



Water-Data Report UT-2005

09328500 SAN RAFAEL RIVER NEAR GREEN RIVER, UT

Green River Basin

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, 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 mi².

WATER-DISCHARGE 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 ft³/s, Sep 2, 1909, gage height, 12.7 ft, site and datum then in use, from rating curve extended above 3,100 ft³/s; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun 05	0915	*2,390	*8.90
Jun 21	1700	1,770	8.02
Sep 09	1830	1,910	8.35

Minimum daily discharge, 4.5 ft³/s, Oct 16.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	157	29	e12	e14	109	39	18	44	1,240	334	19	15
2	28	24	e10	e16	68	37	17	46	928	269	17	13
3	26	23	e8.6	e17	52	37	16	52	1,490	209	171	13
4	32	21	e8.7	e19	49	32	16	56	1,930	174	43	13
5	18	23	e9.6	e20	50	30	16	57	2,010	146	30	14
6	13	21	e12	e19	52	30	16	59	1,100	122	41	24
7	18	24	e14	e18	44	29	16	66	958	121	90	20
8	10	23	e15	24	42	27	16	65	904	101	69	22
9	8.8	22	e14	28	43	25	15	70	738	81	25	663
10	7.6	23	e12	26	36	25	15	67	666	75	134	1,490
11	6.6	61	e12	35	31	25	15	66	629	69	40	224
12	5.9	38	e12	104	35	24	14	71	595	63	45	100
13	5.4	45	e13	224	31	23	13	73	589	56	25	72
14	5.6	57	e12	84	50	23	13	69	500	46	22	60
15	4.8	47	e10	57	75	23	12	75	448	40	20	55
16	4.5	32	e10	43	154	22	13	89	518	39	23	53
17	4.8	28	e11	39	136	21	14	102	698	32	41	50
18	5.9	27	e10	34	80	21	13	90	1,090	28	63	47
19	6.7	26	e9.7	31	65	21	12	94	1,490	26	35	47
20	6.8	25	e9.7	30	65	23	12	114	1,660	24	27	48
21	8.5	24	e12	30	111	21	12	111	1,710	22	20	86
22	120	24	e11	31	101	20	13	182	1,570	21	16	167
23	469	23	e10	33	193	20	20	284	1,460	21	15	127
24	75	22	e10	38	184	20	22	316	1,310	23	15	70
25	41	22	e9.0	44	115	20	26	378	1,110	29	16	64
26	33	22	e9.0	51	61	22	33	448	907	136	15	62
27	31	22	e10	74	48	21	36	436	776	96	15	63
28	30	23	e11	193	44	20	30	603	632	53	15	86
29	91	22	e13	331	---	20	45	1,040	536	36	14	99
30	74	e15	e14	239	---	19	40	1,220	437	26	15	132
31	41	---	e15	181	---	18	---	1,350	---	22	14	---
Total	1,388.9	838	349.3	2,127	2,124	758	569	7,793	30,629	2,540	1,150	3,999
Mean	44.8	27.9	11.3	68.6	75.9	24.5	19.0	251	1,021	81.9	37.1	133
Max	469	61	15	331	193	39	45	1,350	2,010	334	171	1,490
Min	4.5	15	8.6	14	31	18	12	44	437	21	14	13
Ac-ft	2,750	1,660	693	4,220	4,210	1,500	1,130	15,460	60,750	5,040	2,280	7,930

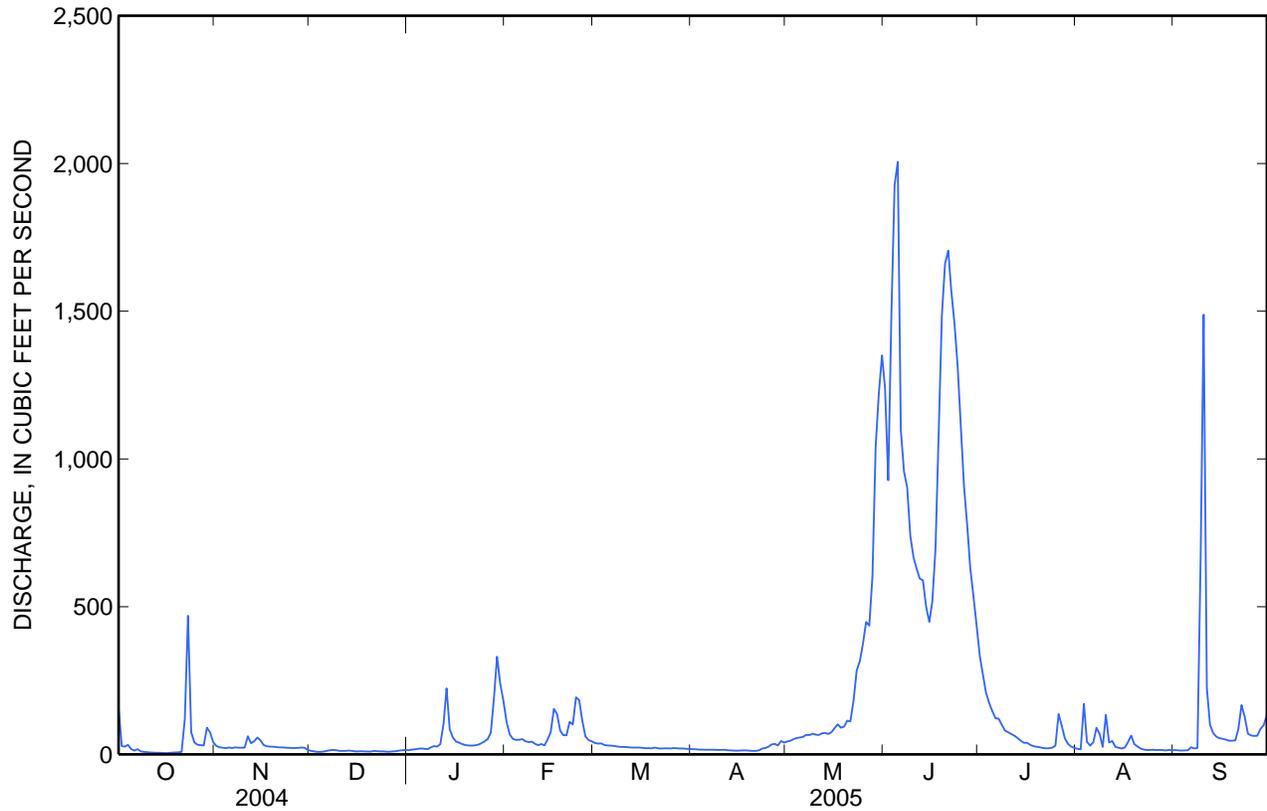
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910-18, 1946-2005, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	88.3	65.0	44.8	42.6	69.3	101	97.8	281	531	147	85.0	74.8
Max	848	358	125	224	200	729	748	1,626	2,772	965	344	309
(WY)	(1917)	(1958)	(1910)	(1911)	(1910)	(1910)	(1910)	(1914)	(1983)	(1983)	(1916)	(1961)
Min	0.00	5.68	7.80	10.8	14.5	19.2	5.41	1.58	1.09	0.13	0.38	0.11
(WY)	(2004)	(1978)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(1977)	(2003)	(1960)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2004		Water Year 2005		Water Years 1910-18, 1946-2005	
Annual total	7,906.26		54,265.2			
Annual mean	21.6		149		135	
Highest annual mean					483	1984
Lowest annual mean					11.8	2003
Highest daily mean	469	Oct 23	2,010	Jun 5	7,300	Oct 8, 1916
Lowest daily mean	0.00	Sep 3	4.5	Oct 16	0.00	Aug 24, 1910
Annual seven-day minimum	0.00	Sep 9	5.3	Oct 12	0.00	Aug 15, 1915
Annual runoff (ac-ft)	15,680		107,600		98,110	
10 percent exceeds	63		448		296	
50 percent exceeds	11		31		48	
90 percent exceeds	0.18		12		9.5	



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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), 35.0°C, Jul 11, 1954; minimum, 0.0°C, on many days during winter period each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum observed, 4,560 microsiemens/cm, Apr 23; minimum observed, 670 microsiemens/cm, Jun 23.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Gage height, feet (00065)	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)
Feb								
25...	0900	3.17	115	8.2	3,150	9.0	8.0	2,680
Apr								
13...	0845	2.00	13	8.0	4,200	12.0	11.0	3,770
May								
19...	0830	2.86	88	8.0	1,590	17.0	16.5	1,180
Jul								
06...	0830	3.34	125	8.2	1,440	30.0	22.0	1,050
Aug								
17...	0845	2.41	27	7.9	2,230	24.5	20.0	1,890

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**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY INSTANTANEOUS VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	2,060	---	---	---	---	4,040	2,020	810	1,030	2,480	---
2	---	---	---	---	---	3,820	4,120	2,440	800	1,060	---	---
3	---	---	3,710	3,170	2,650	---	4,140	2,410	820	1,130	---	---
4	---	2,770	---	---	---	---	4,070	2,500	1,030	1,280	---	2,960
5	2,850	---	---	---	---	---	3,920	2,490	1,380	1,390	---	---
6	---	---	3,720	2,870	3,300	3,480	3,890	2,350	1,140	1,490	---	---
7	---	3,070	---	---	---	---	3,900	2,260	1,040	1,570	3,270	---
8	---	---	---	---	---	---	3,930	2,400	930	1,870	---	2,890
9	2,650	---	3,490	---	---	---	3,930	2,400	960	1,660	---	---
10	---	---	---	2,870	3,160	---	3,870	2,400	980	1,870	---	---
11	2,230	---	---	---	---	---	3,980	2,700	970	2,150	---	2,390
12	---	---	---	---	---	3,830	4,270	2,450	940	2,110	2,950	---
13	---	2,860	3,470	---	3,160	---	3,920	2,260	1,040	2,100	---	---
14	2,810	---	---	1,940	---	---	3,830	2,230	1,110	2,160	2,520	2,650
15	---	---	---	---	---	4,230	3,870	2,180	1,090	2,220	---	---
16	---	2,810	3,400	2,510	---	---	3,970	2,310	1,030	2,270	---	---
17	2,850	---	---	---	1,470	---	4,240	1,920	920	2,260	---	---
18	---	---	---	---	---	4,200	4,030	1,810	810	2,430	2,300	---
19	---	2,980	---	---	---	---	3,790	1,560	750	2,540	---	2,700
20	3,090	---	3,510	3,420	2,510	---	3,760	1,930	680	2,570	---	---
21	---	3,380	---	---	---	3,930	3,700	1,670	680	2,590	2,620	---
22	---	---	---	---	---	---	4,120	1,770	680	2,760	---	2,480
23	---	---	3,470	3,320	---	---	4,560	1,420	670	2,840	---	---
24	2,470	---	---	---	1,200	---	4,180	1,030	710	2,760	2,780	---
25	---	3,380	---	---	---	3,930	4,230	960	710	2,630	---	2,220
26	---	---	3,710	3,200	---	---	3,110	970	750	2,230	---	---
27	---	---	---	---	2,930	---	2,790	880	790	2,990	---	---
28	2,660	---	---	---	---	3,960	3,440	940	---	3,060	2,890	---
29	---	3,360	---	---	---	---	2,630	980	850	2,670	---	2,360
30	---	---	3,450	1,640	---	---	---	860	960	2,360	---	---
31	---	---	---	---	---	4,010	---	820	---	2,360	2,820	---
Mean	2,700	2,960	3,550	2,770	2,550	3,930	3,870	1,850	898	2,140	2,740	2,580
Max	3,090	3,380	3,720	3,420	3,300	4,230	4,560	2,700	1,380	3,060	3,270	2,960
Min	2,230	2,060	3,400	1,640	1,200	3,480	2,630	820	670	1,030	2,300	2,220