

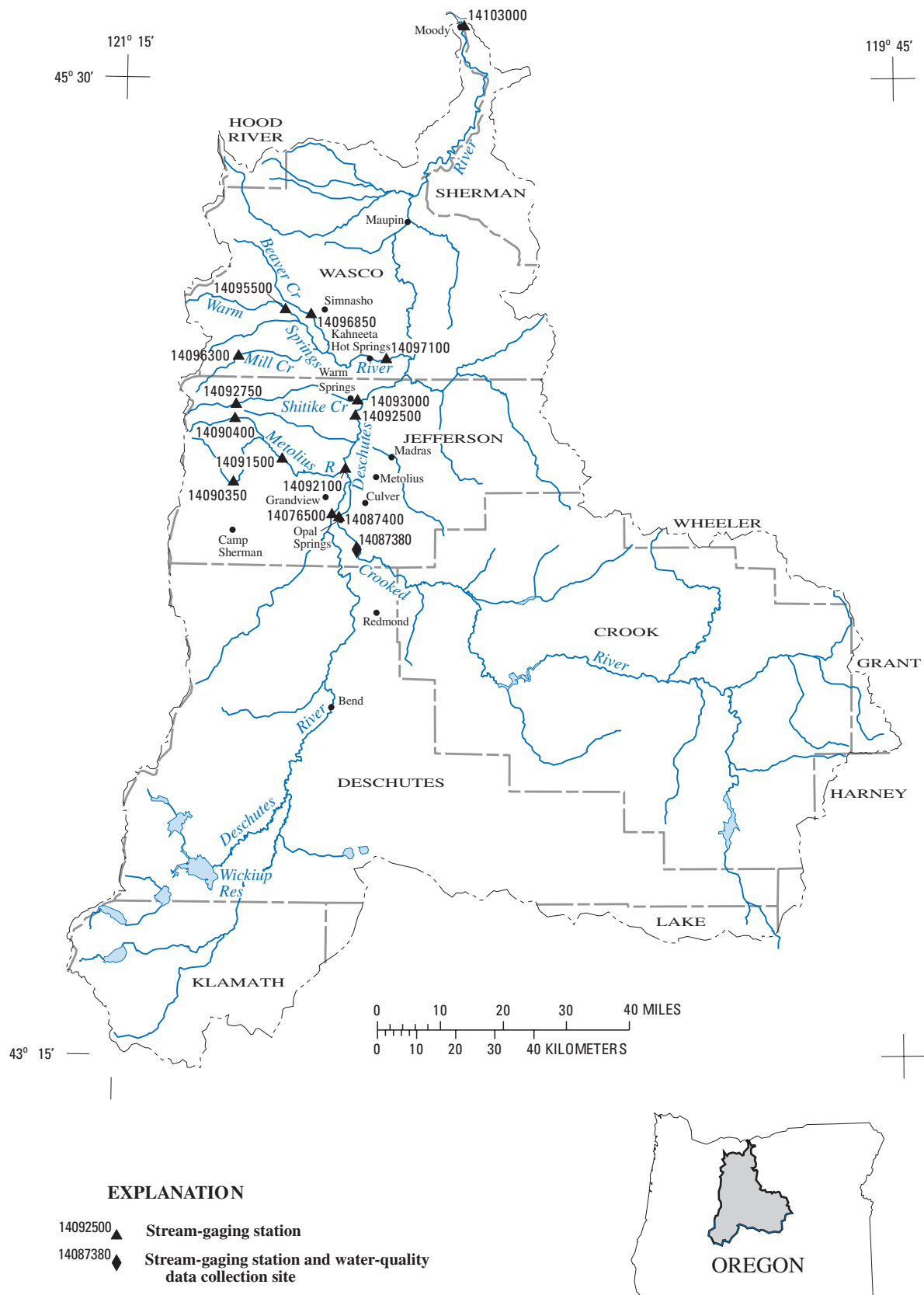
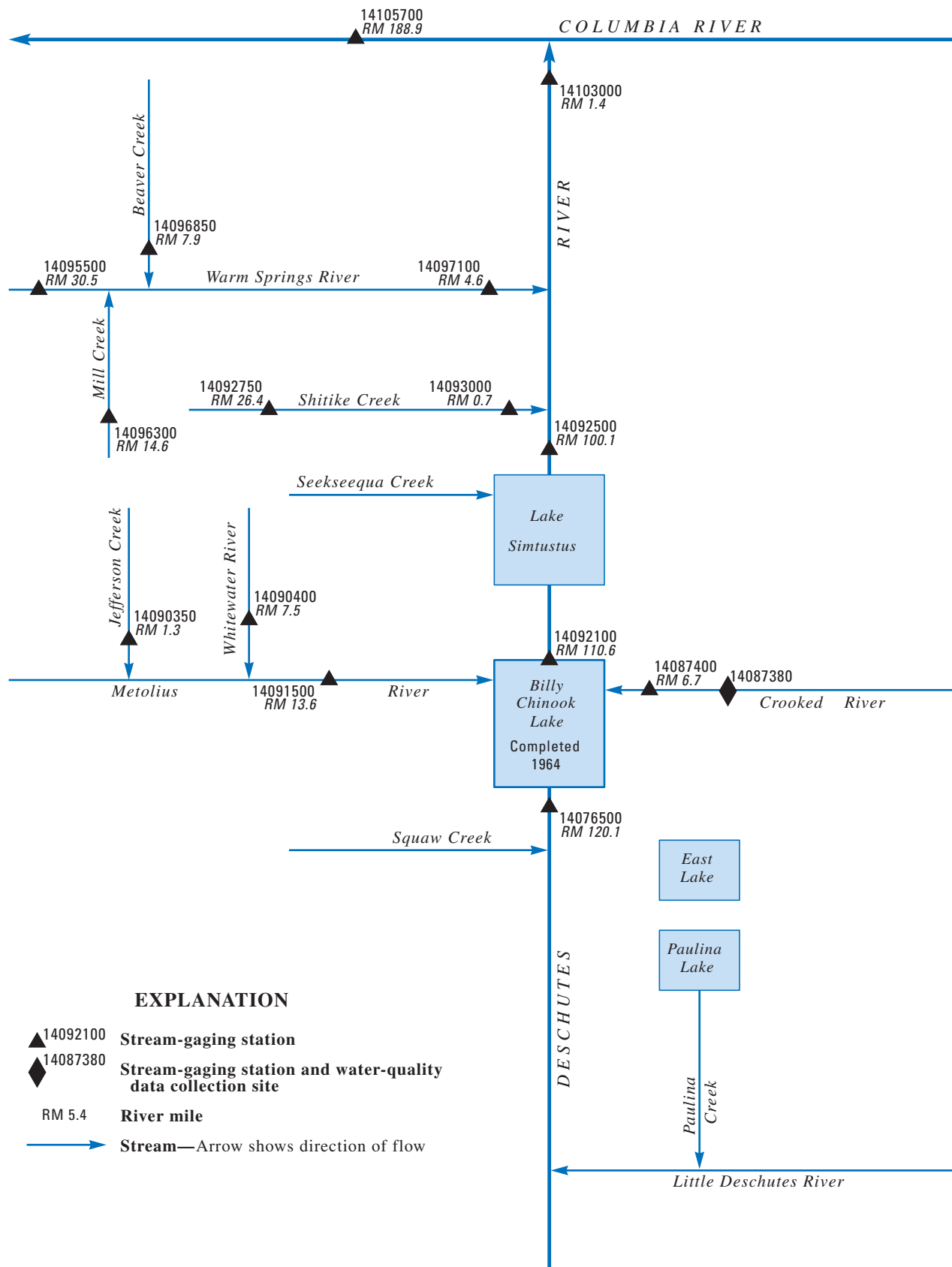


Figure 15. Location of surface-water and water-quality stations in the Deschutes River Basin.



DESCHUTES RIVER BASIN

14076500 DESCHUTES RIVER NEAR CULVER, OR

LOCATION.--Lat 44°29'56", long 121°19'12", in NW ¼ SE ¼ sec.29, T.12 S., R.12 E., Jefferson County, Hydrologic Unit 17070301, on right bank 2.5 mi downstream from Squaw Creek, 6.0 mi southwest of Culver and at mile 120.1.

DRAINAGE AREA.--2,705 mi².

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,980 ft above NGVD of 1929 (river-profile survey). July 14, 1952 to Sept. 30, 1961, at site 4.1 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Crescent Lake and Crane Prairie and Wickiup Reservoirs. Many diversions for irrigation upstream from station. Continuous water-quality records for the period October 1954 to September 1957 and January 1959 to September 1974 have been collected at this location.

AVERAGE DISCHARGE.--53 years (water years 1953-2005), 914 ft³/s, 661,900 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,680 ft³/s Dec. 24, 1964, gage height, 10.00 ft, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 418 ft³/s July 7, 8, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft³/s Oct. 18, gage height, 3.96 ft; minimum discharge, 481 ft³/s Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	508	943	917	936	961	894	979	530	662	515	513	508
2	518	955	918	944	958	888	974	537	661	520	507	514
3	549	972	910	918	950	891	963	545	612	514	514	517
4	550	952	906	894	951	889	966	563	550	511	506	524
5	551	956	912	779	899	888	672	625	546	520	506	524
6	554	947	915	677	889	889	566	648	537	511	506	521
7	542	945	906	871	894	878	609	626	522	516	506	519
8	535	943	924	964	820	846	739	621	524	511	509	520
9	548	775	989	949	755	845	736	647	523	510	504	520
10	563	750	1,080	e950	704	850	742	615	522	517	504	525
11	565	738	1,170	e950	689	883	757	569	535	512	502	537
12	568	742	1,180	e950	854	898	645	550	543	509	507	542
13	568	904	1,140	e950	931	894	522	537	535	513	508	543
14	572	931	1,150	e900	913	870	521	566	537	510	511	554
15	764	908	1,180	e850	718	889	501	647	534	512	513	566
16	973	696	1,180	e850	696	880	504	750	524	532	511	571
17	1,030	582	1,150	e1,150	705	875	507	693	534	520	509	554
18	1,180	574	1,080	e1,150	715	881	511	647	540	516	509	526
19	1,170	574	1,050	e1,050	914	908	513	651	522	519	511	532
20	1,100	757	1,030	e950	955	933	507	678	528	517	503	541
21	1,040	903	1,020	960	932	932	504	706	530	510	502	546
22	998	913	999	1,010	937	953	504	712	534	529	502	527
23	979	912	971	1,010	935	959	517	726	530	522	508	537
24	947	920	968	985	936	963	532	736	523	515	518	544
25	924	925	947	938	932	960	520	752	521	512	511	522
26	929	928	952	928	933	960	511	755	524	510	507	497
27	932	928	973	912	932	1,050	528	746	522	520	504	493
28	927	914	781	927	936	1,070	536	719	526	528	505	490
29	923	900	777	935	---	976	526	654	524	516	505	486
30	917	905	779	944	---	960	525	561	521	498	509	485
31	931	---	757	980	---	970	---	618	---	508	509	---
TOTAL	24,355	25,692	30,611	29,161	24,344	28,422	18,637	19,930	16,246	15,973	15,739	15,785
MEAN	786	856	987	941	869	917	621	643	542	515	508	526
MAX	1,180	972	1,180	1,150	961	1,070	979	755	662	532	518	571
MIN	508	574	757	677	689	845	501	530	521	498	502	485
AC-FT	48,310	50,960	60,720	57,840	48,290	56,380	36,970	39,530	32,220	31,680	31,220	31,310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2005, BY WATER YEAR (WY)

MEAN	750	1,152	1,263	1,327	1,385	1,347	875	605	638	555	533	561
MAX	1,598	1,894	2,130	2,760	2,679	2,360	1,799	1,228	1,053	960	852	997
(WY)	(1998)	(1998)	(1985)	(1997)	(1997)	(1972)	(1984)	(1956)	(1999)	(1999)	(1999)	(1997)
MIN	470	783	813	853	869	839	510	457	455	430	441	455
(WY)	(1964)	(1995)	(1995)	(1995)	(2005)	(1964)	(1968)	(1964)	(1964)	(1964)	(1964)	(1963)

DESCHUTES RIVER BASIN

14076500 DESCHUTES RIVER NEAR CULVER, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1953 - 2005	
ANNUAL TOTAL	270,836		264,895			
ANNUAL MEAN	740		726		914	
HIGHEST ANNUAL MEAN					1,461	1997
LOWEST ANNUAL MEAN					677	1964
HIGHEST DAILY MEAN	1,180	Oct 18	1,180	Oct 18	4,790	Dec 24, 1964
LOWEST DAILY MEAN	489	May 11	485	Sep 30	425	Jul 7, 1964
ANNUAL SEVEN-DAY MINIMUM	496	Apr 19	502	Sep 24	426	Jul 7, 1964
ANNUAL RUNOFF (AC-FT)	537,200		525,400		661,900	
10 PERCENT EXCEEDS	1,030		971		1,610	
50 PERCENT EXCEEDS	650		678		774	
90 PERCENT EXCEEDS	514		509		491	

e Estimated



2005 Water Year
DESCHUTES RIVER BASIN

14076500 DESCHUTES RIVER NEAR CULVER, OR

Latitude: 44° 29' 56"

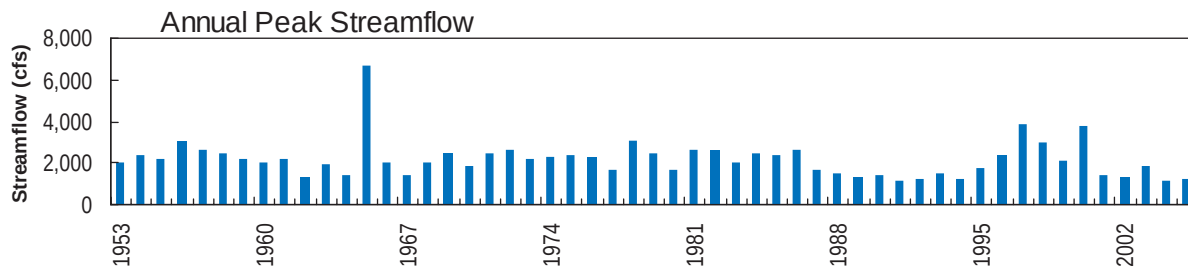
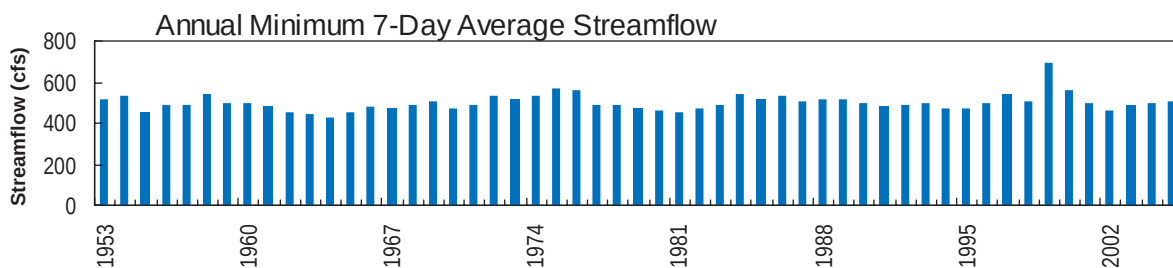
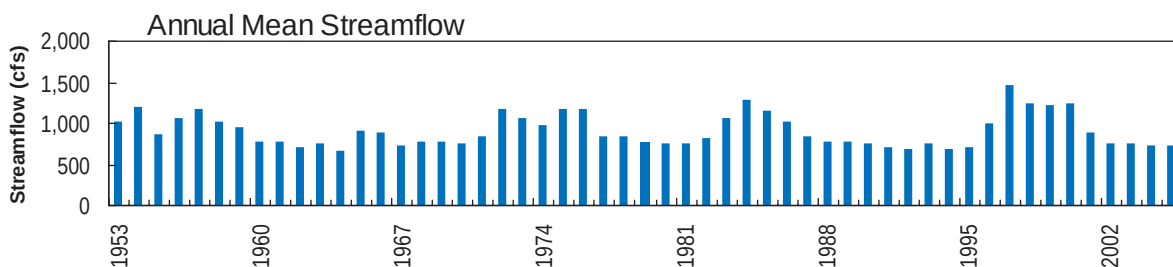
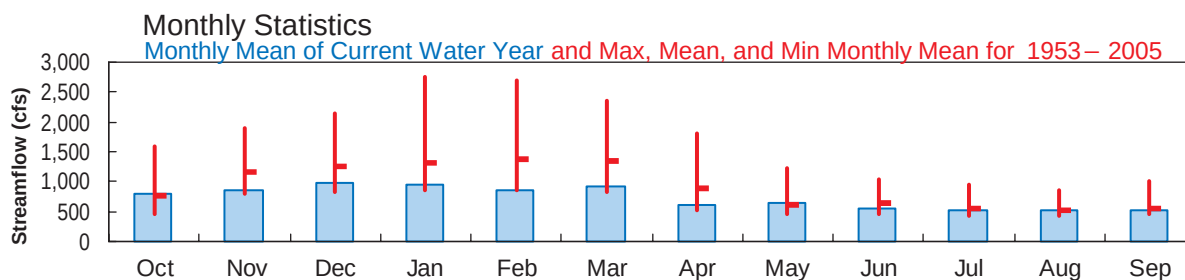
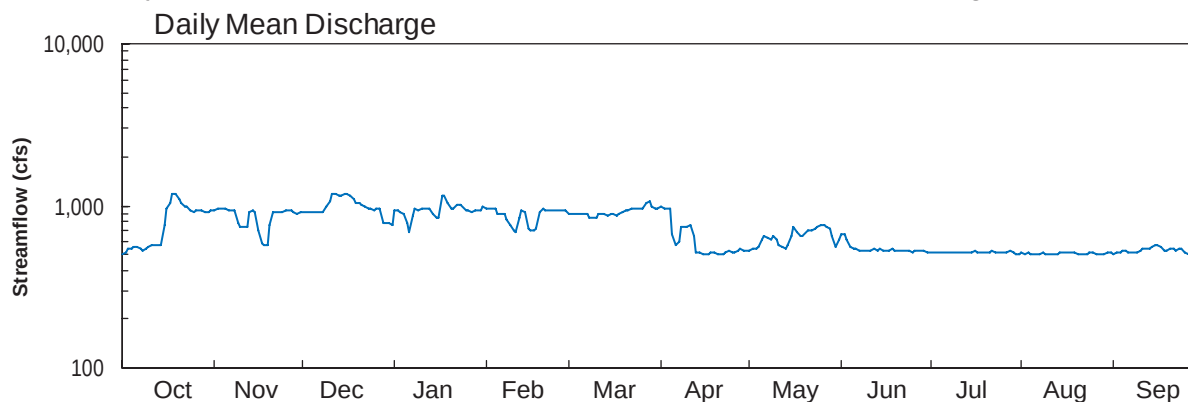
Longitude: 121° 19' 12"

Hydrologic Unit Code: 17070301

Jefferson County

Datum: 1980.00 feet

Drainage Area: 2705 mi²



DESCHUTES RIVER BASIN

14087380 CROOKED RIVER BELOW OSBORNE CANYON, NEAR OPAL CITY, OR

LOCATION.--Lat 44°25'37", long 121°13'54", in NW 1/4 SW 1/4 Sec.24, T.13 S., R.12 E., Jefferson County, Hydrologic Unit 17070305, on left bank, 6.3 mi south of Culver and at mile 13.5.

DRAINAGE AREA.--4,520 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2003 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,190 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Prineville and Ochoco Reservoirs. Summer flow and storage above Prineville diverted for irrigation and municipal uses.

AVERAGE DISCHARGE.--2 years (water years 2004-05), 339 ft³/s, 1.02 in/yr, 245,700 ac-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft³/s Mar. 21, 2004, gage height, 7.10 ft; minimum discharge, 94 ft³/s June 25, 26, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft³/s Apr. 28, gage height, 5.77 ft; minimum discharge, 84 ft³/s Aug. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	273	229	252	237	204	212	816	346	148	116	132
2	177	295	230	243	234	206	214	727	340	132	135	130
3	182	301	227	241	233	206	214	703	363	130	117	138
4	190	298	228	239	227	205	219	703	353	136	122	150
5	188	296	226	239	207	203	223	737	331	130	116	160
6	179	288	228	224	205	203	225	866	342	115	103	164
7	178	271	235	249	205	203	223	941	296	100	93	166
8	199	268	240	236	203	204	226	925	274	93	99	153
9	204	263	266	235	201	205	231	879	263	94	105	153
10	213	256	252	233	210	205	224	895	234	105	90	171
11	224	254	240	231	232	206	222	1,150	222	114	94	262
12	241	258	242	218	239	205	341	1,060	244	123	93	278
13	256	243	245	225	218	205	402	980	237	120	92	284
14	241	238	248	218	205	204	390	902	203	119	95	273
15	266	237	250	227	199	201	353	831	187	116	96	267
16	290	235	250	221	232	198	310	812	190	127	98	272
17	255	234	252	225	226	198	322	806	187	123	87	263
18	247	236	256	223	230	196	308	1,000	194	117	87	257
19	233	249	252	250	206	197	246	1,150	194	112	89	266
20	251	262	252	287	200	199	208	1,130	204	104	94	264
21	258	242	250	274	205	198	201	1,050	185	105	89	249
22	258	234	250	262	198	202	210	938	152	101	96	239
23	274	232	249	254	199	207	231	841	141	109	120	232
24	275	235	249	252	200	205	388	693	134	119	96	243
25	272	232	249	250	201	203	578	517	126	112	92	246
26	277	230	250	247	202	200	795	419	130	120	96	253
27	286	230	251	248	203	200	1,090	326	149	120	100	257
28	275	229	248	250	204	207	1,420	236	159	119	111	238
29	272	227	267	247	---	219	1,410	278	154	114	131	230
30	277	227	279	243	---	216	994	358	138	107	147	234
31	274	---	283	240	---	215	---	342	---	103	138	---
TOTAL	7,388	7,573	7,673	7,483	5,961	6,325	12,630	24,011	6,672	3,587	3,237	6,624
MEAN	238	252	248	241	213	204	421	775	222	116	104	221
MAX	290	301	283	287	239	219	1,420	1,150	363	148	147	284
MIN	176	227	226	218	198	196	201	236	126	93	87	130
AC-FT	14,650	15,020	15,220	14,840	11,820	12,550	25,050	47,630	13,230	7,110	6,420	13,140
CFSM	0.05	0.06	0.05	0.05	0.05	0.05	0.09	0.17	0.05	0.03	0.02	0.05
IN.	0.06	0.06	0.06	0.06	0.05	0.05	0.10	0.20	0.05	0.03	0.03	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	226	231	228	253	284	745	653	642	258	148	160	237
MAX	238	252	248	264	354	1,286	884	775	295	181	215	254
(WY)	(2005)	(2005)	(2005)	(2004)	(2004)	(2004)	(2004)	(2005)	(2004)	(2004)	(2004)	(2004)
MIN	214	210	208	241	213	204	421	509	222	116	104	221
(WY)	(2004)	(2004)	(2004)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)	(2005)	(2005)

DESCHUTES RIVER BASIN

14087380 CROOKED RIVER BELOW OSBORNE CANYON, NEAR OPAL CITY, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005	
ANNUAL TOTAL	151,997		99,164		339	
ANNUAL MEAN	415		272		272	
HIGHEST ANNUAL MEAN					406	
LOWEST ANNUAL MEAN					272	
HIGHEST DAILY MEAN	2,300	Mar 21	1,420	Apr 28	2,300	Mar 21, 2004
LOWEST DAILY MEAN	102	Jun 27	87	Aug 17	87	Aug 17, 2005
ANNUAL SEVEN-DAY MINIMUM	125	Jun 23	91	Aug 15	91	Aug 15, 2005
ANNUAL RUNOFF (AC-FT)	301,500		196,700		245,700	
ANNUAL RUNOFF (CFSM)	0.092		0.060		0.075	
ANNUAL RUNOFF (INCHES)	1.25		0.82		1.02	
10 PERCENT EXCEEDS	814		360		735	
50 PERCENT EXCEEDS	266		230		234	
90 PERCENT EXCEEDS	181		115		138	



2005 Water Year
DESCHUTES RIVER BASIN

14087380 CROOKED RIVER BLW OSBORNE CANYON, NR OPAL CITY, OR

Latitude: 44° 25 ' 37"

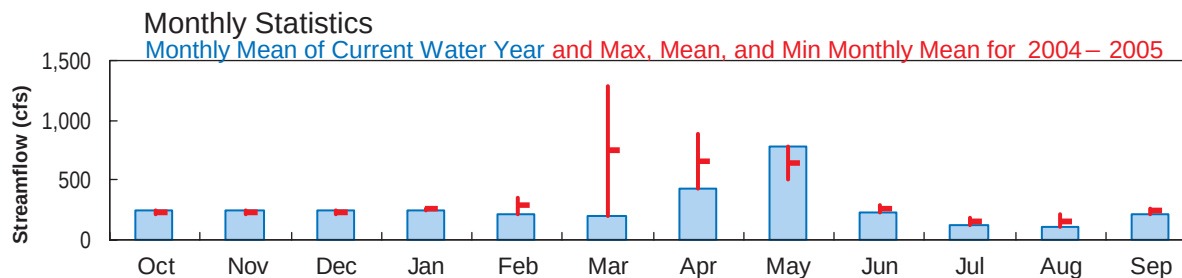
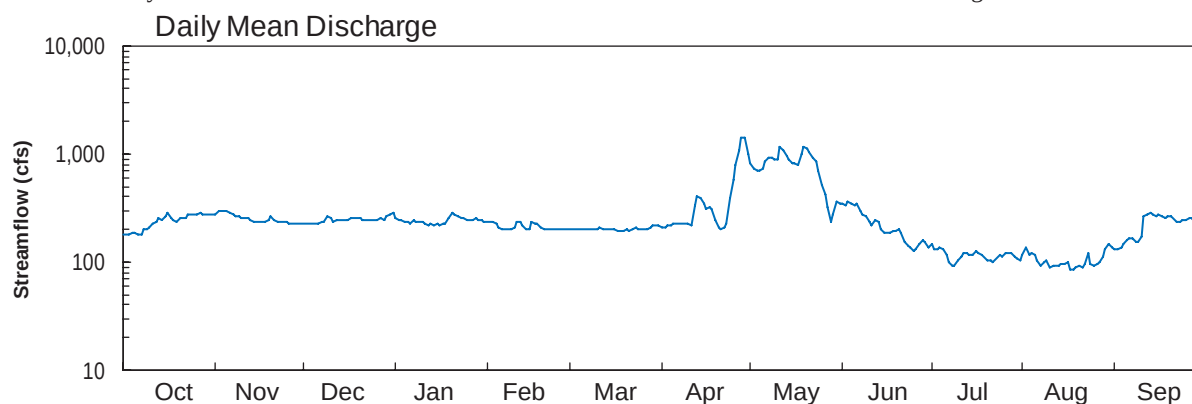
Longitude: 121° 13 ' 54"

Hydrologic Unit Code: 17070305

Jefferson County

Datum: 2190 feet

Drainage Area: 4520 mi²



DESCHUTES RIVER BASIN

14087380 CROOKED RIVER BELOW OSBORNE CANYON, NEAR OPAL CITY, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 2003 to current year.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 22.6°C July 25, 2004; minimum, 1.9°C Jan. 6, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum, 21.0°C July 19; minimum, 2.5°C Jan. 15, 16.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.2	13.6	14.1	9.2	8.4	8.9	6.2	5.6	6.0	5.3	4.6	4.9
2	15.0	13.2	13.9	9.5	8.8	9.2	6.2	5.8	6.0	5.3	4.9	5.1
3	15.0	13.2	13.8	9.1	8.5	8.8	6.0	5.4	5.6	5.0	4.8	4.9
4	14.8	13.0	13.7	8.5	7.4	8.0	5.7	5.3	5.4	4.9	3.8	4.2
5	14.6	13.1	13.7	8.3	7.0	7.7	5.7	5.4	5.5	3.8	3.3	3.7
6	14.9	13.5	14.1	8.5	7.4	8.0	5.8	5.2	5.5	4.1	2.8	3.3
7	15.0	13.7	14.1	9.1	7.8	8.5	6.1	5.8	5.8	4.0	3.7	3.8
8	14.6	13.7	14.1	9.1	8.0	8.6	6.7	6.1	6.4	4.0	3.5	3.7
9	14.3	13.0	13.7	9.4	8.3	8.9	7.7	6.7	7.1	4.4	3.9	4.1
10	13.3	12.2	12.8	9.4	9.0	9.2	8.5	7.7	8.1	4.5	4.2	4.4
11	12.9	12.0	12.4	9.4	9.1	9.3	9.1	8.5	8.8	4.5	4.0	4.3
12	12.8	12.1	12.4	9.6	9.3	9.4	8.9	7.9	8.3	4.3	3.5	3.8
13	13.0	12.0	12.6	9.9	9.3	9.6	7.9	7.5	7.7	4.2	3.6	3.8
14	13.0	12.1	12.6	9.9	9.4	9.6	7.8	7.7	7.8	3.8	2.9	3.3
15	13.0	12.1	12.6	9.6	9.3	9.4	7.7	6.8	7.1	2.9	2.5	2.7
16	13.0	11.7	12.5	9.7	9.3	9.5	7.1	6.2	6.6	3.5	2.5	3.0
17	13.0	12.0	12.4	9.3	8.3	8.7	6.6	6.4	6.5	4.9	3.3	3.8
18	12.0	11.2	11.5	8.8	8.1	8.4	6.6	5.9	6.3	6.4	4.9	5.7
19	11.2	10.5	10.7	8.3	6.9	7.4	6.8	6.2	6.5	6.9	6.4	6.6
20	10.8	10.4	10.6	7.1	5.6	6.1	6.8	6.1	6.3	6.9	6.3	6.6
21	10.7	10.2	10.5	6.0	5.0	5.4	6.1	5.2	5.6	6.6	5.7	6.2
22	10.7	10.1	10.4	6.2	5.5	5.7	5.6	5.0	5.2	7.3	6.2	6.7
23	10.7	10.0	10.3	6.8	5.9	6.2	5.1	4.2	4.5	7.3	6.7	7.0
24	10.0	9.0	9.6	7.5	6.8	7.1	5.0	4.3	4.6	7.2	6.6	6.9
25	9.9	8.6	9.2	7.9	7.4	7.6	5.3	4.8	5.0	7.2	6.7	7.0
26	9.7	9.2	9.4	7.4	6.8	7.0	5.5	5.2	5.3	7.1	6.5	6.8
27	9.5	9.0	9.3	7.1	6.3	6.7	5.6	5.3	5.5	7.1	6.7	7.0
28	9.8	8.8	9.3	6.3	5.2	5.6	5.6	5.4	5.5	7.5	6.9	7.2
29	10.2	9.2	9.8	5.3	4.6	4.9	5.5	4.9	5.2	7.6	7.1	7.4
30	10.2	9.6	10.0	5.6	5.2	5.3	5.4	4.9	5.2	7.4	6.6	7.0
31	10.1	9.2	9.5	---	---	---	5.1	4.4	4.7	7.2	6.8	7.0
MONTH	15.2	8.6	11.8	9.9	4.6	7.8	9.1	4.2	6.1	7.6	2.5	5.2

DESCHUTES RIVER BASIN

14087380 CROOKED RIVER BELOW OSBORNE CANYON, NEAR OPAL CITY, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.8	5.7	6.0	9.7	8.9	9.2	10.7	9.9	10.3	12.6	10.8	11.8
2	6.0	5.3	5.7	9.8	9.0	9.4	10.6	9.9	10.3	12.8	11.2	12.1
3	6.8	5.8	6.1	9.9	8.9	9.3	10.6	9.7	10.3	13.6	11.7	12.7
4	7.1	6.8	7.0	10.4	9.2	9.7	10.7	9.2	9.8	14.1	12.5	13.2
5	7.1	6.4	6.7	10.5	9.4	9.8	10.9	9.8	10.3	13.2	12.3	12.8
6	6.6	6.3	6.5	10.8	9.5	10.0	12.3	10.8	11.5	12.8	11.8	12.4
7	6.6	6.1	6.4	11.3	10.1	10.5	12.4	11.4	12.0	12.6	10.5	11.6
8	6.1	5.5	5.8	11.9	10.4	11.0	11.5	10.8	11.1	13.0	12.1	12.5
9	6.2	5.3	5.7	11.6	10.8	11.1	11.5	10.6	11.0	12.5	11.0	11.8
10	6.0	5.1	5.6	11.9	10.7	11.2	11.5	10.1	10.7	11.7	10.5	11.0
11	6.1	5.4	5.8	12.2	11.0	11.5	12.4	11.3	11.6	12.0	9.8	10.8
12	6.6	5.5	5.9	12.6	10.8	11.7	12.1	10.5	11.4	13.1	11.1	12.1
13	6.7	6.0	6.4	11.6	10.1	10.9	11.2	9.4	10.4	13.7	12.3	12.9
14	6.4	5.4	6.0	11.1	9.7	10.3	10.9	9.0	10.1	14.4	12.3	13.5
15	6.3	5.1	5.7	11.0	9.8	10.2	11.0	9.1	10.3	14.4	13.5	14.0
16	5.6	4.5	5.2	10.7	9.1	10.1	11.5	10.9	11.2	13.5	12.0	12.8
17	5.3	4.5	5.1	10.8	9.2	9.7	11.7	10.5	11.0	12.4	11.3	11.9
18	5.7	5.2	5.5	10.3	9.5	9.8	11.0	9.6	10.4	11.9	10.6	11.2
19	6.5	5.7	6.2	10.4	9.6	10	11.2	9.9	10.6	11.9	10.6	11.3
20	7.0	6.4	6.7	10.1	9.1	9.6	12.6	10.5	11.4	12.0	10.7	11.4
21	6.9	6.4	6.7	10.0	9.1	9.4	12.8	11.7	12.2	11.2	10.0	10.6
22	7.1	6.6	6.9	9.5	8.3	8.9	13.4	11.8	12.5	12.6	10.2	11.4
23	7.0	6.5	6.7	8.6	8.3	8.4	12.6	11.9	12.2	13.8	11.5	12.6
24	7.7	6.6	7.0	9.2	8.3	8.6	12.3	11.3	11.8	14.3	11.8	13.1
25	8.4	7.3	7.7	9.7	8.4	8.9	12.3	11.1	11.7	15.5	12.8	14.2
26	9.0	7.8	8.2	9.7	9.3	9.5	12.7	10.8	11.7	17.4	13.4	15.6
27	9.2	8.3	8.6	10.8	9.7	10.2	13.8	12.2	12.8	18.3	15.0	17.0
28	9.7	8.8	9.3	11.2	9.9	10.3	12.2	10.0	11.2	18.1	17.1	17.7
29	---	---	---	10.9	9.9	10.3	11.0	10.0	10.4	18.4	16.7	17.5
30	---	---	---	10.1	9.2	9.7	12.4	10.0	11.1	18.8	16.2	17.6
31	---	---	---	10.1	8.9	9.5	---	---	---	17.9	15.5	16.6
MONTH	9.7	4.5	6.5	12.6	8.3	10.0	13.8	9.0	11.1	18.8	9.8	13.2
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.1	14.7	15.4	20.8	17.5	19.0	20.1	18.5	19.2	18.5	15.7	17.0
2	15.9	13.6	14.9	20.0	16.9	18.5	20.5	18.1	19.1	18.1	16.1	17.1
3	16.7	13.8	15.4	19.4	16.6	18.1	19.6	17.0	18.3	17.3	16.0	16.7
4	17.1	14.5	16.0	20.0	16.9	18.5	20.1	17.0	18.4	17.7	15.3	16.3
5	17.0	14.8	16.0	20.6	17.4	19.0	20.6	17.9	19.2	17.5	15.1	16.0
6	16.0	14.7	15.3	19.9	18.1	19.0	20.5	18.1	19.2	17.4	15.1	16.0
7	14.9	13.5	14.3	20.0	17.3	18.6	20.0	17.7	18.8	17.6	15.4	16.2
8	15.6	12.8	14.3	18.8	17.1	18.0	20.0	17.4	18.7	17.9	15.4	16.4
9	16.5	14.3	15.5	18.3	16.6	17.4	20.3	17.6	18.8	17.0	15.0	16.0
10	16.8	15.2	16.0	18.9	16.6	17.7	19.4	17.2	18.3	15.5	14.2	14.9
11	17.0	15.6	16.2	19.8	16.5	18.1	19.0	16.6	17.8	14.8	13.5	14.2
12	17.2	15.3	16.3	20.6	17.6	19.0	18.8	16.4	17.6	15.2	13.4	14.5
13	17.6	16.0	16.8	20.0	17.4	18.6	18.7	16.8	17.6	15.6	13.6	14.8
14	17.6	16.3	16.8	20.1	17.0	18.5	18.5	16.1	17.3	15.9	13.9	15.2
15	17.9	15.6	16.5	20.5	17.6	19.0	18.7	16.2	17.4	15.8	14.2	15.3
16	16.9	15.5	16.3	20.8	17.9	19.2	19.3	16.9	18.0	15.7	14.2	15.0
17	15.8	15.0	15.3	20.4	17.4	18.9	18.3	16.6	17.5	15.3	13.9	14.7
18	16.2	14.2	15.1	20.7	17.6	19.2	18.3	16.3	17.3	15.0	13.2	14.3
19	16.9	14.5	15.6	21.0	18.3	19.5	18.7	16.2	17.4	15.3	13.4	14.5
20	18.4	15.5	16.8	20.6	17.7	19.1	19.2	16.7	17.9	15.2	13.6	14.7
21	18.7	17.4	17.9	20.1	17.8	19.0	19.4	17.3	18.3	14.9	13.4	14.4
22	19.0	16.7	17.6	20.8	18.4	19.4	18.9	17.3	18.0	14.8	13.3	14.1
23	19.1	15.6	17.3	20.7	17.8	19.1	18.8	16.8	17.7	14.3	13.2	13.7
24	19.2	16.2	17.7	20.4	17.8	18.9	17.6	15.6	16.6	13.4	12.1	12.8
25	19.2	16.7	17.9	19.6	17.1	18.3	17.7	15.3	16.4	13.0	11.5	12.4
26	18.7	16.7	17.8	19.8	16.9	18.3	18.4	15.8	17.0	13.5	11.6	12.7
27	17.9	16.9	17.4	20.2	17.2	18.7	18.6	16.1	17.3	14.2	12.3	13.3
28	19.0	16.3	17.4	20.6	17.9	19.2	18.8	16.3	17.4	14.4	12.8	13.7
29	19.8	16.3	17.9	20.5	17.8	19.1	18.0	16.4	17.1	15.0	13.3	14.1
30	20.3	16.7	18.5	20.6	17.9	19.2	18.0	15.4	16.5	15.3	14.7	15.1
31	---	---	---	20.7	18.0	19.4	18.1	15.4	16.6	---	---	---
MONTH	20.3	12.8	16.4	21.0	16.5	18.8	20.6	15.3	17.8	18.5	11.5	14.9
YEAR	21.0	2.5	11.7									

DESCHUTES RIVER BASIN

14087400 CROOKED RIVER BELOW OPAL SPRINGS, NEAR CULVER, OR

LOCATION.--Lat 44°29'33", long 121°17'50", in NW ¼ NE ¼ sec.33, T.12 S., R.12 E., Jefferson County, Hydrologic Unit 17070305, on right bank 0.2 mi downstream from Opal Springs, 4.8 mi southwest of Culver, and at mile 6.7.

DRAINAGE AREA.--4,557 mi², approximately, of which 500 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,953.60 ft above NGVD of 1929 (Portland General Electric Co. bench mark).

REMARKS.--No estimated daily discharges. Records good. Flow regulated since December 1960 by Prineville Reservoir, active capacity, 152,800 acre-ft and Ochoco Reservoir, active capacity, 46,500 acre-ft. Dam and powerplant 0.3 mi upstream, completed in 1985, causes brief fluctuations in flow. Many diversions for irrigation upstream from station. Practically all of the summer flow comes from Opal Springs and other springs within 15 mi upstream from station. Simultaneous records (1961-63) at former gaging station 5.6 mi downstream indicated over 15 percent increase to summer flow from springs downstream from this station. Continuous water-quality records for the period October 1963 to September 1974 have been collected at this location.

AVERAGE DISCHARGE.--44 years (water years 1962-2005), 1,544 ft³/s, 1,119,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s Dec. 24, 1964, gage height, 9.36 ft; minimum daily discharge, 1,090 ft³/s May 11, 1981, minimum instantaneous discharge after October 1989, 656 ft³/s many days in the 1990 water year, prior to that date minimum instantaneous discharge was not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,820 ft³/s Apr. 29, gage height, 6.41 ft, due to powerplant operation; minimum discharge, 703 ft³/s Mar. 24, due to powerplant operation.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,290	1,370	1,340	1,370	1,350	1,330	1,330	1,970	1,490	1,290	1,250	1,280
2	1,280	1,400	1,330	1,360	1,350	1,330	1,330	1,880	1,490	1,270	1,280	1,280
3	1,290	1,400	1,330	1,360	1,360	1,330	1,340	1,850	1,510	1,270	1,260	1,280
4	1,290	1,400	1,340	1,360	1,350	1,330	1,340	1,850	1,510	1,280	1,260	1,300
5	1,290	1,400	1,340	1,350	1,330	1,320	1,360	1,880	1,480	1,270	1,260	1,310
6	1,290	1,390	1,340	1,340	1,330	1,320	1,350	1,990	1,490	1,260	1,240	1,310
7	1,280	1,380	1,350	1,370	1,330	1,320	1,340	2,080	1,440	1,240	1,230	1,320
8	1,300	1,370	1,350	1,350	1,330	1,320	1,350	2,070	1,420	1,230	1,240	1,310
9	1,300	1,370	1,370	1,350	1,320	1,330	1,350	2,030	1,410	1,230	1,250	1,300
10	1,310	1,360	1,360	1,350	1,330	1,320	1,340	2,030	1,380	1,250	1,230	1,310
11	1,320	1,360	1,350	1,350	1,360	1,330	1,340	2,330	1,360	1,250	1,230	1,410
12	1,340	1,360	1,350	1,330	1,360	1,330	1,440	2,290	1,390	1,260	1,240	1,440
13	1,360	1,350	1,350	1,340	1,340	1,320	1,520	2,170	1,380	1,260	1,230	1,440
14	1,340	1,340	1,360	1,330	1,330	1,320	1,510	2,100	1,350	1,260	1,240	1,420
15	1,370	1,340	1,360	1,340	1,320	1,320	1,470	2,030	1,330	1,250	1,240	1,430
16	1,410	1,340	1,360	1,340	1,350	1,320	1,430	2,020	1,330	1,270	1,240	1,430
17	1,360	1,340	1,360	1,340	1,350	1,320	1,440	2,000	1,330	1,260	1,230	1,420
18	1,350	1,340	1,370	1,340	1,350	1,320	1,430	2,130	1,340	1,260	1,230	1,420
19	1,330	1,350	1,370	1,360	1,340	1,320	1,370	2,280	1,340	1,260	1,230	1,430
20	1,350	1,370	1,370	1,410	1,320	1,320	1,330	2,270	1,350	1,240	1,240	1,430
21	1,360	1,350	1,360	1,400	1,330	1,320	1,320	2,200	1,330	1,240	1,230	1,410
22	1,360	1,340	1,360	1,380	1,320	1,330	1,330	2,090	1,300	1,240	1,230	1,400
23	1,370	1,340	1,360	1,380	1,320	1,330	1,350	2,000	1,280	1,250	1,270	1,390
24	1,370	1,340	1,360	1,370	1,320	1,330	1,500	1,860	1,280	1,260	1,240	1,400
25	1,370	1,340	1,360	1,370	1,320	1,330	1,680	1,690	1,270	1,250	1,240	1,410
26	1,380	1,340	1,360	1,370	1,330	1,320	1,910	1,580	1,270	1,260	1,240	1,420
27	1,390	1,340	1,360	1,370	1,330	1,320	2,190	1,490	1,290	1,260	1,240	1,420
28	1,380	1,330	1,360	1,370	1,330	1,330	2,520	1,390	1,300	1,260	1,250	1,400
29	1,370	1,330	1,380	1,370	---	1,340	2,540	1,410	1,300	1,250	1,270	1,390
30	1,380	1,330	1,400	1,360	---	1,330	2,170	1,510	1,280	1,250	1,290	1,400
31	1,380	---	1,400	1,360	---	1,330	---	1,490	---	1,240	1,290	---
TOTAL	41,560	40,710	42,110	42,140	37,400	41,080	46,220	59,960	41,020	38,920	38,640	41,310
MEAN	1,341	1,357	1,358	1,359	1,336	1,325	1,541	1,934	1,367	1,255	1,246	1,377
MAX	1,410	1,400	1,400	1,410	1,360	1,340	2,540	2,330	1,510	1,290	1,290	1,440
MIN	1,280	1,330	1,330	1,330	1,320	1,320	1,320	1,390	1,270	1,230	1,230	1,280
AC-FT	82,430	80,750	83,530	83,580	74,180	81,480	91,680	118,900	81,360	77,200	76,640	81,940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2005, BY WATER YEAR (WY)

MEAN	1,418	1,369	1,489	1,587	1,756	1,935	2,061	1,668	1,347	1,268	1,294	1,358
MAX	1,650	2,069	2,686	3,551	3,490	4,208	4,793	3,295	2,614	1,475	1,593	1,541
(WY)	(1970)	(1985)	(1965)	(1965)	(1965)	(1972)	(1984)	(1984)	(1998)	(1983)	(1976)	(1965)
MIN	1,239	1,232	1,179	1,182	1,245	1,232	1,192	1,173	1,195	1,122	1,133	1,187
(WY)	(1969)	(1964)	(1964)	(1964)	(1989)	(1977)	(1977)	(1964)	(2002)	(1981)	(1980)	(1980)

DESCHUTES RIVER BASIN

14087400 CROOKED RIVER BELOW OPAL SPRINGS, NEAR CULVER, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1962 - 2005	
ANNUAL TOTAL	572,910		511,070			
ANNUAL MEAN	1,565		1,400		1,544	
HIGHEST ANNUAL MEAN					2,196	1984
LOWEST ANNUAL MEAN					1,250	1992
HIGHEST DAILY MEAN	3,460	Mar 21	2,540	Apr 29	6,130	Dec 24, 1964
LOWEST DAILY MEAN	1,270	Jun 25	1,230	Jul 8	1,090	May 11, 1981
ANNUAL SEVEN-DAY MINIMUM	1,290	Oct 1	1,230	Aug 16	1,100	May 10, 1981
ANNUAL RUNOFF (AC-FT)	1,136,000		1,014,000		1,119,000	
10 PERCENT EXCEEDS	2,010		1,510		2,140	
50 PERCENT EXCEEDS	1,400		1,340		1,340	
90 PERCENT EXCEEDS	1,330		1,250		1,200	

DESCHUTES RIVER BASIN

14087400 CROOKED RIVER BELOW OPAL SPRINGS, NEAR CULVER, OR—Continued



2005 Water Year
DESCHUTES RIVER BASIN

14087400 CROOKED RIVER BELOW OPAL SPRINGS, NEAR CULVER, OR

Latitude: 44° 29' 33"

Longitude: 121° 17' 50"

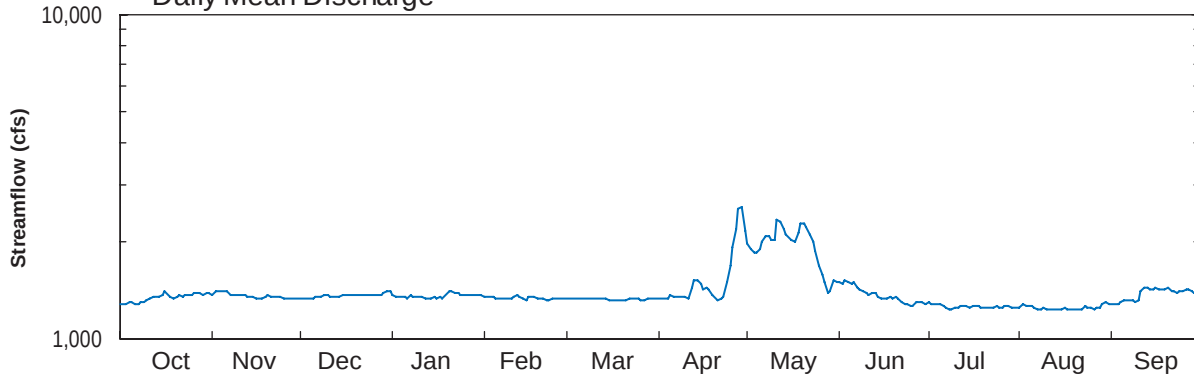
Hydrologic Unit Code: 17070305

Jefferson County

Datum: 1953.60 feet

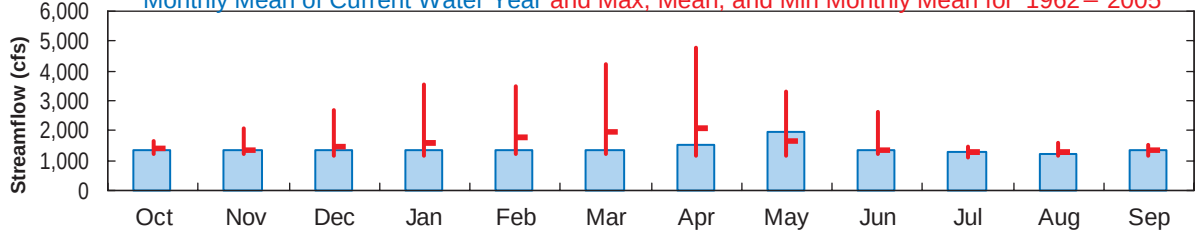
Drainage Area: 4557 mi²

Daily Mean Discharge

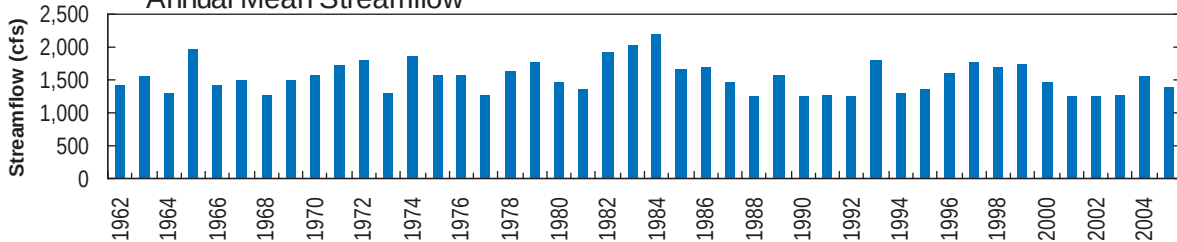


Monthly Statistics

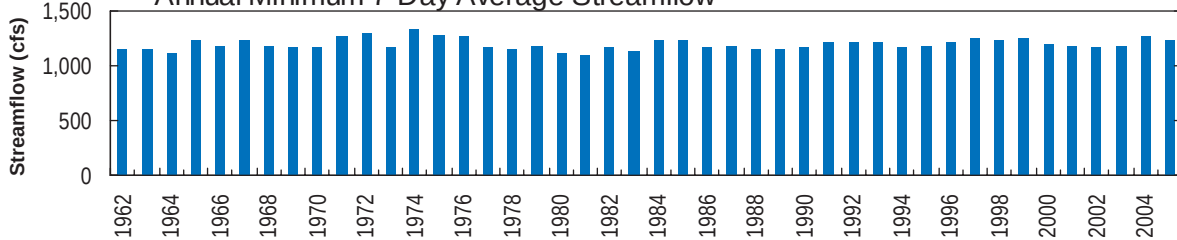
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1962–2005



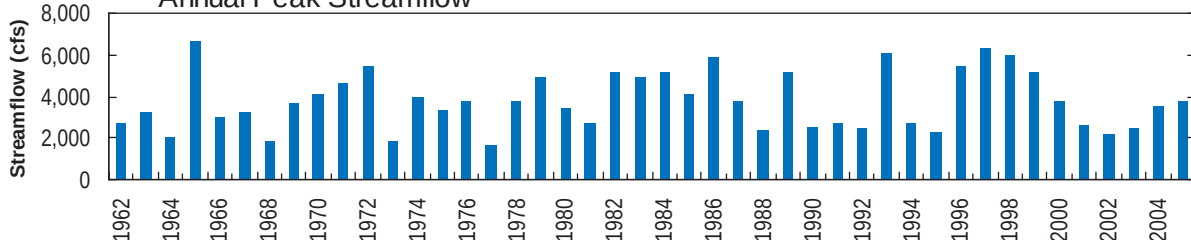
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14090350 JEFFERSON CREEK NEAR CAMP SHERMAN, OR

LOCATION.--Lat 44°34'18", long 121°38'17", in SW ¼ SE ¼ sec.34, T.11 S., R.9 E., Jefferson County, Hydrologic Unit 17070301, Warm Springs Indian Reservation, on left bank 100 ft upstream from bridge, 7.6 mi north of Camp Sherman and at mile 1.3.

DRAINAGE AREA.--27.8 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,780 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--22 years (water years 1984-2005), 92.6 ft³/s, 45.28 in/yr, 67,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 908 ft³/s Nov. 25, 1999, gage height, 4.38 ft, from high-water mark, not including approximately 400 ft³/s which flowed out of the channel 150 ft upstream of gage and flowed into Candle Creek; minimum daily discharge, 36 ft³/s Dec. 22, 1990, but could have been lower during period of ice effect Dec. 19-25, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 27	1230	*315	*2.78				
						No other peak greater than base discharge.	

Minimum daily discharge, 48 ft³/s, Jan. 5, but could have been lower during period of ice effect Jan. 5, 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	76	66	59	e68	62	75	90	91	75	72	64
2	77	109	e62	58	69	62	72	95	85	75	69	64
3	76	96	e63	58	69	62	70	92	83	74	68	63
4	76	82	64	56	70	61	68	103	82	74	68	62
5	75	79	64	e48	69	61	67	105	82	74	70	62
6	78	76	65	e57	69	62	69	108	81	77	70	63
7	76	76	65	59	68	63	72	97	81	77	70	63
8	75	75	74	58	e62	64	68	100	80	76	69	63
9	80	74	84	57	e65	64	66	105	79	78	68	63
10	76	73	127	57	e62	65	65	94	81	75	68	63
11	74	73	154	e54	e63	65	69	89	81	75	68	63
12	74	72	104	56	66	66	67	88	81	74	68	62
13	73	71	81	55	66	64	65	89	81	73	68	62
14	72	70	92	54	e58	63	64	96	80	72	67	62
15	72	70	79	55	e54	62	64	106	78	72	67	61
16	71	69	73	59	e58	61	81	104	79	72	68	61
17	75	68	71	65	e59	62	83	91	89	72	67	61
18	78	69	70	155	e63	61	72	99	84	71	66	61
19	80	e66	71	108	65	69	70	111	82	71	66	61
20	78	e64	70	94	64	70	71	95	84	71	68	60
21	81	e64	67	87	63	64	74	89	82	71	69	60
22	85	67	65	82	63	63	77	91	81	73	69	60
23	86	66	e61	81	62	63	85	86	78	73	67	59
24	79	78	63	79	62	62	83	85	78	71	65	59
25	77	84	63	78	62	62	81	84	77	70	65	59
26	78	74	62	77	62	80	84	86	76	70	67	59
27	76	70	61	76	62	231	91	88	77	70	68	60
28	75	e62	61	74	63	114	93	90	79	71	67	60
29	74	e63	61	73	---	85	89	91	76	71	67	61
30	77	68	60	72	---	78	86	90	75	71	65	63
31	75	---	e59	71	---	75	---	89	---	71	64	---
TOTAL	2,376	2,204	2,282	2,172	1,786	2,246	2,241	2,926	2,423	2,260	2,098	1,844
MEAN	76.6	73.5	73.6	70.1	63.8	72.5	74.7	94.4	80.8	72.9	67.7	61.5
MAX	86	109	154	155	70	231	93	111	91	78	72	64
MIN	71	62	59	48	54	61	64	84	75	70	64	59
AC-FT	4,710	4,370	4,530	4,310	3,540	4,450	4,450	5,800	4,810	4,480	4,160	3,660
CFSM	2.76	2.64	2.65	2.52	2.29	2.61	2.69	3.40	2.91	2.62	2.43	2.21
IN.	3.18	2.95	3.05	2.91	2.39	3.01	3.00	3.92	3.24	3.02	2.81	2.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2005, BY WATER YEAR (WY)

	77.0	82.7	79.5	82.9	86.0	82.7	92.8	117	127	110	93.2	80.7
MEAN												
MAX	124	131	155	160	244	148	135	179	191	189	169	124
(WY)	(1998)	(1996)	(1996)	(1997)	(1996)	(1996)	(1996)	(1997)	(1999)	(1999)	(1999)	(1999)
MIN	55.5	59.3	58.6	55.5	50.6	55.5	59.8	83.3	80.0	70.5	62.0	56.8
(WY)	(1993)	(1988)	(1993)	(2001)	(1989)	(2001)	(2001)	(1991)	(1992)	(1992)	(1994)	(1994)

DESCHUTES RIVER BASIN

14090350 JEFFERSON CREEK NEAR CAMP SHERMAN, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1984 - 2005	
ANNUAL TOTAL	33,443		26,858			
ANNUAL MEAN	91.4		73.6		92.6	
HIGHEST ANNUAL MEAN					137	1996
LOWEST ANNUAL MEAN					66.8	1994
HIGHEST DAILY MEAN	185	May 28	231	Mar 27	634	Feb 7, 1996
LOWEST DAILY MEAN	54	Jan 6	48	Jan 5	36	Dec 22, 1990
ANNUAL SEVEN-DAY MINIMUM	60	Jan 1	55	Jan 9	38	Feb 4, 1989
ANNUAL RUNOFF (AC-FT)	66,330		53,270		67,120	
ANNUAL RUNOFF (CFSM)	3.29		2.65		3.33	
ANNUAL RUNOFF (INCHES)	44.75		35.94		45.28	
10 PERCENT EXCEEDS	124		89		136	
50 PERCENT EXCEEDS	85		71		84	
90 PERCENT EXCEEDS	65		61		60	

e Estimated



2005 Water Year
DESCHUTES RIVER BASIN

14090350 JEFFERSON CREEK NEAR CAMP SHERMAN, OR

Latitude: 44° 34' 18"

Longitude: 121° 38' 17"

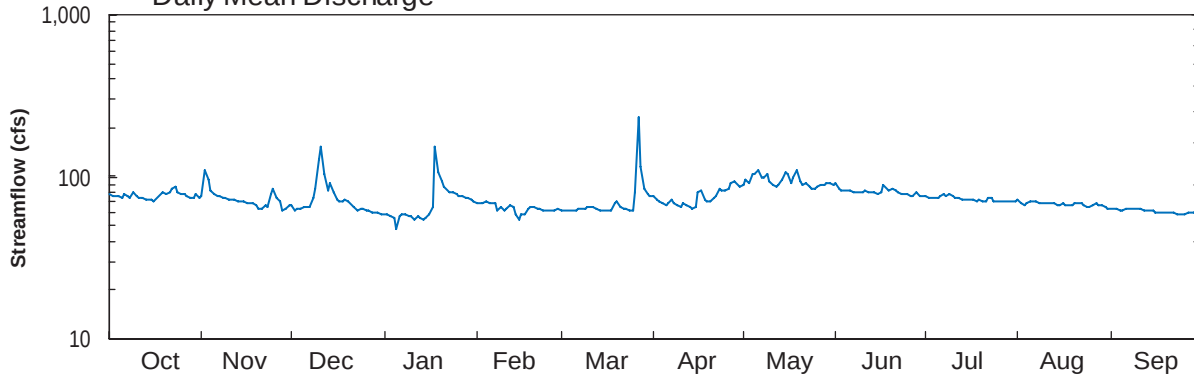
Hydrologic Unit Code: 17070301

Jefferson County

Datum: 2780 feet

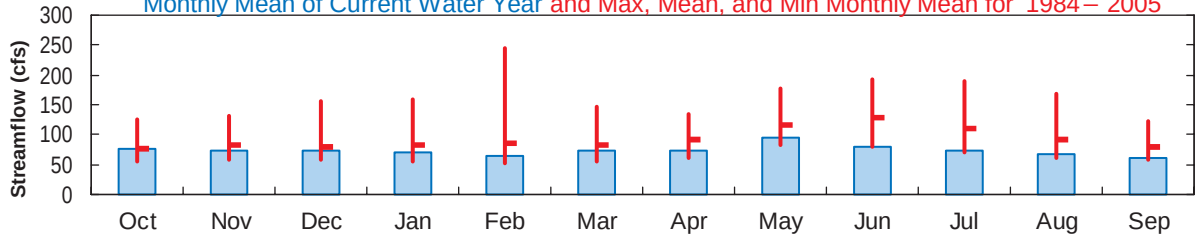
Drainage Area: 27.8 mi²

Daily Mean Discharge

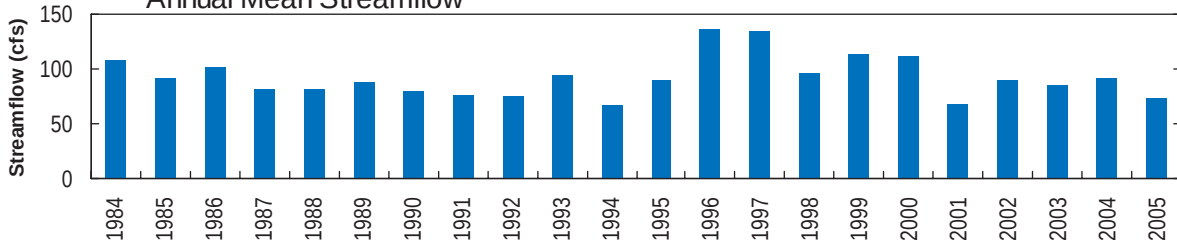


Monthly Statistics

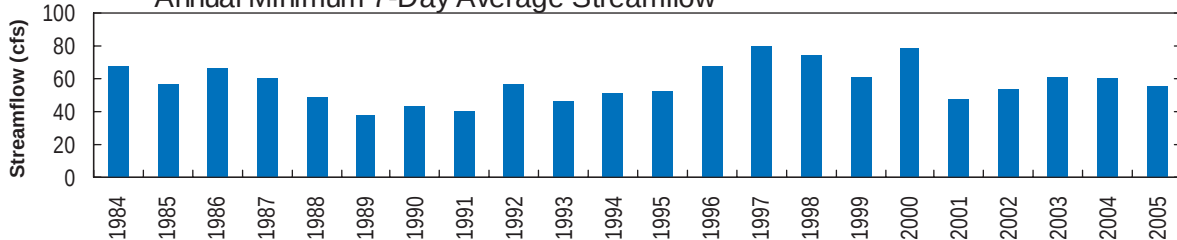
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1984–2005



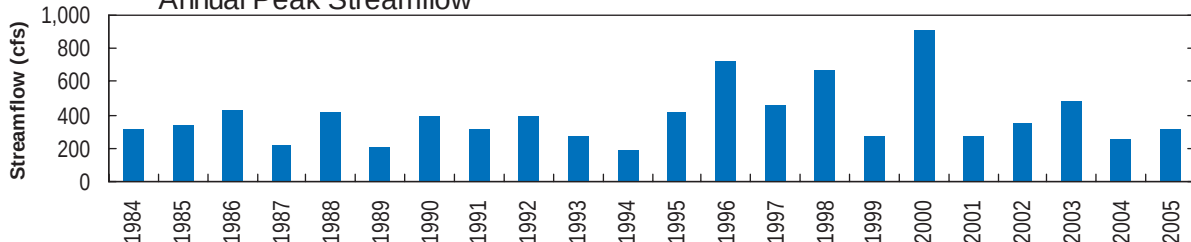
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14090400 WHITEWATER RIVER NEAR CAMP SHERMAN, OR

LOCATION.--Lat 44°43'09", long 121°38'21", in SW ¼ NW ¼ sec.11, T.10 S., R.9 E., Jefferson County, Hydrologic Unit 17070301, Warm Springs Indian Reservation, on left bank 300 ft upstream from road J-100 bridge, 18 mi north of Camp Sherman, and at mile 7.5.

DRAINAGE AREA.--22.8 mi².

PERIOD OF RECORD.--July 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 3,240 ft above NGVD of 1929, from topographic map. July 1982 to Feb. 7, 1996, at comparable site ¼ mi downstream, at different datum. Feb. 8, 1996 to Sept. 30, 2001, at comparable site 300 ft downstream, at different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--23 years (water years 1983-2005), 83.5 ft³/s, 49.78 in/yr, 60,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft³/s Feb. 7, 1996, from slope-area measurement of peak flow, gage height, unknown; maximum gage height, 8.30 ft Feb. 9, 1996, from outside highwater mark caused by debris, channel fill, and channel reconfiguration, datum then in use; minimum daily discharge, 28 ft³/s Dec. 22, 1990, but could be less because of ice effect.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 18	1230	*224	*5.82				

No other peak greater than base discharge.

Minimum discharge, 37 ft³/s, Mar. 15, 16, gage height, 4.64 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	47	42	48	53	39	74	77	96	73	67	63
2	51	72	41	47	51	39	69	81	86	69	64	59
3	49	65	41	46	51	39	67	85	81	65	61	59
4	49	55	41	44	52	39	65	98	79	66	66	55
5	50	52	41	42	51	38	64	98	76	69	70	55
6	78	51	42	41	50	38	63	117	71	91	72	58
7	72	49	42	43	49	39	64	103	68	80	69	60
8	74	49	63	44	47	40	63	100	66	77	68	61
9	66	49	69	44	47	40	61	103	66	79	65	52
10	51	49	111	43	46	40	60	92	68	70	65	46
11	49	48	132	42	46	40	62	84	71	72	64	44
12	50	48	94	42	46	41	60	83	68	75	63	43
13	48	47	75	41	45	40	59	84	71	69	63	45
14	48	46	79	41	44	39	57	94	71	66	59	48
15	50	46	71	41	42	38	57	121	66	72	62	48
16	49	45	66	42	42	38	64	116	69	78	62	46
17	50	44	63	53	41	40	67	92	79	70	61	43
18	50	46	63	174	42	39	62	105	68	70	63	44
19	50	44	63	103	42	47	60	106	65	73	67	47
20	51	42	61	85	42	48	59	92	69	71	68	48
21	52	42	59	76	41	46	59	86	71	72	68	46
22	54	42	57	69	41	43	61	86	72	87	65	45
23	57	42	55	65	40	47	70	82	67	71	59	43
24	51	48	54	62	40	47	69	79	68	66	58	43
25	49	55	54	60	40	43	67	79	71	63	60	44
26	51	49	53	60	40	62	68	82	69	63	66	46
27	50	46	52	60	39	161	72	89	71	67	64	46
28	48	44	51	59	40	103	73	94	80	70	65	46
29	47	42	51	57	---	83	73	99	75	70	62	58
30	50	42	50	55	---	75	76	101	73	68	57	81
31	47	---	49	54	---	73	---	100	---	72	60	---
TOTAL	1,642	1,446	1,885	1,783	1,250	1,584	1,945	2,908	2,171	2,224	1,983	1,522
MEAN	53.0	48.2	60.8	57.5	44.6	51.1	64.8	93.8	72.4	71.7	64.0	50.7
MAX	78	72	132	174	53	161	76	121	96	91	72	81
MIN	47	42	41	41	39	38	57	77	65	63	57	43
AC-FT	3,260	2,870	3,740	3,540	2,480	3,140	3,860	5,770	4,310	4,410	3,930	3,020
CFSM	2.32	2.11	2.67	2.52	1.96	2.24	2.84	4.11	3.17	3.15	2.81	2.23
IN.	2.68	2.36	3.08	2.91	2.04	2.58	3.17	4.74	3.54	3.63	3.24	2.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

MEAN	52.9	65.6	72.2	78.4	86.1	78.3	91.8	110	121	103	82.3	62.0
MAX	93.4	124	174	220	329	147	148	188	206	155	163	96.6
(WY)	(1998)	(2000)	(1996)	(1997)	(1996)	(1997)	(1997)	(1997)	(1999)	(1999)	(1999)	(1997)
MIN	36.0	34.7	45.5	38.4	37.1	48.7	50.3	64.5	60.7	54.0	54.8	42.2
(WY)	(1993)	(1994)	(1994)	(1993)	(1994)	(2001)	(1991)	(1991)	(1992)	(1992)	(1994)	(1994)

DESCHUTES RIVER BASIN

14090400 WHITEWATER RIVER NEAR CAMP SHERMAN, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	27,550		22,343		83.5	
ANNUAL MEAN	75.3		61.2		142	
HIGHEST ANNUAL MEAN					54.0	
LOWEST ANNUAL MEAN					1,400	
HIGHEST DAILY MEAN	145	May 28	174	Jan 18	1,400	Feb 7, 1996
LOWEST DAILY MEAN	41	Dec 2	38	Mar 5	28	Dec 22, 1990
ANNUAL SEVEN-DAY MINIMUM	41	Nov 29	39	Mar 1	31	Oct 19, 1994
ANNUAL RUNOFF (AC-FT)	54,650		44,320		60,520	
ANNUAL RUNOFF (CFSM)	3.30		2.68		3.66	
ANNUAL RUNOFF (INCHES)	44.95		36.45		49.78	
10 PERCENT EXCEEDS	108		83		134	
50 PERCENT EXCEEDS	74		60		73	
90 PERCENT EXCEEDS	49		42		44	



2005 Water Year
DESCHUTES RIVER BASIN

14090400 WHITEWATER RIVER NEAR CAMP SHERMAN, OR

Latitude: 44° 43' 09"

Longitude: 121° 38' 21"

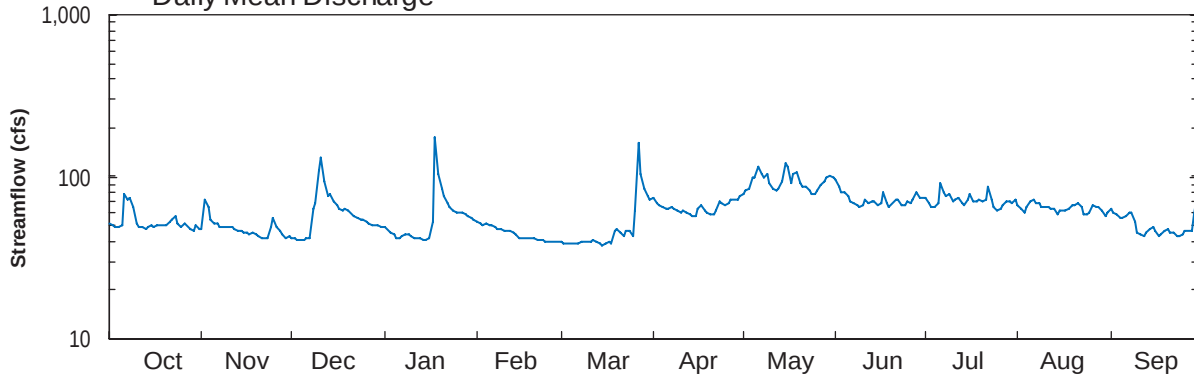
Hydrologic Unit Code: 17070301

Jefferson County

Datum: 3240 feet

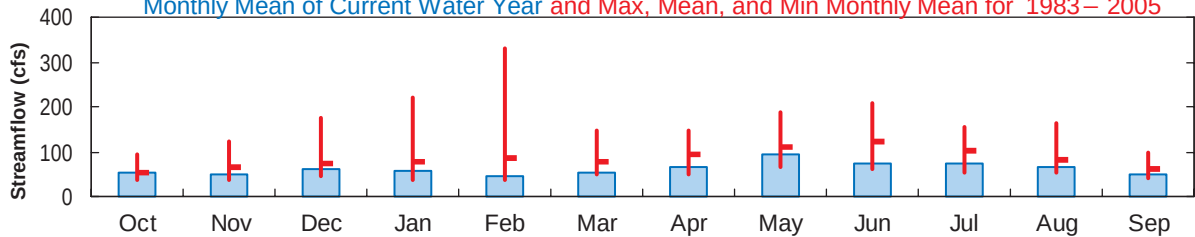
Drainage Area: 22.8 mi²

Daily Mean Discharge

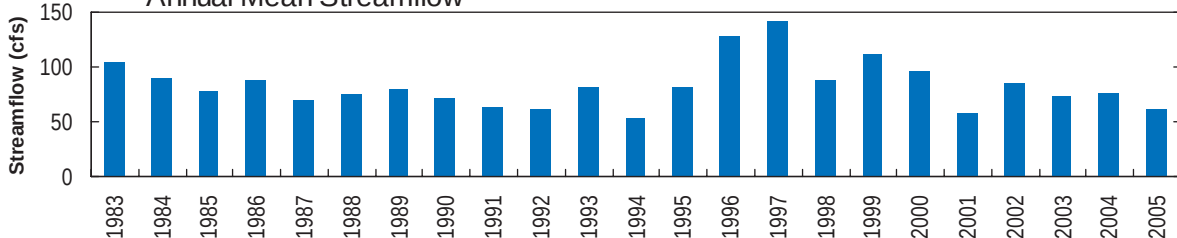


Monthly Statistics

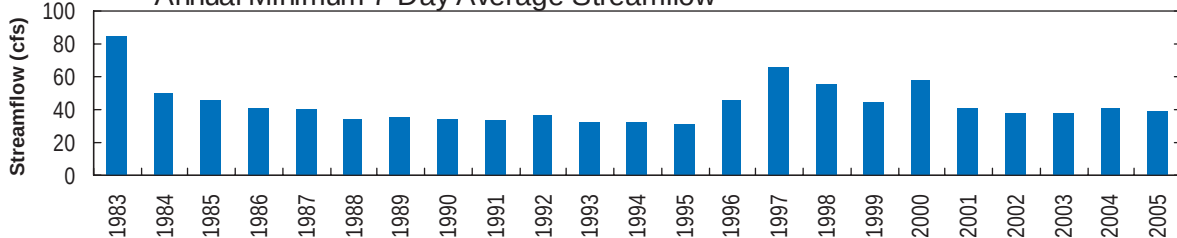
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1983–2005



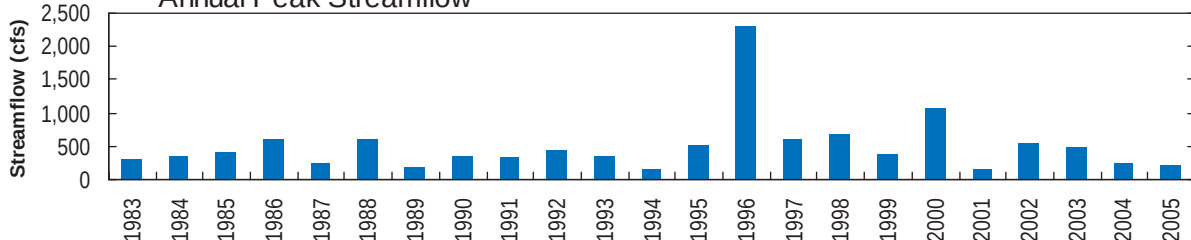
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14091500 METOLIUS RIVER NEAR GRANDVIEW, OR

LOCATION.--Lat 44°37'35", long 121°28'58", in SE ¼ SW ¼ sec.12, T.11 S., R.10 E., Jefferson County, Hydrologic Unit 17070301, Deschutes National Forest, on right bank 1.0 mi upstream from maximum controlled pool of Lake Billy Chinook, 9 mi northwest of Grandview, and at mile 13.6.

DRAINAGE AREA.--316 mi², at cableway 1.0 mi downstream, where all discharge measurements are made. Hydrologic drainage boundary uncertain because of interbasin ground-water exchange.

PERIOD OF RECORD.--April 1910 to February 1912 (gage heights and discharge measurements only), March 1912 to December 1913, October 1921 to current year. Published as "at Hubbard's ranch, near Sisters" 1910, and as "at Hubbard's ranch, near Grandview" 194-13.

REVISED RECORDS.--WSP 1448: 1913.

GAGE.--Water-stage recorder. Datum of gage is 1,974.36 ft above NGVD of 1929 (levels by Portland General Electric Co.). Prior to Dec. 31, 1913, nonrecording gage at site 2.3 mi upstream at different datum. Oct. 1, 1921 to May 3, 1949, nonrecording gage and May 4, 1949 to June 18, 1963, water-stage recorder at site 2.7 mi downstream at datum 64 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation. Many small diversions for irrigation upstream from station. Stream is spring fed. Records herein are for measuring site. Continuous water-quality records for the period October 1954 to September 1974 have been collected at this location.

AVERAGE DISCHARGE.--85 years (water years 1913, 1922-2005), 1,494 ft³/s, 1,083,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,430 ft³/s Feb. 7, 1996, gage height, 7.38 ft; minimum discharge, 1,080 ft³/s Feb. 17, 1932, Oct. 2-31, Nov. 6, 7, 10-14, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,700 ft³/s Mar. 27; minimum discharge, 1,200 ft³/s Sept. 12-29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,290	1,280	1,250	1,280	1,270	1,260	1,400	1,440	1,390	1,290	1,260	1,230
2	1,290	1,320	1,250	1,280	1,270	1,260	1,390	1,450	1,370	1,290	1,250	1,230
3	1,290	1,340	1,250	1,270	1,270	1,260	1,380	1,440	1,350	1,280	1,250	1,220
4	1,290	1,300	1,250	1,270	1,270	1,250	1,370	1,470	1,350	1,280	1,250	1,220
5	1,290	1,290	1,250	1,260	1,270	1,240	1,370	1,500	1,350	1,280	1,260	1,220
6	1,310	1,280	1,260	1,250	1,270	1,240	1,360	1,530	1,340	1,300	1,260	1,220
7	1,300	1,280	1,270	1,260	1,270	1,250	1,370	1,470	1,330	1,300	1,260	1,220
8	1,300	1,280	1,360	1,260	1,260	1,260	1,360	1,470	1,320	1,280	1,250	1,220
9	1,310	1,280	1,370	1,260	1,260	1,260	1,350	1,530	1,320	1,290	1,250	1,220
10	1,290	1,280	1,440	1,250	1,250	1,260	1,340	1,480	1,320	1,280	1,250	1,210
11	1,290	1,280	1,520	1,250	1,250	1,250	1,350	1,450	1,320	1,280	1,240	1,210
12	1,280	1,270	1,470	1,250	1,260	1,250	1,350	1,430	1,320	1,280	1,240	1,210
13	1,280	1,270	1,390	1,250	1,260	1,240	1,350	1,420	1,320	1,270	1,250	1,210
14	1,270	1,270	1,410	1,240	1,250	1,250	1,340	1,440	1,320	1,270	1,240	1,210
15	1,280	1,270	1,400	1,240	1,240	1,260	1,320	1,490	1,300	1,270	1,240	1,210
16	1,280	1,270	1,370	1,250	1,240	1,250	1,330	1,520	1,300	1,280	1,250	1,210
17	1,280	1,260	1,350	1,260	1,240	1,260	1,360	1,460	1,340	1,270	1,250	1,210
18	1,300	1,260	1,340	1,500	1,240	1,250	1,340	1,480	1,320	1,270	1,240	1,210
19	1,300	1,260	1,340	1,420	1,240	1,260	1,340	1,510	1,310	1,270	1,240	1,210
20	1,290	1,260	1,330	1,360	1,260	1,270	1,340	1,450	1,310	1,270	1,240	1,210
21	1,290	1,260	1,320	1,340	1,240	1,270	1,340	1,430	1,310	1,270	1,250	1,210
22	1,290	1,260	1,310	1,320	1,240	1,270	1,330	1,420	1,310	1,290	1,250	1,210
23	1,310	1,260	1,300	1,310	1,250	1,280	1,370	1,410	1,310	1,270	1,240	1,210
24	1,290	1,270	1,300	1,300	1,250	1,280	1,370	1,400	1,300	1,260	1,230	1,200
25	1,280	1,290	1,300	1,290	1,250	1,270	1,360	1,390	1,300	1,260	1,230	1,200
26	1,290	1,280	1,300	1,290	1,240	1,280	1,360	1,390	1,300	1,250	1,240	1,200
27	1,290	1,260	1,290	1,290	1,250	1,700	1,370	1,380	1,300	1,260	1,240	1,210
28	1,280	1,260	1,290	1,280	1,260	1,580	1,420	1,390	1,310	1,260	1,240	1,200
29	1,280	1,250	1,290	1,280	---	1,480	1,420	1,390	1,300	1,260	1,240	1,210
30	1,280	1,260	1,280	1,280	---	1,430	1,410	1,390	1,290	1,260	1,230	1,230
31	1,280	---	1,280	1,270	---	1,410	---	1,390	---	1,260	1,230	---
TOTAL	39,970	38,250	41,130	39,910	35,120	40,330	40,860	44,810	39,630	39,500	38,590	36,390
MEAN	1,289	1,275	1,327	1,287	1,254	1,301	1,362	1,445	1,321	1,274	1,245	1,213
MAX (WY)	1,310 (1998)	1,340 (1922)	1,520 (1965)	1,500 (1997)	1,270 (1996)	1,700 (1972)	1,420 (1997)	1,530 (1997)	1,390 (1999)	1,300 (1999)	1,260 (1999)	1,230 (1999)
MIN	1,270	1,250	1,250	1,240	1,240	1,240	1,320	1,380	1,290	1,250	1,230	1,200
AC-FT	79,280	75,870	81,580	79,160	69,660	79,990	81,050	88,880	78,610	78,350	76,540	72,180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2005, BY WATER YEAR (WY)

MEAN	1,349	1,396	1,484	1,519	1,567	1,541	1,557	1,608	1,626	1,513	1,417	1,366
MAX (WY)	1,690 (1998)	1,816 (1922)	2,454 (1965)	2,512 (1997)	2,997 (1996)	2,504 (1972)	2,040 (1997)	2,099 (1997)	2,163 (1999)	1,995 (1999)	1,854 (1999)	1,678 (1999)
MIN (WY)	1,081 (1943)	1,140 (1940)	1,110 (1945)	1,154 (1979)	1,148 (1941)	1,157 (1941)	1,162 (1941)	1,244 (1941)	1,196 (1941)	1,173 (1941)	1,136 (1931)	1,103 (1942)

DESCHUTES RIVER BASIN

14091500 METOLIUS RIVER NEAR GRANDVIEW, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1913 - 2005	
ANNUAL TOTAL	534,980		474,490			
ANNUAL MEAN	1,462		1,300		1,494	
HIGHEST ANNUAL MEAN					1,949	1997
LOWEST ANNUAL MEAN					1,167	1941
HIGHEST DAILY MEAN	1,910	Jan 30	1,700	Mar 27	7,100	Dec 24, 1964
LOWEST DAILY MEAN	1,250	Nov 29	1,200	Sep 24	1,080	Feb 17, 1932
ANNUAL SEVEN-DAY MINIMUM	1,250	Nov 29	1,200	Sep 22	1,080	Oct 2, 1942
ANNUAL RUNOFF (AC-FT)	1,061,000		941,200		1,083,000	
10 PERCENT EXCEEDS	1,670		1,410		1,800	
50 PERCENT EXCEEDS	1,440		1,280		1,450	
90 PERCENT EXCEEDS	1,280		1,240		1,230	

e Estimated



2005 Water Year
DESCHUTES RIVER BASIN

14091500 METOLIUS RIVER NEAR GRANDVIEW, OR

Latitude: 44° 37' 35"

Longitude: 121° 28' 58"

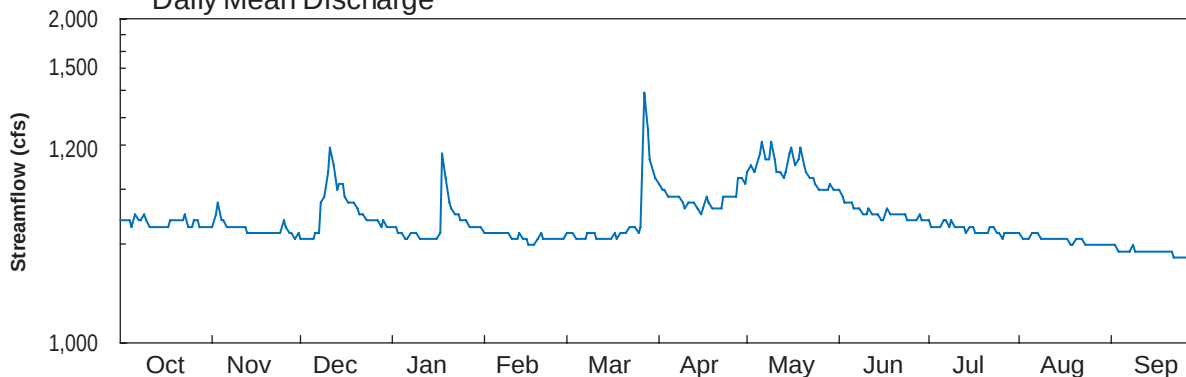
Hydrologic Unit Code: 17070301

Jefferson County

Datum: 1974.36 feet

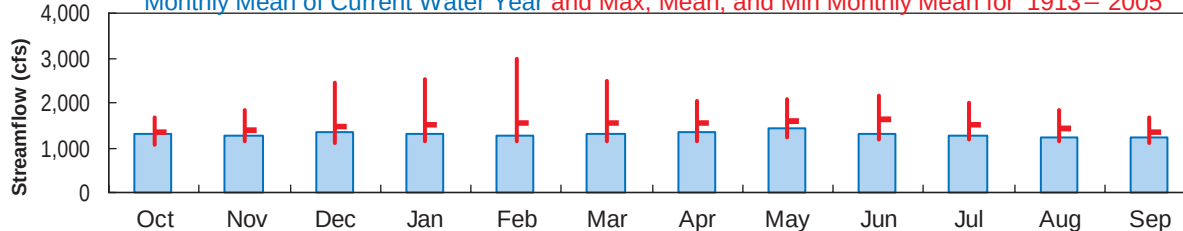
Drainage Area: 316 mi²

Daily Mean Discharge

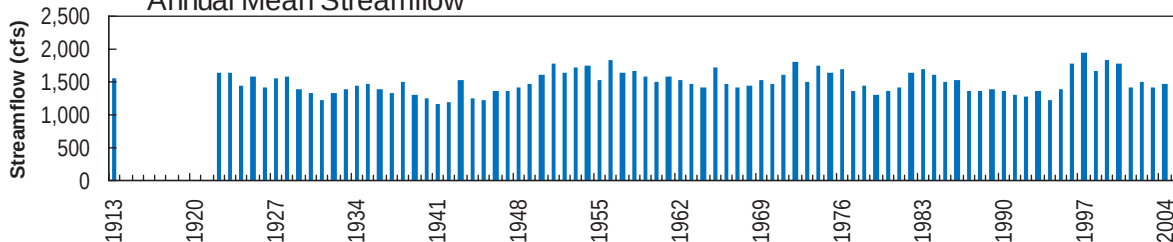


Monthly Statistics

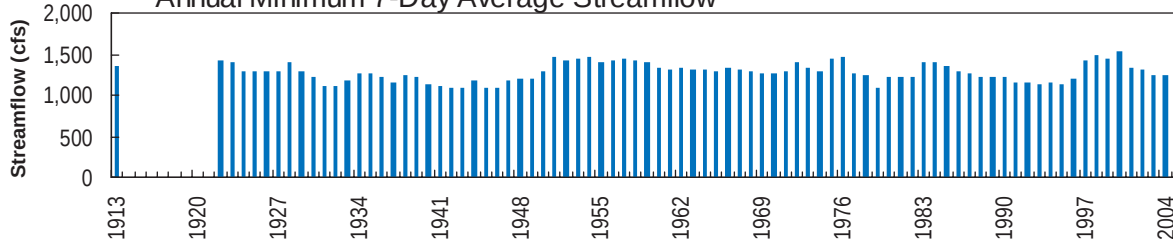
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1913–2005



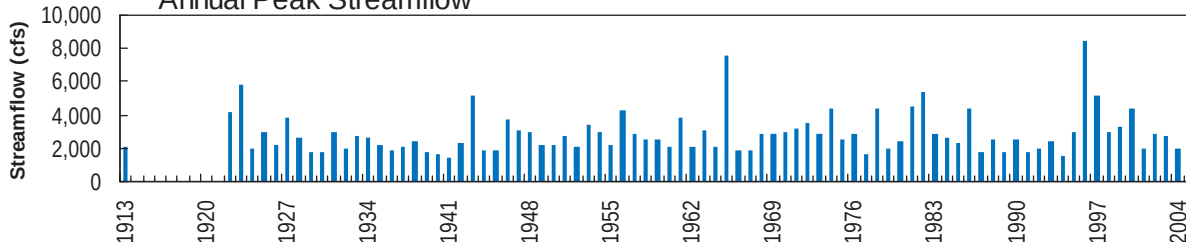
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14092100 LAKE BILLY CHINOOK NEAR METOLIUS, OR

LOCATION.--Lat 44°36'14", long 121°16'40", in SW ¼ NE ¼ sec.22, T.11 S., R.12 E., Jefferson County, Hydrologic Unit 17070301, Warm Springs Indian Reservation, near left end of Round Butte Dam on Deschutes River, 5.0 mi west of Metolius, and at mile 110.6.

DRAINAGE AREA.--7,490 mi², approximately.

PERIOD OF RECORD.--January 1964 to current year.

GAGE.--Nonrecording gage. Datum of gage is NGVD of 1929 (levels by Portland General Electric Co.).

REMARKS.--Reservoir is formed by rock fill dam completed in June 1964 by Portland General Electric Co.; storage began Jan. 2, 1964. Total capacity is 534,700 acre-ft at elevation 1,945.0 ft proposed upper limit of operation, and usable capacity is 273,900 acre-ft between elevations 1,860.0 ft, proposed lower limit of operation, and 1,945.0 ft. Reservoir used for power generation under FERC license 2030. Figures given herein represent total contents.

COOPERATION.--Gage readings and capacity tables furnished by Portland General Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 538,700 acre-ft July 15, 16, 1972, elevation, 1,946.00 ft; minimum contents observed since first filling, 431,100 acre-ft Feb. 13, 1972, elevation, 1,917.13 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 534,700 acre-ft Oct. 19, elevation, 1,945.00 ft; minimum contents observed, 524,400 acre-ft Feb. 11, elevation, 1,942.37 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,944.12	531,200	-
Oct. 31	1,944.21	531,600	+400
Nov. 30	1,943.90	530,400	-1,200
Dec. 31	1,942.67	525,600	-4,800
CAL YR 2004	-	-	+4,700
Jan. 31	1,942.66	525,500	-100
Feb. 28	1,942.94	526,600	+1,100
Mar. 31	1,943.40	528,400	+1,800
Apr. 30	1,944.34	532,100	+3,700
May 31	1,944.53	532,900	+800
June 30	1,944.63	533,300	+400
July 31	1,944.48	532,700	-600
Aug. 31	1,944.32	532,000	-700
Sept.30	1,944.08	531,100	-900
WTR YR 2005	-	-	-100

DESCHUTES RIVER BASIN

14092500 DESCHUTES RIVER NEAR MADRAS, OR

LOCATION.--Lat 44°43'34", long 121°14'45", in SE ¼ SW ¼ sec.1, T.10 S., R.12 E., Jefferson County, Hydrologic Unit 17070306, on right bank 400 ft downstream from reregulating dam, 2.7 mi downstream from Pelton Dam, 8.5 mi northwest of Madras, and at mile 100.1.

DRAINAGE AREA.--7,820 mi², approximately.

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 1398: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,390.25 ft above NGVD of 1929 (levels by Portland General Electric Co.). See WSP 1738 for history of changes prior to Nov. 23, 1957.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation caused by Lake Simtustus and reregulating reservoir since 1957, combined capacity for normal operation, 6,500 acre-ft. Some winter and spring runoff stored in Ochoco Reservoir, capacity, 47,500 acre-ft, in Crescent Lake, Crane Prairie and Wickiup Reservoirs, combined capacity, 354,600 acre-ft, and since 1960, in Prineville Reservoir, capacity, 152,800 acre-ft, and since 1964, in Lake Billy Chinook, capacity, 534,700 acre-ft. Large diversions in upper basin for irrigation. Continuous water-quality records for the period October 1978 to September 1988 have been collected at this location.

AVERAGE DISCHARGE.--18 years (water years 1925-1942), 4,112 ft³/s, 2,979,000 acre-ft/yr. 63 years (water years 1943-2005), 4,677 ft³/s, 3,388,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft³/s July 16, 1983, accidental release from Pelton Dam, gage height, 7.70 ft, from floodmarks; minimum discharge, 916 ft³/s July 4, 1982, caused by power company testing control gates on dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,180 ft³/s May 18-21, gage height, 3.34 ft; minimum discharge, 3,550 ft³/s Oct. 8, July 26-31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,830	4,440	4,310	4,180	4,320	4,190	4,450	4,860	4,200	3,830	3,710	3,710
2	3,820	4,570	4,320	4,190	4,320	4,190	4,320	4,730	4,210	3,840	3,710	3,720
3	3,810	4,700	4,320	4,310	4,320	4,190	4,320	4,720	4,210	3,840	3,710	3,720
4	3,820	4,700	4,310	4,320	4,310	4,200	4,320	4,590	4,210	3,830	3,710	3,720
5	3,820	4,700	4,320	4,310	4,200	4,200	4,200	4,600	4,090	3,830	3,700	3,710
6	3,830	4,700	4,310	4,200	4,190	4,200	4,070	4,730	4,090	3,840	3,710	3,730
7	3,820	4,440	4,310	4,190	4,190	4,190	3,950	4,860	4,080	3,830	3,710	3,720
8	3,810	4,440	4,320	4,190	4,190	4,190	4,070	4,860	4,080	3,720	3,710	3,710
9	3,830	4,440	4,440	4,300	4,190	4,200	4,070	4,990	3,960	3,720	3,700	3,730
10	3,820	4,320	4,720	4,320	4,070	4,070	4,070	5,010	3,960	3,710	3,710	3,720
11	3,820	4,190	4,840	4,320	4,070	4,070	4,070	4,990	3,970	3,710	3,710	3,720
12	3,820	4,190	4,960	4,320	4,070	4,070	4,200	4,990	3,960	3,710	3,710	3,720
13	3,820	4,190	4,970	4,320	4,070	4,080	4,200	4,990	3,960	3,710	3,720	3,830
14	3,820	4,190	4,960	4,320	4,070	4,070	4,210	4,990	3,960	3,710	3,710	3,840
15	3,940	4,190	4,960	4,210	4,200	4,070	4,220	5,000	3,830	3,710	3,710	3,840
16	4,190	4,270	4,970	4,190	4,190	4,080	4,090	4,990	3,840	3,720	3,720	3,960
17	4,440	4,060	4,970	4,180	4,070	4,070	4,090	4,990	3,840	3,710	3,720	3,970
18	4,450	3,940	4,970	4,190	3,940	4,070	4,080	5,130	3,840	3,710	3,710	3,960
19	4,660	3,940	4,840	4,700	3,940	4,070	4,090	5,130	3,830	3,710	3,700	3,830
20	4,700	3,940	4,580	4,700	4,070	4,200	4,090	5,130	3,830	3,710	3,710	3,840
21	4,700	3,940	4,570	4,570	4,180	4,200	3,960	5,140	3,840	3,710	3,710	3,840
22	4,570	4,060	4,570	4,440	4,190	4,190	3,850	4,990	3,840	3,710	3,710	3,840
23	4,570	4,060	4,440	4,440	4,190	4,190	3,840	4,730	3,830	3,710	3,720	3,850
24	4,440	4,180	4,320	4,440	4,190	4,190	3,830	4,590	3,720	3,720	3,720	3,840
25	4,440	4,220	4,320	4,440	4,190	4,190	3,840	4,590	3,720	3,710	3,710	3,830
26	4,310	4,310	4,310	4,320	4,200	4,200	4,070	4,230	3,720	3,590	3,710	3,830
27	4,300	4,310	4,310	4,320	4,190	4,260	4,200	4,080	3,720	3,590	3,710	3,840
28	4,310	4,310	4,190	4,320	4,200	4,580	4,550	3,960	3,710	3,600	3,710	3,830
29	4,320	4,320	4,180	4,320	---	4,580	4,980	3,960	3,710	3,590	3,720	3,830
30	4,320	4,310	4,190	4,320	---	4,580	5,000	3,960	3,710	3,600	3,710	3,840
31	4,310	---	4,180	4,320	---	4,450	---	3,970	---	3,590	3,710	---
TOTAL	128,460	128,570	140,280	134,210	116,520	130,280	125,300	146,480	117,470	115,220	115,040	114,070
MEAN	4,144	4,286	4,525	4,329	4,161	4,203	4,177	4,725	3,916	3,717	3,711	3,802
MAX	4,700	4,700	4,970	4,700	4,320	4,580	5,000	5,140	4,210	3,840	3,720	3,970
MIN	3,810	3,940	4,180	4,180	3,940	4,070	3,830	3,960	3,710	3,590	3,700	3,710
AC-FT	254,800	255,000	278,200	266,200	231,100	258,400	248,500	290,500	233,000	228,500	228,200	226,300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2005, BY WATER YEAR (WY)

MEAN	4,155	4,613	5,016	5,227	5,455	5,565	5,343	4,569	4,348	4,009	3,919	3,954
MAX	5,410	6,124	7,253	9,600	8,974	9,590	8,988	6,949	5,899	4,863	4,718	4,911
(WY)	(1998)	(1985)	(1997)	(1997)	(1996)	(1972)	(1984)	(1956)	(1999)	(1999)	(1976)	(1997)
MIN	3,085	3,521	3,818	3,305	3,094	3,455	3,602	3,503	3,492	3,059	3,064	3,081
(WY)	(1965)	(1965)	(1945)	(1964)	(1964)	(1964)	(1968)	(1944)	(1964)	(1964)	(1964)	(1964)

DESCHUTES RIVER BASIN

14092500 DESCHUTES RIVER NEAR MADRAS, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1943 - 2005	
ANNUAL TOTAL	1,620,040		1,511,900			
ANNUAL MEAN	4,426		4,142		4,677	
HIGHEST ANNUAL MEAN					5,980	1997
LOWEST ANNUAL MEAN					3,558	1964
HIGHEST DAILY MEAN	6,590	Mar 23	5,140	May 21	17,800	Feb 8, 1996
LOWEST DAILY MEAN	3,810	Oct 3	3,590	Jul 26	2,440	Dec 3, 1957
ANNUAL SEVEN-DAY MINIMUM	3,820	Oct 2	3,610	Jul 25	2,590	Nov 30, 1957
ANNUAL RUNOFF (AC-FT)	3,213,000		2,999,000		3,388,000	
10 PERCENT EXCEEDS	5,240		4,700		6,100	
50 PERCENT EXCEEDS	4,310		4,180		4,340	
90 PERCENT EXCEEDS	3,830		3,710		3,680	



2005 Water Year
DESCHUTES RIVER BASIN

14092500 DESCHUTES RIVER NEAR MADRAS, OR

Latitude: 44° 43' 34"

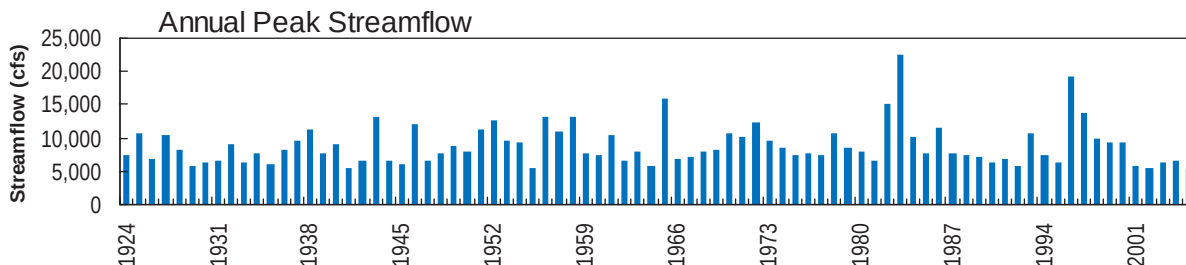
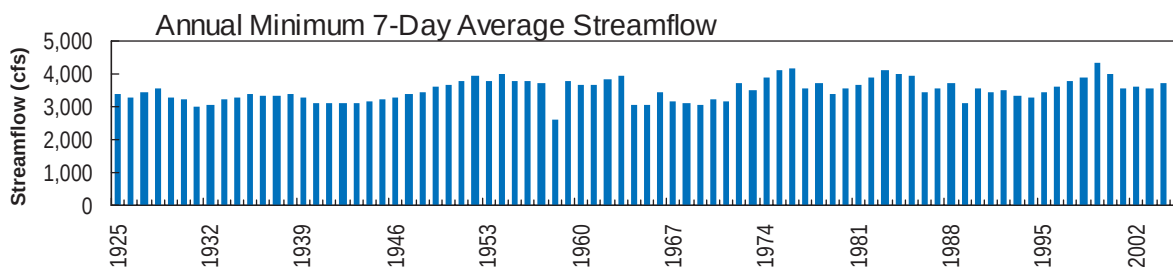
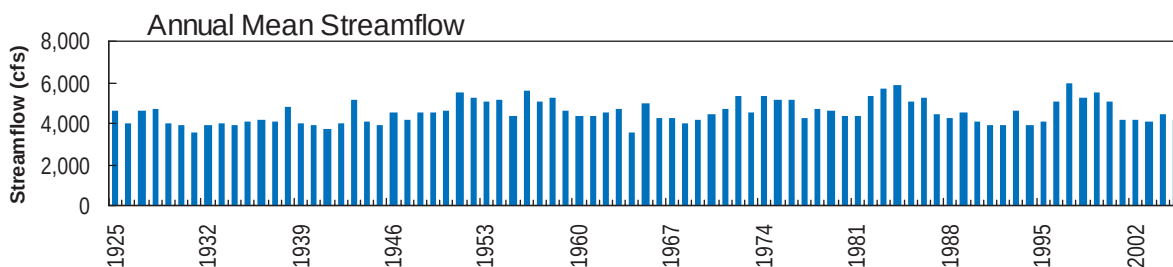
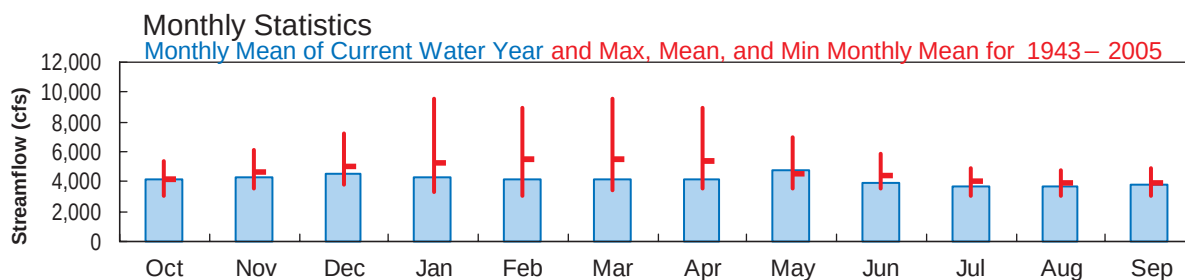
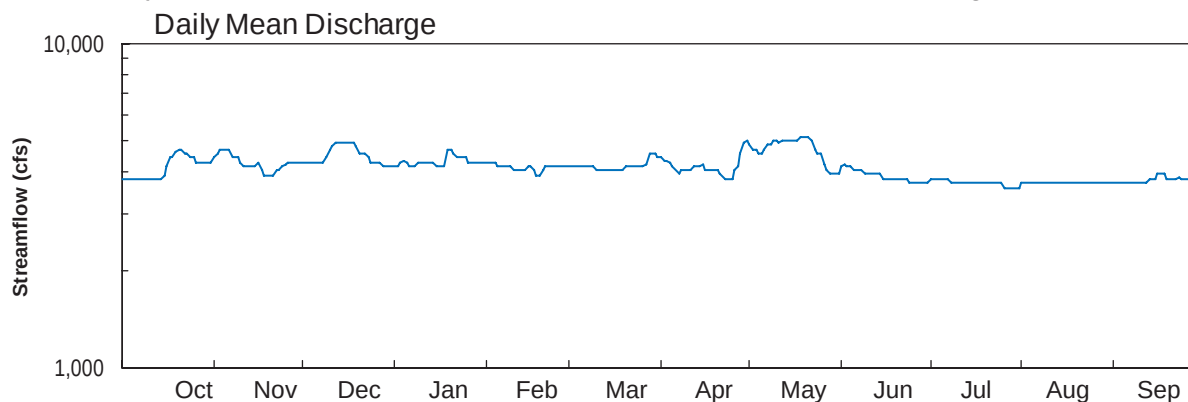
Longitude: 121° 14' 45"

Hydrologic Unit Code: 17070306

Jefferson County

Datum: 1390.25 feet

Drainage Area: 7820 mi²



DESCHUTES RIVER BASIN

14092750 SHITIKE CREEK AT PETERS PASTURE, NEAR WARM SPRINGS, OR

LOCATION.--Lat 44°45'02", long 121°37'56", in NW ¼ NE ¼ sec.35, T.9 S., R.9 E., Jefferson County, Hydrologic Unit 17070306, Warm Springs Indian Reservation, on left bank 0.5 mi downstream from Peters Pasture, 18 mi west of town of Warm Springs and at mile 26.4.

DRAINAGE AREA.--22.9 mi².

PERIOD OF RECORD.--July 1982 to current year.

REVISED RECORDS.--WDR OR-96-1: 1983, 1985, 1986, 1988, 1990, 1995.

GAGE.--Water-stage recorder. Elevation of gage is 3,580 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--23 years (water years 1983-2005), 76.3 ft³/s, 45.30 in/yr, 55,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,430 ft³/s Feb. 7, 1996, gage height, 6.66 ft, from rating curve extended above 800 ft³/s on basis of slope area measurement of peak flow; minimum discharge, 17 ft³/s Dec. 22, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 27	1500	*413	*2.50				
						No other peak greater than base discharge.	

Minimum discharge, 18 ft³/s, Sept. 25-30, gage height, 0.66 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	35	30	35	44	30	81	73	70	42	28	22
2	30	59	29	34	42	30	75	74	65	40	28	21
3	30	68	29	33	41	29	70	74	60	39	28	21
4	29	50	28	32	41	28	65	85	58	38	28	21
5	29	45	28	30	40	28	60	96	56	38	27	21
6	30	41	28	e29	39	28	58	124	52	39	27	21
7	31	39	29	32	38	28	59	102	49	39	26	21
8	29	38	50	32	37	29	59	93	47	38	26	20
9	37	37	57	31	36	30	57	103	47	40	26	20
10	35	37	154	31	36	30	55	91	49	38	25	21
11	33	36	217	30	35	31	55	79	55	38	25	22
12	31	35	152	30	35	32	54	74	51	37	25	22
13	29	34	99	30	35	32	52	74	50	36	25	21
14	29	33	97	29	33	31	50	79	50	35	25	21
15	28	32	83	29	32	31	48	101	46	34	25	20
16	27	32	71	e28	32	31	51	102	47	34	24	20
17	29	31	63	35	32	32	69	80	62	34	24	21
18	35	32	58	204	31	31	63	84	53	33	24	20
19	37	31	56	126	32	35	58	103	50	33	24	20
20	39	30	53	100	32	37	55	89	54	32	23	20
21	40	29	50	86	31	38	53	80	53	32	23	20
22	41	29	47	74	31	37	55	76	51	32	23	20
23	46	29	44	67	31	37	65	71	47	32	23	20
24	41	31	42	62	30	36	73	67	45	32	23	20
25	38	44	41	59	30	35	69	64	46	31	22	19
26	40	41	39	57	30	44	69	66	45	31	22	19
27	40	37	38	56	30	298	72	70	45	30	22	19
28	38	34	37	54	30	223	76	73	48	30	22	19
29	36	31	37	51	---	135	71	77	44	29	22	19
30	37	31	36	49	---	102	71	74	42	29	22	19
31	37	---	35	47	---	86	---	73	---	29	22	---
TOTAL	1,062	1,111	1,857	1,622	966	1,684	1,868	2,571	1,537	1,074	759	610
MEAN	34.3	37.0	59.9	52.3	34.5	54.3	62.3	82.9	51.2	34.6	24.5	20.3
MAX	46	68	217	204	44	298	81	124	70	42	28	22
MIN	27	29	28	28	30	28	48	64	42	29	22	19
AC-FT	2,110	2,200	3,680	3,220	1,920	3,340	3,710	5,100	3,050	2,130	1,510	1,210
CFSM	1.50	1.62	2.62	2.28	1.51	2.37	2.72	3.62	2.24	1.51	1.07	0.89
IN.	1.73	1.80	3.02	2.63	1.57	2.74	3.03	4.18	2.50	1.74	1.23	0.99
						*						

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

MEAN	38.6	66.4	75.2	82.2	91.2	83.9	99.8	120	111	69.8	44.9	34.6
MAX	98.8	175	205	218	363	166	154	207	217	142	96.3	59.7
(WY)	(1998)	(1996)	(1996)	(1997)	(1996)	(1986)	(2002)	(1997)	(1999)	(1999)	(1999)	(1999)
MIN	20.3	23.4	34.0	33.5	28.2	41.4	50.4	69.4	41.7	33.4	24.5	20.1
(WY)	(1988)	(1994)	(2001)	(2001)	(1994)	(1985)	(1991)	(1991)	(1992)	(1992)	(1992)	(1994)

DESCHUTES RIVER BASIN

14092750 SHITIKE CREEK AT PETERS PASTURE, NEAR WARM SPRINGS, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	24,305		16,721			
ANNUAL MEAN	66.4		45.8		76.3	
HIGHEST ANNUAL MEAN					136	1997
LOWEST ANNUAL MEAN					43.2	1994
HIGHEST DAILY MEAN	226	Jan 30	298	Mar 27	2,020	Feb 7, 1996
LOWEST DAILY MEAN	27	Oct 16	19	Sep 25	17	Dec 22, 1990
ANNUAL SEVEN-DAY MINIMUM	29	Dec 1	19	Sep 24	18	Oct 2, 1994
ANNUAL RUNOFF (AC-FT)	48,210		33,170		55,310	
ANNUAL RUNOFF (CFSM)	2.90		2.00		3.33	
ANNUAL RUNOFF (INCHES)	39.48		27.16		45.30	
10 PERCENT EXCEEDS	112		74		138	
50 PERCENT EXCEEDS	52		36		59	
90 PERCENT EXCEEDS	32		22		28	

e Estimated

DESCHUTES RIVER BASIN

14092750 SHITIKE CREEK AT PETERS PASTURE, NEAR WARM SPRINGS, OR—Continued



2005 Water Year
DESCHUTES RIVER BASIN

14092750 SHITIKE CR, AT PETERS PASTURE, NR WARM SPRINGS, OR

Latitude: 44° 45' 02"

Longitude: 121° 37' 56"

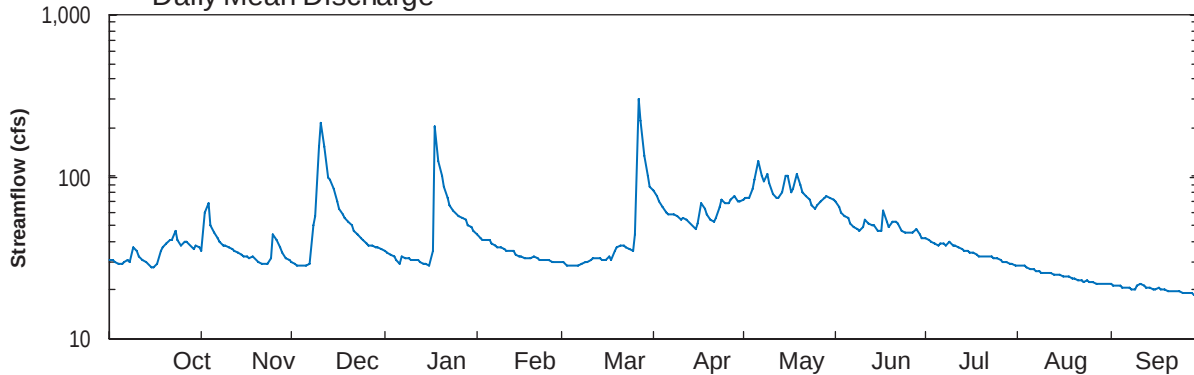
Hydrologic Unit Code: 17070306

Jefferson County

Datum: 3580 feet

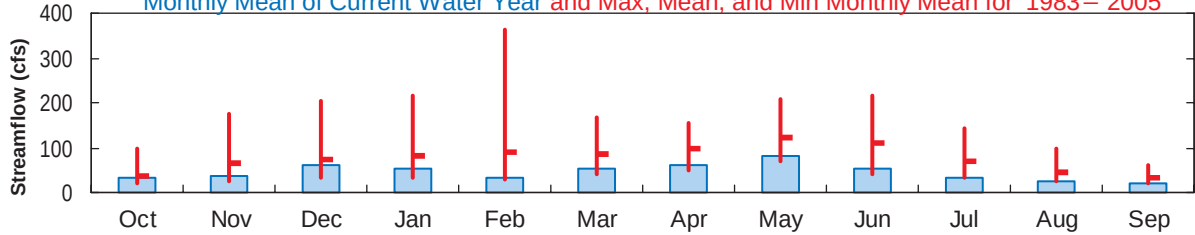
Drainage Area: 22.9 mi²

Daily Mean Discharge

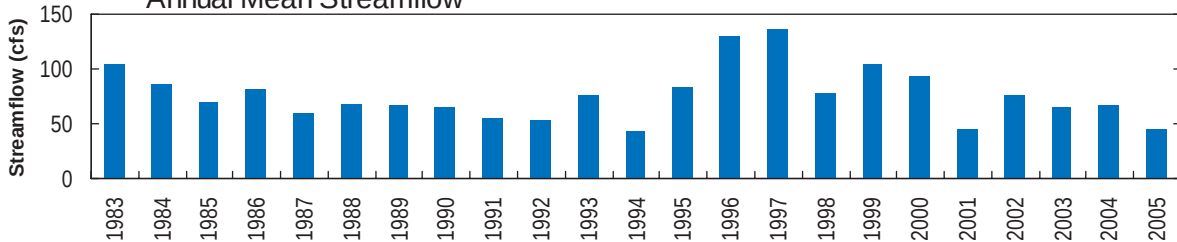


Monthly Statistics

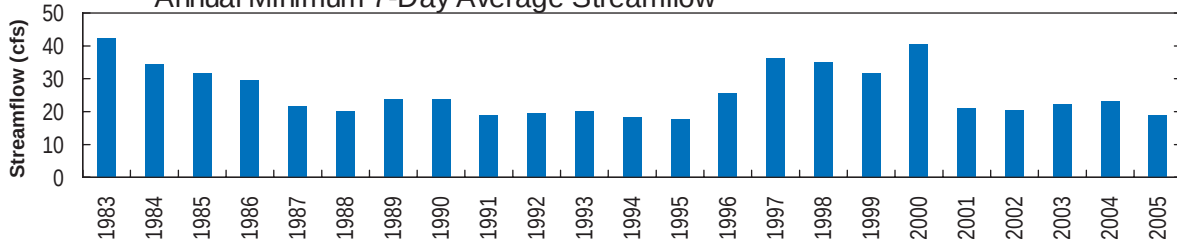
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1983–2005



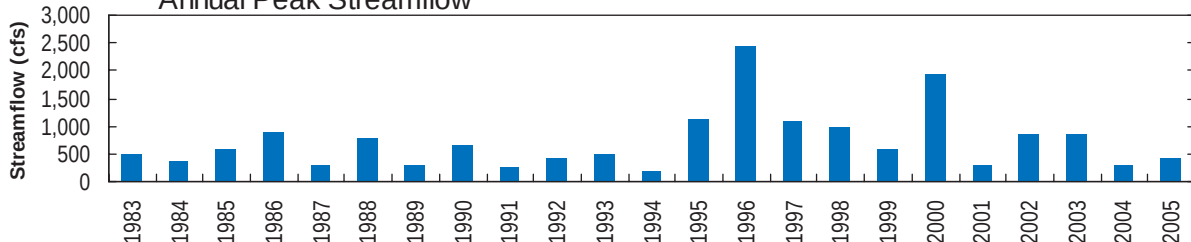
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14093000 SHITIKE CREEK NEAR WARM SPRINGS, OR

LOCATION.--Lat 44°45'52", long 121°14'07", in NE ¼ NE ¼, sec.25, T.9 S., R.12 E., Jefferson County, Hydrologic Unit 17070306, Warm Springs Indian Reservation on left bank 1.5 mi east of Warm Springs and at mile 0.4.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--July 1911 to October 1916, April 1923 to September 1928, October 1972 to September 1974, October 1996 to current year. Records for October 1974 to September 1996 (see station 14092885) at site upstream not equivalent owing to difference in drainage area.

REVISED RECORDS.--WSP 1318: 1911-12, 1916, 1927.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,380 ft above NGVD of 1929, from topographic map. Prior to September 1928 non-recording gage 1.3 mi upstream, October 1972 to September 1974 water-stage recorder 0.4 mi downstream.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation. Some diversions for irrigation and municipal use.

AVERAGE DISCHARGE.--21 years (water years 1912-16, 1924-28, 1973-74, 1997-2005), 108 ft³/s, 14.17 in/yr, 78,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft³/s Jan. 15, 1974, gage height, 4.36 ft; minimum daily discharge, 20 ft³/s Dec. 8-15, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 7, 1996 reached a stage of 12.4 ft, information supplied by local resident, discharge about 4,400 ft³/s, from rating curve extended above 900 ft³/s on basis of runoff comparisons with nearby stations.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 27	2130	(a)	*5.75	Mar 28	unknown	*unknown	unknown

Minimum discharge, 29 ft³/s, Sept. 8, 19, gage height, 3.32 ft.

(a) Backwater from fish weir.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	50	46	47	55	37	109	98	100	57	40	35
2	41	53	45	46	53	35	103	98	97	57	41	34
3	41	102	44	45	52	35	94	98	87	55	40	35
4	40	74	44	44	51	35	86	110	81	54	41	34
5	39	64	43	41	51	35	79	141	78	53	40	34
6	39	59	45	e40	50	34	75	172	74	53	40	33
7	42	56	46	e42	50	33	74	160	69	56	38	33
8	42	54	63	e42	48	34	76	139	65	54	38	32
9	45	53	86	e41	47	34	73	159	63	57	38	31
10	48	53	135	e41	46	34	69	157	64	57	37	33
11	46	52	201	e40	46	34	68	130	72	53	37	34
12	44	50	192	e40	46	35	67	115	73	50	37	34
13	42	50	138	e39	45	35	64	112	68	49	37	33
14	41	49	119	e39	44	35	62	113	72	48	36	33
15	40	48	113	e38	44	33	60	140	66	47	36	34
16	40	47	94	e42	44	33	58	165	65	47	36	34
17	40	47	83	49	46	37	82	131	85	47	36	35
18	45	46	75	141	45	37	82	124	82	46	36	34
19	51	47	71	166	44	38	75	151	72	45	36	34
20	52	45	69	128	44	43	70	142	72	45	35	34
21	52	44	65	111	40	43	66	125	72	45	35	34
22	55	44	61	93	38	47	67	115	72	46	35	e34
23	58	43	58	84	38	47	82	109	67	46	35	e34
24	58	43	55	78	38	43	96	100	63	46	35	e34
25	53	51	53	72	38	42	91	92	63	45	36	e34
26	56	60	52	70	37	42	89	91	65	44	35	e34
27	58	54	51	68	36	e240	90	96	65	43	35	e33
28	54	50	49	66	37	e290	96	105	67	42	34	e33
29	52	e48	51	63	---	e200	94	106	65	41	34	e33
30	50	47	49	60	---	150	92	109	59	41	36	e33
31	52	---	48	57	---	120	---	108	---	41	35	---
TOTAL	1,457	1,583	2,344	1,973	1,253	1,970	2,389	3,811	2,163	1,510	1,140	1,009
MEAN	47.0	52.8	75.6	63.6	44.8	63.5	79.6	123	72.1	48.7	36.8	33.6
MAX	58	102	201	166	55	290	109	172	100	57	41	35
MIN	39	43	43	38	36	33	58	91	59	41	34	31
AC-FT	2,890	3,140	4,650	3,910	2,490	3,910	4,740	7,560	4,290	3,000	2,260	2,000
CFSM	0.45	0.51	0.73	0.61	0.43	0.61	0.77	1.18	0.69	0.47	0.35	0.32
IN.	0.52	0.57	0.84	0.71	0.45	0.70	0.85	1.36	0.77	0.54	0.41	0.36

DESCHUTES RIVER BASIN

14093000 SHITIKE CREEK NEAR WARM SPRINGS, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2005, BY WATER YEAR (WY)												
MEAN	62.0	90.5	110	134	125	121	134	157	147	98.9	65.7	57.1
MAX	109	167	283	432	261	222	206	238	315	213	127	87.7
(WY)	(1998)	(1928)	(1997)	(1974)	(1916)	(1997)	(2002)	(1974)	(1974)	(1916)	(1999)	(1997)
MIN	40.8	45.6	49.8	48.8	44.8	63.5	66.4	86.2	68.9	46.7	36.2	33.6
(WY)	(2003)	(2003)	(2001)	(2001)	(2005)	(2005)	(1973)	(1973)	(1924)	(1924)	(1924)	(2005)
SUMMARY STATISTICS												
	FOR 2004 CALENDAR YEAR					FOR 2005 WATER YEAR			WATER YEARS 1912 - 2005			
ANNUAL TOTAL	31,284					22,602						
ANNUAL MEAN	85.5					61.9						
HIGHEST ANNUAL MEAN									108			
LOWEST ANNUAL MEAN									187			
HIGHEST DAILY MEAN									61.9			
LOWEST DAILY MEAN									2005			
HIGHEST DAILY MEAN	217					290			2,300			
LOWEST DAILY MEAN	39					31			20			
ANNUAL SEVEN-DAY MINIMUM	40					33			20			
ANNUAL RUNOFF (AC-FT)	62,050					44,830			78,560			
ANNUAL RUNOFF (CFSM)	0.822					0.595			1.04			
ANNUAL RUNOFF (INCHES)	11.19					8.08			14.17			
10 PERCENT EXCEEDS	138					109			189			
50 PERCENT EXCEEDS	76					49			88			
90 PERCENT EXCEEDS	45					34			46			



2005 Water Year
DESCHUTES RIVER BASIN

14093000 SHITIKE CREEK NEAR WARM SPRINGS, OR

Latitude: 44° 45' 52"

Longitude: 121° 14' 07"

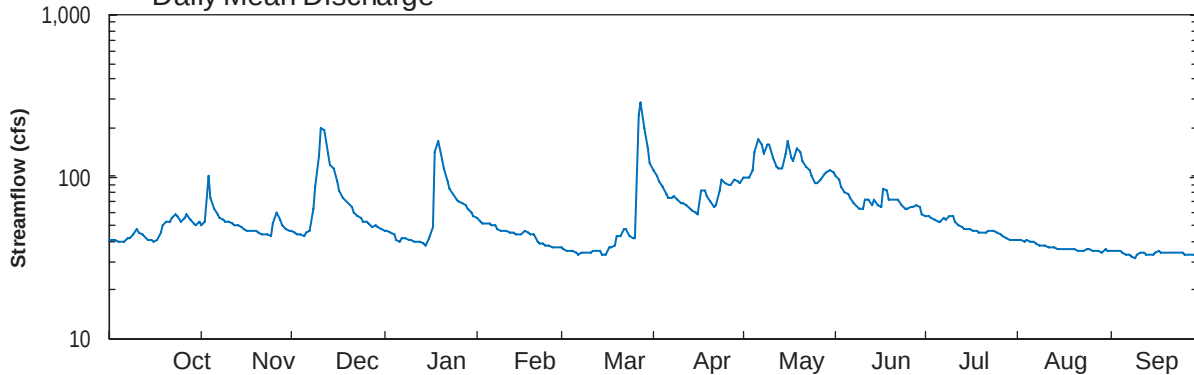
Hydrologic Unit Code: 17070306

Jefferson County

Datum: 1380.00 feet

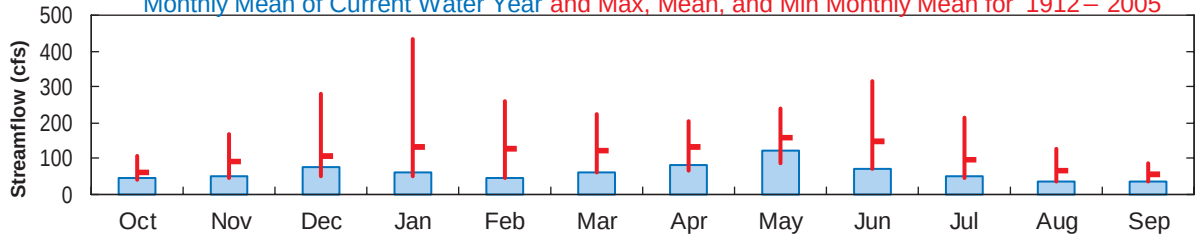
Drainage Area: 104 mi²

Daily Mean Discharge

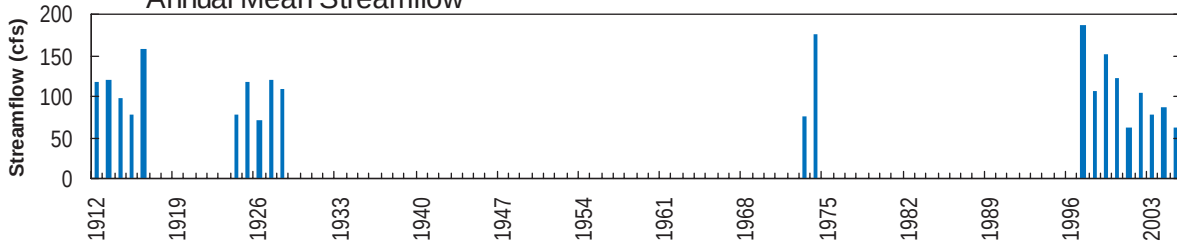


Monthly Statistics

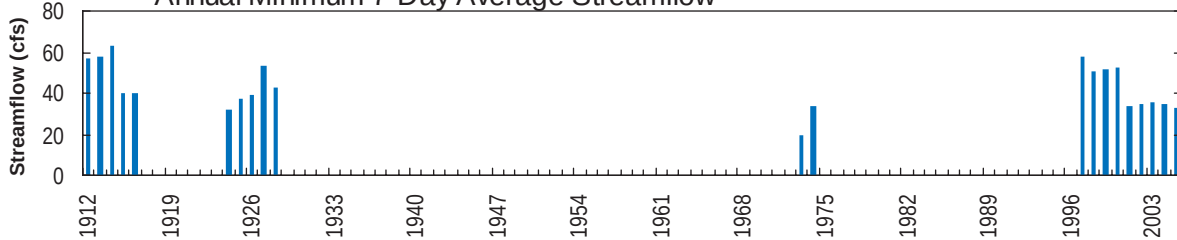
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1912–2005



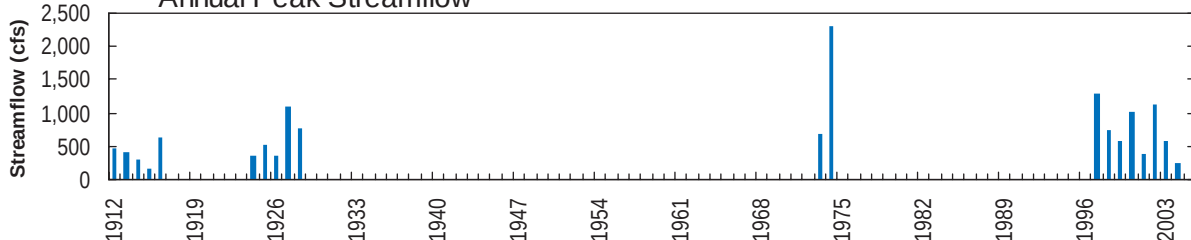
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14095500 WARM SPRINGS RIVER NEAR SIMNASHO, OR

LOCATION.--(Revised) Lat 44°58'02", long 121°28'06", in NE ¼ NE ¼ sec.18, T.7 S., R.11 E., Wasco County, Hydrologic Unit 17070306, Warm Springs Indian Reservation, on left bank near Hwy 26 bridge, 2.9 mi upstream from Badger Creek, 6.6 mi west of Simnasho and at mile 30.1.

DRAINAGE AREA.--107 mi².

PERIOD OF RECORD.--June to September 1915, August 1949 to September 1954, October 1983 to current year. Prior to October 1983, published as "at Hehe Mill near Warm Springs."

GAGE.--Water-stage recorder. Datum of gage is 2,525.94 ft above NAVD of 1988. June to September 1915, 0.6 mi downstream at different datum.

August 1949 to September 1954, 0.1 mi downstream at datum 0.72 ft higher, October 1983 to January 2005, 0.4 mi upstream, at datum 7.84 ft higher.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--27 years (water years 1950-54, 1984-2005), 160 ft³/s, 20.32 in/yr, 115,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,670 ft³/s Feb. 7, 1996, gage height, 6.98 ft, datum then in use, from rating curve extended above 1,300 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 78 ft³/s Jan. 14, 2004, due to extreme cold weather.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 28	0130	*193	*5.13				

Minimum discharge, 83 ft³/s, Sept. 26, 28, gage height, 4.74 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	98	96	97	96	95	134	115	107	98	93	88
2	97	100	95	96	95	95	132	118	106	98	93	88
3	97	100	95	95	96	95	131	115	105	97	93	88
4	97	98	96	95	98	94	129	114	104	97	93	88
5	97	97	96	95	98	94	124	115	104	97	92	88
6	97	97	98	95	99	94	121	116	104	98	92	88
7	97	97	99	97	98	95	123	113	104	98	92	88
8	97	97	128	96	96	95	124	115	103	98	92	88
9	98	97	120	96	95	95	120	126	102	99	92	88
10	97	98	110	95	95	95	117	126	101	98	92	90
11	96	97	108	95	95	94	118	122	102	97	92	89
12	96	97	105	95	96	94	118	118	102	96	92	88
13	96	97	102	95	97	93	116	114	101	96	91	88
14	96	97	102	94	95	93	114	114	101	95	92	88
15	96	97	100	92	94	93	113	118	100	96	92	88
16	97	97	99	92	93	94	113	117	102	96	91	89
17	98	96	98	94	93	97	116	117	112	95	91	88
18	100	98	97	100	94	96	113	122	105	95	92	88
19	101	96	97	99	96	101	111	119	102	94	91	88
20	101	96	97	99	98	103	110	117	101	94	91	88
21	100	96	97	98	95	99	109	116	100	94	90	88
22	99	96	97	98	94	101	110	115	100	95	91	88
23	100	96	97	98	94	103	127	112	99	94	91	86
24	99	96	96	98	94	102	131	111	99	94	91	85
25	98	100	97	97	94	99	127	109	99	94	90	85
26	106	98	97	98	94	103	123	108	99	93	88	85
27	109	97	96	98	94	151	119	108	101	93	88	85
28	101	96	96	98	95	180	117	108	100	93	88	85
29	99	95	98	98	---	161	116	107	98	93	89	85
30	98	96	97	98	---	145	115	106	98	93	89	86
31	98	---	97	98	---	136	---	106	---	93	88	---
TOTAL	3,055	2,913	3,103	2,989	2,671	3,285	3,591	3,557	3,061	2,961	2,822	2,622
MEAN	98.5	97.1	100	96.4	95.4	106	120	115	102	95.5	91.0	87.4
MAX	109	100	128	100	99	180	134	126	112	99	93	90
MIN	96	95	95	92	93	93	109	106	98	93	88	85
AC-FT	6,060	5,780	6,150	5,930	5,300	6,520	7,120	7,060	6,070	5,870	5,600	5,200
CFSM	0.92	0.91	0.94	0.90	0.89	0.99	1.12	1.07	0.95	0.89	0.85	0.82
IN.	1.06	1.01	1.08	1.04	0.93	1.14	1.25	1.24	1.06	1.03	0.98	0.91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2005, BY WATER YEAR (WY)

MEAN	117	127	146	163	222	207	221	203	157	127	119	116
MAX	144	197	286	351	784	374	351	325	310	169	154	144
(WY)	(1998)	(1951)	(1997)	(1997)	(1996)	(1986)	(1997)	(1997)	(1950)	(1999)	(1999)	(1999)
MIN	98.5	97.1	100	96.4	95.4	106	120	106	102	95.5	91.0	87.4
(WY)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(1994)	(1994)	(2005)	(2005)	(2005)

DESCHUTES RIVER BASIN

14095500 WARM SPRINGS RIVER NEAR SIMNASHO, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 2005	
ANNUAL TOTAL	45,000		36,630		160	
ANNUAL MEAN	123		100		242	1997
HIGHEST ANNUAL MEAN					100	2005
LOWEST ANNUAL MEAN					3,000	Feb 8, 1996
HIGHEST DAILY MEAN	221	Mar 19	180	Mar 28	80	Jan 14, 2004
LOWEST DAILY MEAN	80	Jan 14	85	Sep 24	85	Sep 23, 2005
ANNUAL SEVEN-DAY MINIMUM	86	Jan 8	85	Sep 23		
ANNUAL RUNOFF (AC-FT)	89,260		72,660		115,900	
ANNUAL RUNOFF (CFSM)	1.15		0.938		1.50	
ANNUAL RUNOFF (INCHES)	15.64		12.73		20.32	
10 PERCENT EXCEEDS	192		116		250	
50 PERCENT EXCEEDS	106		97		132	
90 PERCENT EXCEEDS	96		90		104	



2005 Water Year
DESCHUTES RIVER BASIN

14095500 WARM SPRINGS RIVER NEAR SIMNASHO, OR

Latitude: 44° 58' 02"

Longitude: 121° 28' 05"

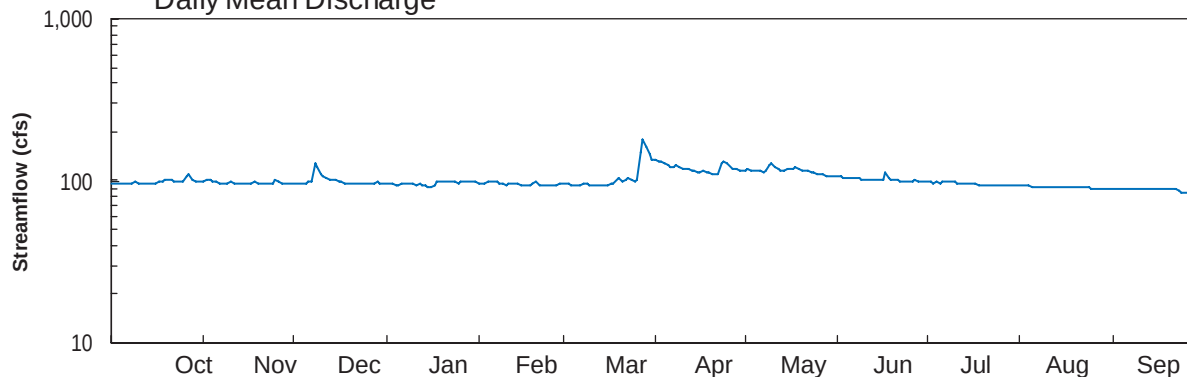
Hydrologic Unit Code: 17070306

Wasco County

Datum: 2525.94 feet

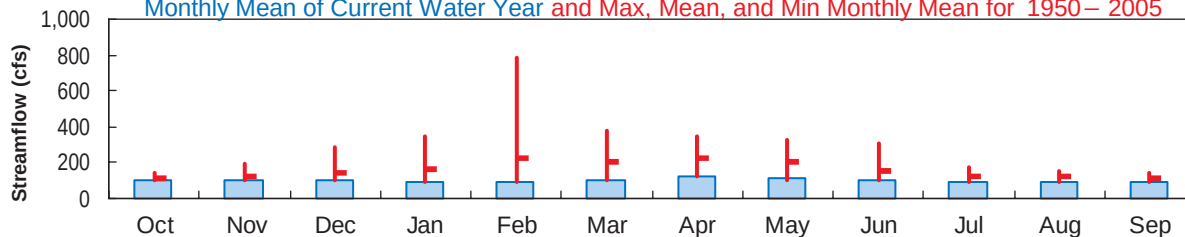
Drainage Area: 107 mi²

Daily Mean Discharge

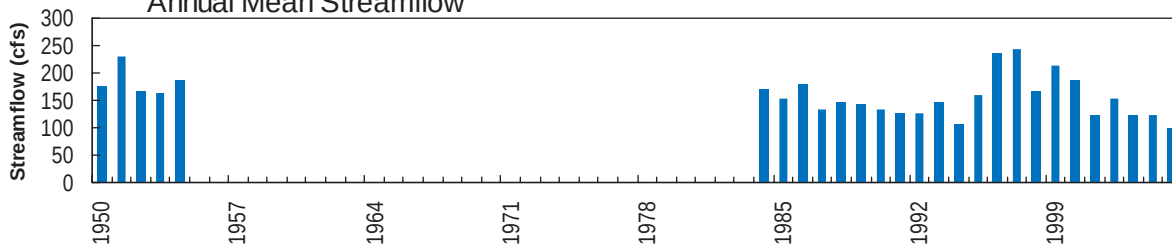


Monthly Statistics

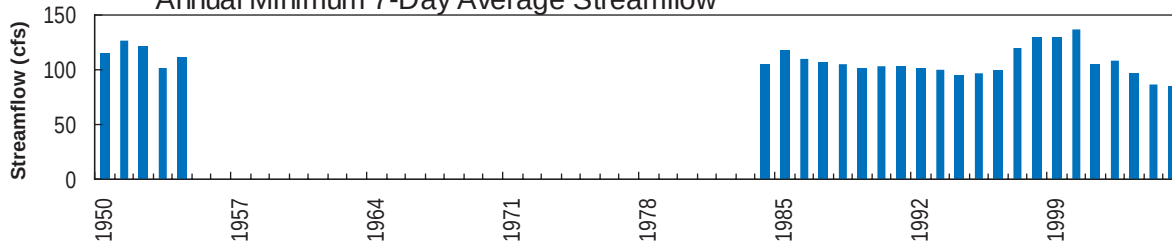
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1950–2005



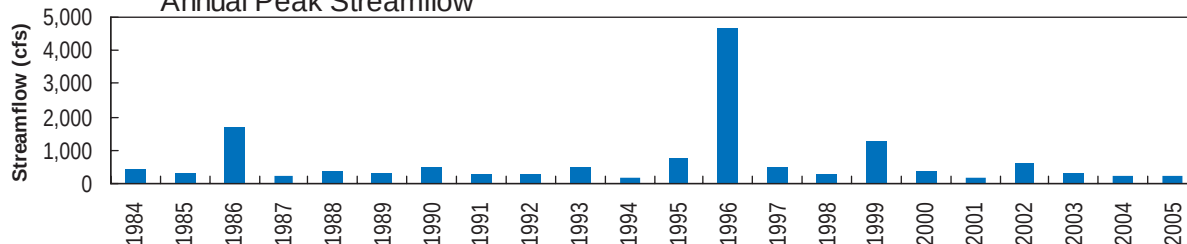
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14096300 MILL CREEK NEAR BADGER BUTTE, NEAR WARM SPRINGS, OR

LOCATION.--Lat 44°51'42", long 121°37'35", in SW ¼ sec.23, T.8 S., R.9 E., Wasco County, Hydrologic Unit 17070306, Warm Springs Indian Reservation, on right bank 200 ft upstream from bridge on road B241, 3.4 mi upstream from headworks of Mill Creek Canal, 19.3 mi northwest of Warm Springs, and at mile 14.6.

DRAINAGE AREA.--26.8 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 3,380 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--22 years (water years 1984-2005), 68.1 ft³/s, 34.52 in/yr, 49,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s Feb. 7, 1996, from rating curve extended above 800 ft³/s on basis of slope-area measurement of peak flow, gage height, 8.42 ft; maximum gage height, 9.49 ft, Feb. 7, 1996, from high-water mark on crest-stage gage; minimum discharge recorded, 23 ft³/s Feb. 15, 25, 1993, but may have been lower during period of estimated record.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 27	2100	*339	*6.25				
							No other peak greater than base discharge.

Minimum discharge, 27 ft³/s, Aug. 23, 27, Sept. 8, gage height, 4.98 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	40	34	35	49	43	96	66	46	35	30	29
2	35	44	32	35	47	42	87	66	46	35	30	29
3	35	52	32	34	46	42	79	63	44	35	30	30
4	35	53	32	33	47	42	74	64	43	34	30	29
5	35	48	32	32	48	42	67	72	42	34	30	29
6	35	44	33	33	47	42	64	83	44	34	30	29
7	36	40	35	33	47	43	65	83	43	34	30	29
8	35	38	74	34	45	43	65	83	42	34	30	29
9	37	37	78	34	44	43	64	100	41	35	29	30
10	36	37	83	34	43	43	60	96	41	34	30	30
11	36	37	128	33	43	43	63	87	40	34	29	30
12	35	37	139	34	43	44	61	78	41	33	29	30
13	34	36	100	34	44	43	59	71	40	33	30	30
14	34	36	92	33	43	43	58	67	39	33	30	30
15	34	35	87	e33	43	42	56	66	39	32	30	30
16	34	34	74	e35	44	42	58	68	40	32	29	30
17	35	34	64	37	42	46	69	69	46	32	30	30
18	41	36	56	71	41	43	71	74	43	32	30	30
19	42	35	51	121	43	46	66	80	42	32	30	30
20	43	34	47	107	45	51	61	80	41	31	30	30
21	42	33	44	91	44	52	60	77	39	31	30	30
22	42	33	42	79	43	53	61	72	39	32	29	30
23	43	33	40	71	43	53	75	66	38	31	29	30
24	43	33	39	65	42	53	83	61	38	31	29	30
25	42	38	38	60	42	52	78	57	37	31	29	30
26	46	37	37	58	42	62	72	53	37	31	29	30
27	50	36	36	57	42	204	69	50	37	31	29	29
28	46	36	36	55	43	238	68	48	37	31	29	30
29	43	34	36	54	---	158	68	47	36	30	30	29
30	42	34	35	53	---	127	67	45	36	30	30	30
31	42	---	35	51	---	105	---	44	---	30	29	---
TOTAL	1,203	1,134	1,721	1,569	1,235	2,025	2,044	2,136	1,217	1,007	918	891
MEAN	38.8	37.8	55.5	50.6	44.1	65.3	68.1	68.9	40.6	32.5	29.6	29.7
MAX	50	53	139	121	49	238	96	100	46	35	30	30
MIN	34	33	32	32	41	42	56	44	36	30	29	29
AC-FT	2,390	2,250	3,410	3,110	2,450	4,020	4,050	4,240	2,410	2,000	1,820	1,770
CFSM	1.45	1.41	2.07	1.89	1.65	2.44	2.54	2.57	1.51	1.21	1.10	1.11
IN.	1.67	1.57	2.39	2.18	1.71	2.81	2.84	2.96	1.69	1.40	1.27	1.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2005, BY WATER YEAR (WY)

MEAN	44.8	67.3	77.3	80.4	85.1	79.3	89.4	93.6	72.3	47.4	41.3	40.4
MAX	84.6	136	203	162	275	123	132	141	151	87.9	63.3	64.9
(WY)	(1998)	(1996)	(1996)	(1996)	(1996)	(1997)	(2002)	(1997)	(1999)	(1999)	(1997)	(1997)
MIN	30.0	37.8	44.1	43.8	40.0	58.1	62.4	43.7	33.3	32.5	29.6	28.2
(WY)	(1993)	(2005)	(1994)	(1992)	(1993)	(1994)	(1991)	(1992)	(1992)	(2005)	(2005)	(1995)

DESCHUTES RIVER BASIN

14096300 MILL CREEK NEAR BADGER BUTTE, NEAR WARM SPRINGS, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1984 - 2005	
ANNUAL TOTAL	21,301		17,100			
ANNUAL MEAN	58.2		46.8		68.1	
HIGHEST ANNUAL MEAN					114	1996
LOWEST ANNUAL MEAN					46.5	1994
HIGHEST DAILY MEAN	194	Jan 30	238	Mar 28	1,060	Feb 7, 1996
LOWEST DAILY MEAN	32	Dec 2	29	Aug 9	25	Sep 21, 1995
ANNUAL SEVEN-DAY MINIMUM	33	Nov 30	29	Aug 22	25	Sep 20, 1995
ANNUAL RUNOFF (AC-FT)	42,250		33,920		49,330	
ANNUAL RUNOFF (CFSM)	2.17		1.75		2.54	
ANNUAL RUNOFF (INCHES)	29.57		23.74		34.52	
10 PERCENT EXCEEDS	96		73		108	
50 PERCENT EXCEEDS	48		41		57	
90 PERCENT EXCEEDS	35		30		35	

e Estimated

DESCHUTES RIVER BASIN

14096300 MILL CREEK NEAR BADGER BUTTE, NEAR WARM SPRINGS, OR—Continued



2005 Water Year
DESCHUTES RIVER BASIN

14096300 MILL CREEK, NR BADGER BUTTE, NR WARM SPRINGS, OR

Latitude: 44° 51' 42"

Longitude: 121° 37' 35"

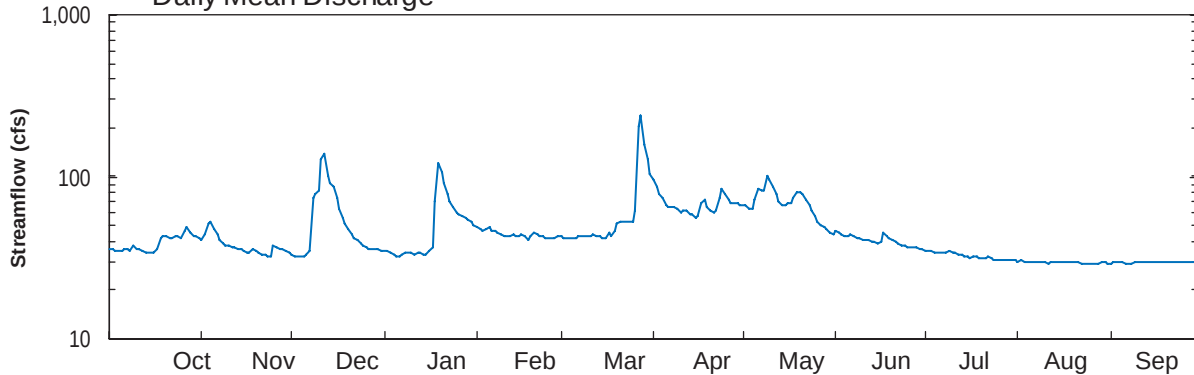
Hydrologic Unit Code: 17070306

Wasco County

Datum: 3380 feet

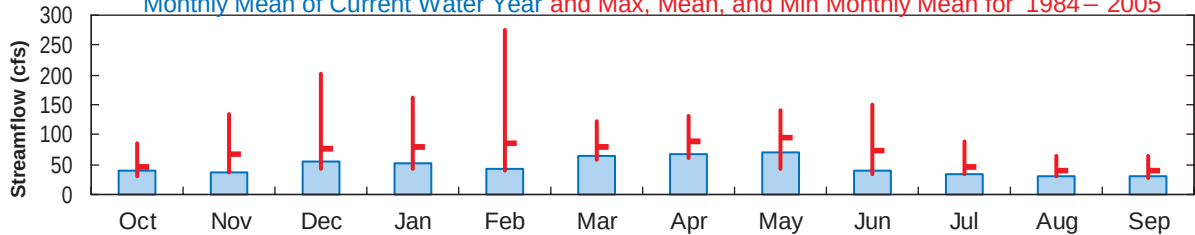
Drainage Area: 26.8 mi²

Daily Mean Discharge

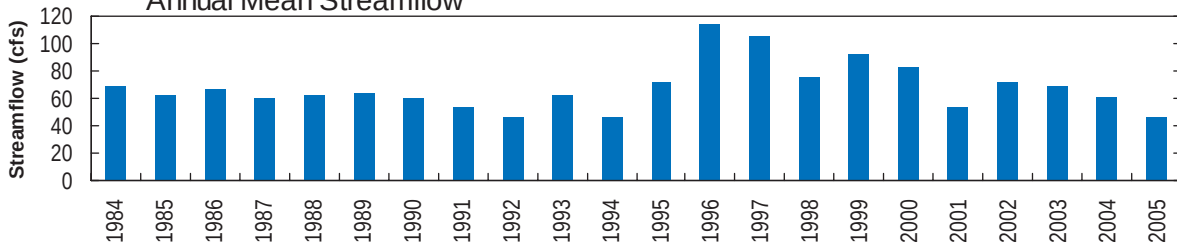


Monthly Statistics

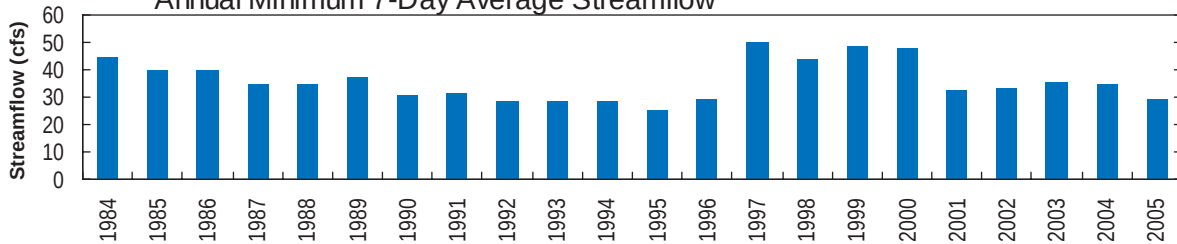
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1984–2005



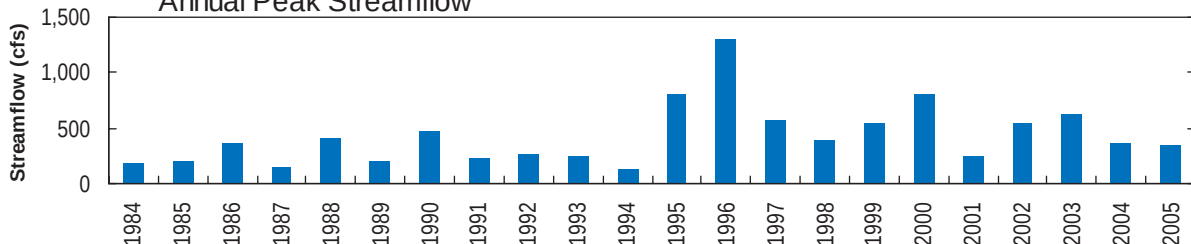
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14096850 BEAVER CREEK BELOW QUARTZ CREEK, NEAR SIMNASHO, OR

LOCATION.--Lat 44°57'32", long 121°23'35", in NE ¼ SW ¼ sec.14, T.7 S., R.11 E., Wasco County, Hydrologic Unit 17070306, Warm Springs Indian Reservation, on right bank 600 ft downstream from culvert on Warm Springs Reservation Highway 9, 200 ft downstream from Quartz Creek, 2.4 mi west of Simnasho and at mile 7.92.

DRAINAGE AREA.--145 mi².

PERIOD OF RECORD.--October 1983 to current year.

REVISED RECORDS.--WDR OR-96-1: 1986.

GAGE.--Water-stage recorder. Elevation of gage is 2,260 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good . No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--22 years (water years 1984-2005), 82.1 ft³/s, 7.69 in/yr, 59,490 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,760 ft³/s, Feb. 7, 1996, gage height, 10.57 ft; minimum discharge, 4.5 ft³/s Jan. 7, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 28	0100	*92	*2.62				

Minimum discharge, 27 ft³/s, Jan. 15, gage height, 2.14 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	35	35	37	43	36	59	48	46	37	32	32
2	32	35	35	37	42	36	59	49	46	36	32	32
3	32	36	34	36	41	36	59	48	45	36	32	32
4	32	36	34	36	41	36	58	48	43	36	32	32
5	32	35	34	35	42	36	56	48	43	36	32	32
6	32	35	35	34	42	36	54	49	42	36	32	32
7	33	35	35	38	42	36	54	48	42	36	32	32
8	33	35	46	37	41	37	55	48	41	35	32	32
9	33	35	55	37	40	37	54	52	41	35	32	31
10	32	35	52	36	39	37	51	57	41	35	32	32
11	32	35	51	36	39	37	51	58	41	35	32	32
12	32	35	50	35	40	37	51	55	41	34	32	32
13	32	35	46	35	40	37	51	52	40	34	32	32
14	32	35	44	35	40	37	49	51	40	34	32	32
15	32	35	43	30	37	37	48	53	40	34	32	32
16	32	35	42	33	37	37	48	55	40	34	32	32
17	33	35	40	37	35	37	48	53	43	34	32	32
18	33	35	40	48	36	37	48	54	45	34	32	32
19	34	35	39	55	37	39	46	55	43	33	32	32
20	36	35	39	52	37	43	47	54	40	33	32	32
21	36	35	39	52	37	42	47	53	40	33	32	32
22	35	34	39	50	37	42	47	53	39	33	32	32
23	35	34	39	48	37	42	51	51	39	33	32	32
24	35	34	38	47	36	42	58	50	39	33	32	32
25	35	35	37	47	36	42	56	49	39	33	32	32
26	36	36	37	47	36	41	55	48	38	33	32	32
27	40	36	37	47	36	65	52	47	37	33	32	32
28	37	35	37	47	36	88	50	47	37	33	32	32
29	36	34	37	46	---	77	49	47	37	33	32	32
30	36	35	37	45	---	70	49	46	37	32	32	33
31	35	---	37	44	---	63	---	46	---	32	32	---
TOTAL	1,047	1,050	1,243	1,279	1,082	1,355	1,560	1,572	1,225	1,058	992	960
MEAN	33.8	35.0	40.1	41.3	38.6	43.7	52.0	50.7	40.8	34.1	32.0	32.0
MAX	40	36	55	55	43	88	59	58	46	37	32	33
MIN	32	34	34	30	35	36	46	46	37	32	32	31
AC-FT	2,080	2,080	2,470	2,540	2,150	2,690	3,090	3,120	2,430	2,100	1,970	1,900
CFSM	0.23	0.24	0.28	0.28	0.27	0.30	0.36	0.35	0.28	0.24	0.22	0.22
IN.	0.27	0.27	0.32	0.33	0.28	0.35	0.40	0.40	0.31	0.27	0.25	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2005, BY WATER YEAR (WY)

MEAN	38.3	48.3	74.9	119	189	151	117	83.2	56.1	41.5	37.7	36.8
MAX	47.7	104	315	479	646	305	188	132	95.5	54.1	47.4	44.4
(WY)	(1998)	(1985)	(1997)	(1997)	(1996)	(1986)	(2000)	(1999)	(1993)	(1999)	(1999)	(1999)
MIN	33.1	35.0	40.0	41.3	38.6	43.7	52.0	44.6	36.6	32.3	30.5	30.4
(WY)	(1995)	(2005)	(1986)	(2005)	(2005)	(2005)	(2005)	(1994)	(1994)	(1994)	(1994)	(1994)

DESCHUTES RIVER BASIN

14096850 BEAVER CREEK BELOW QUARTZ CREEK, NEAR SIMNASHO, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1984 - 2005	
ANNUAL TOTAL	26,961		14,423			
ANNUAL MEAN	73.7		39.5		82.1	
HIGHEST ANNUAL MEAN					166	1997
LOWEST ANNUAL MEAN					39.5	2005
HIGHEST DAILY MEAN	727	Jan 30	88	Mar 28	3,600	Feb 7, 1996
LOWEST DAILY MEAN	20	Jan 13	30	Jan 15	5.8	Jan 7, 1991
ANNUAL SEVEN-DAY MINIMUM	23	Jan 9	32	Sep 3	8.3	Jan 2, 1991
ANNUAL RUNOFF (AC-FT)	53,480		28,610		59,490	
ANNUAL RUNOFF (CFSM)	0.508		0.273		0.566	
ANNUAL RUNOFF (INCHES)	6.92		3.70		7.69	
10 PERCENT EXCEEDS	173		51		159	
50 PERCENT EXCEEDS	39		37		47	
90 PERCENT EXCEEDS	33		32		35	

DESCHUTES RIVER BASIN

14096850 BEAVER CREEK BELOW QUARTZ CREEK, NEAR SIMNASHO, OR—Continued



2005 Water Year
DESCHUTES RIVER BASIN

14096850 BEAVER CREEK, BLW QUARTZ CR, NR SIMNASHO, OR

Latitude: 44° 57' 32"

Longitude: 121° 23' 35"

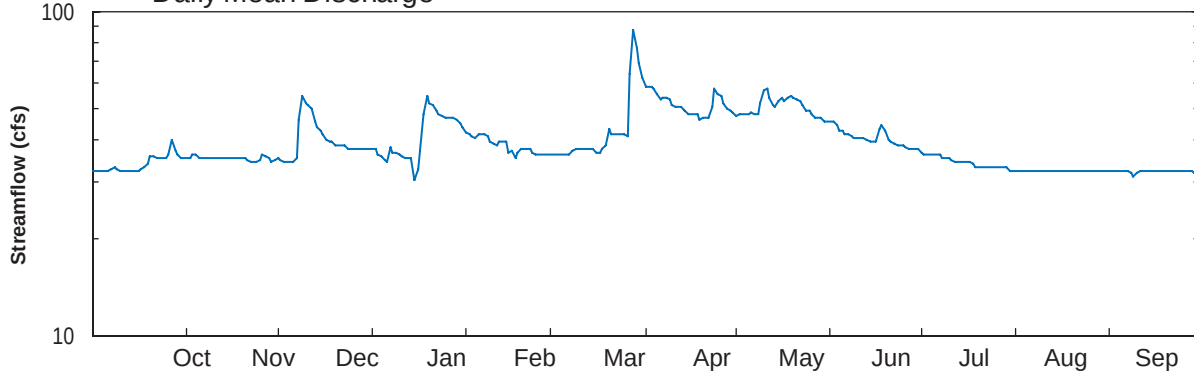
Hydrologic Unit Code: 17070306

Wasco County

Datum: 2260 feet

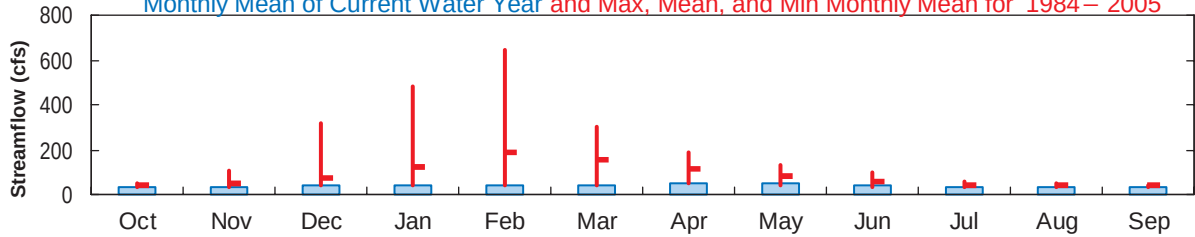
Drainage Area: 145 mi²

Daily Mean Discharge

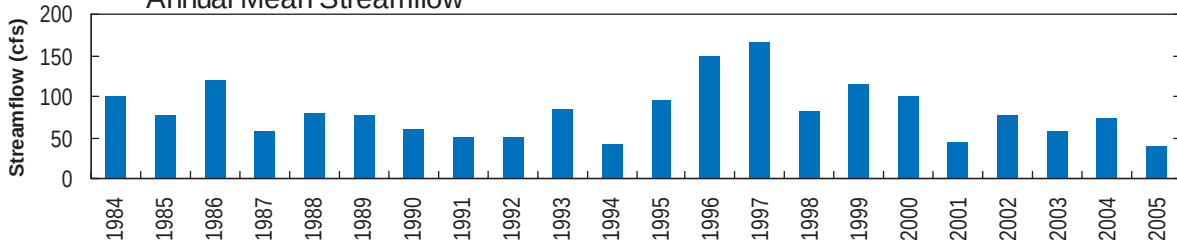


Monthly Statistics

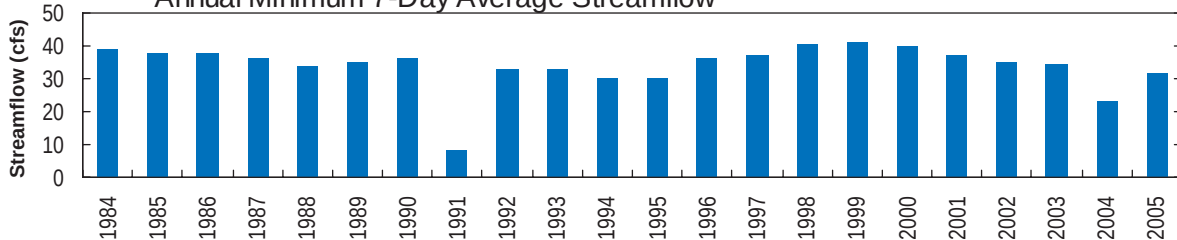
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1984–2005



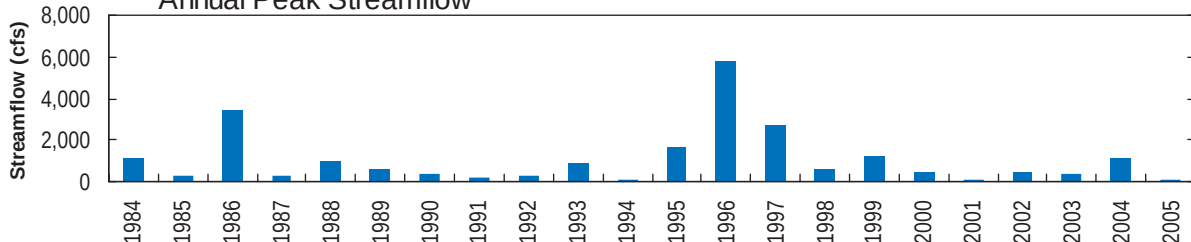
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



DESCHUTES RIVER BASIN

14097100 WARM SPRINGS RIVER NEAR KAHNEETA HOT SPRINGS, OR

LOCATION.--Lat 44°51'24", long 121°08'55", in SE ¼ SW ¼ sec.23, T.8 S., R.13 E., Wasco County, Hydrologic Unit 17070306, Warm Springs Indian Reservation, on right bank 25 ft upstream from bridge, 2.5 mi east of Kahneeta Hot Springs, and at mile 4.6.

DRAINAGE AREA.--526 mi².

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,394.96 ft above NGVD of 1929 (levels by West Consultants).

REMARKS.--No estimated daily discharges. Records good. No regulation. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--33 years (water years 1973-2005), 435 ft³/s, 11.23 in/yr, 315,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,600 ft³/s Feb. 7, 1996, gage height, 14.32 ft, from inside highwater mark and slope-area computation; minimum discharge, 149 ft³/s Dec. 20, 1990, but may have been less during period of ice effect Dec. 20, 1990 to Jan. 10, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 28	0830	*711	*2.43				

Minimum discharge, 185 ft³/s, Jan. 16, Aug. 3, gage height, 0.90 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	242	235	241	258	241	402	315	254	216	197	198
2	223	241	229	240	254	241	395	325	258	214	198	198
3	223	254	226	234	252	240	379	313	253	214	196	199
4	223	250	231	228	253	239	368	314	248	213	196	198
5	222	245	232	225	258	238	352	335	245	212	197	198
6	223	241	238	220	256	238	338	345	246	211	195	198
7	226	237	245	247	259	238	334	342	246	213	195	197
8	223	235	296	240	253	241	338	337	245	212	195	197
9	225	234	384	238	246	242	335	378	242	215	195	196
10	227	236	345	237	242	241	324	427	237	216	194	201
11	225	235	356	235	241	241	320	403	235	214	194	204
12	225	233	405	235	244	241	325	368	236	211	195	202
13	223	232	366	240	250	239	318	346	235	207	195	200
14	223	230	332	231	242	238	312	339	233	206	195	199
15	223	230	328	213	230	236	306	351	231	205	196	199
16	223	230	311	208	229	233	303	366	232	204	195	198
17	225	228	296	248	231	240	312	339	256	203	194	200
18	231	229	286	272	235	242	323	344	262	203	197	200
19	242	232	278	335	244	247	315	352	250	201	198	199
20	248	228	269	344	263	267	304	340	242	199	198	197
21	243	225	265	326	245	264	299	333	234	199	196	197
22	242	229	260	306	240	266	300	327	229	201	194	197
23	240	229	257	294	238	275	337	313	227	200	195	197
24	242	229	254	285	237	269	383	300	226	197	195	197
25	239	235	249	278	238	264	370	290	224	197	196	198
26	250	246	251	275	238	262	353	280	223	198	196	197
27	284	238	248	276	237	372	335	273	231	198	196	195
28	258	235	241	274	239	673	324	269	227	198	195	195
29	250	223	248	271	---	575	320	264	223	197	196	195
30	243	236	243	267	---	490	320	258	219	198	199	198
31	245	---	241	263	---	435	---	254	---	197	199	---
TOTAL	7,262	7,047	8,645	8,026	6,852	8,968	10,044	10,140	7,149	6,369	6,072	5,944
MEAN	234	235	279	259	245	289	335	327	238	205	196	198
MAX	284	254	405	344	263	673	402	427	262	216	199	204
MIN	222	223	226	208	229	233	299	254	219	197	194	195
AC-FT	14,400	13,980	17,150	15,920	13,590	17,790	19,920	20,110	14,180	12,630	12,040	11,790
CFSM	0.45	0.45	0.53	0.49	0.47	0.55	0.64	0.62	0.45	0.39	0.37	0.38
IN.	0.51	0.50	0.61	0.57	0.48	0.63	0.71	0.72	0.51	0.45	0.43	0.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2005, BY WATER YEAR (WY)

MEAN	260	317	474	568	731	634	577	512	379	279	256	251
MAX	358	570	1,216	1,773	2,894	1,285	956	848	803	407	344	334
(WY)	(1998)	(1985)	(1997)	(1997)	(1996)	(1986)	(1997)	(1997)	(1974)	(1999)	(1999)	(1997)
MIN	211	229	242	201	239	274	278	278	235	198	196	197
(WY)	(1993)	(1994)	(1994)	(1979)	(1994)	(1977)	(1977)	(1977)	(1994)	(1994)	(1994)	(1994)

DESCHUTES RIVER BASIN

14097100 WARM SPRINGS RIVER NEAR KAHNEETA HOT SPRINGS, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1973 - 2005	
ANNUAL TOTAL	132,499		92,518			
ANNUAL MEAN	362		253		435	
HIGHEST ANNUAL MEAN					786	1997
LOWEST ANNUAL MEAN					246	1994
HIGHEST DAILY MEAN	2,040	Jan 30	673	Mar 28	15,800	Feb 7, 1996
LOWEST DAILY MEAN	210	Jan 13	194	Aug 10	160	Jan 1, 1979
ANNUAL SEVEN-DAY MINIMUM	221	Aug 15	195	Aug 6	174	Dec 31, 1978
ANNUAL RUNOFF (AC-FT)	262,800		183,500		315,100	
ANNUAL RUNOFF (CFSM)	0.688		0.482		0.827	
ANNUAL RUNOFF (INCHES)	9.37		6.54		11.23	
10 PERCENT EXCEEDS	627		337		730	
50 PERCENT EXCEEDS	256		239		317	
90 PERCENT EXCEEDS	223		197		227	

DESCHUTES RIVER BASIN

14097100 WARM SPRINGS RIVER NEAR KAHNEETA HOT SPRINGS, OR—Continued



2005 Water Year
DESCHUTES RIVER BASIN

14097100 WARM SPRINGS RIVER NEAR KAHNEETA HOT SPRINGS, OR

Latitude: 44° 51' 24"

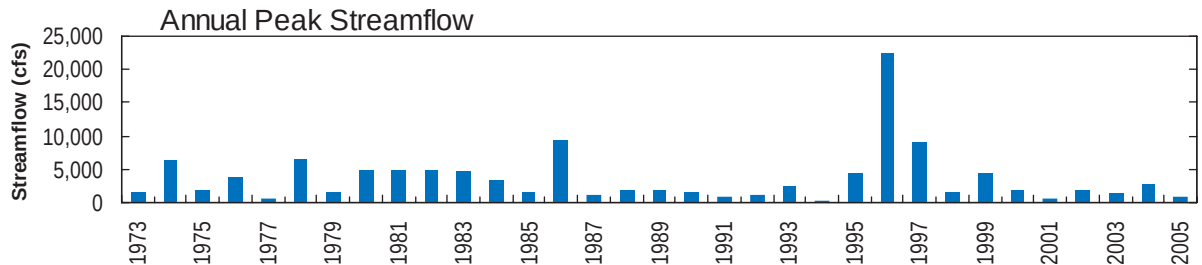
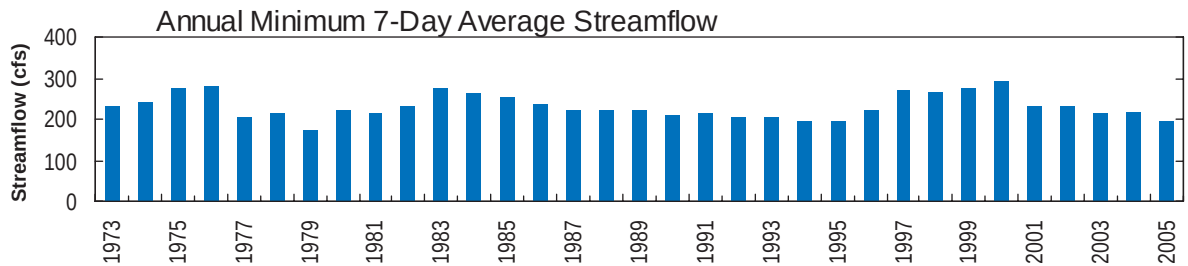
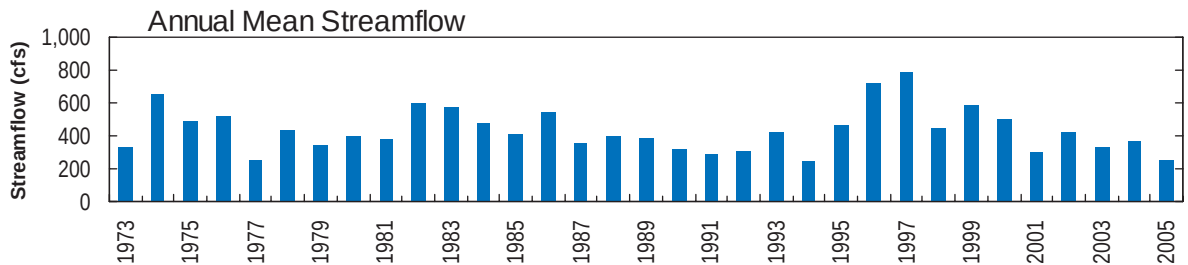
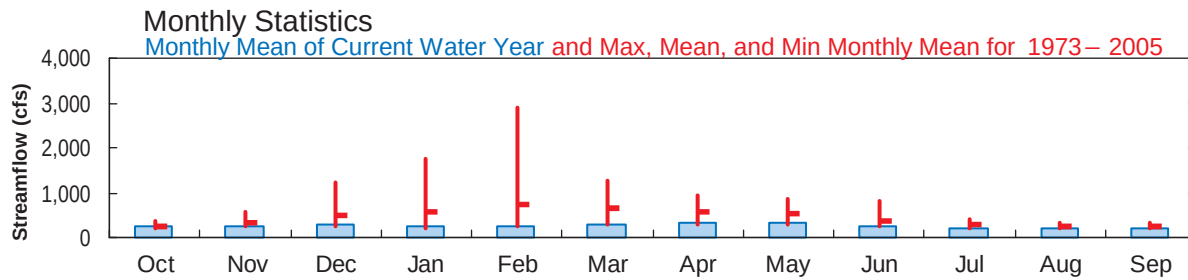
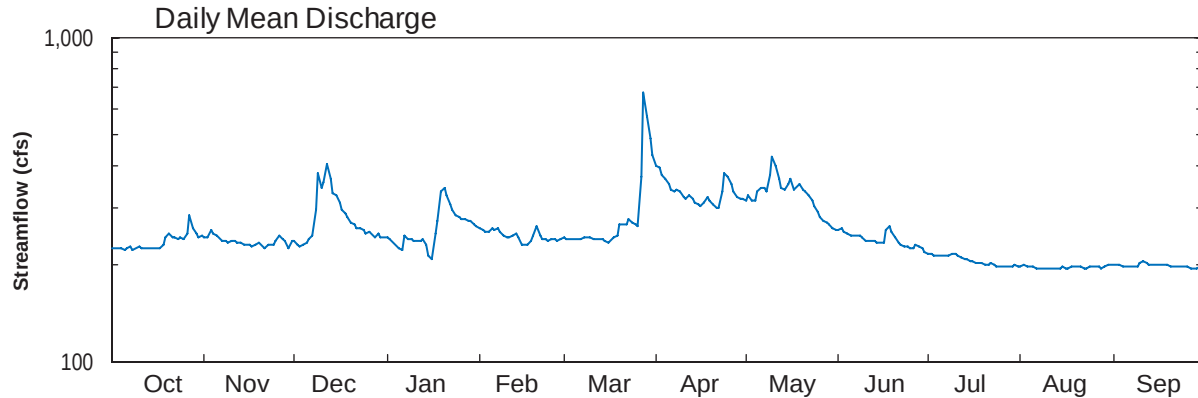
Longitude: 121° 08' 55"

Hydrologic Unit Code: 17070306

Wasco County

Datum: 1394.96 feet

Drainage Area: 526 mi²



DESCHUTES RIVER BASIN

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR

LOCATION.--Lat 45°37'20", long 120°54'16", in SW ¼ SE ¼ sec.26, T.2 N., R.15 E., Sherman County, Hydrologic Unit 17070306, on right bank at Moody, 4.0 mi southwest of Biggs, and at mile 1.4.

DRAINAGE AREA.--10,500 mi², approximately.

PERIOD OF RECORD.--October 1897 to December 1899 (published as "near Moro"), July 1906 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 754: Drainage area. WDR OR-96-1: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 167.54 ft above NGVD of 1929. Oct. 19, 1897 to Dec. 31, 1899, nonrecording gage at site 10 mi upstream at different datum. July 22, 1906 to July 18, 1930, nonrecording gage at site 300 ft downstream at datum 0.50 ft lower.

REMARKS.--No estimated daily discharges. Records good. Some fluctuation caused by regulation at Lake Simtustus since 1957. Some winter and spring runoff store in Ochoco Reservoir, capacity, 46,420 acre-ft, in Crescent Lake, Crane Prairie, and Wickiup Reservoirs, combined capacity, 323,390 acre-ft, and since 1960, in Prineville Reservoir, and since 1964 in Lake Billy Chinook (station 14092100). Large diversions in upper river basin for irrigation. Water-quality records for periods 1911-12, 1953-58, 1962-90, have been collected at this location. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--52 years (water years 1898--99, 1907-56), 5,851 ft³/s, 4,239,000 acre-ft/yr. 49 years (water years 1957-2005), 5,767 ft³/s, 4,178,000 acre-ft/yr, regulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,300 ft³/s Feb. 8, 1996, gage height, 12.08 ft, from rating curve extended above 47,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 2,400 ft³/s Dec. 5, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,630 ft³/s May 11, gage height, 3.34 ft; minimum discharge, 4,040 ft³/s Aug. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,270	4,790	4,620	4,630	4,980	4,770	5,500	5,720	4,640	4,260	4,110	4,170
2	4,280	4,940	4,610	4,620	4,960	4,770	5,430	5,590	4,870	4,360	4,220	4,160
3	4,280	5,130	4,600	4,660	4,940	4,760	5,310	5,490	4,850	4,340	4,200	4,180
4	4,290	5,230	4,600	4,750	4,940	4,760	5,280	5,460	4,830	4,340	4,200	4,180
5	4,280	5,180	4,590	4,730	4,900	4,760	5,210	5,390	4,790	4,340	4,180	4,190
6	4,290	5,170	4,610	4,680	4,830	4,750	5,050	5,480	4,660	4,350	4,170	4,190
7	4,280	5,080	4,650	4,610	4,850	4,750	4,930	5,710	4,680	4,360	4,160	4,210
8	4,270	4,850	4,680	4,650	4,820	4,760	4,890	5,760	4,660	4,340	4,170	4,200
9	4,280	4,830	4,890	4,650	4,800	4,770	4,980	5,940	4,620	4,280	4,160	4,200
10	4,260	4,810	5,150	4,840	4,760	4,740	4,910	6,190	4,510	4,270	4,160	4,210
11	4,270	4,690	5,610	4,820	4,650	4,640	4,900	6,470	4,510	4,240	4,150	4,240
12	4,280	4,570	5,880	4,750	4,650	4,630	4,930	6,260	4,510	4,230	4,160	4,240
13	4,270	4,560	5,850	4,760	4,680	4,630	4,980	6,070	4,500	4,240	4,140	4,260
14	4,270	4,550	5,680	4,740	4,670	4,630	4,970	5,990	4,490	4,230	4,150	4,350
15	4,330	4,540	5,650	4,710	4,690	4,610	4,950	6,070	4,470	4,240	4,140	4,360
16	4,430	4,540	5,600	4,580	4,760	4,610	4,900	6,340	4,370	4,240	4,130	4,390
17	4,680	4,600	5,540	4,620	4,730	4,610	4,810	6,330	4,420	4,220	4,130	4,490
18	4,880	4,380	5,540	4,790	4,600	4,620	4,820	6,210	4,480	4,210	4,140	4,500
19	4,950	4,270	5,460	5,490	4,510	4,640	4,800	6,270	4,430	4,200	4,140	4,480
20	5,200	4,260	5,280	5,750	4,590	4,710	4,750	6,290	4,400	4,190	4,130	4,370
21	5,180	4,260	5,080	5,640	4,690	4,820	4,710	6,250	4,380	4,200	4,130	4,370
22	5,150	4,270	5,060	5,430	4,760	4,830	4,580	6,220	4,390	4,220	4,130	4,370
23	5,060	4,370	5,020	5,280	4,760	4,860	4,580	5,950	4,380	4,220	4,140	4,360
24	5,030	4,400	4,870	5,260	4,760	4,830	4,720	5,650	4,340	4,200	4,130	4,360
25	4,930	4,550	4,770	5,220	4,750	4,820	4,760	5,490	4,250	4,200	4,140	4,380
26	4,890	4,650	4,770	5,150	4,750	4,810	4,790	5,330	4,240	4,190	4,130	4,380
27	4,860	4,700	4,780	5,050	4,750	4,950	4,960	4,950	4,270	4,090	4,130	4,370
28	4,820	4,670	4,740	5,030	4,760	5,980	5,080	4,830	4,290	4,090	4,130	4,370
29	4,800	4,640	4,680	5,010	---	6,200	5,480	4,710	4,250	4,090	4,150	4,370
30	4,780	4,610	4,650	5,020	---	5,910	5,810	4,640	4,240	4,080	4,160	4,410
31	4,770	---	4,640	5,000	---	5,680	---	4,620	---	4,090	4,160	---
TOTAL	142,610	140,090	156,150	152,920	133,290	151,610	149,770	177,670	134,720	131,150	128,670	129,310
MEAN	4,600	4,670	5,037	4,933	4,760	4,891	4,992	5,731	4,491	4,231	4,151	4,310
MAX	5,200	5,230	5,880	5,750	4,980	6,200	5,810	6,470	4,870	4,360	4,220	4,500
MIN	4,260	4,260	4,590	4,580	4,510	4,610	4,580	4,620	4,240	4,080	4,110	4,160
AC-FT	282,900	277,900	309,700	303,300	264,400	300,700	297,100	352,400	267,200	260,100	255,200	256,500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2005, BY WATER YEAR (WY)

MEAN	4,740	5,409	6,341	6,868	7,445	7,171	6,722	5,891	5,266	4,607	4,411	4,447
MAX	5,860	7,814	13,150	14,980	16,980	13,580	10,930	8,267	7,643	5,917	5,359	5,285
(WY)	(1998)	(1985)	(1965)	(1997)	(1996)	(1972)	(1984)	(1984)	(1974)	(1974)	(1976)	(1997)
MIN	3,385	3,910	4,446	4,378	4,021	4,192	4,467	4,141	3,988	3,597	3,411	3,394
(WY)	(1965)	(1965)	(1994)	(1964)	(1964)	(1964)	(1977)	(1977)	(1994)	(1964)	(1964)	(1964)

DESCHUTES RIVER BASIN

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 2005	
ANNUAL TOTAL	1,981,640		1,727,960			
ANNUAL MEAN	5,414		4,734		5,767	
HIGHEST ANNUAL MEAN					7,969	1997
LOWEST ANNUAL MEAN					4,290	1994
HIGHEST DAILY MEAN	12,000	Jan 30	6,470	May 11	63,400	Feb 8, 1996
LOWEST DAILY MEAN	4,260	Sep 30	4,080	Jul 30	2,880	Dec 4, 1957
ANNUAL SEVEN-DAY MINIMUM	4,270	Oct 8	4,110	Jul 26	3,180	Dec 1, 1957
ANNUAL RUNOFF (AC-FT)	3,931,000		3,427,000		4,178,000	
10 PERCENT EXCEEDS	6,900		5,490		8,010	
50 PERCENT EXCEEDS	5,020		4,660		5,150	
90 PERCENT EXCEEDS	4,380		4,180		4,200	



2005 Water Year
DESCHUTES RIVER BASIN

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR

Latitude: 45° 37' 20"

Longitude: 120° 54' 16"

Hydrologic Unit Code: 17070306

Sherman County

Datum: 167.54 feet

Drainage Area: 10,500 mi²

