigation in Sevier Lake Basin, and some storage since November 3, 1965, in Joes Valley Reservoir (see station 09323900).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft<sup>3</sup>/s, Sep 2, 1909, gage height, 12.7 ft, site and datum then in use, from rating curve extended above 3,100 ft<sup>3</sup>/s; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 20	0245	*1,780	8.14

Minimum daily discharge, 13 ft<sup>3</sup>/s, Sep 4, 5, 6.

## 09328500 SAN RAFAEL RIVER NEAR GREEN RIVER, UT—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	84	e40	e24	e25	e25	e25	e24	204	497	55	15	23
2	69	e31	e26	e25	e23	e25	e26	194	553	48	107	18
3	63	e32	e23	e25	e24	e25	e28	185	617	49	53	15
4	55	e32	e22	e25	e23	e24	e29	158	675	54	37	13
5	42	e29	e22	e24	e23	e25	28	138	667	55	31	13
6	46	e30	e23	e24	e23	e25	29	146	746	49	38	13
7	47	e30	e22	e24	e23	e24	33	155	877	48	49	14
8	48	e31	e20	e24	e24	e23	40	154	936	98	68	63
9	45	e29	e22	e23	e24	e23	37	151	944	94	123	140
10	48	e29	e22	e23	e21	e22	35	153	954	70	60	98
11	48	e30	e23	e23	e21	e22	38	139	955	62	42	59
12	53	e30	e23	e23	e22	e22	42	130	767	78	35	42
13	55	e29	e24	e24	e24	e23	43	121	616	58	29	38
14	49	e28	e23	e24	e23	e23	73	117	503	50	28	31
15	45	e24	e22	e24	e24	e23	156	142	433	42	26	35
16	42	e24	e22	e23	e22	e23	194	180	380	38	23	65
17	46	e25	e22	e23	e23	e23	205	201	356	33	32	67
18	49	e26	e23	e24	e23	e23	213	219	285	28	38	51
19	262	e26	e23	e23	e23	e22	239	248	245	27	25	43
20	656	e27	e24	e23	e23	e23	186	282	227	30	18	43
21	117	e27	e24	e23	e23	e22	112	524	213	34	16	44
22	70	e28	e24	e23	e24	e23	228	794	195	50	15	48
23	55	e27	e24	e23	e24	e23	291	825	182	30	16	45
24	48	e27	e24	e24	e24	e23	283	763	166	23	20	48
25	41	e26	e24	e23	e25	e24	260	685	153	19	18	47
26	36	e26	e24	e23	e24	e23	251	652	134	21	103	51
27	29	e22	e24	e23	e26	e23	247	630	114	21	142	47
28	24	e23	e23	e22	e25	e23	245	638	95	24	50	46
29	20	e23	e24	e23	---	e22	215	624	81	21	34	45
30	31	e24	e24	e23	---	e21	202	637	66	16	28	41
31	e70	---	e24	e24	---	e22	---	627	---	14	22	---
<b>Total</b>	2,393	835	718	730	656	717	4,032	10,816	13,632	1,339	1,341	1,346
<b>Mean</b>	77.2	27.8	23.2	23.5	23.4	23.1	134	349	454	43.2	43.3	44.9
<b>Max</b>	656	40	26	25	26	25	291	825	955	98	142	140
<b>Min</b>	20	22	20	22	21	21	24	117	66	14	15	13
<b>Ac-ft</b>	4,750	1,660	1,420	1,450	1,300	1,420	8,000	21,450	27,040	2,660	2,660	2,670

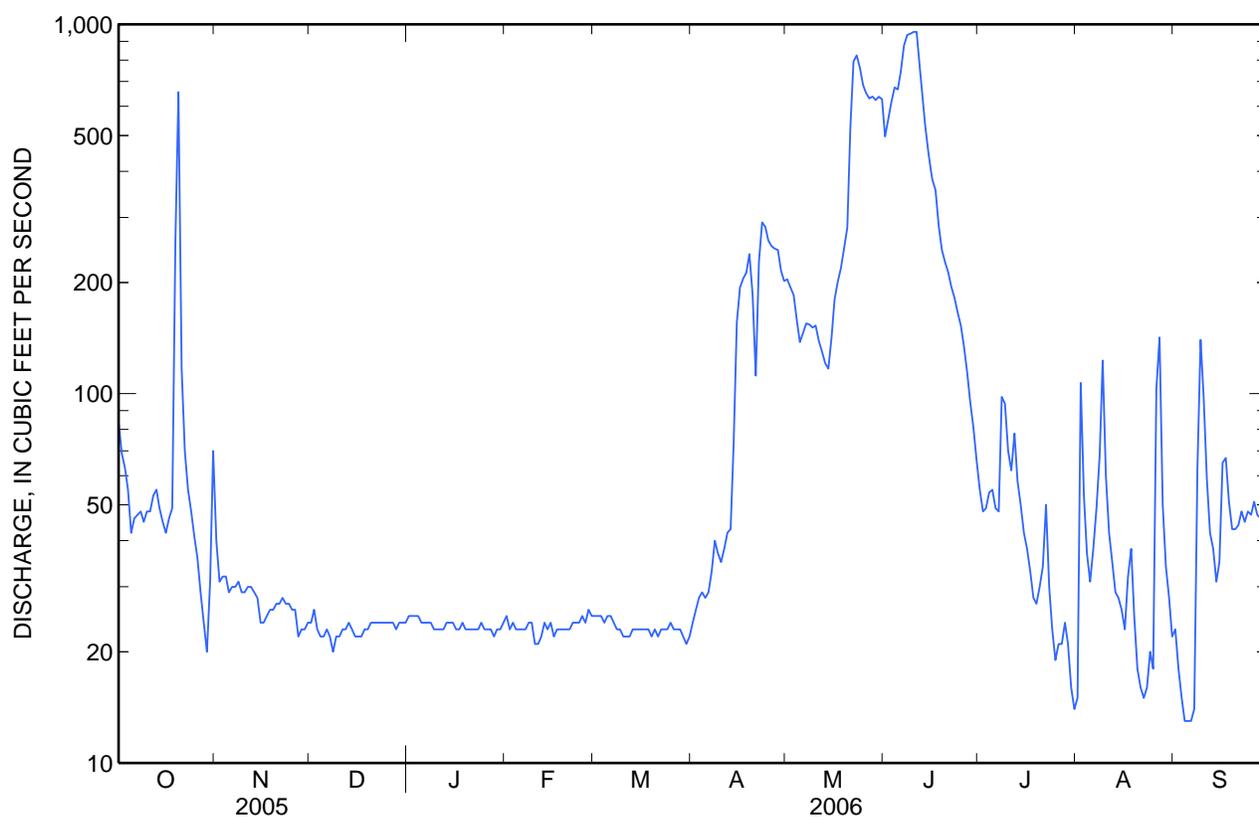
**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910-18, 1946-2006, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	88.1	64.4	44.5	42.3	68.6	99.4	98.3	282	530	145	84.4	74.4
<b>Max</b>	848	358	125	224	200	729	748	1,626	2,772	965	344	309
<b>(WY)</b>	(1917)	(1958)	(1910)	(1911)	(1910)	(1910)	(1910)	(1914)	(1983)	(1983)	(1916)	(1961)
<b>Min</b>	0.00	5.68	7.80	10.8	14.5	19.2	5.41	1.58	1.09	0.13	0.38	0.11
<b>(WY)</b>	(2004)	(1978)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(1977)	(2003)	(1960)	(1956)

09328500 SAN RAFAEL RIVER NEAR GREEN RIVER, UT—Continued

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1910-18, 1946-2006	
<b>Annual total</b>	55,635		38,555			
<b>Annual mean</b>	152		106		135	
<b>Highest annual mean</b>					483	1984
<b>Lowest annual mean</b>					11.8	2003
<b>Highest daily mean</b>	2,010	Jun 5	955	Jun 11	7,300	Oct 8, 1916
<b>Lowest daily mean</b>	12	Apr 15	13	Sep 4	0.00	Aug 24, 1910
<b>Annual seven-day minimum</b>	13	Apr 15	16	Sep 1	0.00	Aug 15, 1915
<b>Annual runoff (ac-ft)</b>	110,400		76,470		97,800	
<b>10 percent exceeds</b>	448		249		295	
<b>50 percent exceeds</b>	36		30		48	
<b>90 percent exceeds</b>	16		22		9.7	



**09328500 SAN RAFAEL RIVER NEAR GREEN RIVER, UT—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 1946 to September 1949, October 1950 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July to September 1949, November 1950 to September 1962, October 1964 to September 1979, daily, March 1982 to current year.

WATER TEMPERATURE: July to September 1949, October 1950 to September 1962, October 1964 to September 1977.

SUSPENDED-SEDIMENT DISCHARGE: March 1948 to September 1949, October 1950 to September 1959.

REMARKS.--Unpublished daily records of specific conductance obtained before water year 1965 were included in the determination of extremes for period of daily record and are available in files of district office.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily observed (water years 1949, 1951-70, 1974-77, 1982 to current year), 7,230 microsiemens/cm, Jul 15, 1954 and Jun 29, 1977; minimum daily observed (water years 1949, 1951-77, 1982 to current year), 650 microsiemens/cm, Jun 29, 1984.

WATER TEMPERATURE: Maximum (water years 1949, 1951-61, 1966-77), 35.0C, Jul 11, 1954; minimum, 0.0C, on many days during winter period each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum observed, 4,060 microsiemens/cm, Dec 16; minimum observed, 690 microsiemens/cm, Jun 5.

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Date	Time	Gage height, feet (00065)	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)
<b>Oct</b>								
<b>05...</b>	0840	2.56	44	8.0	2,750	12.0	12.5	2,280
<b>Nov</b>								
<b>18...</b>	0830	3.63	26	7.9	3,280	1.0	1.5	2,820
<b>Feb</b>								
<b>23...</b>	0930	2.73	24	7.9	3,590	2.5	1.0	3,090
<b>Apr</b>								
<b>04...</b>	0830	2.81	29	7.9	3,630	10.5	11.0	3,210
<b>May</b>								
<b>11...</b>	0830	3.41	134	8.0	1,230	13.0	15.0	879
<b>Jun</b>								
<b>26...</b>	0815	3.36	140	8.0	1,350	27.0	21.0	977
<b>Jul</b>								
<b>20...</b>	0830	2.28	28	8.0	2,320	28.0	24.0	1,880
<b>Sep</b>								
<b>07...</b>	0815	1.95	10	8.0	2,900	19.0	18.0	2,440

## 09328500 SAN RAFAEL RIVER NEAR GREEN RIVER, UT—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006  
DAILY INSTANTANEOUS VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	3,290	---	3,540	1,070	790	---	---	---
2	---	---	3,990	---	---	---	3,440	1,020	720	---	---	---
3	2,750	3,300	---	3,260	---	3,120	3,690	920	700	---	---	---
4	---	---	3,250	---	---	---	3,850	970	710	---	---	---
5	2,660	---	---	---	3,150	3,410	3,760	1,210	690	---	---	---
6	---	---	---	3,360	---	---	3,690	1,370	730	---	---	---
7	---	3,160	---	---	---	---	3,620	1,290	820	---	---	---
8	---	---	3,160	3,400	---	---	3,520	1,330	700	---	---	---
9	2,600	---	---	---	3,400	3,430	3,510	1,400	---	---	---	---
10	---	3,290	---	---	---	---	3,700	1,270	760	---	---	---
11	---	---	---	---	---	---	3,200	1,280	840	---	---	---
12	---	---	---	---	3,880	3,450	3,230	1,770	750	---	---	---
13	2,640	3,480	4,030	3,900	---	---	3,410	1,610	700	---	---	---
14	---	---	---	---	---	---	3,440	1,620	720	---	---	---
15	---	---	---	3,890	---	---	1,510	1,740	770	---	---	---
16	---	---	4,060	---	3,550	---	1,210	1,510	820	---	---	---
17	2,610	---	---	---	---	3,380	1,170	1,210	800	---	---	---
18	---	3,670	3,770	---	---	---	960	1,100	850	---	---	---
19	---	---	---	---	3,680	3,670	890	1,080	960	---	---	---
20	1,900	3,840	---	3,760	---	---	980	960	1,010	---	---	---
21	---	---	---	---	---	---	940	920	1,040	---	---	---
22	---	---	3,650	3,710	---	---	1,300	850	1,110	---	---	---
23	---	---	---	---	3,590	3,000	810	770	1,130	---	---	---
24	3,100	---	---	---	---	---	820	750	1,150	---	---	---
25	---	---	---	---	---	---	860	730	1,200	---	---	---
26	---	3,790	3,150	3,410	3,410	4,010	870	770	1,340	---	---	---
27	3,090	---	---	---	---	---	880	750	1,280	---	---	---
28	---	---	---	---	---	---	900	750	1,440	---	---	---
29	---	3,820	3,350	3,660	---	---	820	710	1,550	---	---	---
30	2,930	---	---	---	---	3,700	800	730	1,700	---	---	---
31	---	---	---	---	---	---	---	750	---	---	---	---
<b>Total</b>	---	---	---	---	---	---	65,320	34,210	---	---	---	---
<b>Mean</b>	---	---	---	---	---	---	2,180	1,100	---	---	---	---
<b>Max</b>	---	---	---	---	---	---	3,850	1,770	---	---	---	---
<b>Min</b>	---	---	---	---	---	---	800	710	---	---	---	---