

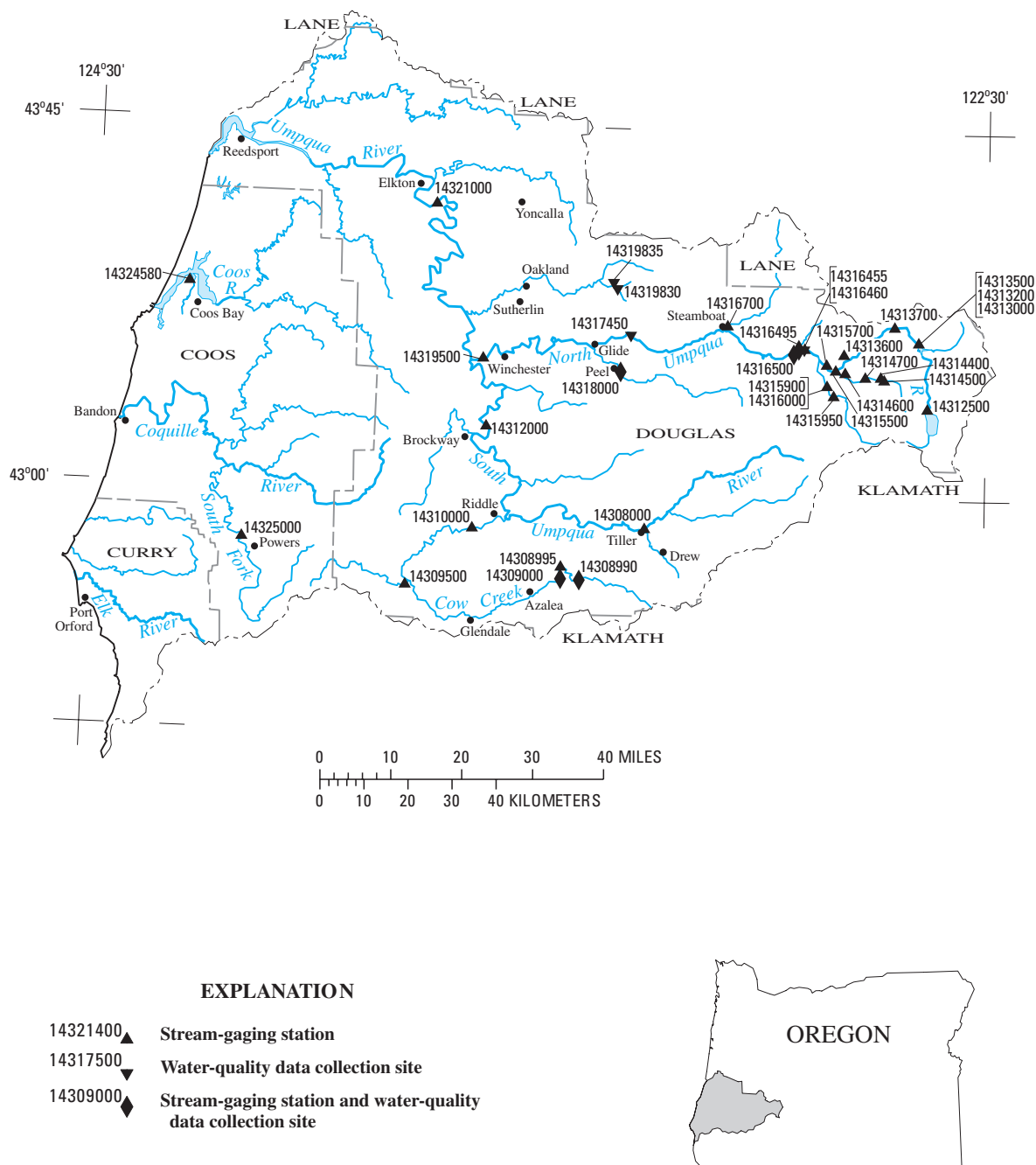


Figure 29. Location of surface-water and water-quality stations in the Umpqua, Coos, and Coquille River Basins.

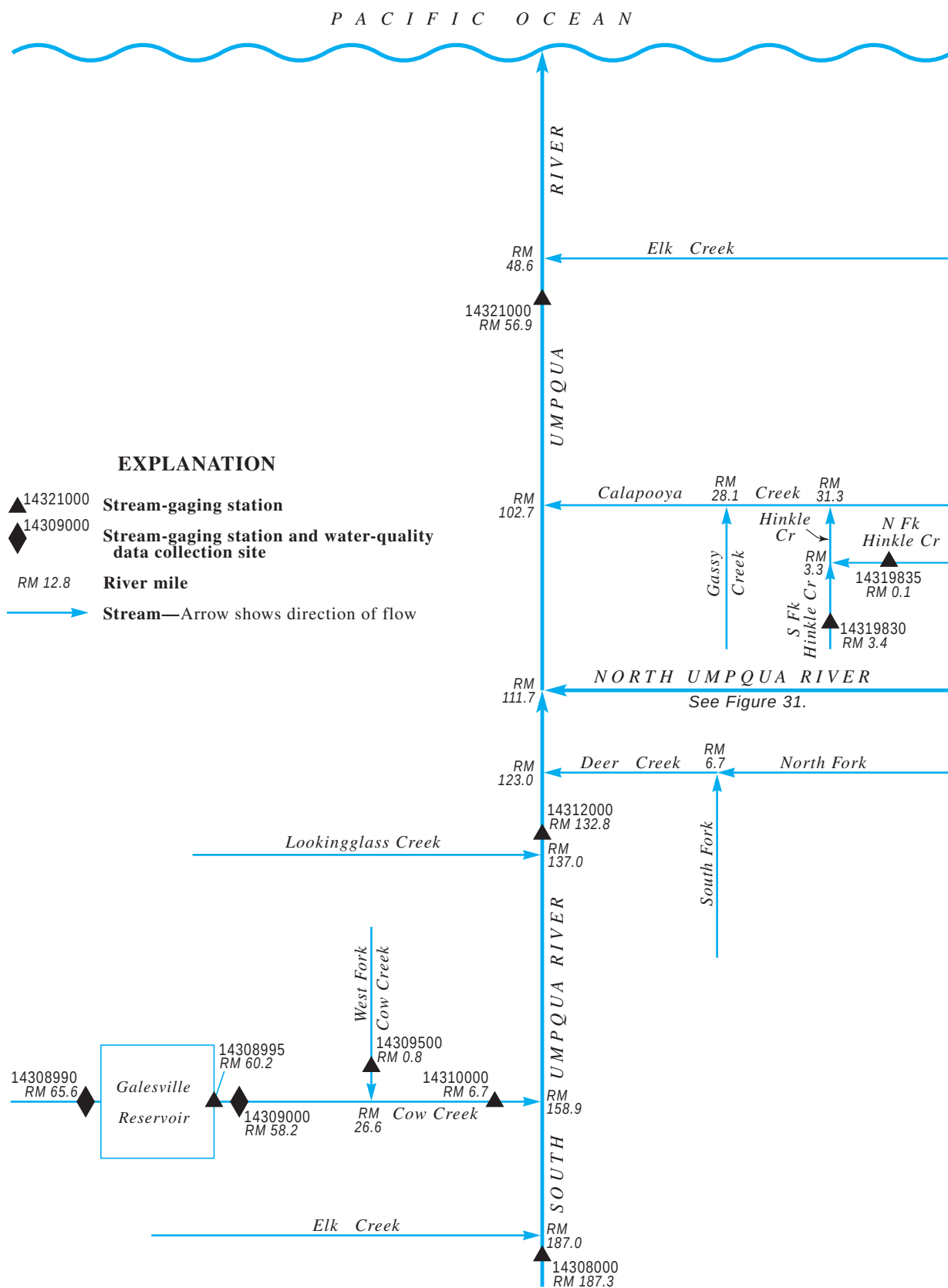


Figure 30. Schematic diagram showing gaging stations in the Umpqua and South Fork Umpqua River Basins.

14308000 SOUTH UMPQUA RIVER AT TILLER, OR

LOCATION.--Lat 42°55'50", long 122°56'50", in NE ¼ sec.33, T.30 S., R.2 W., Douglas County, Hydrologic Unit 17100302, Umpqua National Forest, on left bank 0.3 mi upstream from bridge on State Highway 227 at Tiller, 0.3 mi upstream from Elk Creek, and at mile 187.31.

DRAINAGE AREA.--449 mi².

PERIOD OF RECORD.--October 1910 to December 1911, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to December 1911, published as South Fork of Umpqua River at Tiller.

REVISED RECORDS.--WSP 1448: 1911(M), 1912, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 991.8 ft above NGVD of 1929 (river-profile survey). Prior to Oct. 1, 1939, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No regulation. Small diversions for irrigation upstream from station. National Weather Service telephone telemetry at station.

AVERAGE DISCHARGE.--66 years, (water years 1911, 1940-2004), 1,024 ft³/s, 30.97 in/yr, 741,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,200 ft³/s Dec. 22, 1964, gage height, 25.72 ft; minimum discharge observed, 20 ft³/s Sept. 3, 4, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 14	0030	*14,400	*12.39	Feb 17	2300	7,350	8.80
Jan 30	0900	7,210	8.71				

Minimum discharge, 39 ft³/s, Oct. 6-8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	47	1,200	2,410	3,540	2,620	e1,000	799	714	181	70	57
2	42	52	952	2,270	3,460	2,700	768	797	645	173	69	57
3	41	67	795	1,550	3,030	2,160	720	795	594	166	68	57
4	41	76	766	1,240	2,460	2,040	720	780	551	161	67	56
5	40	102	1,020	1,060	2,040	2,630	737	724	515	155	66	55
6	40	142	3,370	1,180	1,830	3,180	727	662	487	148	66	54
7	39	115	2,300	2,260	2,150	2,570	706	613	508	142	68	52
8	39	127	2,140	2,840	1,970	2,380	681	665	535	138	66	50
9	40	151	1,500	4,000	1,670	2,370	673	599	543	134	61	49
10	43	125	1,310	3,750	1,440	2,150	669	569	781	131	57	48
11	50	131	1,030	2,880	1,310	1,830	672	731	797	128	56	47
12	67	203	2,870	2,830	1,260	1,670	696	739	685	124	56	47
13	72	139	11,600	2,730	1,160	1,540	732	644	599	118	55	50
14	56	106	8,390	2,900	1,090	1,410	714	588	533	114	54	64
15	49	105	3,560	3,240	1,260	1,340	e729	557	481	110	52	70
16	52	352	2,290	2,570	1,570	e1,330	e741	533	441	106	51	75
17	57	1,150	1,940	2,020	5,230	e1,300	685	515	401	103	51	67
18	50	592	2,310	1,790	5,950	e1,240	670	810	369	101	50	69
19	46	345	2,430	2,180	3,910	e1,200	691	1,410	344	100	49	110
20	44	424	2,760	2,590	2,850	1,050	967	1,120	319	99	49	100
21	45	332	2,250	1,990	2,220	1,020	2,360	1,020	298	95	48	97
22	44	270	1,730	1,590	1,820	1,090	2,410	874	281	92	53	75
23	46	213	1,420	1,930	1,650	1,130	1,670	793	270	89	79	66
24	53	205	1,820	5,100	1,510	1,100	1,330	697	257	84	76	61
25	48	237	1,870	3,920	1,610	1,020	1,140	626	243	81	77	58
26	45	348	1,600	2,930	2,370	e1,290	1,090	577	229	78	129	55
27	42	432	1,290	4,560	2,240	e1,570	1,110	570	216	77	131	55
28	41	339	1,190	5,970	2,330	e1,880	1,080	845	207	75	85	54
29	41	2,190	1,990	6,150	2,070	e1,510	938	1,070	198	74	72	52
30	48	2,060	1,920	6,630	---	e1,390	839	940	190	72	66	51
31	52	---	1,420	4,720	---	e1,620	---	809	---	71	61	---
TOTAL	1,455	11,177	73,033	93,780	67,000	53,330	28,665	23,471	13,231	3,520	2,058	1,858
MEAN	46.9	373	2,356	3,025	2,310	1,720	956	757	441	114	66.4	61.9
MAX	72	2,190	11,600	6,630	5,950	3,180	2,410	1,410	797	181	131	110
MIN	39	47	766	1,060	1,090	1,020	669	515	190	71	48	47
AC-FT	2,890	22,170	144,900	186,000	132,900	105,800	56,860	46,550	26,240	6,980	4,080	3,690
CFSM	0.10	0.83	5.25	6.74	5.15	3.83	2.13	1.69	0.98	0.25	0.15	0.14
IN.	0.12	0.93	6.05	7.77	5.55	4.42	2.37	1.94	1.10	0.29	0.17	0.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2004, BY WATER YEAR (WY)

MEAN	189	1,016	2,017	2,100	1,985	1,722	1,415	1,062	509	153	76.6	74.4
MAX	1,791	3,976	7,480	4,513	4,907	4,776	2,756	2,093	1,643	301	206	364
(WY)	(1951)	(1974)	(1965)	(1972)	(1986)	(1972)	(1993)	(1963)	(1953)	(1953)	(1976)	(1986)
MIN	34.5	48.2	66.6	89.7	95.1	328	433	231	108	49.5	29.9	38.9
(WY)	(1988)	(1940)	(1977)	(1977)	(1977)	(1992)	(1968)	(1992)	(1992)	(1940)	(1940)	(1992)

UMPQUA RIVER BASIN

14308000 SOUTH UMPQUA RIVER AT TILLER, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1911 - 2004	
ANNUAL TOTAL	377,905		372,578			
ANNUAL MEAN	1,035		1,018		1,024	
HIGHEST ANNUAL MEAN					1,762	1974
LOWEST ANNUAL MEAN					268	1977
HIGHEST DAILY MEAN	11,600	Dec 13	11,600	Dec 13	36,500	Dec 22, 1964
LOWEST DAILY MEAN	37	Sep 5	39	Oct 7	20	Sep 3, 1911
ANNUAL SEVEN-DAY MINIMUM	39	Sep 1	40	Oct 3	26	Aug 27, 1940
ANNUAL RUNOFF (AC-FT)	749,600		739,000		741,500	
ANNUAL RUNOFF (CFSM)	2.31		2.27		2.28	
ANNUAL RUNOFF (INCHES)	31.31		30.87		30.97	
10 PERCENT EXCEEDS	2,700		2,490		2,420	
50 PERCENT EXCEEDS	591		606		506	
90 PERCENT EXCEEDS	46		51		58	

e Estimated



2004 Water Year
UMPQUA RIVER BASIN

14308000 SOUTH UMPQUA RIVER AT TILLER, OR

Latitude: 42° 55 ' 50"

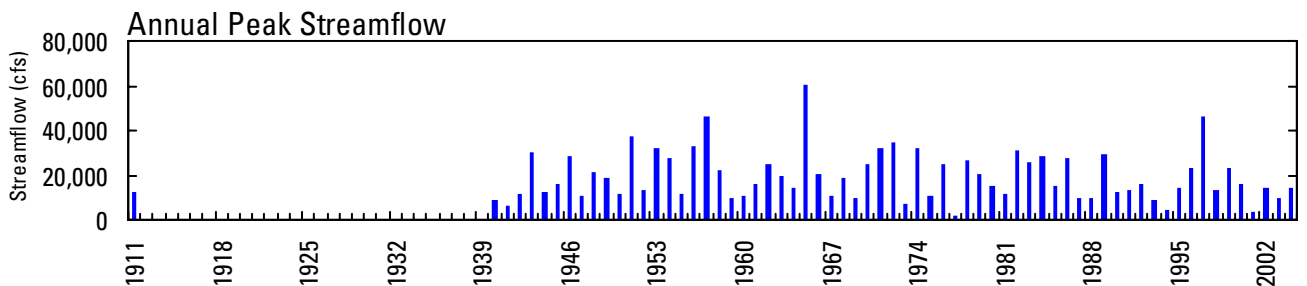
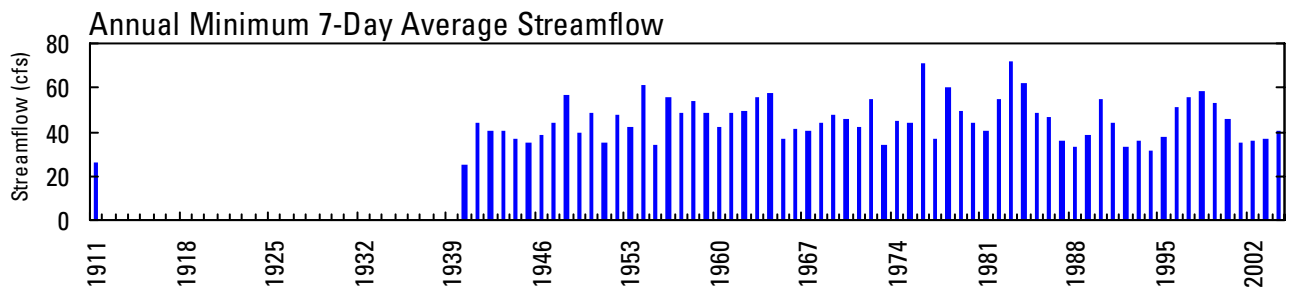
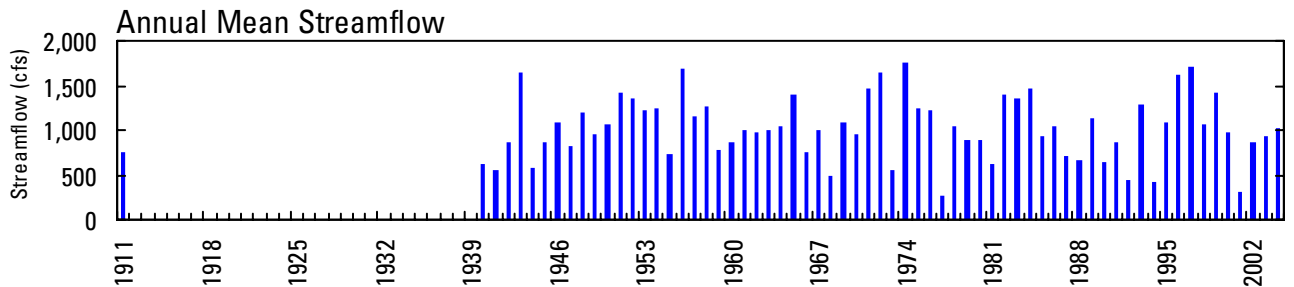
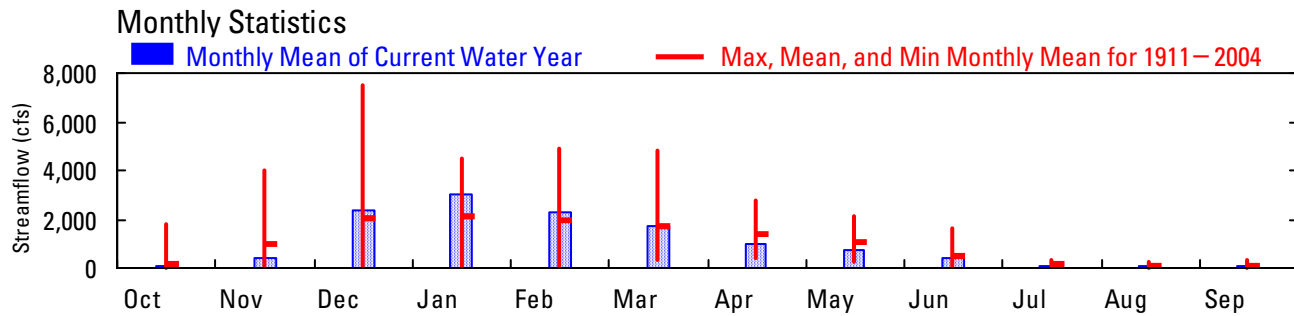
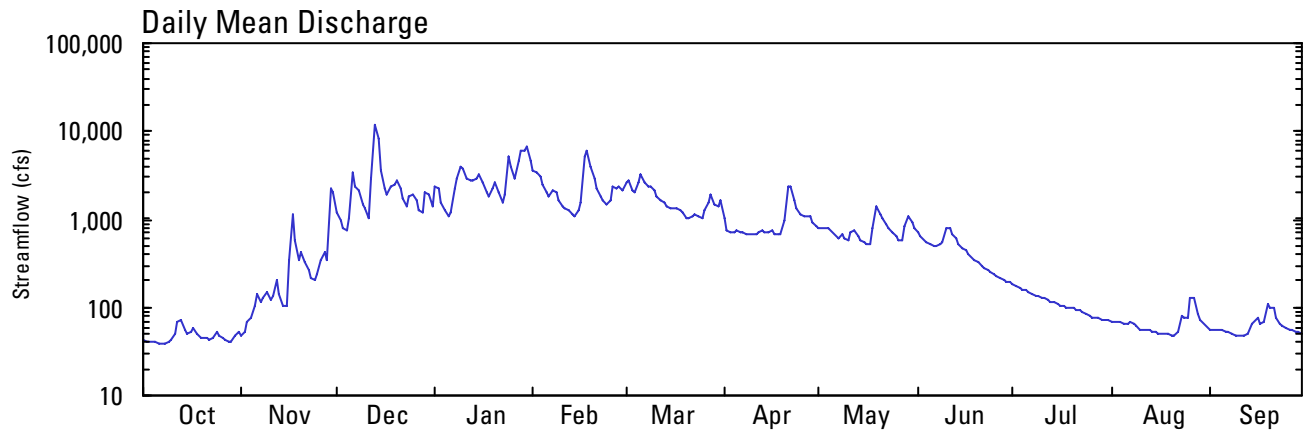
Longitude: 122° 56 ' 50"

Hydrologic Unit Code: 17100302

Douglas County

Datum: 991.80 feet

Drainage Area: 449 square miles



14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR

LOCATION.--Lat 42°49'24", long 123°07'29", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.1, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank, about 600 ft upstream from bridge on Houck Ranch Road (BLM), 1.1 mi downstream from Sugar Creek, 3.2 mi south of Galesville Dam, 6.9 mi northeast of Azalea, and at mile 65.6

DRAINAGE AREA.--64.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,900 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station. Continuous water-quality records for the period November 1985 to September 1989 have been collected at this location.

AVERAGE DISCHARGE.--19 years (water years 1986-2004), 83.3 ft³/s, 17.50 in/yr, 60,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 6,980 ft³/s Jan. 9, 1995, gage height 12.04 ft. from rating curve extended above 2,450 ft³/s; maximum gage height 12.30 ft Jan. 9, 1995 (from outside highwater mark); minimum discharge, 3.5 ft³/s Dec. 26, 1989, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1927 occurred Jan. 15, 1974. Stage and discharge not known at this site, but was 10,600 ft³/s at site 7.4 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 14	0000	*1,070	*4.80				

No other peak greather than base discharge.

Minimum discharge, 4.9 ft³/s, Aug. 20.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	12	24	321	205	314	75	43	25	15	8.2	7.6
2	8.9	13	20	178	190	287	68	40	24	14	8.1	7.9
3	8.8	15	19	115	166	236	63	39	23	14	7.9	7.8
4	8.8	14	20	94	148	213	58	37	22	14	7.5	7.6
5	8.6	16	55	80	131	205	55	36	22	14	7.7	7.5
6	8.6	16	221	96	135	188	53	35	22	13	8.3	8.0
7	8.7	14	95	150	147	171	50	34	25	13	7.8	7.5
8	8.7	15	87	245	136	175	47	34	27	13	7.7	6.6
9	9.0	16	51	322	124	172	45	32	28	13	7.8	6.9
10	9.4	14	43	264	114	158	43	35	26	12	7.2	7.2
11	9.6	14	36	209	105	142	41	39	25	12	6.7	7.0
12	10	15	57	203	98	129	39	35	23	12	6.7	7.4
13	9.8	13	524	195	91	117	38	31	22	12	6.8	7.8
14	9.6	13	456	196	99	108	40	30	22	11	7.0	8.2
15	9.3	14	157	203	131	101	42	29	21	10	6.8	7.8
16	9.5	18	105	171	196	93	42	28	20	11	6.8	8.2
17	8.8	26	97	142	757	87	45	29	19	11	6.6	7.8
18	8.8	19	113	128	676	82	44	51	18	9.9	6.2	8.8
19	8.4	17	124	131	383	76	46	46	18	11	6.4	9.5
20	8.9	23	127	143	277	70	79	37	17	9.5	6.3	10
21	9.1	17	105	119	221	66	158	33	17	9.2	6.4	9.2
22	9.0	15	83	103	186	64	168	31	17	9.3	7.9	8.3
23	9.7	14	70	106	165	61	115	30	18	9.3	12	7.8
24	10	15	225	166	157	60	92	28	17	8.9	9.8	7.5
25	10	16	185	142	181	64	76	27	17	8.7	9.6	7.5
26	9.5	20	129	129	362	81	65	26	16	8.1	13	7.5
27	9.1	19	100	149	311	98	58	27	16	8.3	11	7.8
28	9.5	16	89	180	255	81	53	32	16	8.3	9.1	7.5
29	11	38	238	200	227	71	50	32	16	8.0	8.4	7.1
30	13	41	155	351	---	82	46	28	15	8.7	7.8	7.8
31	12	---	107	260	---	87	---	26	---	8.2	7.7	---
TOTAL	293.0	528	3,917	5,491	6,374	3,939	1,894	1,040	614	339.4	247.2	235.1
MEAN	9.45	17.6	126	177	220	127	63.1	33.5	20.5	10.9	7.97	7.84
MAX	13	41	524	351	757	314	168	51	28	15	13	10
MIN	8.4	12	19	80	91	60	38	26	15	8.0	6.2	6.6
AC-FT	581	1,050	7,770	10,890	12,640	7,810	3,760	2,060	1,220	673	490	466
CFSM	0.15	0.27	1.95	2.74	3.40	1.96	0.98	0.52	0.32	0.17	0.12	0.12
IN.	0.17	0.30	2.25	3.16	3.66	2.26	1.09	0.60	0.35	0.20	0.14	0.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
	12.7	27.2	6.41	(1988)	53.0	269	12.2	(1988)	151	862	18.2	(1990)	201	506	22.5	(2001)
									191	483	29.2	(2001)	155	315	32.6	(2001)
									105	213	18.8	(1990)	69.3	208	32.5	(1990)
									33.0	83.8	11.8	(2001)	15.7	30.2	7.03	(1994)
									10.9	15.8	5.16	(1994)	9.98	15.8	5.16	(1994)
									7.97	13	6.2	(1993)	7.84	18.8	5.66	(1986)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	31,703.3		24,911.7		83.3	
ANNUAL MEAN	86.9		68.1		179	1997
HIGHEST ANNUAL MEAN					20.0	2001
LOWEST ANNUAL MEAN					3,980	Jan 1, 1997
HIGHEST DAILY MEAN	746	Jan 3	757	Feb 17	4.2	Sep 24, 1994
LOWEST DAILY MEAN	7.5	Sep 6	6.2	Aug 18	4.5	Sep 21, 1994
ANNUAL SEVEN-DAY MINIMUM	7.8	Aug 31	6.5	Aug 15	60,360	
ANNUAL RUNOFF (AC-FT)	62,880		49,410		1.29	
ANNUAL RUNOFF (CFSM)	1.34		1.05		17.50	
ANNUAL RUNOFF (INCHES)	18.23		14.32		198	
10 PERCENT EXCEEDS	215		185		30	
50 PERCENT EXCEEDS	35		26		7.9	
90 PERCENT EXCEEDS	9.0		7.8			



2004 Water Year

UMPQUA RIVER BASIN

14308990 COW CREEK ABV GALESVILLE RES, NR AZALEA, OR

Latitude: 42° 49 ' 24"

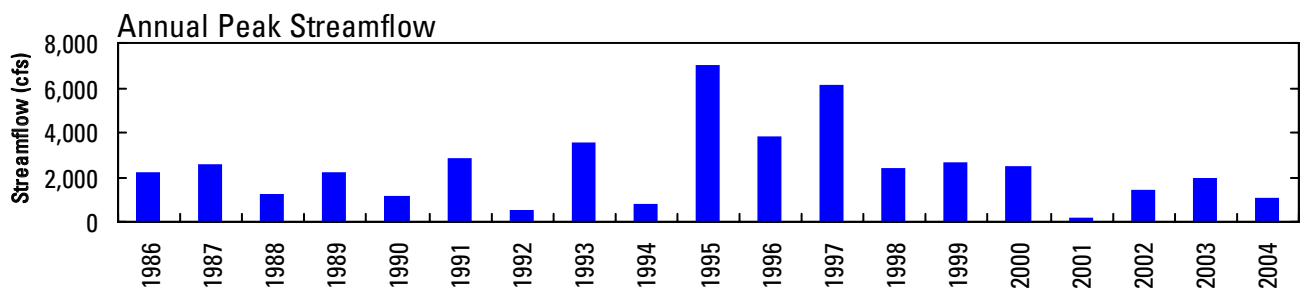
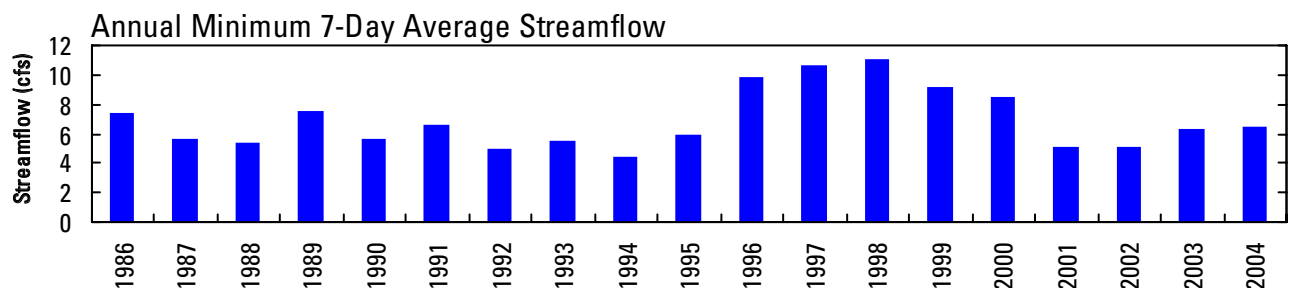
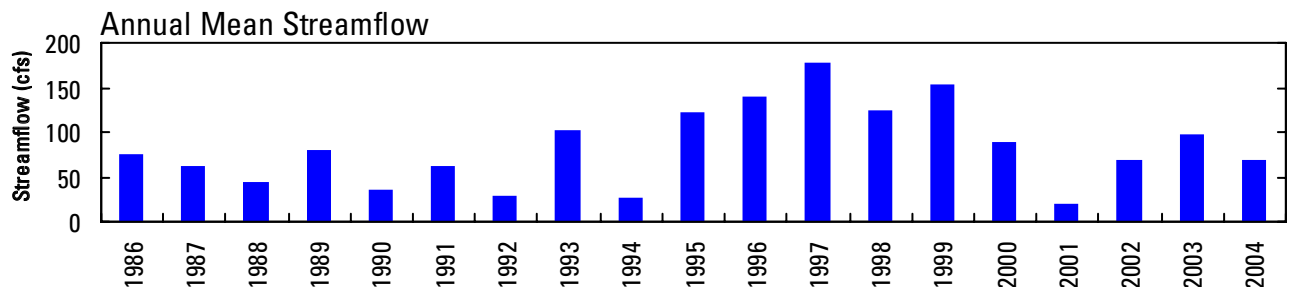
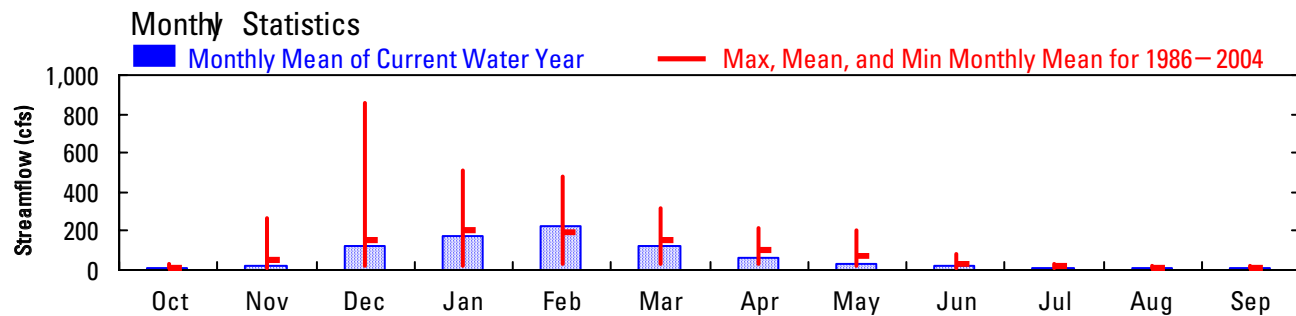
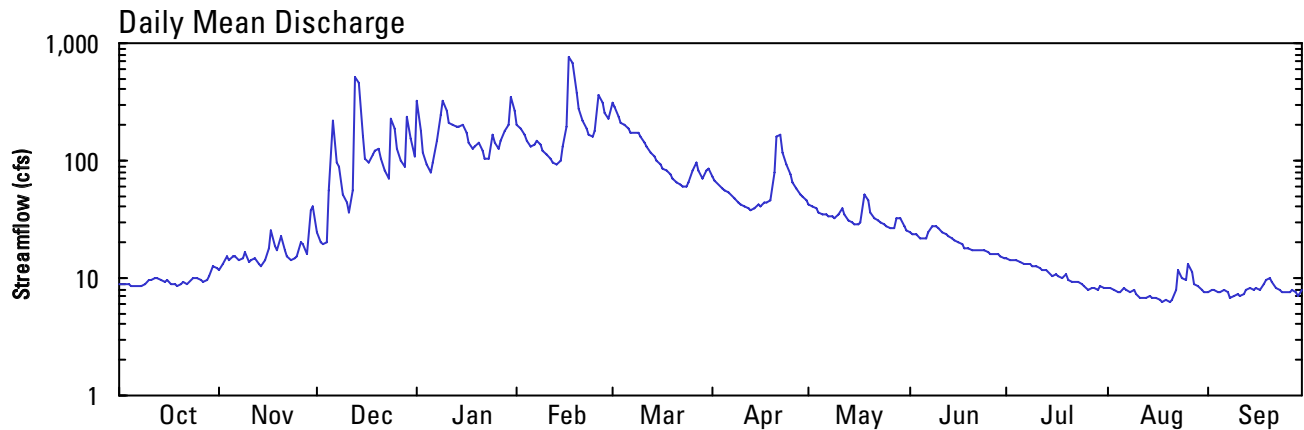
Longitude: 123° 07 ' 29"

Hydrologic Unit Code: 17100302

Douglas County

Datum: 1,900 feet

Drainage Area: 64.7 square miles



14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

TURBIDITY: October 1999 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records fair except for those greater than 40 FNU, which are poor. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF RECORD.--

Maximum recorded, 182 FNU Dec. 30, 2002; minimum, <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--

TURBIDITY: Maximum recorded, 156 FNU Dec. 6; minimum, <1 FNU many days during year.

 TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2	<1	<1	---	---	---	3	<1	<1	48	4	20
2	2	<1	<1	---	---	---	2	<1	<1	16	6	9
3	2	<1	<1	---	---	---	1	<1	<1	8	5	5
4	2	<1	1	---	---	---	2	<1	<1	6	4	4
5	2	<1	1	---	---	---	8	<1	4	6	3	4
6	2	<1	<1	---	---	---	156	5	29	6	3	4
7	2	<1	<1	<1	<1	<1	20	4	7	8	5	6
8	2	<1	<1	2	<1	<1	9	4	5	12	6	10
9	1	<1	<1	3	<1	<1	4	2	2	11	8	10
10	2	<1	<1	2	<1	<1	5	1	2	8	4	5
11	1	<1	<1	1	<1	<1	2	<1	1	6	3	4
12	1	<1	<1	<1	<1	<1	11	<1	2	4	3	3
13	1	<1	<1	<1	<1	<1	92	8	44	5	2	3
14	<1	<1	<1	2	<1	<1	88	9	20	5	2	2
15	<1	<1	<1	2	<1	<1	10	5	6	9	2	3
16	<1	<1	<1	1	<1	<1	6	3	4	5	2	2
17	1	<1	<1	11	<1	2	8	3	4	4	2	2
18	1	<1	<1	6	<1	<1	6	4	5	4	1	2
19	1	<1	<1	4	<1	<1	6	5	5	3	1	2
20	<1	<1	<1	2	<1	<1	7	3	5	3	1	2
21	1	<1	<1	<1	<1	<1	5	2	3	3	1	2
22	2	<1	<1	<1	<1	<1	3	2	2	2	1	1
23	1	<1	<1	<1	<1	<1	2	2	2	11	1	2
24	1	<1	<1	1	<1	<1	26	2	12	14	3	4
25	1	<1	<1	<1	<1	<1	10	4	6	6	2	3
26	1	<1	<1	<1	<1	<1	5	3	3	4	2	2
27	2	<1	<1	1	<1	<1	5	2	2	6	2	3
28	2	<1	2	<1	<1	<1	8	2	2	5	3	3
29	---	---	---	16	<1	<1	31	8	14	5	3	4
30	---	---	---	10	1	3	13	5	7	28	3	13
31	---	---	---	---	---	---	5	4	4	10	4	6
MAX	---	---	---	---	---	---	156	9	44	48	8	20
MIN	---	---	---	---	---	---	1	<1	<1	2	1	1

14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
FEBRUARY			MARCH			APRIL			MAY			
1	10	3	4	11	4	7	3	<1	<1	2	<1	1
2	4	2	3	9	4	6	2	<1	<1	2	<1	1
3	9	2	2	5	3	4	4	<1	<1	2	<1	<1
4	3	2	2	4	3	3	2	<1	<1	1	<1	<1
5	4	1	2	8	3	3	1	<1	<1	4	<1	<1
6	4	1	2	7	2	3	2	<1	<1	2	<1	<1
7	7	2	2	3	2	2	1	<1	<1	3	<1	<1
8	6	2	2	4	2	2	2	<1	<1	2	<1	<1
9	2	2	2	3	2	2	2	<1	<1	2	<1	<1
10	2	1	2	2	2	2	2	<1	<1	2	<1	1
11	4	1	1	3	1	2	2	<1	<1	7	<1	1
12	6	<1	1	2	1	2	2	<1	1	6	<1	1
13	5	<1	1	3	1	2	3	<1	1	1	<1	<1
14	10	<1	1	3	1	2	2	<1	<1	2	<1	1
15	5	2	2	3	1	1	1	<1	<1	3	<1	1
16	17	2	3	2	1	1	2	<1	<1	3	<1	<1
17	72	13	35	2	<1	1	2	<1	1	5	<1	1
18	33	12	19	3	<1	1	4	<1	<1	6	2	3
19	12	6	9	2	<1	1	2	<1	<1	3	1	2
20	8	5	6	3	<1	1	5	1	2	2	1	1
21	6	3	4	4	<1	1	18	5	8	2	1	1
22	4	2	3	5	<1	1	10	3	5	2	<1	1
23	4	2	2	4	<1	1	3	2	2	2	<1	1
24	4	2	2	2	<1	1	3	1	2	5	<1	1
25	8	2	3	4	<1	1	4	1	1	2	<1	1
26	11	7	10	5	1	2	2	1	1	1	<1	<1
27	10	4	6	3	2	2	2	<1	1	2	<1	<1
28	5	3	4	4	1	2	3	<1	1	1	<1	<1
29	4	3	3	6	<1	1	4	<1	<1	1	<1	<1
30	---	---	---	2	<1	1	4	<1	<1	1	<1	<1
31	---	---	---	3	<1	1	---	---	---	1	<1	<1
MAX	72	13	35	11	4	7	18	5	8	7	2	3
MIN	2	<1	1	2	<1	1	1	<1	<1	1	<1	<1
JUNE			JULY			AUGUST			SEPTEMBER			
1	2	<1	<1	2	<1	1	---	---	---	1	<1	<1
2	2	<1	<1	2	<1	1	---	---	---	2	<1	<1
3	2	<1	<1	2	<1	<1	---	---	---	1	<1	<1
4	3	<1	<1	2	<1	<1	---	---	---	1	<1	<1
5	1	<1	<1	2	<1	<1	---	---	---	1	<1	<1
6	1	<1	<1	2	<1	1	---	---	---	1	<1	<1
7	2	<1	<1	2	<1	1	---	---	---	2	<1	<1
8	1	<1	<1	2	<1	1	---	---	---	2	<1	<1
9	3	<1	<1	2	<1	1	---	---	---	1	<1	<1
10	2	<1	<1	2	<1	1	<1	<1	<1	2	<1	<1
11	2	<1	1	2	1	1	1	<1	<1	2	<1	<1
12	2	<1	1	2	<1	1	1	<1	<1	1	<1	<1
13	2	<1	1	2	<1	1	<1	<1	<1	1	<1	<1
14	2	<1	1	3	<1	1	1	<1	<1	<1	<1	<1
15	1	<1	1	2	<1	1	<1	<1	<1	2	<1	<1
16	1	<1	1	2	1	1	1	<1	<1	4	<1	<1
17	2	<1	1	3	1	2	1	<1	<1	1	<1	<1
18	2	<1	1	3	1	1	1	<1	<1	1	<1	<1
19	2	1	1	3	<1	2	1	<1	<1	1	<1	<1
20	2	1	1	---	---	---	2	<1	<1	1	<1	<1
21	2	1	1	---	---	---	2	<1	<1	1	<1	<1
22	2	<1	1	---	---	---	1	<1	<1	<1	<1	<1
23	2	<1	1	---	---	---	<1	<1	<1	2	<1	<1
24	3	<1	1	---	---	---	2	<1	<1	1	<1	<1
25	3	<1	1	---	---	---	<1	<1	<1	3	<1	<1
26	2	<1	1	---	---	---	3	<1	<1	2	<1	<1
27	2	<1	1	---	---	---	3	<1	<1	1	<1	<1
28	2	<1	1	---	---	---	1	<1	<1	2	<1	<1
29	2	<1	1	---	---	---	1	<1	<1	2	<1	<1
30	2	<1	<1	---	---	---	1	<1	<1	1	<1	<1
31	---	---	---	---	---	---	1	<1	<1	---	---	---
MAX	3	1	1	---	---	---	---	---	---	4	<1	<1
MIN	1	<1	<1	---	---	---	---	---	---	<1	<1	<1

14308995 GALESVILLE RESERVOIR NEAR AZALEA, OR

LOCATION.--Lat 42°50'56", long 123°10'40", in NE ¼ sec.28, T.31 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on the upstream face of Galesville dam to the right side of the spillway section, 1.2 mi downstream from McGinnis Creek, 5.6 mi northeast of Azalea, and at mile 60.2.

DRAINAGE AREA.--74.3 mi².

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Douglas County).

REMARKS.--Reservoir is formed by a roller compacted concrete dam; storage began Oct. 7, 1985. Capacity, 42,220 acre-ft between elevations 1,780.0 ft (bottom of evacuation outlet) and 1,881.5 ft (crest of spillway). Dead storage, 1,800 acre-ft below elevation 1,780.0 ft. Reservoir is used for irrigation, power generation, flood control, and recreation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Douglas County Public Works Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 43,230 acre-ft Jan. 2, 3, 1997, elevation, 1,883.62 ft; minimum contents, 7,240 acre-ft Jan. 9, 10, 1991, elevation, 1,805.03 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 36,910 acre-ft Apr. 26, elevation, 1,871.96 ft; minimum contents, 20,000 acre-ft Dec. 5, elevation, 1,840.42 ft.

Capacity Table (elevation, in feet and contents, in acre-feet)

1,780	1,800	1,820	11,950	1,860	29,480
1,790	3,590	1,830	15,660	1,870	34,970
1,800	5,890	1,840	19,820	1,880	40,930
1,810	8,700	1,850	24,420	1,885	44,130

 ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,852.29	1,844.28	1,840.52	1,846.06	1,847.25	1,864.95	1,871.23	1,871.77	1,870.61	1,866.37	1,861.35	1,856.84
2	1,852.06	1,844.08	1,840.49	1,846.15	1,847.35	1,865.79	1,871.25	1,871.73	1,870.48	1,866.17	1,861.20	1,856.69
3	1,851.84	1,843.85	1,840.49	1,845.92	1,847.51	1,866.47	1,871.26	1,871.67	1,870.34	1,866.00	1,861.05	1,856.54
4	1,851.60	1,843.65	1,840.46	1,845.58	1,847.77	1,867.04	1,871.25	1,871.62	1,870.20	1,865.83	1,860.90	1,856.39
5	1,851.34	1,843.42	1,840.51	1,845.18	1,848.03	1,867.57	1,871.23	1,871.56	1,870.05	1,865.66	1,860.75	1,856.24
6	1,851.08	1,843.21	1,841.03	1,844.85	1,848.36	1,868.02	1,871.21	1,871.52	1,869.91	1,865.48	1,860.61	1,856.09
7	1,850.82	1,842.98	1,841.17	1,844.78	1,848.72	1,868.40	1,871.19	1,871.48	1,869.81	1,865.31	1,860.45	1,855.94
8	1,850.55	1,842.78	1,841.27	1,845.14	1,849.03	1,868.78	1,871.16	1,871.43	1,869.72	1,865.13	1,860.31	1,855.78
9	1,850.29	1,842.62	1,841.28	1,845.78	1,849.28	1,869.15	1,871.14	1,871.37	1,869.61	1,864.95	1,860.16	1,855.63
10	1,850.03	1,842.47	1,841.28	1,846.17	1,849.49	1,869.48	1,871.11	1,871.35	1,869.49	1,864.77	1,860.01	1,855.49
11	1,849.78	1,842.35	1,841.28	1,846.31	1,849.66	1,869.73	1,871.07	1,871.36	1,869.35	1,864.59	1,859.86	1,855.34
12	1,849.52	1,842.24	1,841.35	1,846.42	1,849.79	1,869.94	1,871.04	1,871.35	1,869.21	1,864.43	1,859.71	1,855.18
13	1,849.27	1,842.11	1,843.20	1,846.48	1,849.88	1,870.12	1,870.99	1,871.31	1,869.07	1,864.29	1,859.56	1,855.03
14	1,849.00	1,841.97	1,844.69	1,846.53	1,850.06	1,870.25	1,870.97	1,871.28	1,868.93	1,864.16	1,859.40	1,854.89
15	1,848.73	1,841.84	1,844.90	1,846.62	1,850.35	1,870.34	1,870.94	1,871.22	1,868.79	1,864.02	1,859.25	1,854.76
16	1,848.48	1,841.72	1,844.96	1,846.57	1,850.94	1,870.42	1,870.91	1,871.18	1,868.66	1,863.85	1,859.09	1,854.62
17	1,848.21	1,841.58	1,845.05	1,846.43	1,853.74	1,870.49	1,870.89	1,871.20	1,868.52	1,863.68	1,858.93	1,854.48
18	1,847.94	1,841.44	1,845.19	1,846.30	1,856.19	1,870.54	1,870.86	1,871.30	1,868.37	1,863.49	1,858.77	1,854.34
19	1,847.67	1,841.36	1,845.36	1,846.25	1,857.46	1,870.58	1,870.85	1,871.33	1,868.23	1,863.32	1,858.61	1,854.21
20	1,847.41	1,841.25	1,845.54	1,846.21	1,858.30	1,870.61	1,870.91	1,871.33	1,868.07	1,863.16	1,858.46	1,854.09
21	1,847.16	1,841.15	1,845.61	1,846.10	1,858.92	1,870.62	1,871.29	1,871.30	1,867.92	1,862.98	1,858.29	1,853.96
22	1,846.90	1,841.02	1,845.63	1,845.94	1,859.39	1,870.62	1,871.64	1,871.26	1,867.77	1,862.81	1,858.18	1,853.82
23	1,846.63	1,840.91	1,845.66	1,845.87	1,859.79	1,870.61	1,871.81	1,871.22	1,867.62	1,862.66	1,858.05	1,853.67
24	1,846.37	1,840.80	1,845.99	1,845.88	1,860.14	1,870.61	1,871.90	1,871.18	1,867.48	1,862.52	1,857.91	1,853.51
25	1,846.12	1,840.74	1,846.04	1,845.85	1,860.61	1,870.65	1,871.94	1,871.12	1,867.33	1,862.37	1,857.80	1,853.34
26	1,845.84	1,840.69	1,845.84	1,845.83	1,861.73	1,870.74	1,871.95	1,871.07	1,867.17	1,862.22	1,857.71	1,853.16
27	1,845.57	1,840.62	1,845.55	1,845.78	1,862.66	1,870.85	1,871.92	1,871.04	1,867.01	1,862.08	1,857.57	1,852.99
28	1,845.30	1,840.57	1,845.32	1,845.79	1,863.37	1,870.91	1,871.88	1,871.02	1,866.86	1,861.93	1,857.44	1,852.81
29	1,845.06	1,840.56	1,845.66	1,845.91	1,864.01	1,870.99	1,871.85	1,870.96	1,866.70	1,861.78	1,857.29	1,852.60
30	1,844.80	1,840.54	1,845.61	1,846.71	---	1,871.11	1,871.81	1,870.86	1,866.54	1,861.63	1,857.15	1,852.39
31	1,844.54	---	1,845.35	1,847.11	---	1,871.19	---	1,870.74	---	1,861.49	1,857.00	---
MAX	1,852.29	1,844.28	1,846.04	1,847.11	1,864.01	1,871.19	1,871.95	1,871.77	1,870.61	1,866.37	1,861.35	1,856.84
MIN	1,844.54	1,840.54	1,840.46	1,844.78	1,847.25	1,864.95	1,870.85	1,870.74	1,866.54	1,861.49	1,857.00	1,852.39
(†)	21,860	20,060	22,230	23,050	31,630	35,650	36,010	35,340	33,020	30,270	27,910	25,560
(‡)	-3,700	-1,800	+2,170	+820	+8,580	+4,020	+360	-620	-2,370	-2,750	-2,360	-2,350

CAL YR2003 MAX 1,879.97 MIN 1,840.46 AC-FT ‡ -7,220
WTR YR2004 MAX 1,871.95 MIN 1,840.46 AC-FT ‡ -70

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

14309000 COW CREEK NEAR AZALEA, OR

LOCATION.--Lat 42°49'30", long 123°10'40", in N- $\frac{1}{2}$ sec.4, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.8 mi upstream from Whitehorse Creek, 4.5 mi northeast of Azalea, and at mile 58.2.

DRAINAGE AREA.--78.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1926 to September 1928 (no winter records), April 1929 to December 1931, April 1932 to current year.

REVISED RECORDS.--WSP 984: 1933-36. WSP 1154: 1946(M), 1948(M). WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,694.32 ft above NGVD of 1929 (Douglas County Road Department bench mark). Prior to July 19, 1949, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Oct. 7, 1985 by Galesville Reservoir (station 14308995). Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--74 years (water years 1930-31, 1933-2004), 167 ft³/s, 18.45 in/yr, 76,800 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s Jan. 15, 1974, gage height, 16.40 ft, from high-water mark in well; minimum discharge, 1.1 ft³/s Aug. 12, 1981, but may have been less during period of no gage-height record Sept. 4-30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 216 ft³/s Jan. 14, gage height, 2.49 ft; minimum discharge, 23 ft³/s Dec. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	59	30	196	181	82	67	58	61	56	40	41
2	48	60	25	188	171	82	68	56	61	56	41	41
3	52	59	26	182	138	83	70	53	61	55	41	41
4	57	59	30	180	101	83	67	52	61	56	41	42
5	59	59	61	178	82	82	68	53	61	55	40	41
6	59	59	106	179	76	80	67	50	61	55	41	41
7	60	57	88	182	75	82	62	50	62	56	41	41
8	60	53	78	184	75	79	60	50	62	55	41	41
9	59	49	55	184	75	80	57	48	62	55	41	41
10	59	42	47	181	75	80	54	46	62	54	40	41
11	60	36	38	179	75	76	53	43	62	54	41	41
12	60	36	54	178	75	75	52	42	61	52	40	41
13	60	36	106	177	73	76	51	42	61	46	40	43
14	60	37	132	181	74	77	52	42	61	41	40	40
15	60	42	123	176	76	75	55	42	59	42	41	40
16	60	44	101	176	80	78	54	42	58	49	41	40
17	61	51	92	171	93	74	58	43	58	52	41	41
18	60	45	98	156	96	74	57	45	58	56	41	41
19	60	43	98	146	87	71	62	43	57	50	42	41
20	60	44	98	148	81	75	71	43	57	49	41	41
21	60	37	97	141	78	67	73	42	57	49	41	41
22	60	36	86	135	77	70	73	42	57	50	42	41
23	60	36	77	133	76	72	72	42	56	45	42	42
24	60	36	145	172	76	71	71	42	56	39	42	45
25	60	33	180	157	78	70	71	42	56	40	42	48
26	59	32	179	143	80	69	70	42	56	41	43	50
27	59	31	166	159	78	73	69	42	56	41	42	49
28	59	28	152	176	78	66	65	48	56	41	42	51
29	60	47	175	176	79	67	63	51	56	41	42	55
30	59	51	182	188	---	73	60	56	55	41	42	59
31	59	---	180	185	---	76	---	60	---	40	41	---
TOTAL	1,812	1,337	3,105	5,287	2,559	2,338	1,892	1,452	1,767	1,512	1,276	1,301
MEAN	58.5	44.6	100	171	88.2	75.4	63.1	46.8	58.9	48.8	41.2	43.4
MAX	61	60	182	196	181	83	73	60	62	56	43	59
MIN	43	28	25	133	73	66	51	42	55	39	40	40
AC-FT	3,590	2,650	6,160	10,490	5,080	4,640	3,750	2,880	3,500	3,000	2,530	2,580
MEAN†	-2.9	14.3	136	184	238	141	69.1	36.8	19.0	4.1	2.8	3.9
CFSM†	-0.04	0.18	1.74	2.36	3.04	1.81	0.89	0.47	0.24	0.05	0.04	0.05
IN.†	-0.04	0.20	2.00	2.72	3.28	2.08	0.99	0.54	0.27	0.06	0.04	0.06
AC-FT†	-180	850	8,330	11,310	13,660	8,660	4,110	2,260	1,130	250	170	230
CAL YR	2003	TOTAL 36782	MEAN 101	MAX 956	MIN 25	AC-FT 72960	MEAN† 90.8	CFSM† 1.16	IN.† 15.81	AC-FT† 65740		
WTR YR	2004	TOTAL 25638	MEAN 70.0	MAX 196	MIN 25	AC-FT 50850	MEAN† 69.9	CFSM† 0.90	IN.† 12.21	AC-FT† 50780		

† Adjusted for change in contents, in Galesville Reservoir.

Note- Negative values shown for adjusted values during Fall period are a result of evaporation exceeding inflows to Galesville Reservoir.



2004 Water Year

UMPQUA RIVER BASIN

14309000 COW CREEK NEAR AZALEA, OR

Latitude: 42° 49 ' 30"

Longitude: 123° 10 ' 40"

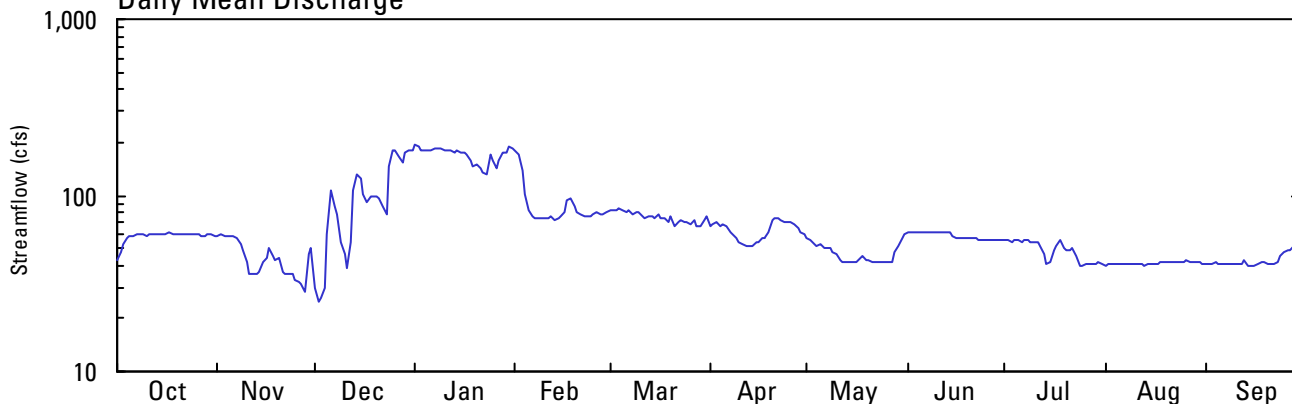
Hydrologic Unit Code: 17100302

Douglas County

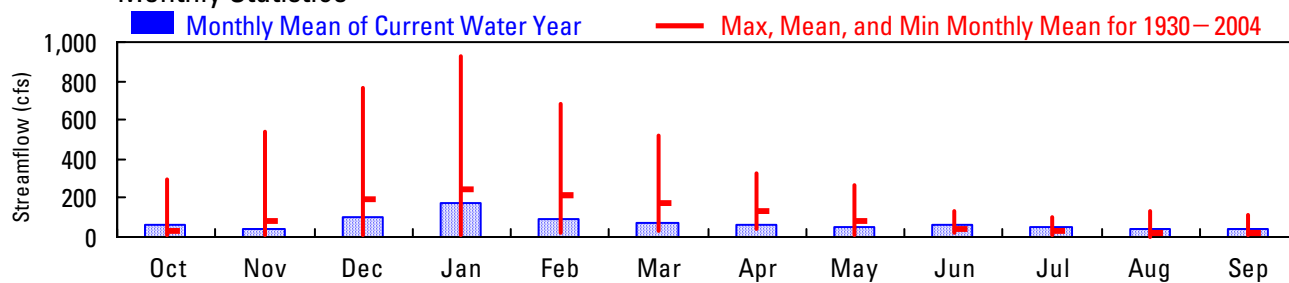
Datum: 1,694.32 feet

Drainage Area: 78 square miles

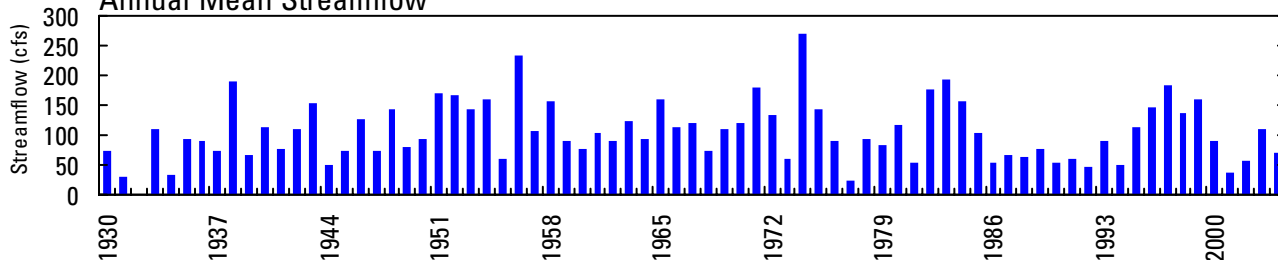
Daily Mean Discharge



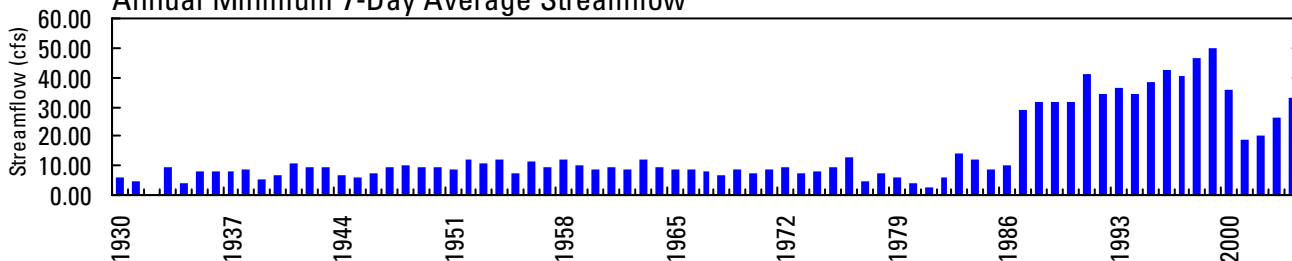
Monthly Statistics



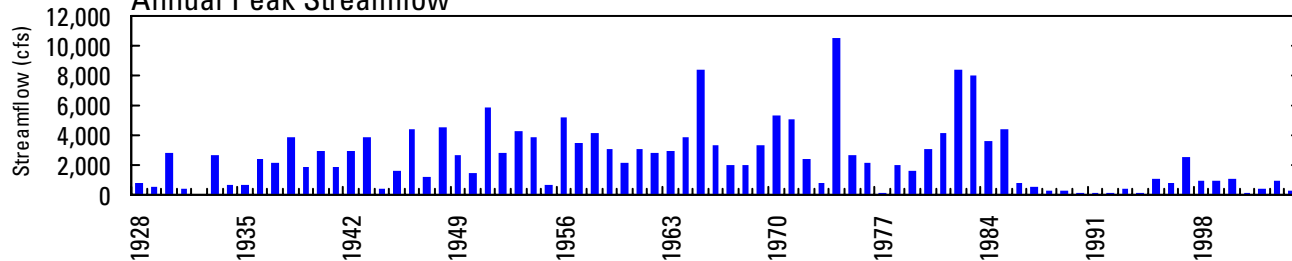
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: November 1985 to current year.

TURBIDITY: October 1999 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1985.

REMARKS.--Water-quality monitor located 1.9 mi upstream from water-discharge site, 1000 ft downstream from Galesville Dam, and at mile 60.1.

DISSOLVED OXYGEN: Records good except for the periods Oct. 20 to Dec. 3, Dec. 15 to Jan. 6, Feb. 3-17, Mar. 17 to Apr. 14, June 21 to Aug. 3, which are poor.

TURBIDITY: Records fair except for those greater than 2 FNU, which are poor. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: Maximum recorded, 15.1 mg/L Feb. 7, 1989, Nov. 17, 20, 1996, caused by operation of bypass valve at dam; minimum, 0.9 mg/L July 30, 1988.

TURBIDITY: Maximum recorded, 89 FNU May 1, 2002, but may have been higher during period of missing record; minimum, <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum recorded, 14.1 mg/L Feb. 27, but may have been higher during periods of missing record; minimum recorded, 7.3 mg/L Sept. 16-18, 30, but may have been lower during periods of missing record.

TURBIDITY: Maximum recorded, 7 FNU Jan. 22; minimum, <1 FNU many days during year.

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.49	9.06	9.29	9.74	8.84	9.43	12.99	12.51	12.79	---	---	---
2	9.63	8.84	9.26	9.74	9.04	9.45	12.95	12.16	12.65	10.95	10.29	10.65
3	9.40	8.77	9.17	9.55	8.65	9.19	13.09	11.71	12.51	12.41	10.63	11.56
4	9.35	9.02	9.18	9.45	8.95	9.26	13.54	12.67	13.01	12.03	10.96	11.59
5	9.50	9.02	9.22	9.66	8.85	9.27	13.54	11.91	12.54	11.99	11.15	11.59
6	9.54	8.50	9.04	---	---	---	13.26	11.19	12.19	---	---	---
7	9.00	8.60	8.78	---	---	---	12.15	11.02	11.69	11.49	10.90	11.28
8	9.01	8.60	8.72	---	---	---	12.37	11.50	12.03	11.89	11.19	11.62
9	9.21	8.51	8.84	---	---	---	12.54	11.55	12.17	12.29	11.79	12.02
10	9.21	8.51	8.85	---	---	---	12.32	11.40	11.98	12.28	11.68	12.02
11	9.02	8.52	8.76	---	---	---	12.56	11.58	12.31	12.18	11.58	11.85
12	9.22	8.52	8.96	---	---	---	12.32	11.93	12.15	12.18	11.68	11.92
13	9.42	8.73	9.13	---	---	---	12.38	11.38	11.83	12.37	11.67	12.04
14	9.33	8.63	9.02	---	---	---	---	---	---	12.37	11.87	12.10
15	9.33	8.63	8.99	---	---	---	---	---	---	12.27	11.76	12.07
16	9.64	8.54	9.03	---	---	---	11.12	10.43	10.76	12.46	11.86	12.19
17	9.44	8.84	9.15	---	---	---	11.18	10.75	10.95	12.76	11.85	12.26
18	9.44	8.84	9.16	---	---	---	10.90	10.32	10.64	12.15	11.85	12.00
19	9.44	8.55	8.93	12.57	11.23	11.99	10.75	10.25	10.52	12.65	11.75	12.18
20	9.39	8.09	8.84	12.40	11.69	12.11	11.09	10.31	10.75	13.04	11.64	12.13
21	9.30	8.49	8.93	12.44	11.72	12.08	11.41	10.23	10.66	---	---	---
22	8.90	8.20	8.57	12.28	11.39	11.99	11.44	10.64	11.10	13.29	12.38	12.86
23	9.20	8.30	8.86	12.16	11.63	11.97	11.43	10.39	10.92	13.06	12.26	12.68
24	9.41	8.61	8.94	12.18	11.66	11.96	---	---	---	12.54	11.41	11.90
25	9.31	8.11	9.01	12.51	11.41	12.03	---	---	---	12.59	11.41	12.04
26	9.31	8.91	9.10	12.44	11.79	12.18	10.80	9.43	10.28	13.17	12.58	12.93
27	9.52	8.92	9.16	12.79	12.12	12.43	11.14	10.36	10.81	12.76	12.05	12.46
28	9.52	8.92	9.13	12.96	12.54	12.72	11.46	10.50	11.01	13.21	12.02	12.52
29	9.43	7.93	8.79	14.00	12.61	13.17	11.25	10.39	10.82	13.01	11.48	12.20
30	9.73	8.73	9.36	13.28	12.72	13.00	10.94	9.98	10.51	13.07	11.58	12.41
31	9.84	8.63	9.35	---	---	---	11.09	10.61	10.89	12.94	11.65	12.20
MONTH	9.84	7.93	9.02	---	---	---	---	---	---	---	---	---

14309000 COW CREEK NEAR AZALEA, OR—Continued

 DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	13.12	12.63	12.94	12.95	12.54	12.80	10.94	10.52	10.74	9.86	9.66	9.77
2	13.30	12.20	13.03	13.18	12.42	12.81	11.21	10.78	10.95	9.86	9.66	9.75
3	13.95	12.98	13.43	13.36	12.76	13.09	10.68	10.27	10.48	9.91	9.60	9.73
4	13.94	13.03	13.66	13.24	12.84	13.05	10.65	10.14	10.41	9.86	9.42	9.69
5	13.62	12.90	13.34	13.41	12.52	13.00	10.46	10.17	10.32	11.48	9.57	9.97
6	13.42	12.51	12.97	13.29	12.69	13.11	10.48	10.05	10.28	9.81	9.59	9.68
7	13.07	12.10	12.77	13.27	12.57	12.99	10.46	10.05	10.27	9.73	9.56	9.65
8	13.24	12.59	12.94	13.25	12.65	12.88	10.47	10.02	10.24	9.78	9.56	9.65
9	13.29	12.59	12.98	13.12	12.71	12.85	10.38	9.89	10.17	9.75	9.56	9.64
10	13.80	12.86	13.22	13.10	12.61	12.84	10.39	9.92	10.15	9.72	9.52	9.61
11	13.68	12.84	13.21	13.08	12.57	12.79	10.32	9.86	10.12	9.77	9.45	9.58
12	13.67	12.85	13.35	12.96	12.56	12.77	10.27	9.90	10.08	9.68	9.37	9.52
13	13.99	13.22	13.49	13.13	12.72	12.88	10.20	9.63	9.99	9.62	9.33	9.46
14	13.52	12.34	12.90	13.01	12.51	12.80	11.79	10.08	10.84	9.59	9.26	9.46
15	13.09	12.65	12.85	12.99	12.68	12.83	10.42	10.15	10.25	9.63	9.31	9.44
16	13.25	12.30	12.95	13.06	12.57	12.75	10.47	10.16	10.28	9.57	9.31	9.43
17	13.70	12.46	13.00	13.28	12.45	12.84	10.44	10.14	10.27	9.51	9.22	9.35
18	13.28	12.59	12.95	13.13	12.48	12.89	10.39	10.14	10.26	9.47	9.26	9.35
19	13.16	12.66	12.94	12.95	12.36	12.70	---	---	---	9.51	9.30	9.41
20	13.14	12.85	13.03	12.76	12.29	12.51	10.25	9.99	10.11	9.52	9.28	9.38
21	13.12	12.62	12.84	12.78	12.19	12.48	10.20	10.06	10.12	9.51	9.24	9.35
22	13.30	12.51	12.94	12.59	12.01	12.30	10.25	10.01	10.17	9.45	9.19	9.33
23	13.07	12.57	12.80	12.31	11.73	12.07	10.31	10.10	10.18	9.46	9.22	9.34
24	13.26	12.36	12.80	12.21	11.74	12.00	10.26	10.03	10.15	9.44	9.19	9.31
25	13.14	12.53	12.89	12.25	11.76	11.97	10.28	9.98	10.18	9.46	9.07	9.28
26	12.91	12.22	12.59	12.07	11.53	11.83	10.30	10.02	10.17	9.40	9.04	9.21
27	14.10	12.61	13.55	12.05	11.31	11.67	10.31	10.10	10.19	9.24	8.98	9.13
28	13.69	12.77	13.10	12.00	11.32	11.63	10.30	10.00	10.16	9.25	8.98	9.14
29	13.76	12.75	13.12	12.09	10.70	11.47	10.14	9.93	10.05	9.26	9.06	9.16
30	---	---	---	11.49	10.87	11.23	10.15	9.71	9.91	9.27	9.06	9.14
31	---	---	---	11.16	10.56	10.89	---	---	---	9.21	8.99	9.10
MONTH	14.10	12.10	13.05	13.41	10.56	12.47	---	---	---	11.48	8.98	9.45
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.21	8.91	9.07	9.22	8.79	8.96	8.45	7.80	8.05	8.38	7.61	7.94
2	9.19	8.92	9.06	9.18	8.73	8.92	8.53	7.70	8.13	8.05	7.76	7.91
3	9.11	8.89	9.02	9.15	8.71	8.92	8.90	7.93	8.31	8.16	7.73	7.95
4	9.10	8.92	9.00	9.15	8.57	8.87	8.94	8.00	8.39	8.18	7.78	7.93
5	9.08	8.82	8.99	9.03	8.63	8.80	8.78	7.93	8.34	8.11	7.72	7.89
6	9.10	8.72	8.96	9.11	8.53	8.75	8.54	8.11	8.35	8.12	7.72	7.89
7	9.01	8.79	8.93	9.00	8.60	8.83	8.79	8.04	8.37	8.28	7.76	7.93
8	8.99	8.81	8.89	9.08	8.54	8.76	8.94	8.17	8.46	8.18	7.80	7.93
9	8.98	8.72	8.84	9.10	8.52	8.78	8.86	7.97	8.46	8.22	7.79	7.96
10	8.98	8.76	8.88	8.98	8.57	8.77	9.09	7.97	8.47	8.22	7.75	7.94
11	9.01	8.80	8.89	8.85	8.42	8.63	8.94	7.93	8.39	8.17	7.77	7.92
12	8.99	8.82	8.90	8.90	8.36	8.59	8.97	7.87	8.41	8.16	7.65	7.89
13	9.06	8.81	8.93	8.80	8.35	8.55	8.95	8.02	8.42	7.98	7.47	7.70
14	9.05	8.81	8.94	8.93	8.24	8.55	9.02	7.90	8.38	7.95	7.48	7.66
15	9.09	8.83	8.94	9.09	8.28	8.57	8.79	8.01	8.41	7.77	7.42	7.56
16	9.05	8.69	8.92	9.77	8.25	8.71	8.80	7.84	8.22	7.80	7.31	7.54
17	9.08	8.81	8.94	---	---	---	8.49	7.65	8.07	7.81	7.35	7.50
18	9.14	8.79	8.97	---	---	---	8.53	7.59	8.01	7.80	7.34	7.55
19	9.18	8.76	9.00	---	---	---	8.46	7.67	8.01	7.78	7.38	7.56
20	9.21	8.89	9.06	---	---	---	8.36	7.59	8.01	7.90	7.40	7.62
21	9.10	8.92	9.00	---	---	---	8.30	7.68	8.02	8.03	7.50	7.72
22	9.06	8.78	8.92	---	---	---	8.41	7.59	7.99	7.99	7.56	7.76
23	9.08	8.79	8.93	---	---	---	8.20	7.75	7.96	8.04	7.48	7.79
24	8.99	8.77	8.91	7.93	7.40	7.63	8.11	7.73	7.91	8.06	7.42	7.77
25	9.13	8.79	8.97	7.99	7.48	7.68	8.18	7.64	7.91	8.02	7.36	7.64
26	9.17	8.84	8.97	8.10	7.54	7.74	8.16	7.74	7.92	8.20	7.44	7.73
27	9.11	8.78	8.97	8.22	7.63	7.90	8.27	7.74	7.98	7.92	7.42	7.68
28	9.10	8.79	8.93	8.31	7.76	7.99	8.19	7.74	7.96	7.90	7.46	7.67
29	9.18	8.66	8.92	8.50	7.76	8.02	8.14	7.69	7.93	7.83	7.46	7.64
30	9.16	8.66	8.91	8.36	7.73	8.00	8.11	7.62	7.90	8.02	7.31	7.69
31	---	---	---	8.45	7.69	8.04	---	---	---	---	---	---
MONTH	9.21	8.66	8.95	---	---	---	---	---	---	8.38	7.31	7.76

14309000 COW CREEK NEAR AZALEA, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/-2.5 DEGREES, FNU
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	2	<1	<1	---	---	---	1	<1	<1	5	3	3
2	2	<1	<1	---	---	---	<1	<1	<1	5	3	3
3	2	<1	<1	---	---	---	2	<1	<1	4	3	3
4	2	<1	1	---	---	---	<1	<1	<1	3	3	3
5	2	<1	<1	---	---	---	---	---	---	3	3	3
6	2	<1	<1	---	---	---	2	<1	<1	3	3	3
7	---	---	---	1	<1	<1	<1	<1	<1	3	3	3
8	---	---	---	<1	<1	<1	<1	<1	<1	3	3	3
9	---	---	---	1	<1	<1	---	---	---	4	3	3
10	---	---	---	1	<1	1	1	<1	<1	4	3	3
11	---	---	---	2	<1	<1	<1	<1	<1	4	3	4
12	---	---	---	1	<1	<1	<1	<1	<1	4	3	3
13	---	---	---	<1	<1	<1	---	---	---	4	3	3
14	---	---	---	<1	<1	<1	---	---	---	4	3	4
15	---	---	---	1	<1	<1	---	---	---	4	4	4
16	---	---	---	1	<1	<1	2	2	2	4	3	4
17	---	---	---	2	<1	1	2	2	2	4	3	4
18	---	---	---	3	<1	1	2	1	2	4	4	4
19	---	---	---	2	<1	<1	2	2	2	4	3	4
20	---	---	---	2	<1	<1	2	2	2	4	3	4
21	<1	<1	<1	---	---	---	2	1	2	4	3	3
22	<1	<1	<1	1	<1	<1	2	1	1	7	3	4
23	<1	<1	<1	<1	<1	<1	3	1	2	4	3	4
24	2	<1	<1	<1	<1	<1	5	2	4	5	4	4
25	<1	<1	<1	<1	<1	<1	4	2	3	5	3	4
26	<1	<1	<1	1	<1	<1	4	2	3	3	3	3
27	<1	<1	<1	2	<1	<1	3	3	3	4	3	3
28	1	<1	<1	3	<1	2	4	2	3	4	2	3
29	<1	<1	<1	---	---	---	3	2	3	6	3	4
30	<1	<1	<1	1	<1	<1	3	3	3	5	2	3
31	---	---	---	---	---	---	3	3	3	5	3	4
MAX	---	---	---	---	---	---	---	---	---	7	4	4
MIN	---	---	---	---	---	---	---	---	---	3	2	3
FEBRUARY				MARCH			APRIL			MAY		
1	3	2	2	2	2	2	2	1	2	2	1	1
2	4	2	2	3	2	2	2	1	2	2	<1	1
3	3	2	2	3	2	2	2	1	2	1	1	1
4	2	2	2	2	2	2	2	1	1	2	<1	1
5	2	2	2	3	2	2	2	1	1	---	---	---
6	2	2	2	3	2	2	---	---	---	---	---	---
7	3	2	2	2	2	2	---	---	---	1	1	1
8	3	2	2	3	2	2	1	<1	1	2	<1	1
9	3	2	2	3	2	2	1	<1	1	2	1	1
10	2	2	2	3	2	2	---	---	---	1	<1	1
11	2	2	2	2	2	2	---	---	---	1	<1	1
12	2	2	2	2	2	2	---	---	---	1	<1	1
13	3	2	3	2	2	2	---	---	---	1	<1	1
14	4	3	3	3	2	2	---	---	---	1	<1	1
15	3	3	3	2	2	2	2	2	2	1	<1	1
16	3	3	3	2	2	2	2	2	2	1	<1	1
17	4	2	3	3	2	2	4	1	2	1	<1	1
18	2	2	2	---	---	---	2	1	1	1	1	1
19	2	2	2	---	---	---	3	1	2	2	<1	1
20	3	2	2	---	---	---	3	1	2	1	<1	1
21	3	2	2	---	---	---	2	1	2	2	<1	1
22	3	2	2	---	---	---	---	---	---	1	<1	1
23	3	2	2	---	---	---	---	---	---	1	<1	1
24	3	2	2	---	---	---	---	---	---	1	<1	1
25	4	2	3	---	---	---	1	1	1	1	<1	1
26	3	3	3	---	---	---	1	1	1	2	<1	1
27	3	3	3	---	---	---	---	---	---	1	<1	1
28	3	2	3	---	---	---	---	---	---	2	<1	<1
29	4	2	2	---	---	---	1	1	1	1	<1	<1
30	---	---	---	2	2	2	2	1	1	1	<1	<1
31	---	---	---	2	2	2	---	---	---	1	<1	<1
MAX	4	3	3	---	---	---	---	---	---	---	---	---
MIN	2	2	2	---	---	---	---	---	---	---	---	---

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

[illegible]

14309500 WEST FORK COW CREEK NEAR GLENDALE, OR

LOCATION.--Lat 42°48'15", long 123°36'35", in SW ¼ NE ¼ sec.11, T.32 S., R.8 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.6 mi downstream from Bear Creek, 11 mi northwest of Glendale, and at mile 0.8.

DRAINAGE AREA.--86.9 mi².

PERIOD OF RECORD.--August 1955 to current year.

REVISED RECORDS.--WSP 1738: 1956, drainage area (former site). WSP 1935: 1956.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,018.48 ft above NGVD of 1929. Prior to June 8, 1964, at site 0.6 mi upstream at different datum.

REMARKS.--Records good. No regulation or diversion upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--49 years (water years 1956-2004), 255 ft³/s, 39.81 in/yr, 184,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Dec. 22, 1964, gage height, 18.59 ft, from floodmark, from rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 2.5 ft³/s Sept. 10, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 13	2030	*4,760	*9.95	Feb 18	0200	3,100	8.20
Jan 8	1230	2,620	7.69				

Minimum discharge, 4.2 ft³/s, Aug. 17-20.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	8.6	101	720	583	717	140	94	33	15	6.3	6.5
2	5.6	10	69	629	551	674	126	85	32	14	6.2	6.5
3	5.7	17	61	434	510	564	117	79	31	14	6.0	6.8
4	5.8	16	67	344	406	478	107	75	30	14	6.0	6.8
5	5.7	17	112	297	329	448	99	73	28	13	6.4	6.7
6	5.9	18	569	372	310	406	93	70	29	12	6.7	6.4
7	6.0	17	368	721	439	359	86	67	32	12	6.4	6.0
8	6.1	17	414	1,970	420	329	79	62	35	12	6.3	5.7
9	6.5	23	219	1,500	356	297	74	58	41	12	5.7	5.6
10	7.0	18	143	1,110	301	e272	70	58	37	12	5.1	5.6
11	7.4	15	103	818	256	e243	67	66	35	12	4.9	5.6
12	8.3	14	134	675	220	e209	64	61	32	11	5.0	5.9
13	8.5	13	2,640	658	195	176	62	54	31	11	4.9	6.1
14	7.6	12	1,620	602	182	156	74	51	28	10	4.7	6.5
15	7.1	13	674	530	198	140	108	48	26	9.9	4.7	6.8
16	7.1	20	425	433	496	129	107	47	25	9.6	4.6	6.8
17	7.2	26	373	353	1,740	121	98	46	23	9.6	4.5	7.1
18	6.7	26	369	307	2,140	115	93	47	22	9.7	4.5	11
19	6.4	22	349	285	1,010	108	98	46	21	9.3	4.5	16
20	6.4	47	348	265	671	100	355	43	20	8.9	e4.5	15
21	6.6	36	296	227	501	95	945	41	19	8.7	e4.5	12
22	6.7	30	232	197	399	90	672	40	19	8.3	e4.8	10
23	6.7	23	193	198	329	86	431	40	20	7.9	e5.8	8.8
24	6.8	24	518	293	330	92	306	38	19	7.2	8.8	8.1
25	6.9	40	948	337	626	105	234	36	18	6.8	9.4	7.8
26	6.9	101	612	351	1,810	203	186	34	17	6.7	13	8.0
27	6.9	72	398	603	1,700	371	154	35	17	6.7	14	8.1
28	6.9	43	402	648	1,020	278	133	46	16	6.7	11	7.7
29	7.5	124	1,680	560	751	213	119	45	16	6.4	8.4	7.2
30	8.5	192	1,020	888	---	183	106	39	15	6.3	7.5	6.8
31	8.7	---	599	824	---	161	---	36	---	6.2	6.9	---
TOTAL	211.5	1,054.6	16,056	18,149	18,779	7,918	5,403	1,660	767	308.9	202.0	233.9
MEAN	6.82	35.2	518	585	648	255	180	53.5	25.6	9.96	6.52	7.80
MAX	8.7	192	2,640	1,970	2,140	717	945	94	41	15	14	16
MIN	5.4	8.6	61	197	182	86	62	34	15	6.2	4.5	5.6
AC-FT	420	2,090	31,850	36,000	37,250	15,710	10,720	3,290	1,520	613	401	464
CFSM	0.08	0.40	5.96	6.74	7.45	2.94	2.07	0.62	0.29	0.11	0.07	0.09
IN.	0.09	0.45	6.87	7.77	8.04	3.39	2.31	0.71	0.33	0.13	0.09	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

MEAN	38.6	282	596	660	573	461	266	113	40.6	17.2	9.82	12.1
MAX	254	1,470	1,960	1,496	1,660	934	840	476	99.4	29.5	16.0	56.9
(WY)	(1963)	(1974)	(1997)	(1970)	(1958)	(1983)	(1982)	(1963)	(1993)	(1983)	(1983)	(1986)
MIN	5.19	13.7	13.3	24.2	66.0	91.6	56.2	38.3	17.8	7.55	3.85	3.75
(WY)	(1988)	(1994)	(1977)	(1977)	(1977)	(1992)	(1990)	(1987)	(1992)	(1999)	(1992)	(2001)

14309500 WEST FORK COW CREEK NEAR GLENDALE, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	68,931.7		70,742.9		255	
ANNUAL MEAN	189		193		499	
HIGHEST ANNUAL MEAN					56.6	
LOWEST ANNUAL MEAN					11,000	
HIGHEST DAILY MEAN	2,640	Dec 13	2,640	Dec 13	11,000	Dec 22, 1964
LOWEST DAILY MEAN	4.5	Sep 6	4.5	Aug 17	3.0	Aug 31, 1992
ANNUAL SEVEN-DAY MINIMUM	4.9	Sep 1	4.5	Aug 15	3.2	Aug 26, 1992
ANNUAL RUNOFF (AC-FT)	136,700		140,300		184,400	
ANNUAL RUNOFF (CFSM)	2.17		2.22		2.93	
ANNUAL RUNOFF (INCHES)	29.51		30.28		39.81	
10 PERCENT EXCEEDS	492		573		663	
50 PERCENT EXCEEDS	56		40		65	
90 PERCENT EXCEEDS	6.5		6.3		8.2	

e Estimated



2004 Water Year
UMPQUA RIVER BASIN

14309500 WEST FORK COW CREEK NEAR GLENDALE, OR

Latitude: 42° 48 ' 15"

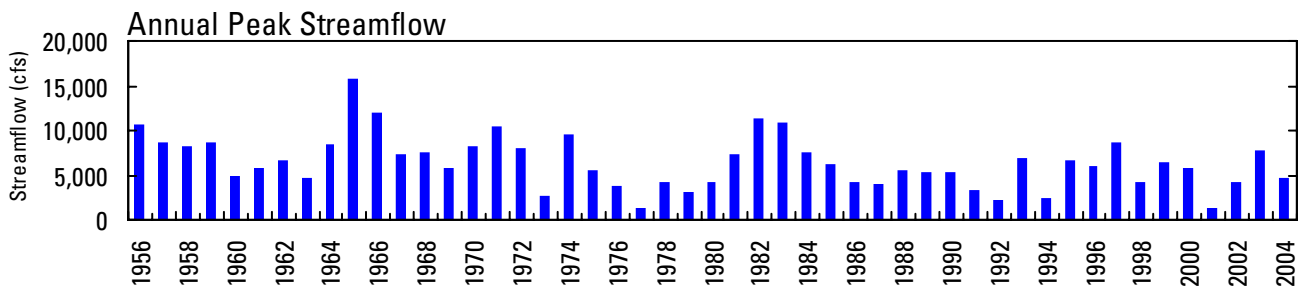
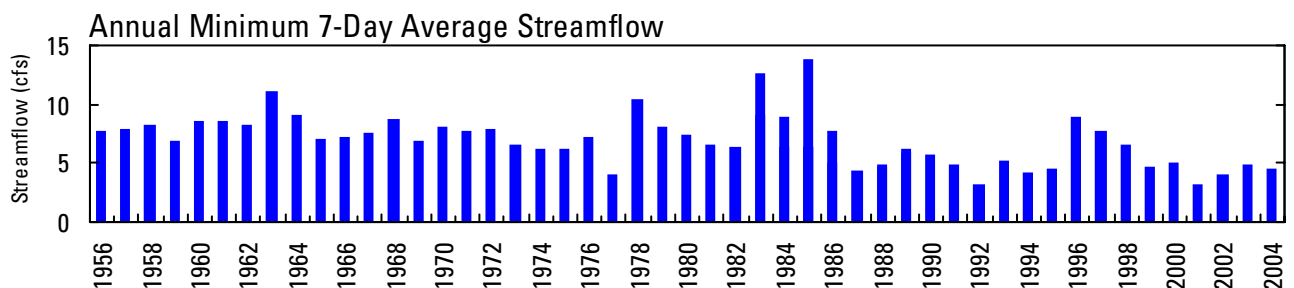
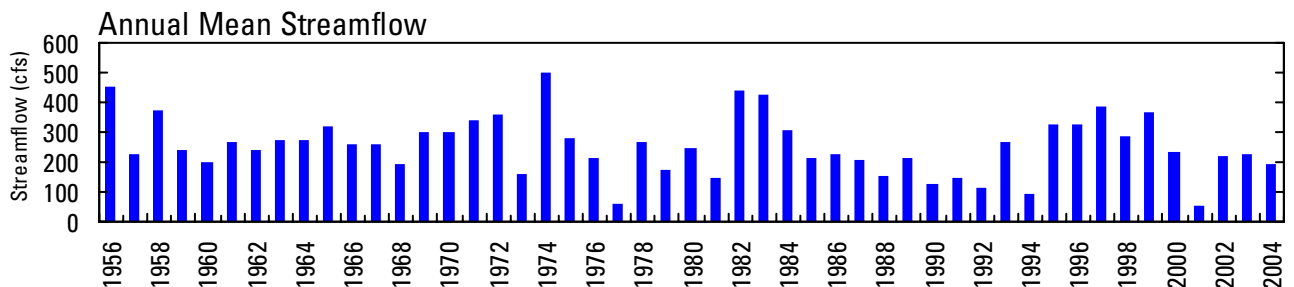
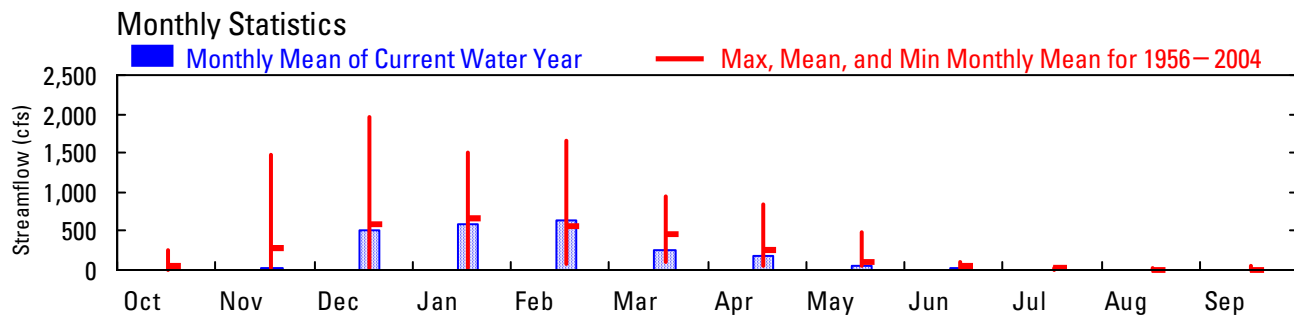
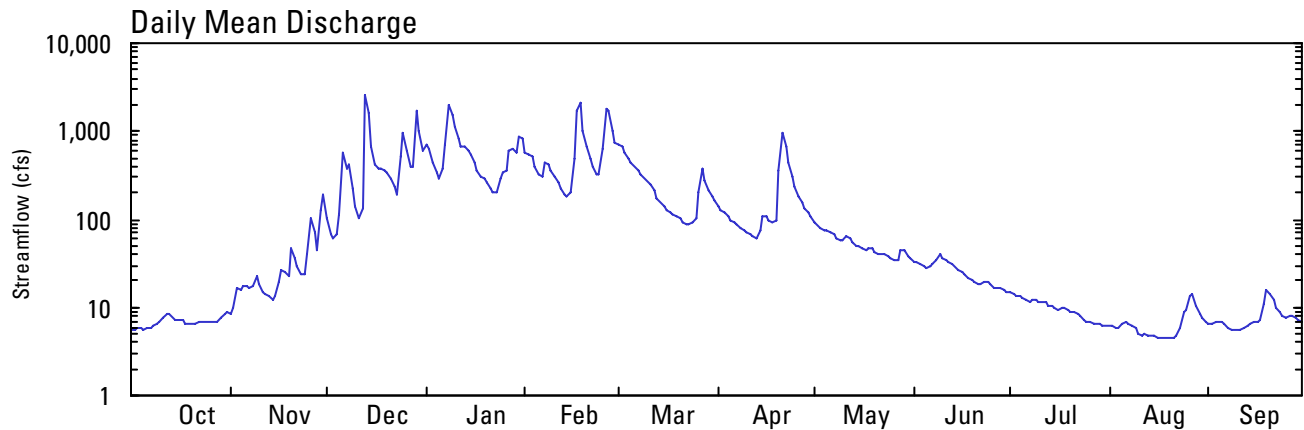
Longitude: 123° 36 ' 35"

Hydrologic Unit Code: 17100302

Douglas County

Datum: 1,018.48 feet

Drainage Area: 86.9 square miles



14310000 COW CREEK NEAR RIDDLE, OR

LOCATION.--Lat 42°55'25", long 123°25'40", in NE ¼ sec.32, T.30 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.4 mi upstream from Council Creek, 3.8 mi southwest of Riddle, and at mile 6.7.

DRAINAGE AREA.--456 mi².

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WSP 1935: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 682.60 ft above NGVD of 1929.

REMARKS.--Records good. Regulated since Oct. 7, 1985 by Galesville Reservoir (station 14308995). Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--31 years (water years 1955-85), 903 ft³/s, 654,200 acre-ft/yr. 19 years (water years 1986-2004), 677 ft³/s, 490,500 acre-ft/yr, regulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,400 ft³/s Jan. 15, 1974, gage height, 28.17 ft; minimum discharge, 7.4 ft³/s Aug. 17-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of about 28.5 ft, present site and datum, from slope-area measurement, discharge, 41,100 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,590 ft³/s Feb. 18, gage height, 11.50 ft; minimum discharge, 45 ft³/s Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	98	296	2,580	2,020	2,000	517	329	182	112	57	55
2	56	102	231	2,990	1,680	2,040	477	304	180	109	56	54
3	65	115	205	1,870	1,520	1,750	454	288	177	107	56	55
4	71	123	194	1,400	1,220	1,480	430	278	171	105	57	56
5	77	131	230	1,210	967	1,310	407	273	166	103	57	55
6	85	133	1,170	1,390	852	1,170	389	268	164	98	60	54
7	85	131	891	2,400	1,050	1,020	365	261	169	94	58	53
8	85	129	1,110	4,780	1,100	930	346	261	183	96	57	51
9	85	129	640	4,660	999	866	330	249	211	98	55	51
10	89	127	447	3,440	880	782	315	243	200	95	54	51
11	92	118	343	2,490	778	713	304	250	189	93	52	53
12	95	106	317	1,970	695	664	295	248	182	90	51	50
13	97	97	3,890	1,790	635	613	286	233	177	89	51	54
14	97	94	5,280	1,600	595	566	294	222	170	83	50	56
15	94	91	2,140	1,460	685	524	323	213	164	78	48	61
16	95	96	1,320	1,230	1,060	496	339	207	159	74	47	61
17	93	118	1,090	1,030	5,140	476	324	206	151	74	46	60
18	90	135	1,040	897	7,880	463	320	229	144	78	47	67
19	90	134	944	823	3,940	447	321	244	139	82	47	78
20	88	144	867	788	2,360	427	465	230	136	83	48	81
21	89	150	756	732	1,700	412	1,610	211	133	79	48	81
22	90	125	629	662	1,330	398	1,370	202	130	74	47	78
23	90	109	538	638	1,100	389	932	198	130	73	52	75
24	88	101	1,080	817	1,020	389	701	194	134	69	59	73
25	90	119	3,000	988	1,370	398	582	187	131	65	60	71
26	90	195	1,980	994	4,550	577	506	178	126	60	64	71
27	90	219	1,290	1,320	5,070	769	447	175	123	59	69	72
28	91	170	1,050	1,600	3,050	696	408	192	122	58	67	74
29	90	172	3,810	1,510	2,150	594	381	202	119	59	61	74
30	92	430	3,620	2,400	---	556	356	192	116	57	59	74
31	97	---	1,950	2,860	---	559	---	184	---	57	57	---
TOTAL	2,681	4,141	42,348	55,319	57,396	24,474	14,594	7,151	4,678	2,551	1,697	1,899
MEAN	86.5	138	1,366	1,784	1,979	789	486	231	156	82.3	54.7	63.3
MAX	97	430	5,280	4,780	7,880	2,040	1,610	329	211	112	69	81
MIN	55	91	194	638	595	389	286	175	116	57	46	50
AC-FT	5,320	8,210	84,000	109,700	113,800	48,540	28,950	14,180	9,280	5,060	3,370	3,770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

MEAN	103	485	1,398	1,887	1,629	1,138	703	380	183	99.5	79.5	83.8
MAX	249	1,792	6,225	4,144	4,420	2,362	1,833	1,074	477	189	166	152
(WY)	(1998)	(1999)	(1997)	(1995)	(1999)	(1995)	(1993)	(1998)	(1998)	(1998)	(1993)	(1986)
MIN	55.4	88.5	210	189	285	253	194	98.8	47.2	27.6	20.7	21.6
(WY)	(1989)	(1988)	(1990)	(2001)	(2001)	(2001)	(1990)	(2001)	(2001)	(2001)	(2001)	(2001)

UMPQUA RIVER BASIN

14310000 COW CREEK NEAR RIDDLE, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	229,649		218,929		677	
ANNUAL MEAN	629		598		1,221	
HIGHEST ANNUAL MEAN					152	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	7,350	Jan 3	7,880	Feb 18	23,100	Dec 8, 1996
LOWEST DAILY MEAN	40	Sep 4	46	Aug 17	16	Aug 29, 1986
ANNUAL SEVEN-DAY MINIMUM	41	Aug 31	47	Aug 16	17	Aug 13, 2001
ANNUAL RUNOFF (AC-FT)	455,500		434,200		490,500	
10 PERCENT EXCEEDS	1,470		1,600		1,670	
50 PERCENT EXCEEDS	231		192		211	
90 PERCENT EXCEEDS	54		57		58	



2004 Water Year

UMPQUA RIVER BASIN

14310000 COW CREEK NEAR RIDDLE, OR

Latitude: 42° 55 ' 25"

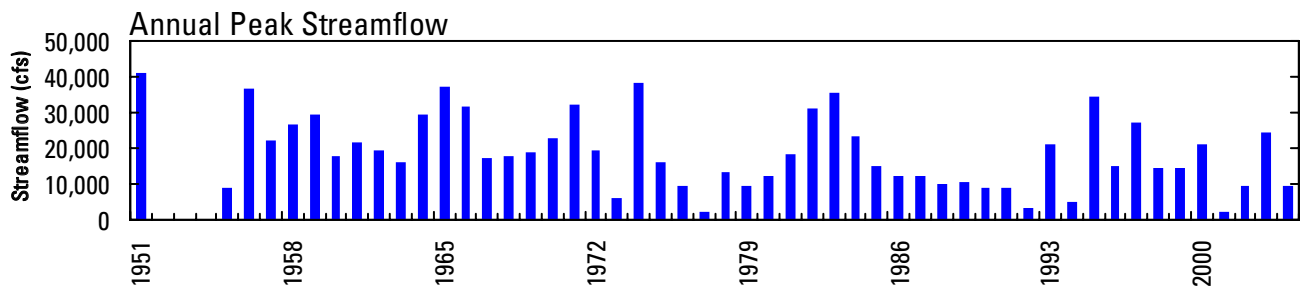
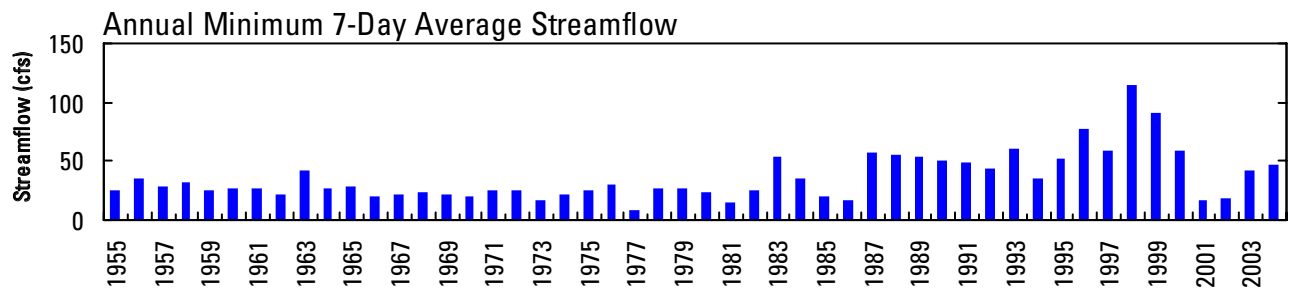
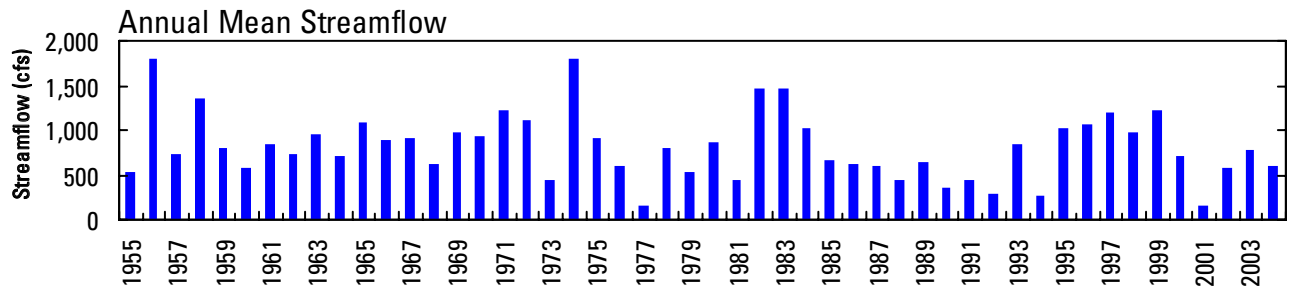
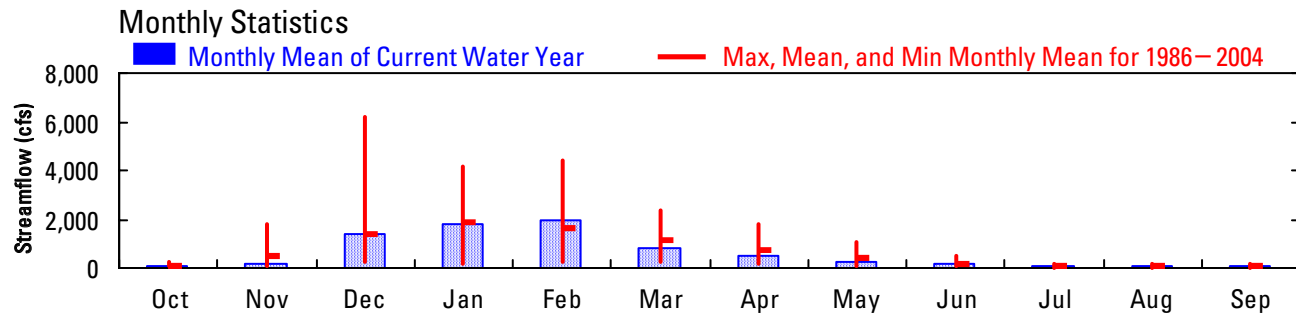
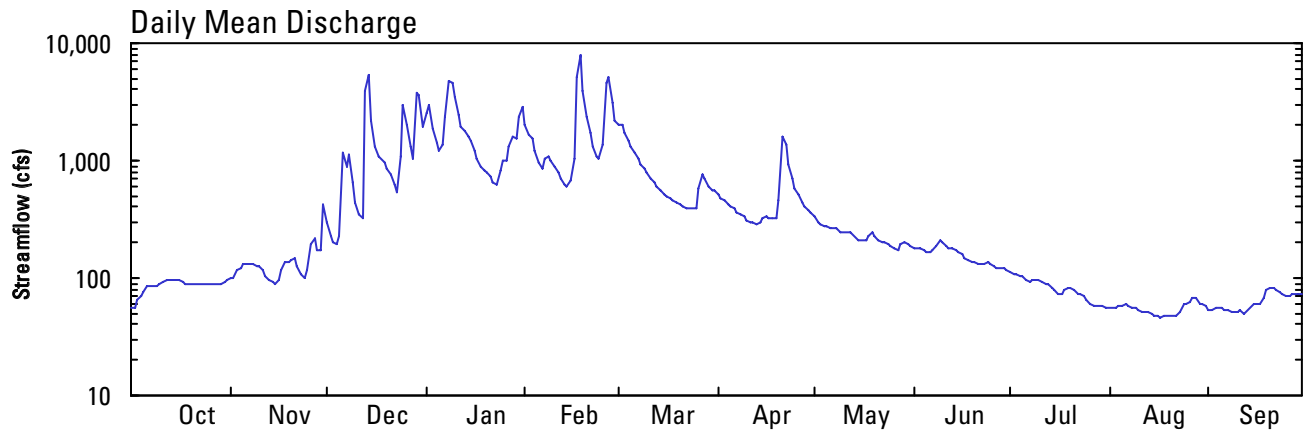
Longitude: 123° 25 ' 40"

Hydrologic Unit Code: 17100302

Douglas County

Datum: 682.60 feet

Drainage Area: 456 square miles



14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR

LOCATION.--Lat 43°08'00", long 123°23'50", in SW $\frac{1}{4}$ sec.15, T.28 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on right bank 10 ft upstream from Winston Bridge on State Highway 99, 2.5 mi northeast of Brockway, 4.2 mi downstream from Lookingglass Creek, and at mile 132.8.

DRAINAGE AREA.--1,670 mi².

PERIOD OF RECORD.--December 1905 to June 1912, October 1923 to September 1926, January 1942 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1946(M), 1948(M), 1951. WSP 1448: Drainage area. WDR OR 72-1: 1965(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 462.52 ft above NGVD of 1929 (State Highway Department bench mark). Prior to June 24, 1949, nonrecording gage at several sites within 400 ft of present site at various datums. June 24, 1949, to Oct. 1, 1970, at datum 461.84 ft above sea level (State Highway Department bench mark).

REMARKS.--No estimated daily discharges. Records good. Regulation from Ben Irving Reservoir, since January 1980, on Berry Creek during summer months. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--70 years (water years 1907-11, 1924-26, 1943-2004), 2,756 ft³/s, 22.42 in/yr, 1,996,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft³/s Dec. 23, 1964, gage height, 34.28 ft; minimum discharge, 16 ft³/s Aug. 23, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 21, 1927, reached a stage of about 31.2 ft, present site and datum, discharge, 89,500 ft³/s. Discharge for flood of February 1890, which reached a stage 1.9 ft higher, according to local resident who lived nearby at time of both floods, has been found to be in error and should not be used.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 14	0530	*31,300	*16.69	Feb 18	0900	23,600	14.56

Minimum discharge, 66 ft³/s, Aug. 18, 19.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	185	2,330	10,400	9,690	7,310	2,100	1,480	1,150	304	86	129
2	109	201	1,730	13,700	8,020	8,240	1,880	1,400	1,040	286	97	121
3	115	229	1,350	8,270	7,110	6,930	1,720	1,360	958	275	98	117
4	126	254	1,240	6,160	5,840	5,810	1,750	1,320	881	266	97	122
5	134	289	1,220	5,200	4,820	5,830	1,560	1,280	823	260	99	126
6	141	320	4,440	5,290	4,150	6,320	1,530	1,200	783	243	103	125
7	154	340	5,180	7,890	4,460	5,720	1,470	1,130	775	226	108	119
8	150	321	4,930	10,800	4,710	4,930	1,400	1,100	858	213	106	116
9	151	307	3,590	12,400	4,230	4,670	1,350	1,110	926	213	110	111
10	156	328	2,710	11,000	3,730	4,310	1,310	1,030	951	212	99	106
11	166	317	2,210	8,250	3,320	3,790	1,280	1,040	1,230	207	91	109
12	176	282	1,990	6,810	3,050	3,410	1,260	1,260	1,150	202	82	119
13	191	344	16,900	6,280	2,820	3,130	1,270	1,160	1,020	188	80	115
14	198	309	25,400	5,820	2,620	2,880	1,300	1,030	908	174	76	118
15	200	266	11,900	6,110	2,730	2,670	1,290	953	813	162	78	125
16	188	262	6,850	5,320	3,080	2,490	1,340	913	739	157	75	145
17	182	655	5,300	4,370	10,500	2,340	1,340	890	675	147	72	163
18	179	1,360	5,300	3,750	21,500	2,260	1,290	1,030	613	146	71	177
19	184	801	5,200	3,670	13,500	2,220	1,270	1,790	570	156	71	195
20	174	627	5,240	4,440	9,010	2,120	1,440	1,980	530	150	75	219
21	164	719	4,710	3,970	6,680	1,970	3,680	1,640	495	146	75	245
22	161	589	3,700	3,330	5,310	1,950	5,580	1,470	462	136	82	230
23	160	494	3,030	3,100	4,520	2,000	4,040	1,290	456	132	97	207
24	161	425	3,440	7,200	4,080	2,000	3,080	1,190	445	129	121	182
25	164	411	8,290	8,180	4,010	1,960	2,540	1,050	432	124	154	174
26	175	548	6,820	6,590	8,840	2,140	2,230	956	402	115	163	167
27	174	852	4,810	8,060	12,000	2,300	2,070	901	378	102	194	171
28	169	807	4,100	10,500	8,840	2,460	1,980	968	358	98	249	165
29	170	720	9,060	11,200	7,020	2,160	1,840	1,400	335	93	206	160
30	173	3,920	11,400	13,500	---	2,110	1,640	1,490	320	90	169	156
31	179	---	6,990	13,500	---	2,300	---	1,300	---	84	148	---
TOTAL	5,032	17,482	181,360	235,060	190,190	110,730	57,830	38,111	21,476	5,436	3,432	4,534
MEAN	162	583	5,850	7,583	6,558	3,572	1,928	1,229	716	175	111	151
MAX	200	3,920	25,400	13,700	21,500	8,240	5,580	1,980	1,230	304	249	245
MIN	108	185	1,220	3,100	2,620	1,950	1,260	890	320	84	71	106
AC-FT	9,980	34,680	359,700	466,200	377,200	219,600	114,700	75,590	42,600	10,780	6,810	8,990
CFSM	0.10	0.35	3.50	4.54	3.93	2.14	1.15	0.74	0.43	0.11	0.07	0.09
IN.	0.11	0.39	4.04	5.24	4.24	2.47	1.29	0.85	0.48	0.12	0.08	0.10

14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR—Continued

 DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 2004, BY WATER YEAR (WY)												
MEAN	449	2,616	5,672	6,887	6,234	4,705	3,236	1,962	862	264	136	149
MAX	6,045	13,590	19,950	16,010	15,370	10,950	7,378	6,909	3,312	576	392	587
(WY)	(1951)	(1974)	(1997)	(1956)	(1958)	(1974)	(1963)	(1963)	(1953)	(1953)	(1993)	(1986)
MIN	103	190	184	262	341	882	589	446	142	52.6	40.2	50.0
(WY)	(1988)	(1953)	(1977)	(1977)	(1977)	(1992)	(1926)	(1926)	(1926)	(1926)	(1973)	(2001)
SUMMARY STATISTICS												
				FOR 2003 CALENDAR YEAR			FOR 2004 WATER YEAR			WATER YEARS 1907 - 2004		
ANNUAL TOTAL				911,511			870,673					
ANNUAL MEAN				2,497			2,379			2,756		
HIGHEST ANNUAL MEAN										5,567		
LOWEST ANNUAL MEAN										562		
HIGHEST DAILY MEAN				25,400			25,400			90,200		
LOWEST DAILY MEAN				71			71			17		
ANNUAL SEVEN-DAY MINIMUM				77			74			18		
ANNUAL RUNOFF (AC-FT)				1,808,000			1,727,000			1,996,000		
ANNUAL RUNOFF (CFSM)				1.50			1.42			1.65		
ANNUAL RUNOFF (INCHES)				20.30			19.39			22.42		
10 PERCENT EXCEEDS				6,290			6,870			6,740		
50 PERCENT EXCEEDS				1,110			1,020			1,050		
90 PERCENT EXCEEDS				109			116			114		



2004 Water Year
UMPQUA RIVER BASIN

14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR

Latitude: 43° 08 ' 00"

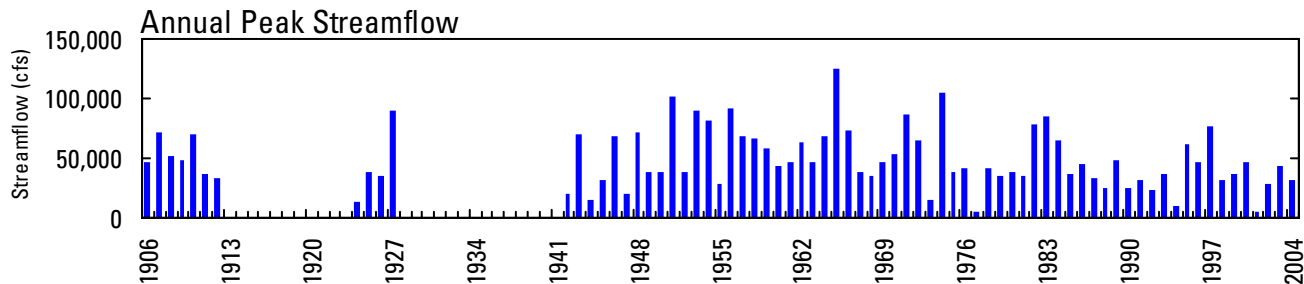
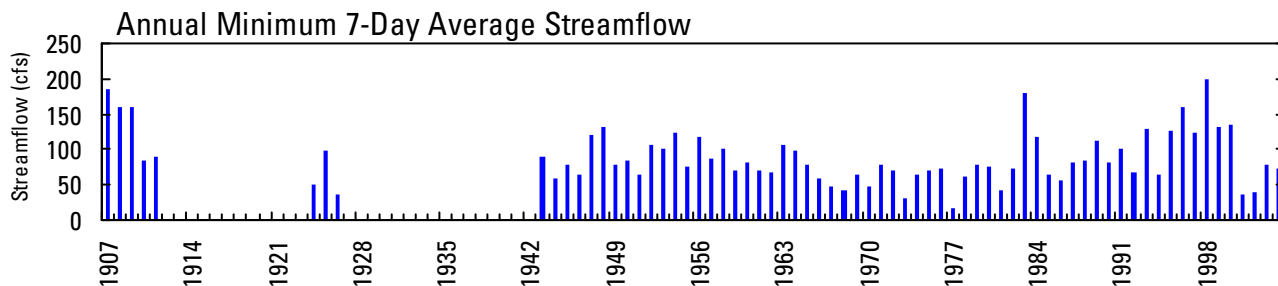
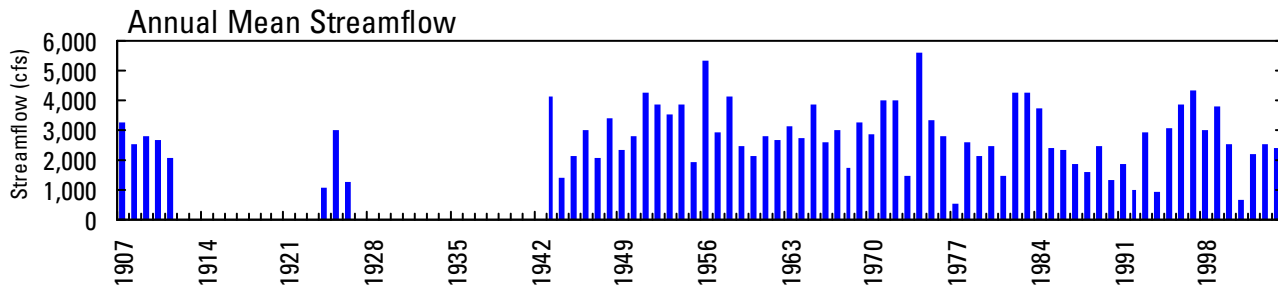
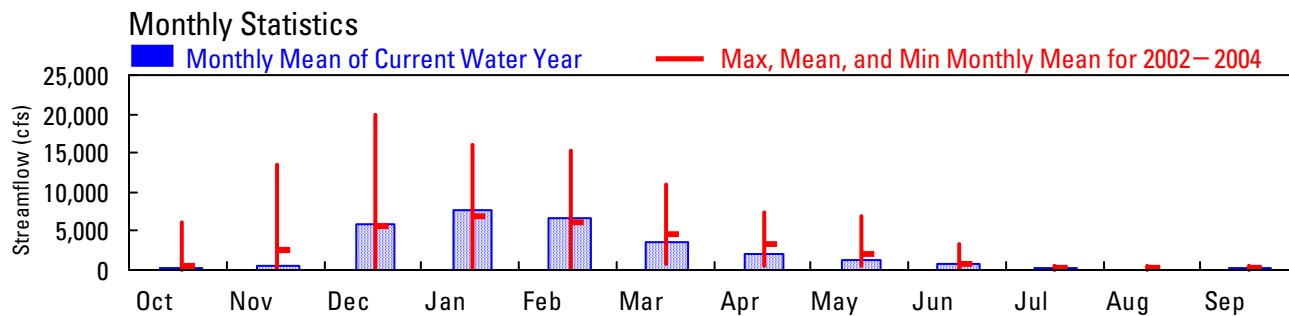
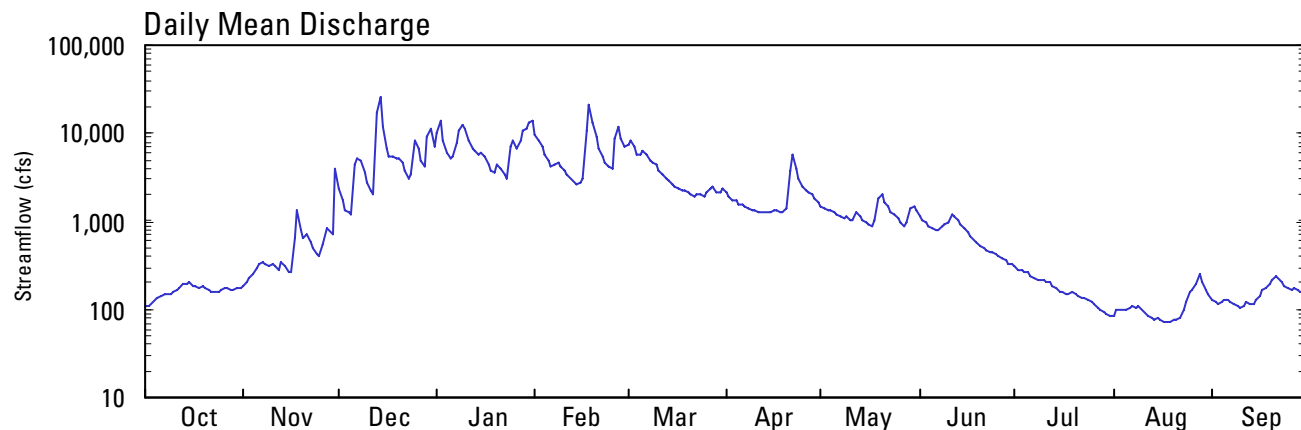
Longitude: 123° 23 ' 50"

Hydrologic Unit Code: 17100302

Douglas County

Datum: 462.52 feet

Drainage Area 1,670 square miles



14312500 LAKE CREEK NEAR DIAMOND LAKE, OR

LOCATION.--Lat 43°11'12", long 122°09'55", in NW ¼ SW ¼ sec.30, T.27 S., R.6 E., Douglas County, Hydrolgic Unit 17100301, Umpqua National Forest, on right bank 600 ft downstream from outlet of Diamond Lake, 1.6 mi northwest of town of Diamond Lake, and at mile 10.7.

DRAINAGE AREA.--54.9 mi².

PERIOD OF RECORD.--May 1922 to September 1925 (no winter records), October 1926 to September 1929, April, July, August 1930, October 1930 to September 1953, October 1971 to October 1977, February 1978 to September 1984, October 1999 to current year. Prior to October 1971 published as "at Diamond Lake, near Fort Klamath".

GAGE.--Water-stage recorder. Elevation of gage is 5,180 ft from river-profile map. Prior to May 26, 1931, nonrecording gage at site 300 ft downstream at different datum. May 26, 1931 to Oct. 6, 1933, nonrecording gage at present site and datum. Prior to September 30, 1999, datum of gage was 2.66 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by gates and fish racks at lake outlet. No diversion upstream from station.

AVERAGE DISCHARGE.--43 years (water years 1927-29, 1931-53, 1972-77, 1979-84, 2000-04), 57.5 ft³/s, 41,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 336 ft³/s Jan. 1, 1943, gage height, 2.8 ft from rating curve extended above 120 ft³/s; no flow Aug. 25-27, 1931, Sept. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 126 ft³/s Oct. 28, gage height, 2.38 ft; minimum discharge, 4.7 ft³/s July 8, result of regulation at outlet.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	104	70	89	70	62	26	14	41	31	9.3	10
2	17	101	69	90	69	61	11	14	41	32	11	9.9
3	22	96	68	87	68	60	11	16	41	30	13	10
4	27	94	68	87	66	60	12	16	40	24	11	10
5	28	90	69	85	65	60	12	16	40	18	8.3	10
6	28	87	73	83	65	59	13	16	39	14	8.9	10
7	28	83	74	83	65	57	12	16	39	14	10	10
8	28	80	74	84	63	56	10	20	40	14	12	10
9	28	76	74	82	62	54	11	22	42	12	12	10
10	28	74	72	79	60	53	11	26	42	11	11	10
11	28	72	71	77	59	52	12	33	41	11	11	10
12	35	70	75	75	58	51	13	34	40	11	11	10
13	39	68	64	73	57	50	14	34	40	10	11	10
14	38	66	99	72	56	49	12	34	39	9.6	11	11
15	34	65	98	70	58	48	10	34	39	9.2	11	11
16	31	66	95	69	60	47	12	34	38	9.4	11	11
17	29	67	91	67	66	46	14	34	37	9.4	10	11
18	28	67	88	65	70	46	16	37	36	9.1	10	11
19	28	66	85	65	69	45	18	38	36	8.9	10	11
20	28	66	82	64	67	44	24	39	36	9.3	10	12
21	26	64	80	62	66	43	30	39	35	9.7	10	12
22	25	62	78	61	64	43	30	39	34	9.7	9.7	12
23	25	63	76	61	63	42	20	40	33	9.8	10	13
24	24	63	78	62	63	43	12	40	33	9.7	10	13
25	24	64	79	62	63	44	12	39	32	9.7	10	13
26	24	65	77	62	63	47	12	39	32	9.7	11	13
27	24	66	75	66	63	49	12	40	31	9.7	11	13
28	92	67	79	66	62	48	12	41	31	9.8	10	13
29	118	71	86	68	61	47	13	42	31	9.5	10	13
30	115	70	84	70	---	46	13	42	31	9.3	10	13
31	110	---	84	71	---	46	---	41	---	9.4	10	---
TOTAL	1,176	2,213	2,435	2,257	1,841	1,558	440	969	1,110	402.9	324.2	335.9
MEAN	37.9	73.8	78.5	72.8	63.5	50.3	14.7	31.3	37.0	13.0	10.5	11.2
MAX	118	104	99	90	70	62	30	42	42	32	13	13
MIN	17	62	64	61	56	42	10	14	31	8.9	8.3	9.9
AC-FT	2,330	4,390	4,830	4,480	3,650	3,090	873	1,920	2,200	799	643	666

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2004, BY WATER YEAR (WY)

	MEAN	41.6	66.3	78.5	80.8	75.2	68.4	57.0	59.2	65.7	39.7	26.5	27.2
MAX	93.5	133	139	142	140	134	106	107	149	81.1	59.7	58.2	
(WY)	(1972)	(1974)	(1953)	(1953)	(1953)	(1972)	(1972)	(1943)	(1953)	(1953)	(1953)	(1953)	(1953)
MIN	11.8	14.7	33.2	33.7	33.9	28.5	5.00	26.5	23.1	9.53	6.19	7.41	
(WY)	(1942)	(1937)	(1937)	(1977)	(1977)	(1941)	(1942)	(2002)	(1934)	(1979)	(1980)	(1981)	

UMPQUA RIVER BASIN

14312500 LAKE CREEK NEAR DIAMOND LAKE, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1927 - 2004	
ANNUAL TOTAL	16,813.4		15,062.0			
ANNUAL MEAN	46.1		41.2		57.5	
HIGHEST ANNUAL MEAN					90.7	1953
LOWEST ANNUAL MEAN					36.9	1937
HIGHEST DAILY MEAN	118	Oct 29	118	Oct 29	250	Jan 1, 1943
LOWEST DAILY MEAN	9.3	Jul 1	8.3	Aug 5	0.00	Aug 25, 1931
ANNUAL SEVEN-DAY MINIMUM	9.6	Jun 25	9.3	Jul 14	1.2	Aug 14, 1978
ANNUAL RUNOFF (AC-FT)	33,350		29,880		41,630	
10 PERCENT EXCEEDS	84		78		100	
50 PERCENT EXCEEDS	42		39		55	
90 PERCENT EXCEEDS	12		10		19	



2004 Water Year
UMPQUA RIVER BASIN

14312500 LAKE CREEK NEAR DIAMOND LAKE, OR

Latitude: 43° 11' 12"

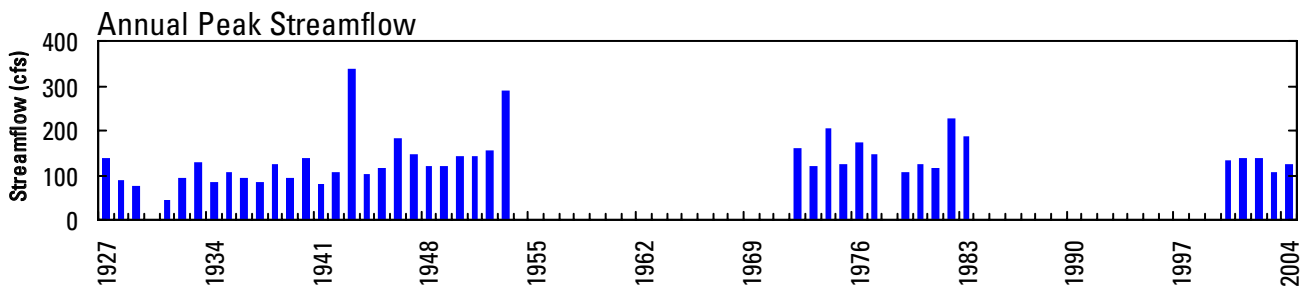
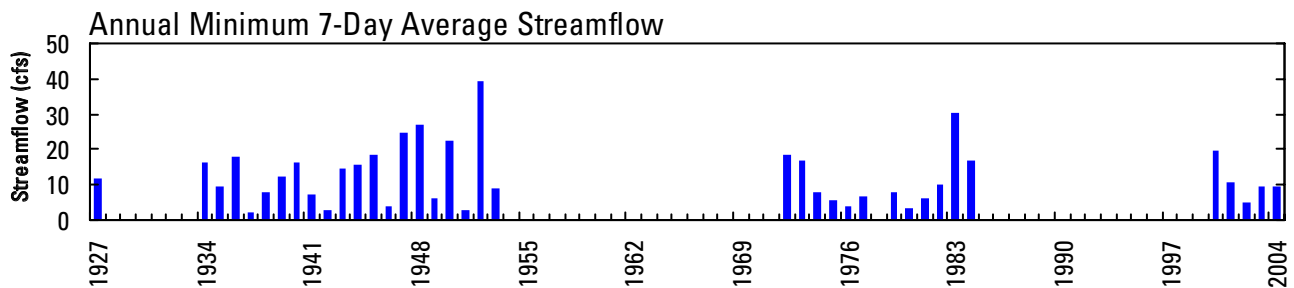
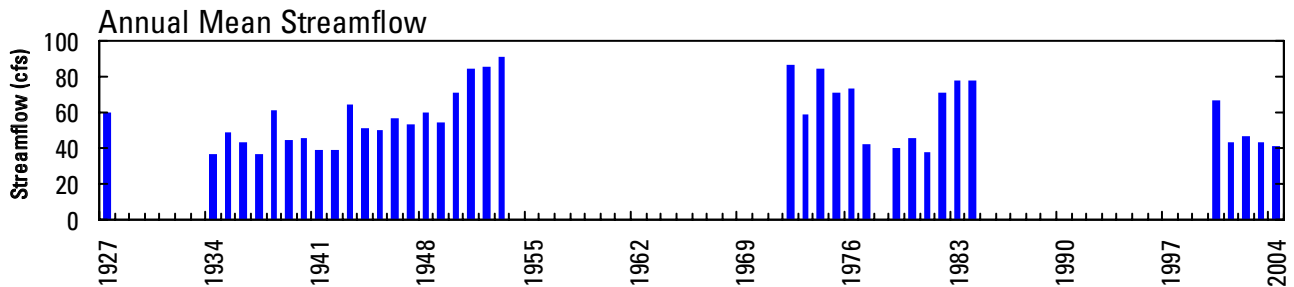
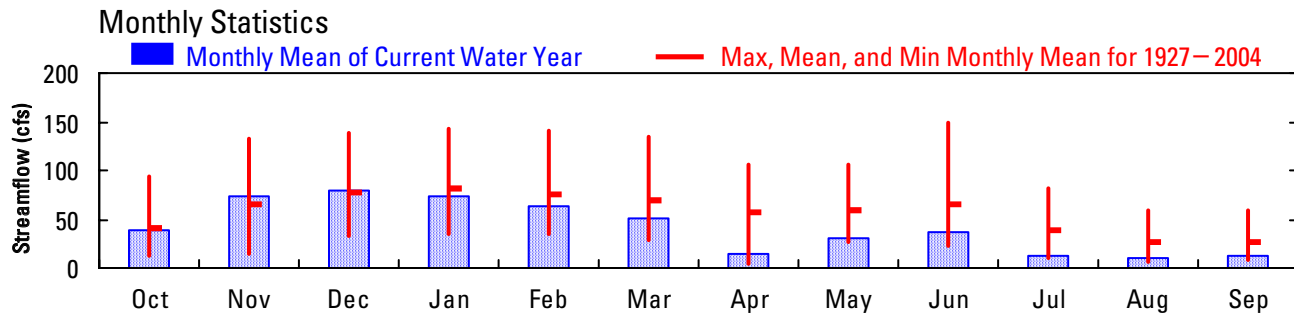
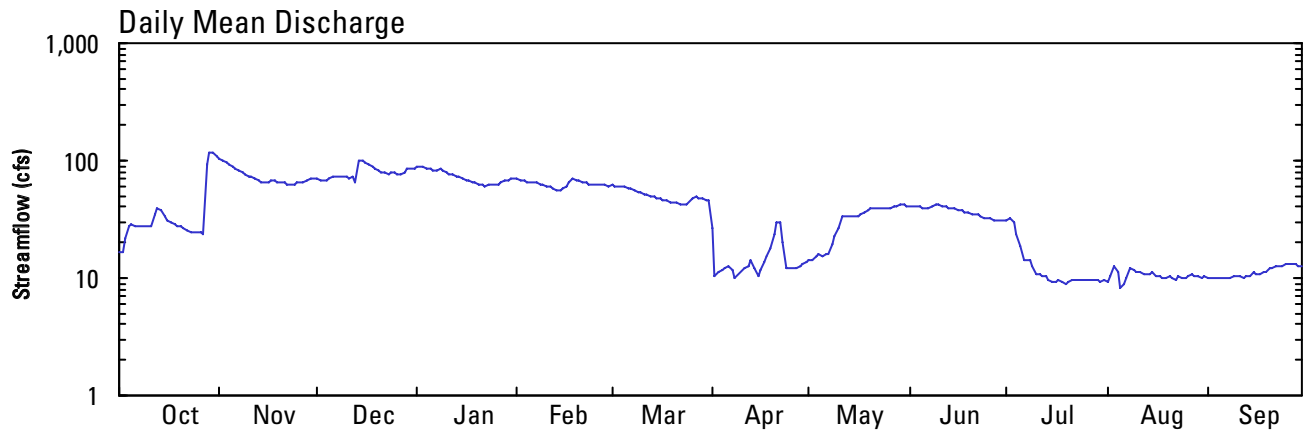
Longitude: 122° 09' 55"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 5,180.00 feet

Drainage Area: 54.9 square miles



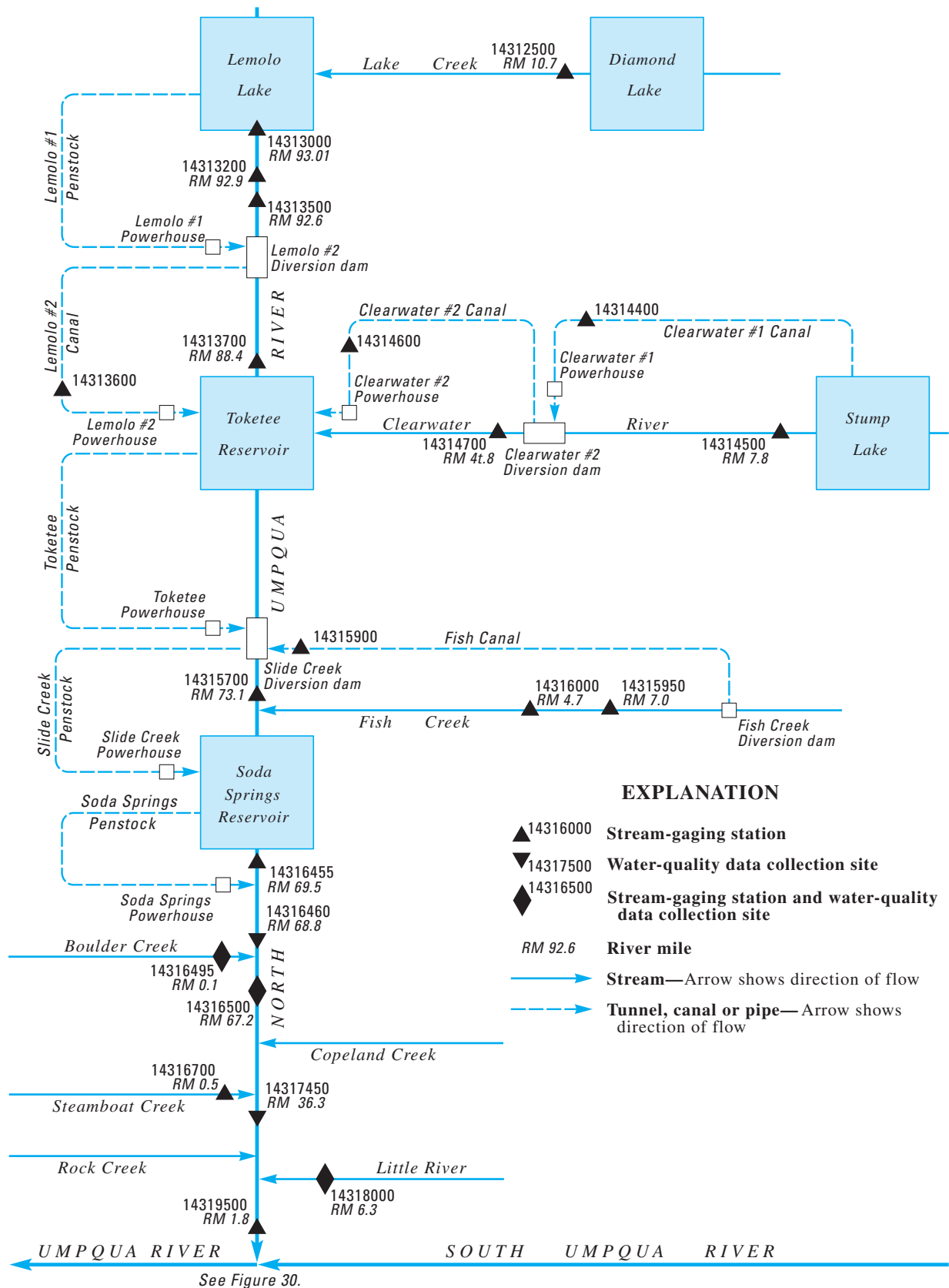


Figure 31. Schematic diagram showing gaging stations and diversions in the North Umpqua River Basin.

14313000 LEMOLO LAKE NEAR TOKETEE FALLS, OR

LOCATION.--(revised)Lat 43°19'22", long 122°11'36", in SE ¼ NW ¼ sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, at Lemolo No. 1 diversion dam on North Umpqua River, 1.1 mi downstream from Lake Creek, 13.0 mi east of town of Toketee Falls, and at mile 93.01.

DRAINAGE AREA.--170 mi².

PERIOD OF RECORD.--July 1954 to current year. Prior to October 1960, published as Lemolo Reservoir near Toketee Falls.

GAGE.--Nonrecording gage July 1954 to April 2004. Elevation recorder April 2004 to Sept. 2004. Datum of gage is NGVD of 1929 (levels by PacifiCorp).

REMARKS.--Lake is formed by Lemolo No 1 diversion dam. Storage began July 15, 1954. Usable capacity for normal operation, 12,520 acre-ft between elevations 4,097.0 ft and 4,148.5 ft. Dead storage below 4,097.0 ft, 1,040 acre-ft. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table and daily gage readings furnished by PacifiCorp.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 14,000 acre-ft Dec. 24, 1964, elevation, 4,149.5 ft; minimum observed, 11 acre-ft Mar. 5, 1955, elevation, 4,055.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,520 acre-ft July 1, elevation, 4,148.40 ft; minimum observed, 4,190 acre-ft Nov. 1, elevation, 4,119.70 ft.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 0900 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,138.60	4,119.70	4,126.00	4,125.50	4,130.10	4,123.70	4,123.50	4,145.60	4,148.11	4,148.21	4,146.84	4,148.12
2	4,138.25	4,119.95	4,125.80	4,125.28	4,129.34	4,124.25	4,123.70	4,145.30	4,147.98	4,148.26	4,146.92	4,147.98
3	4,137.50	4,120.00	4,125.52	4,124.80	4,128.79	4,124.30	4,124.15	4,145.08	4,147.95	4,148.13	4,147.24	4,147.66
4	4,136.85	4,120.22	4,125.49	4,123.65	4,128.22	4,124.50	4,125.25	4,145.22	4,147.79	4,147.94	4,147.48	4,147.31
5	4,136.30	4,120.50	4,126.90	4,123.35	4,127.60	4,124.63	4,126.55	4,145.44	4,147.68	4,147.69	4,147.56	4,147.06
6	4,135.30	4,121.50	4,127.50	4,123.80	4,127.45	4,124.50	4,127.96	4,145.77	4,147.59	4,147.49	4,147.62	4,146.75
7	4,135.10	4,121.35	4,126.30	4,123.80	4,126.94	4,124.39	4,129.30	4,146.02	4,147.40	4,147.39	4,147.63	4,146.34
8	4,134.35	4,120.40	4,125.30	4,123.72	4,126.55	4,124.53	4,130.50	4,146.70	4,147.32	4,147.31	4,147.57	4,145.82
9	4,133.75	4,120.65	4,124.50	4,123.71	4,126.10	4,124.80	4,132.02	4,147.00	4,147.46	4,147.33	4,147.56	4,145.66
10	4,133.00	4,120.55	4,124.05	4,123.73	4,125.75	4,125.00	4,133.15	4,147.41	4,147.63	4,147.39	4,147.58	4,145.48
11	4,132.60	4,120.60	4,124.25	4,123.65	4,125.58	4,124.90	4,134.50	4,147.64	4,147.89	4,147.37	4,147.62	4,145.23
12	4,132.80	4,120.70	4,125.55	4,123.75	4,125.30	4,124.98	4,136.00	4,147.54	4,147.88	4,147.40	4,147.78	4,144.98
13	4,131.40	4,120.65	4,127.29	4,123.59	4,125.32	4,124.15	4,136.04	4,147.06	4,147.94	4,147.47	4,147.86	4,144.74
14	4,130.40	4,120.50	4,128.83	4,123.77	4,125.38	4,124.10	4,136.95	4,147.06	4,148.02	4,147.50	4,148.14	4,144.13
15	4,130.10	4,120.50	4,129.80	4,124.80	4,125.22	4,124.10	4,137.61	4,147.04	4,147.65	4,147.62	4,148.14	4,143.68
16	4,129.35	4,122.50	4,130.70	4,125.50	4,125.68	4,125.40	4,137.43	4,147.09	4,148.10	4,147.75	4,148.14	4,143.38
17	4,128.30	4,122.55	4,131.00	4,125.33	4,127.38	4,125.37	4,137.36	4,147.08	4,148.10	4,147.88	4,148.16	4,143.00
18	4,127.70	4,123.25	4,130.35	4,128.52	4,128.52	4,125.25	4,138.12	4,147.25	4,148.17	4,147.97	4,148.05	4,142.71
19	4,127.00	4,122.80	4,129.90	4,125.58	4,128.23	4,125.10	4,138.59	4,147.55	4,147.96	4,148.02	4,148.01	4,142.39
20	4,125.95	4,123.40	4,129.35	4,125.52	4,127.98	4,125.60	4,139.26	4,147.94	4,147.93	4,148.04	4,148.04	4,141.92
21	4,125.35	4,123.30	4,128.85	4,124.85	4,128.10	4,125.85	4,140.83	4,148.30	4,147.79	4,148.06	4,147.96	4,141.35
22	4,124.75	4,123.33	4,128.85	4,124.95	4,127.59	4,125.15	4,142.03	4,147.90	4,148.00	4,147.91	4,147.92	4,140.86
23	4,124.05	4,123.00	4,127.62	4,126.48	4,127.00	4,128.22	4,143.09	4,147.59	4,147.85	4,147.69	4,148.18	4,140.49
24	4,122.50	4,123.30	4,127.70	4,128.17	4,125.00	4,128.15	4,143.67	4,147.16	4,147.78	4,147.53	4,148.22	4,140.05
25	4,121.85	4,123.50	4,127.15	4,128.26	4,125.10	4,127.30	4,143.98	4,147.67	4,147.98	4,147.47	4,148.30	4,139.69
26	4,120.55	4,123.50	4,126.55	4,128.25	4,124.15	4,126.60	4,144.17	4,147.52	4,148.07	4,147.49	4,148.24	4,139.32
27	4,120.00	4,123.50	4,126.15	4,128.32	4,124.00	4,126.10	4,144.91	4,147.41	4,148.12	4,147.40	4,148.23	4,138.98
28	4,119.95	4,124.25	4,125.10	4,128.75	4,123.74	4,125.52	4,145.75	4,147.58	4,148.19	4,147.06	4,148.12	4,138.57
29	4,120.40	4,125.55	4,126.10	4,130.40	4,123.75	4,124.92	4,146.06	4,147.55	4,148.23	4,147.32	4,148.07	4,138.18
30	4,120.15	4,125.80	4,126.30	4,131.50	---	4,124.15	4,145.93	4,147.65	4,148.24	4,147.18	4,148.08	4,137.76
31	4,120.02	---	4,126.10	4,131.00	---	4,124.02	---	4,147.92	---	4,146.81	4,148.05	---
MEAN	4,128.84	4,122.04	4,127.12	4,125.88	4,126.55	4,125.15	4,136.28	4,147.00	4,147.89	4,147.61	4,147.85	4,143.32
MAX	4,138.60	4,125.80	4,131.00	4,131.50	4,130.10	4,128.22	4,146.06	4,148.30	4,148.24	4,148.26	4,148.30	4,148.12
MIN	4,119.95	4,119.70	4,124.05	4,123.35	4,123.74	4,123.70	4,123.50	4,145.08	4,147.32	4,146.81	4,146.84	4,137.76
(†)	4,260	5,770	5,860	7,290	5,210	5,290	12,490	13,320	13,450	12,850	13,370	9,470
(‡)	-5,840	+1,510	+90	+1,430	-2,080	+80	+7,200	+830	+130	-600	+520	-3,900
CAL YR 2003	MEAN	---	MAX	---	MIN	---	AC-FT‡	-3,620				
WTR YR2004	MEAN	4,135.49	MAX	4,148.30	MIN	4,119.70	AC-FT‡	-630				

† Contents, in acre-feet, at 0900, on last day of month.

‡ Change in contents, in acre-feet.

14313200 NORTH UMPQUA RIVER ABOVE WHITE MULE CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°19'27", long 122°11'45", in SE ¼ NW ¼ sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, 0.1 mi downstream from Lemolo Reservoir and at mile 92.9.

DRAINAGE AREA.--170 mi².

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 3,500 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Minimum flow requirements are maintained by Lemolo Reservoir, which also diverts water into Lemolo No. 1 Power Canal for power generation. Diversion discharged back into North Umpqua River at rm 89.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 376 ft³/s July 29, gage height, 2.51 ft; minimum discharge, 20 ft³/s Jan. 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e30	e26	e27	27	29	e28	e33	e52	e47	64	38	42
2	e30	e26	e27	27	29	e28	e32	e55	e46	42	38	42
3	e30	e26	e27	27	29	e28	e32	e58	e46	40	39	41
4	e29	e26	e27	27	28	e28	e33	e60	e109	40	39	41
5	e29	e26	e27	27	e29	e28	e34	e59	e44	38	40	41
6	e29	e26	e28	27	e29	e28	e36	e58	e43	38	40	41
7	e29	e26	e28	27	e29	e28	e37	e56	e42	38	40	41
8	e29	e26	e27	26	e29	e28	e38	e57	e42	38	40	40
9	e29	e26	e27	25	e29	e28	e39	e55	e42	38	39	40
10	e29	e26	27	25	e28	e28	e40	e55	e42	38	39	39
11	e29	e26	27	25	e28	e28	e41	e55	e42	38	41	40
12	e29	e26	28	25	e28	e28	e43	e52	e42	39	42	39
13	e29	e26	29	25	e28	e29	e45	e50	e42	38	43	40
14	e29	e26	122	25	e28	e29	e45	e50	e42	39	43	40
15	e29	e26	260	26	e28	e29	e44	e49	e41	39	43	39
16	e29	e26	255	27	e28	e29	e42	e50	e41	39	43	39
17	e28	e27	49	27	e29	e30	e40	e50	e41	40	43	39
18	e28	e26	28	27	e29	e31	e39	e57	e41	40	43	39
19	e28	e27	28	27	e29	e32	e39	e58	e40	41	42	39
20	e28	e27	28	27	e29	e32	e39	e58	e40	41	43	39
21	e28	e27	28	27	e29	e32	e39	e57	e40	42	42	38
22	e28	e26	28	27	e29	e34	e39	e54	e40	42	42	37
23	e28	e26	28	26	e29	e35	e39	e155	e40	40	43	36
24	e28	e26	28	27	e29	e37	e39	e285	e39	39	44	36
25	e27	e26	28	27	e29	e36	e39	e49	e40	38	45	35
26	e27	e26	28	28	e29	e36	e41	e48	e40	38	44	35
27	e27	e26	28	28	e28	e35	e44	e48	40	40	44	35
28	e26	e27	28	28	e28	e34	e47	e50	40	154	43	35
29	e26	e27	28	29	e28	e34	e48	e48	40	350	43	35
30	e26	e27	28	29	---	e34	e49	e46	41	312	42	35
31	e26	---	28	29	---	e33	---	e47	---	38	41	---
TOTAL	876	787	1,434	831	830	957	1,195	1,981	1,315	1,941	1,291	1,158
MEAN	28.3	26.2	46.3	26.8	28.6	30.9	39.8	63.9	43.8	62.6	41.6	38.6
MAX	30	27	260	29	29	37	49	285	109	350	45	42
MIN	26	26	27	25	28	28	32	46	39	38	38	35
AC-FT	1,740	1,560	2,840	1,650	1,650	1,900	2,370	3,930	2,610	3,850	2,560	2,300

WTR YR2004 TOTAL 14596 MEAN 39.9 MAX 350 MIN 25 AC-FT 28950

e Estimated

14313500 NORTH UMPQUA RIVER BELOW LEMOLO LAKE, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°19'20", long 122°11'40", in NW ¼ NW ¼ sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 0.4 mi downstream from Lemolo Lake, 13 mi east of town of Toketee Falls, and at mile 92.6.

DRAINAGE AREA.--170 mi² (see REMARKS).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to September 2004 (discontinued). Records since October 1983 are equivalent to earlier records if diversion to Lemolo No. 1 power canal is added to flow past station. Published as "below Lake Creek" prior to October 1952, as "below Lake Creek, near Toketee Falls" October 1952 to September 1953, and as "below Lemolo Reservoir near Toketee Falls" October 1953 to September 1960.

REVISED RECORDS.--WSP 1448: Drainage area. WDR OR-75-1: 1964(M).

GAGE.--Water-stage recorder. Elevation of gage is 4,025 ft above NGVD of 1929, from river-profile map. Prior to July 15, 1954, at site 1 mi upstream at datum about 65 ft higher. July 15, 1954, to Sept. 25, 1955, at site 400 ft upstream at datum 14.11 ft higher.

REMARKS.--Records good. Flow regulated since 1954 by Lemolo Lake (station 14313000); also slightly regulated by Diamond Lake. Records given herein do not include flow in Lemolo No. 1 power canal which, beginning July 1955, diverts 0.4 mi upstream from station for power generation with return flow 4.3 mi downstream.

AVERAGE DISCHARGE.--55 years (water years 1928-83), 423 ft³/s, 33.79 in/yr, 306,500 acre-ft/yr, adjusted for storage. 37 years (water years 1968-2004), 61.5 ft³/s, 44,550 acre-ft/yr (river only).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 4,600 ft³/s Dec. 25, 1964, from rating curve extended above 450 ft³/s on basis of slope-area measurement of peak flow, gage height, 9.20 ft, from floodmark; minimum discharge, 6.4 ft³/s July 17, 1954.

Combined flow, maximum discharge, 4,680 ft³/s Dec. 25, 1964, from river rating curve extended above 450 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 9.7 ft³/s May 13, 1955.

EXTREMES FOR CURRENT YEAR.--River only, maximum recorded discharge, 369 ft³/s July 29, 30, gage height, 6.08 ft; minimum discharge, 26 ft³/s Oct. 27 to Nov. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	27	28	31	28	33	52	47	62	36	38
2	30	26	27	28	30	28	32	55	46	42	36	38
3	30	26	27	28	29	28	32	58	46	40	36	37
4	29	26	27	28	29	28	33	60	109	40	36	38
5	29	26	27	27	29	28	34	59	44	39	37	38
6	29	26	28	27	29	28	36	58	43	39	37	37
7	29	26	28	27	29	28	37	56	42	39	37	37
8	29	26	27	27	29	28	38	57	42	39	37	37
9	29	26	27	27	29	28	39	55	42	39	36	38
10	29	26	27	27	28	28	40	55	42	39	36	37
11	29	26	27	27	28	28	41	55	42	39	37	37
12	29	26	27	27	28	28	43	52	42	39	39	37
13	29	26	29	27	28	29	45	50	42	39	39	37
14	29	26	124	27	28	29	45	50	42	39	39	37
15	29	26	271	27	28	29	44	49	41	39	39	36
16	29	26	265	27	28	29	42	50	41	40	39	36
17	28	27	49	27	29	30	40	50	41	40	39	36
18	28	26	28	27	29	31	39	57	41	40	38	36
19	28	27	28	27	29	32	39	58	40	41	38	36
20	28	27	28	27	29	32	39	58	40	41	39	36
21	28	27	28	27	29	32	39	57	40	41	38	36
22	28	26	28	27	29	34	39	54	40	41	38	35
23	28	26	28	27	29	35	39	155	40	41	38	35
24	28	26	28	28	29	37	39	285	39	40	39	35
25	27	26	28	28	29	36	39	49	40	40	40	35
26	27	26	28	28	29	36	41	48	40	40	40	35
27	27	26	28	28	28	35	44	48	40	41	40	35
28	26	27	28	29	28	34	47	50	40	154	39	35
29	26	27	28	29	28	34	48	48	40	354	39	35
30	26	27	28	30	---	34	49	46	40	314	38	35
31	26	---	28	31	---	33	---	47	---	36	38	---
TOTAL	876	787	1,456	856	834	957	1,195	1,981	1,314	1,957	1,177	1,090
MEAN	28.3	26.2	47.0	27.6	28.8	30.9	39.8	63.9	43.8	63.1	38.0	36.3
MAX	30	27	271	31	31	37	49	285	109	354	40	38
MIN	26	26	27	27	28	28	32	46	39	36	36	35
AC-FT	1,740	1,560	2,890	1,700	1,650	1,900	2,370	3,930	2,610	3,880	2,330	2,160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	37.2	34.8	40.2	42.1	34.3	37.3	42.5	116	139	88.3	71.3	53.1
MAX	126	150	185	307	144	200	119	411	687	332	321	299
(WY)	(1979)	(1979)	(1977)	(1997)	(1996)	(1972)	(1987)	(2003)	(1974)	(2003)	(1979)	(2003)
MIN	19.8	19.1	19.5	19.6	19.8	19.8	22.2	22.2	22.6	24.2	20.8	20.9
(WY)	(1973)	(1973)	(1971)	(1985)	(1973)	(1973)	(1973)	(1973)	(1973)	(1968)	(1971)	(1972)

UMPQUA RIVER BASIN

14313500 NORTH UMPQUA RIVER BELOW LEMOLO LAKE, NEAR TOKETEE FALLS, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	62,526		14,480			
ANNUAL MEAN	171		39.6		61.5	
HIGHEST ANNUAL MEAN					173	2003
LOWEST ANNUAL MEAN					24.1	1973
HIGHEST DAILY MEAN	517	May 30	354	Jul 29	1,070	Jun 4, 1975
LOWEST DAILY MEAN	26	Oct 28	26	Oct 28	15	Oct 15, 1970
ANNUAL SEVEN-DAY MINIMUM	26	Oct 28	26	Oct 28	17	Jan 24, 1985
ANNUAL RUNOFF (AC-FT)	124,000		28,720		44,550	
10 PERCENT EXCEEDS	389		48		134	
50 PERCENT EXCEEDS	38		35		30	
90 PERCENT EXCEEDS	27		27		23	



2004 Water Year
UMPQUA RIVER BASIN

14313500 N UMPQUA RIVER BLW LEMOLO LK, NR TOKETEE FALLS, OR

Latitude: 43° 19' 20"

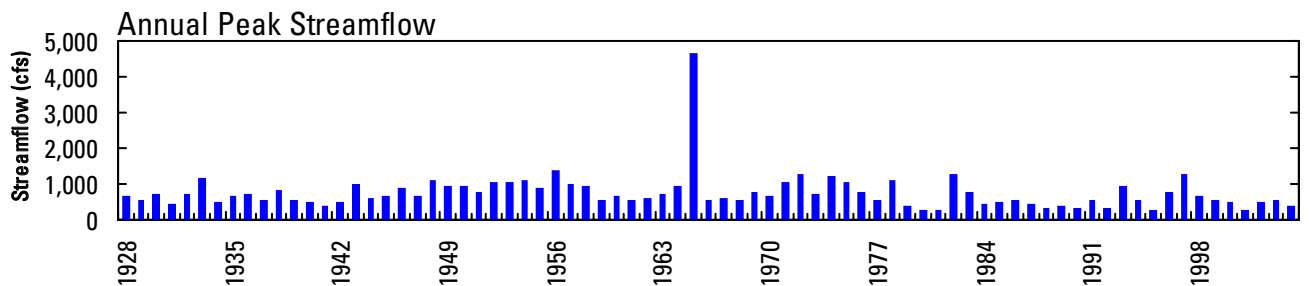
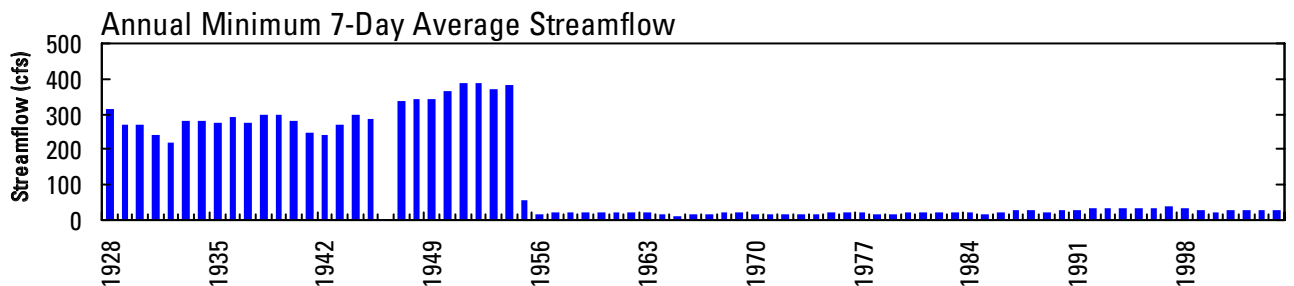
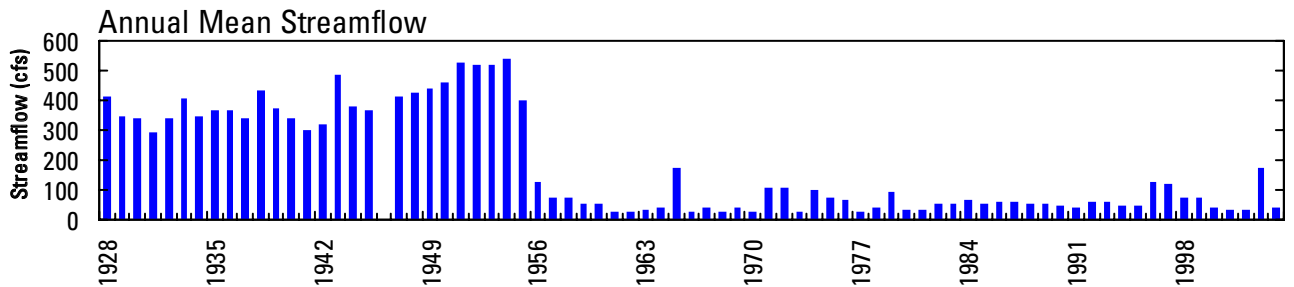
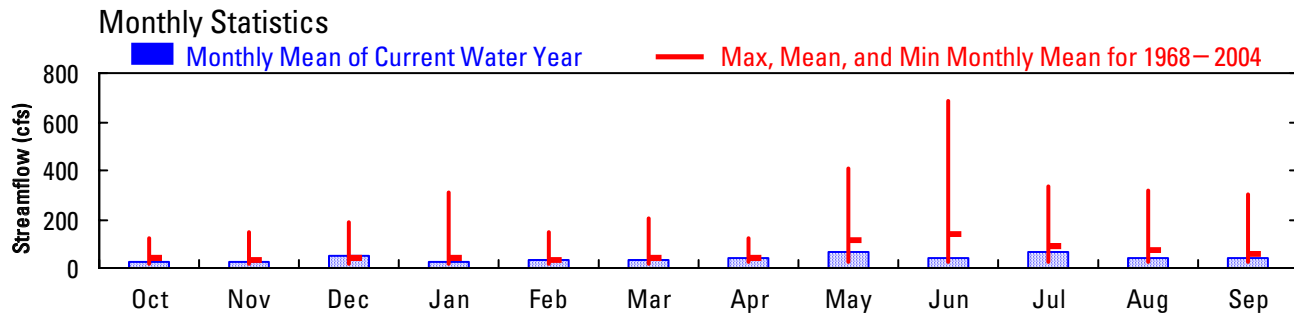
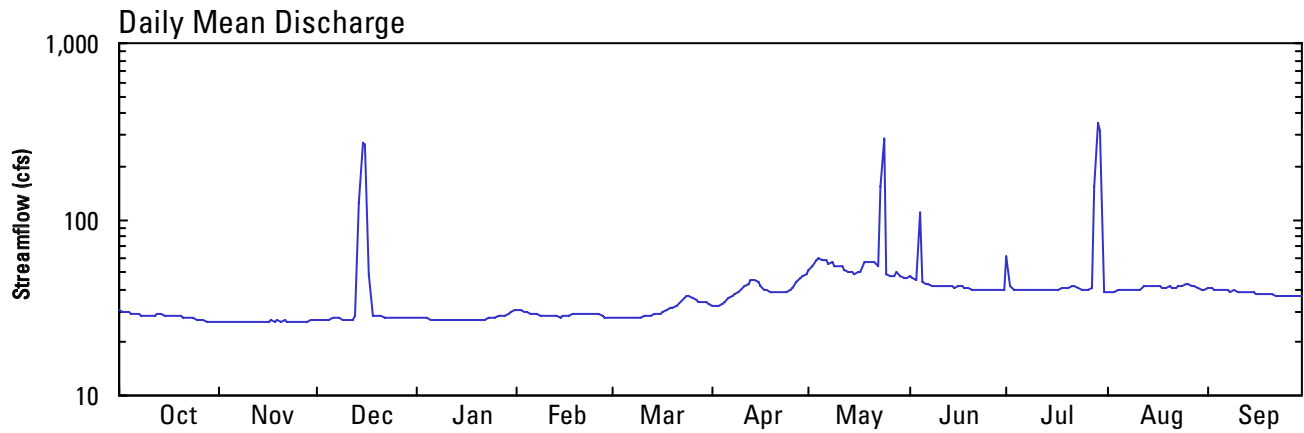
Longitude: 122° 11' 40"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 4,025.00 feet

Drainage Area: 170 square miles



14313600 LEMOLO NO 2 POWER CANAL, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°17'48", long 122°23'58", in SE ¼ NE ¼ sec.24, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on Forest Service Road 3402, 0.5 mi east of Toketee Falls.

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Elevation of gage is 2,950 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 700 ft³/s Mar. 26; minimum daily discharge, 69 ft³/s Aug. 8, 9, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	408	440	321	397	572	395	599	687	529	302	71	321
2	426	351	379	393	465	378	495	692	566	528	70	372
3	402	336	422	497	415	340	440	691	549	498	70	378
4	382	332	373	462	482	354	337	634	582	482	70	392
5	414	316	274	438	471	381	353	614	617	471	70	369
6	406	328	183	412	504	391	299	588	596	458	71	361
7	382	385	470	263	448	391	322	512	583	408	70	403
8	392	359	563	436	475	408	340	521	544	415	69	409
9	406	308	521	380	438	381	343	525	502	394	69	322
10	408	322	450	378	431	397	307	473	464	378	70	378
11	393	326	399	377	378	455	352	592	483	395	69	358
12	397	315	338	383	403	428	325	587	502	373	70	365
13	405	352	207	392	389	454	445	665	483	358	77	381
14	420	362	116	384	367	443	438	591	465	373	304	437
15	457	348	128	273	377	475	524	559	423	343	318	409
16	332	266	110	309	401	422	612	537	477	314	294	384
17	435	254	224	359	275	485	424	560	409	379	329	403
18	392	174	442	403	233	515	425	570	472	367	331	369
19	386	370	498	357	412	526	380	569	470	368	298	388
20	438	282	472	395	508	448	336	535	471	366	328	450
21	415	312	470	435	372	461	224	530	392	369	320	426
22	375	312	468	411	471	377	275	652	431	406	286	428
23	365	348	461	310	560	360	342	595	448	407	320	360
24	421	283	428	184	523	547	385	151	414	367	308	382
25	447	309	434	281	554	594	446	81	351	357	342	323
26	392	312	481	394	582	700	398	103	378	358	339	354
27	361	289	480	399	453	676	342	526	387	391	359	377
28	373	333	391	428	429	634	438	658	377	224	326	369
29	330	225	380	290	385	575	593	661	411	332	299	310
30	372	236	380	229	---	636	580	551	450	377	313	290
31	357	---	379	500	---	599	---	558	---	219	291	---
TOTAL	12,289	9,485	11,642	11,549	12,773	14,626	12,119	16,768	14,226	11,777	6,621	11,268
MEAN	396	316	376	373	440	472	404	541	474	380	214	376
MAX	457	440	563	500	582	700	612	692	617	528	359	450
MIN	330	174	110	184	233	340	224	81	351	219	69	290
AC-FT	24,380	18,810	23,090	22,910	25,340	29,010	24,040	33,260	28,220	23,360	13,130	22,350

WTR YR2004 TOTAL 145,143 MEAN 397 MAX 700 MIN 69 AC-FT 287900

14313700 NORTH UMPQUA RIVER BELOW WARM SPRINGS CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°21'18", long 122°15'03", in NE ¼ SW ¼ sec.31, T.25 S., R.5 E., Douglas County, Hydrologic Unit 17100301, downstream from Lemolo #1 Powerplant and at mile 88.4.

DRAINAGE AREA.--199 mi².

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 3,300 ft above NGVD of 1929.

REMARKS.--Records fair. Flow regulated since 1954 by Pacific Power.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 644 ft³/s May 25, gage height 6.84 ft; minimum discharge, 18 ft³/s July 1.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	46	46	44	125	44	55	76	41	37	316	33
2	44	45	47	43	131	44	35	94	40	38	295	35
3	44	45	47	44	122	43	35	106	36	37	293	33
4	44	44	47	42	62	44	34	103	60	35	311	35
5	46	45	45	44	51	45	35	93	36	36	296	36
6	46	45	44	43	45	44	33	81	67	35	305	36
7	45	45	48	43	46	44	34	65	54	35	324	38
8	46	45	48	44	44	44	35	78	39	35	316	35
9	46	45	47	44	44	44	34	68	44	34	309	e38
10	46	45	47	44	45	45	34	56	34	35	299	34
11	44	45	46	44	45	44	36	88	38	35	297	35
12	44	45	45	43	45	43	35	89	39	35	288	32
13	44	46	45	44	44	38	50	44	35	35	228	35
14	45	46	138	44	43	37	52	79	41	35	32	35
15	45	46	241	42	43	38	69	82	36	35	37	36
16	44	45	232	43	44	47	68	79	39	34	36	33
17	45	45	42	43	43	52	42	84	38	36	32	35
18	45	44	46	44	42	56	47	93	43	37	31	32
19	44	47	46	44	45	36	43	83	38	39	31	32
20	46	45	46	44	50	44	39	70	42	39	33	34
21	45	46	45	46	44	43	33	94	35	42	31	30
22	45	46	44	45	46	39	36	101	35	43	31	34
23	45	47	44	43	47	41	40	178	36	42	31	35
24	46	46	44	42	45	57	49	408	36	36	34	34
25	45	46	45	44	52	51	59	487	35	35	37	34
26	45	46	45	46	54	51	50	518	34	36	37	34
27	45	47	43	45	45	41	45	59	35	44	37	36
28	45	47	41	45	45	37	62	58	35	34	37	37
29	45	45	41	44	45	53	91	75	36	37	36	36
30	46	45	43	43	---	84	56	35	36	65	32	37
31	45	---	44	48	---	67	---	37	---	244	32	---
TOTAL	1,394	1,365	1,872	1,361	1,582	1,440	1,366	3,661	1,193	1,375	4,484	1,039
MEAN	45.0	45.5	60.4	43.9	54.6	46.5	45.5	118	39.8	44.4	145	34.6
MAX	46	47	241	48	131	84	91	518	67	244	324	38
MIN	44	44	41	42	42	36	33	35	34	34	31	30
AC-FT	2,760	2,710	3,710	2,700	3,140	2,860	2,710	7,260	2,370	2,730	8,890	2,060

WTR YR2004 TOTAL 22132 MEAN 60.5 MAX 518 MIN 30 AC-FT 43900

e Estimated

14314400 CLEARWATER NO 1 POWER CANAL, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°15'10", long 122°17'15", in NW ¼ NW ¼ sec.2, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on Mowich Loop Road (FS road 4780), 4.0 mi east of Toketee Falls.

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Elevation of gage is 3,850 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 170 ft³/s Apr. 13; minimum daily discharge, 3.1 ft³/s Oct. 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	116	125	124	154	137	160	152	143	123	114	124
2	117	116	125	123	156	135	158	155	143	122	116	125
3	117	116	126	122	156	135	158	158	146	121	118	123
4	117	116	127	122	151	136	160	158	149	120	116	124
5	117	114	131	122	147	135	162	156	149	119	116	124
6	118	113	139	122	148	134	162	154	143	118	116	124
7	118	114	135	123	148	123	164	151	144	119	116	123
8	118	116	131	125	144	133	164	154	139	117	114	123
9	119	114	129	128	142	136	165	149	138	117	115	122
10	120	113	128	127	139	137	164	147	142	116	115	122
11	122	117	128	125	137	138	165	147	138	116	116	122
12	123	116	130	125	135	140	167	141	135	116	116	122
13	121	115	148	125	133	141	170	139	134	115	116	123
14	120	115	143	126	131	143	168	137	135	113	117	123
15	121	116	7.1	128	130	144	165	138	134	114	118	126
16	122	117	4.6	129	132	144	162	139	135	114	119	123
17	121	120	28	129	140	146	158	140	134	114	119	123
18	121	118	134	129	148	149	155	152	135	114	119	125
19	114	119	129	132	148	152	151	153	135	114	120	123
20	36	119	129	132	147	153	154	151	133	114	120	125
21	3.2	118	129	132	145	155	154	151	132	114	121	123
22	3.2	117	127	131	144	160	147	148	133	114	125	121
23	3.2	117	126	136	143	164	145	131	134	114	126	121
24	3.1	118	132	142	142	168	143	97	133	113	124	121
25	3.2	118	129	141	142	168	143	143	131	113	125	120
26	3.2	120	127	141	141	168	147	142	129	114	132	119
27	3.2	119	125	145	140	166	152	146	126	113	127	118
28	3.3	120	125	147	138	163	156	157	126	113	126	118
29	3.4	130	125	153	138	162	153	153	126	113	125	118
30	23	128	124	155	---	166	151	145	123	114	124	118
31	118	---	123	154	---	163	---	144	---	114	123	---
TOTAL	2,469.0	3,525	3,668.7	4,095	4,139	4,594	4,723	4,528	4,077	3,585	3,714	3,666
MEAN	79.6	118	118	132	143	148	157	146	136	116	120	122
MAX	123	130	148	155	156	168	170	158	149	123	132	126
MIN	3.1	113	4.6	122	130	123	143	97	123	113	114	118
AC-FT	4,900	6,990	7,280	8,120	8,210	9,110	9,370	8,980	8,090	7,110	7,370	7,270

WTR YR2004 TOTAL 46,783.7 MEAN 128 MAX 170 MIN 3.1 AC-FT 92800

14314500 CLEARWATER RIVER ABOVE TRAP CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°14'40", long 122°17'10", in SW ¼ sec.1, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 900 ft downstream from Clearwater No. 1 diversion dam, 0.4 mi upstream from Trap Creek, 8.7 mi east of town of Toketee Falls, and at mile 7.8.

DRAINAGE AREA.--41.6 mi² (see REMARKS).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Records since October 1983 are equivalent to earlier records if diversion to Clearwater No. 1 power canal is added to flow past station. Monthly discharge only December 1927 to March 1928, published in WSP 1318. Prior to October 1952, published as "above Trap Creek."

REVISED RECORDS.--WSP 1124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,862.84 ft above NGVD of 1929 (levels by Pacific Power & Light Co.). Prior to Dec. 1, 1953, at two sites about 0.4 mi downstream at different datums.

REMARKS.--No estimated daily discharges. Records fair. Published records after September 1983 did not include flow in Clearwater No. 1 power canal, completed in June 1953, which diverts 900 ft upstream from station for generation of power and returns water to Clearwater River 2.5 mi downstream from station. Discharges for the period Nov. 7 to Jan. 31 estimated from data obtained from PacifiCorp.

AVERAGE DISCHARGE.--26 years (water years 1928-53), 155 ft³/s, 112,400 acre-ft/yr. 51 years (water years 1954-2004), 18.9 ft³/s, 13,700 acre-ft/yr (river only).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 848 ft³/s Dec. 23, 1964, gage height, 7.19 ft; maximum gage height, 7.87 ft Dec. 23, 1964, log jam; minimum discharge, 0.08 ft³/s Sept. 21, 1977, result of beavers plugging release gate at diversion dam 900 ft upstream.

Combined flow, maximum discharge, 1,020 ft³/s Dec. 23, 1964; minimum daily, 91 ft³/s Nov. 4-6, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 129 ft³/s Dec. 15, gage height, 4.11 ft; minimum discharge, 5.7 ft³/s Nov. 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	6.6	7.9	8.7	11	8.1	8.4	9.3	8.6	7.4	8.4	8.1
2	7.5	6.8	8.1	8.6	10	8.2	8.3	11	8.4	7.4	8.5	8.1
3	7.5	6.6	8.0	8.4	9.9	8.4	8.2	13	8.4	7.3	8.5	8.3
4	7.5	6.6	8.0	8.4	9.1	8.5	8.3	14	8.6	7.6	8.4	8.5
5	7.6	7.7	8.9	8.4	8.7	8.4	8.4	12	8.7	7.5	8.4	8.5
6	7.8	10	18	8.4	9.4	8.4	8.4	9.3	8.2	7.5	8.3	8.5
7	7.8	7.8	8.2	8.4	9.1	17	8.4	8.9	8.3	7.6	8.1	8.4
8	7.8	7.1	7.9	8.8	8.5	12	8.5	9.8	8.1	7.5	8.3	8.7
9	7.9	8.8	7.6	9.1	8.4	9.8	8.8	9.7	7.9	7.5	8.7	8.5
10	8.2	11	7.5	8.3	8.4	9.5	8.9	9.7	8.1	7.5	8.8	8.7
11	8.2	11	7.5	8.1	8.4	9.4	9.0	9.7	7.9	7.5	8.8	8.8
12	7.9	8.3	7.7	8.1	8.4	9.0	11	9.4	7.8	7.5	8.8	8.8
13	7.6	8.1	23	8.1	8.4	9.0	13	9.4	7.8	7.7	8.8	9.0
14	7.8	8.1	16	8.2	8.4	9.0	12	9.4	7.7	7.9	8.8	9.1
15	8.0	8.1	126	8.4	8.4	8.9	9.6	9.4	7.8	8.4	8.8	8.7
16	8.1	8.3	127	8.4	12	8.8	8.8	9.4	7.8	8.4	8.8	8.1
17	8.1	9.0	107	8.4	27	9.0	8.5	9.4	7.8	8.4	8.8	7.5
18	8.0	8.1	8.1	8.4	32	9.8	8.4	13	7.8	8.4	8.8	7.3
19	13	8.2	7.8	8.4	17	11	8.4	11	7.7	8.4	8.8	7.3
20	85	8.1	7.8	8.4	13	9.1	8.6	10	7.5	8.4	8.8	7.4
21	116	8.1	7.8	8.3	10	9.6	8.8	10	7.5	8.4	8.8	7.2
22	117	7.8	7.5	8.1	9.2	13	8.5	10	7.5	8.4	8.9	7.2
23	118	7.8	7.5	9.2	8.8	14	8.4	26	7.6	8.4	8.7	7.3
24	117	7.8	8.1	11	8.7	12	8.1	75	7.5	8.4	8.4	7.3
25	117	8.0	8.1	8.7	8.6	10	8.1	11	7.5	8.5	8.6	8.2
26	116	8.1	7.8	8.4	8.5	9.4	8.4	8.8	7.4	8.6	9.2	8.9
27	116	7.8	7.9	8.9	8.4	9.1	8.9	9.4	7.3	8.4	8.5	9.1
28	116	7.9	8.4	9.7	8.3	8.5	11	21	7.3	8.4	8.4	9.1
29	118	11	8.5	13	8.2	8.5	9.0	12	7.3	8.4	8.3	9.0
30	102	8.0	8.4	15	---	9.0	8.8	8.8	7.2	8.4	8.1	8.8
31	7.5	---	8.4	11	---	8.5	---	8.6	---	8.4	8.1	---
TOTAL	1,399.3	246.6	616.4	279.7	314.2	302.9	269.9	407.4	235.0	248.5	266.4	248.4
MEAN	45.1	8.22	19.9	9.02	10.8	9.77	9.00	13.1	7.83	8.02	8.59	8.28
MAX	118	11	127	15	32	17	13	75	8.7	8.6	9.2	9.1
MIN	7.5	6.6	7.5	8.1	8.2	8.1	8.1	8.6	7.2	7.3	8.1	7.2
AC-FT	2,780	489	1,220	555	623	601	535	808	466	493	528	493

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2004, BY WATER YEAR (WY)

MEAN	13.8	13.0	15.2	15.1	16.0	15.5	20.6	52.5	31.5	14.4	11.2	7.79
MAX	130	177	119	143	177	116	67.7	169	115	88.3	100	59.4
(WY)	(2002)	(2001)	(1965)	(1997)	(1996)	(1972)	(1972)	(1972)	(1958)	(1993)	(1996)	(1994)
MIN	3.12	1.50	1.70	0.35	0.34	0.42	2.33	2.98	5.18	3.41	2.15	2.76
(WY)	(1958)	(1955)	(1955)	(1954)	(1955)	(1955)	(1955)	(1968)	(1973)	(1969)	(1954)	(1954)

UMPQUA RIVER BASIN

14314500 CLEARWATER RIVER ABOVE TRAP CREEK, NEAR TOKETEE FALLS, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1954 - 2004	
ANNUAL TOTAL	4,880.3		4,834.7			
ANNUAL MEAN	13.4		13.2		18.9	
HIGHEST ANNUAL MEAN					52.0	1997
LOWEST ANNUAL MEAN					5.85	1987
HIGHEST DAILY MEAN	127	Dec 16	127	Dec 16	779	Dec 23, 1964
LOWEST DAILY MEAN	6.0	Jan 6	6.6	Nov 1	0.10	Jan 9, 1954
ANNUAL SEVEN-DAY MINIMUM	6.9	Jan 5	7.3	Sep 18	0.14	Jan 8, 1954
ANNUAL RUNOFF (AC-FT)	9,680		9,590		13,700	
10 PERCENT EXCEEDS	16		12		47	
50 PERCENT EXCEEDS	8.1		8.4		6.2	
90 PERCENT EXCEEDS	7.5		7.5		4.5	



2004 Water Year
UMPQUA RIVER BASIN

14314500 CLEARWATER RIVER ABV TRAP CK, NR TOKETEE FALLS, OR

Latitude: 43° 14' 40"

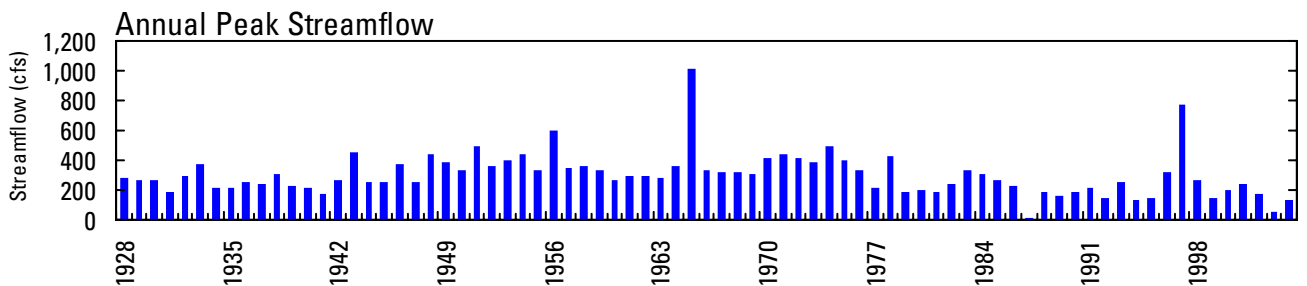
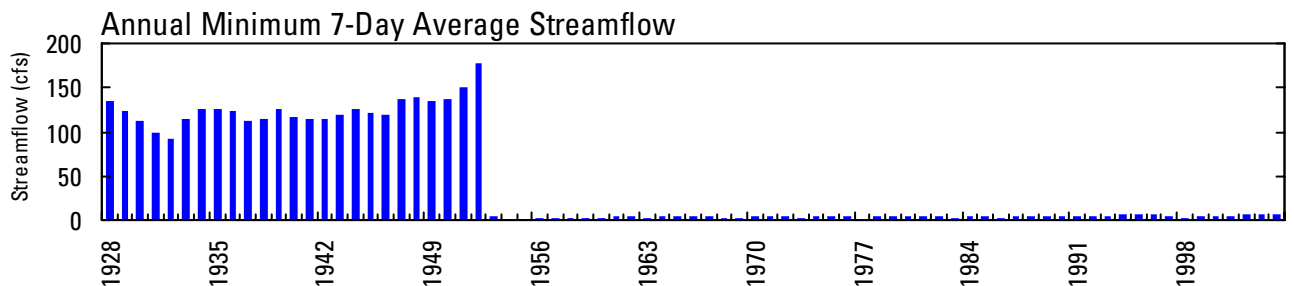
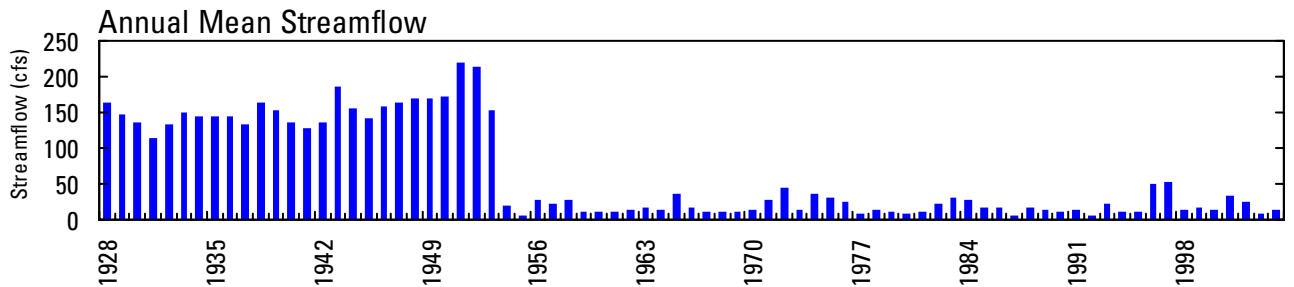
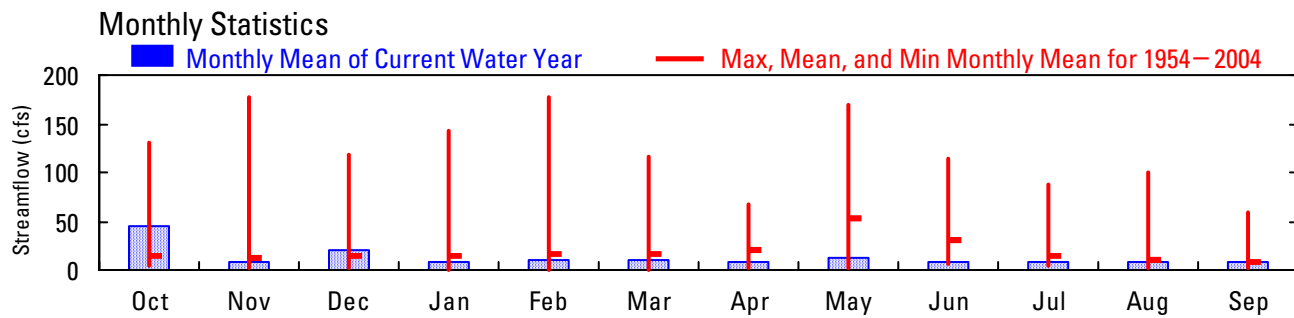
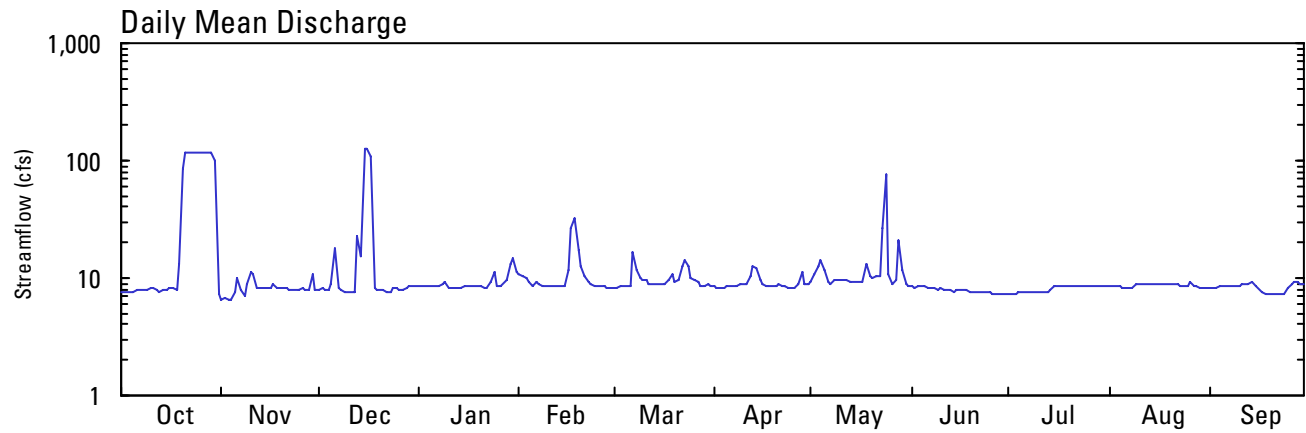
Longitude: 122° 17' 10"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 3,862.84 feet

Drainage Area: 41.6 square miles



14314600 CLEARWATER NO 2 POWER CANAL, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°15'34", long 122°23'54", in NE ¼ SE ¼ sec.36, T.26 S., R.3 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on Mowich Loop Road (FS road 4780), 1.0 mi east of Toketee Falls.

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Elevation of gage is 2,858.48 ft above NGVD of 1929, from levels by Pacific Power.

REMARKS.--No estimated daily discharges. Records fair. Flow completely regulated.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 291 ft³/s Feb. 18; minimum daily discharge, 2.0 ft³/s Jan. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	131	141	147	231	163	226	210	219	157	130	39
2	132	131	141	166	216	183	217	212	204	150	126	114
3	131	130	142	142	216	183	215	207	204	150	131	125
4	122	148	141	137	196	189	216	216	187	152	125	112
5	130	135	151	145	191	190	215	218	216	146	122	116
6	134	138	173	138	195	186	221	200	206	139	124	123
7	129	131	169	153	183	180	216	189	191	150	121	110
8	131	133	154	147	188	238	207	189	203	144	121	126
9	127	132	142	167	178	215	217	190	184	143	119	120
10	132	135	140	155	152	215	223	187	196	142	126	117
11	130	134	142	85	161	234	213	187	194	141	123	117
12	133	130	141	4.2	167	222	202	178	189	139	121	115
13	137	136	206	3.6	173	230	223	168	184	101	114	119
14	119	128	94	3.5	177	228	229	166	184	14	118	122
15	132	137	6.4	3.2	171	227	212	181	172	9.8	126	121
16	130	136	29	2.5	190	235	207	188	182	88	113	126
17	125	144	144	2.0	255	220	200	193	177	138	126	121
18	134	139	186	2.0	291	232	197	197	181	128	116	126
19	121	135	157	4.2	258	232	198	210	129	129	123	123
20	97	137	170	118	236	242	216	200	22	125	115	121
21	129	133	163	176	234	232	197	201	11	128	124	126
22	130	130	165	162	214	246	245	197	8.9	127	130	125
23	132	130	156	181	215	249	204	184	40	126	45	120
24	131	131	162	208	207	264	211	70	149	125	10	119
25	130	138	161	223	213	257	208	226	188	125	9.1	119
26	128	132	159	190	204	247	205	199	150	128	8.8	118
27	133	132	156	204	213	246	225	200	162	129	7.8	123
28	135	131	147	212	203	238	206	231	153	125	6.7	119
29	136	122	156	266	188	239	208	232	158	123	5.6	121
30	141	186	137	274	---	232	193	214	149	128	4.7	114
31	145	---	157	232	---	229	---	199	---	118	3.8	---
TOTAL	4,015	4,065	4,488.4	4,053.2	5,916	6,923	6,372	6,039	4,792.9	3,867.8	2,795.5	3,517
MEAN	130	136	145	131	204	223	212	195	160	125	90.2	117
MAX	145	186	206	274	291	264	245	232	219	157	131	126
MIN	97	122	6.4	2.0	152	163	193	70	8.9	9.8	3.8	39
AC-FT	7,960	8,060	8,900	8,040	11,730	13,730	12,640	11,980	9,510	7,670	5,540	6,980

WTR YR2004 TOTAL 56,844.8 MEAN 155 MAX 291 MIN 2.0 AC-FT 112800

14314700 CLEARWATER RIVER BELOW MOWICH CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°15'04", long 122°20'14", in NE ¼ sec.4, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, 2.9 mi east of Toketee Falls, and at mile 4.8.

DRAINAGE AREA.--59.25 mi².

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 3,200 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum flow requirements are maintained by diversion dam 0.1 mi upstream from gage, which diverts water into Clearwater #2 Canal for power generation at Clearwater #2 Powerplant. Diversion discharged back into the North Umpqua River at Toketee Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft³/s June 20, gage height, 5.94 ft; minimum discharge, 5.6 ft³/s July 1.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	18	9.8	18	11	10	11	12	9.1	16	84
2	11	13	18	11	14	10	10	11	10	9.0	16	15
3	11	14	19	10	11	10	10	11	11	9.0	16	15
4	11	15	18	10	11	10	10	11	10	9.3	16	14
5	11	15	19	10	10	10	10	11	11	8.9	15	15
6	11	16	19	10	11	11	11	11	11	9.0	15	15
7	11	17	18	11	10	10	10	11	10	9.4	15	14
8	11	18	18	11	10	12	10	11	10	9.2	15	15
9	11	19	18	11	10	11	10	11	9.9	9.0	15	15
10	11	19	18	11	10	9.7	11	11	10	9.0	15	15
11	11	19	19	76	10	11	11	10	10	8.9	15	15
12	12	19	19	143	10	13	10	10	10	8.8	16	15
13	12	19	22	146	10	11	11	10	9.8	25	15	15
14	11	19	140	152	10	11	11	9.9	9.8	131	15	14
15	12	19	140	165	10	10	10	10	9.7	134	16	15
16	12	19	122	163	11	12	10	9.9	9.7	73	15	15
17	12	20	17	165	12	10	9.6	10	9.7	16	15	14
18	13	19	10	157	15	10	9.7	10	10	15	15	15
19	12	19	10	157	16	10	9.8	11	33	15	16	14
20	11	19	9.7	63	12	10	10	11	173	15	15	14
21	12	19	9.4	11	12	11	9.8	11	157	15	16	14
22	13	18	9.4	10	12	12	11	11	159	15	16	15
23	12	18	9.7	12	11	13	10	12	119	15	89	15
24	12	19	9.9	12	11	13	10	99	9.6	15	131	15
25	12	18	11	16	11	11	10	12	10	15	131	15
26	12	19	12	14	11	10	11	10	9.3	16	139	15
27	12	19	11	12	11	10	11	11	9.5	16	130	15
28	13	19	9.1	12	11	10	11	11	9.4	16	136	15
29	13	18	10	18	11	10	11	13	9.4	16	132	15
30	13	20	9.6	13	---	11	10	11	9.2	16	131	15
31	13	---	9.9	17	---	10	---	11	---	15	111	---
TOTAL	365	537	802.7	1,638.8	332	333.7	308.9	423.8	891.0	702.6	1,469	512
MEAN	11.8	17.9	25.9	52.9	11.4	10.8	10.3	13.7	29.7	22.7	47.4	17.1
MAX	13	20	140	165	18	13	11	99	173	134	139	84
MIN	11	13	9.1	9.8	10	9.7	9.6	9.9	9.2	8.8	15	14
AC-FT	724	1,070	1,590	3,250	659	662	613	841	1,770	1,390	2,910	1,020

WTR YR2004 TOTAL 8,316.5 MEAN 22.7 MAX 173 MIN 8.8 AC-FT 16500

14315500 NORTH UMPQUA RIVER AT TOKETEE FALLS, OR

LOCATION.--Lat 43°15'49", long 122°25'14", in SE ¼ sec.35, T.26 S., R.3 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, and at mile 75.2.

DRAINAGE AREA.--334.8 mi².

PERIOD OF RECORD.--October 1925 to September 1948, October 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 2,200 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Minimum flow requirements are maintained by diversion dam 0.1 mi upstream of gage, which diverts water into Toketee Canal for power generation at Toketee Powerplant Diversion discharged back into the North Umpqua River at Slide Creek diversion Dam, at mile 73.5.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 500 ft³/s Dec. 14, maximum gage height, 5.95 ft Dec. 14; minimum discharge, 15 ft³/s Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	60	49	45	38	92	39	53	46	64	60	57
2	42	63	51	49	67	81	45	54	51	60	61	57
3	34	54	53	43	76	71	45	55	49	58	59	54
4	46	53	56	40	89	70	48	50	47	54	57	48
5	45	48	56	42	82	72	51	51	46	52	54	43
6	48	44	53	52	74	73	52	49	44	52	49	40
7	64	41	48	52	68	60	53	57	52	54	41	49
8	50	56	42	49	72	59	52	53	65	51	45	58
9	53	66	44	53	e75	64	51	57	62	50	60	51
10	56	61	43	51	e65	62	53	52	70	47	59	57
11	59	60	57	49	e70	55	53	41	58	47	59	49
12	56	55	65	51	e70	54	54	42	61	46	60	46
13	56	51	e70	49	e80	54	47	53	66	43	60	53
14	50	50	e500	51	e55	51	43	45	65	55	61	61
15	58	51	e110	57	e50	52	55	48	73	66	63	61
16	55	53	e115	56	e50	50	61	49	64	57	60	57
17	51	49	55	53	e90	54	74	46	58	55	50	54
18	55	47	58	52	e85	57	73	48	58	54	48	57
19	53	42	60	55	e70	62	78	45	53	52	44	55
20	52	50	58	50	e70	61	74	46	54	52	41	56
21	58	49	57	43	e75	56	80	48	51	48	41	52
22	72	48	52	44	60	61	85	55	42	47	42	47
23	54	54	48	40	64	61	76	55	43	46	41	46
24	50	58	111	45	66	55	67	54	42	47	39	45
25	65	58	114	42	59	49	64	41	41	47	40	39
26	55	54	66	39	63	43	65	45	40	44	40	36
27	54	55	44	42	60	44	67	47	50	48	36	38
28	60	42	43	41	64	41	65	46	67	45	54	38
29	61	46	48	46	71	38	63	45	61	50	58	48
30	61	51	51	48	---	40	57	42	60	56	60	49
31	63	---	47	42	---	41	---	43	---	61	59	---
TOTAL	1,680	1,569	2,324	1,471	1,978	1,783	1,790	1,515	1,639	1,608	1,601	1,501
MEAN	54.2	52.3	75.0	47.5	68.2	57.5	59.7	48.9	54.6	51.9	51.6	50.0
MAX	72	66	500	57	90	92	85	57	73	66	63	61
MIN	34	41	42	39	38	38	39	41	40	43	36	36
AC-FT	3,330	3,110	4,610	2,920	3,920	3,540	3,550	3,010	3,250	3,190	3,180	2,980
WTR YR2004	TOTAL 20459	MEAN 55.9	MAX 500	MIN 34	AC-FT 40580							

e Estimated

14315700 NORTH UMPQUA RIVER AT SLIDE CREEK DAM, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°16'32", long 122°26'52", in NW ¼ SE ¼ sec.27, T.27 S., R.3 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, and at mile 73.1.

DRAINAGE AREA.--336.77 mi².

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 1,950 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Minimum flow requirements are maintained by diversion dam at gage which diverts water into the Slide Creek Canal for power generation at Slide Creek Powerplant. Diversion discharged back into North Umpqua River 2.5 mi downstream, 0.5 mi upstream from Soda Springs reservoir. Discharges for the period May 18-23 computed from once a day gage-height readings from observer.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 2,770 ft³/s May 22, gage height, 9.20 ft; minimum discharge, 25 ft³/s July 20, Aug. 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	36	37	35	131	37	50	44	31	30	30	30
2	37	37	38	35	137	45	39	58	31	30	29	31
3	36	36	38	35	96	37	52	79	31	30	29	31
4	37	37	38	34	73	41	37	82	31	30	30	31
5	37	37	37	62	89	46	48	45	31	30	29	31
6	37	37	37	52	96	52	41	42	32	30	29	31
7	37	37	55	35	90	58	43	37	31	30	29	31
8	37	37	42	35	76	55	47	38	31	30	30	e32
9	37	36	39	60	75	51	46	38	31	30	29	31
10	37	37	36	46	76	66	45	37	31	30	29	30
11	37	36	35	36	67	63	52	59	31	29	29	31
12	37	37	36	61	51	62	54	39	31	29	29	31
13	37	37	133	53	54	48	51	38	31	29	29	31
14	38	37	821	62	60	53	69	38	31	29	29	31
15	38	37	527	55	55	58	172	38	31	29	30	31
16	37	36	305	56	58	55	59	474	31	29	30	31
17	37	35	34	63	50	57	46	e1,050	31	29	30	31
18	37	36	47	67	49	52	55	e1,670	31	28	30	30
19	37	36	46	64	123	53	65	e1,770	31	28	30	31
20	37	36	50	53	105	54	54	e1,670	31	28	30	30
21	37	36	50	63	89	58	54	e2,060	30	29	30	30
22	37	36	47	60	79	52	64	e2,770	30	29	29	31
23	37	36	48	53	92	47	53	e2,280	30	29	30	30
24	38	36	48	37	100	60	56	e1,460	30	29	30	30
25	38	36	69	60	89	64	61	1,400	30	29	30	30
26	38	36	54	87	82	60	65	1,410	30	29	31	30
27	37	36	41	101	82	52	55	1,480	30	29	32	30
28	37	36	36	91	38	54	68	1,430	30	29	31	30
29	37	36	35	158	37	40	67	956	30	30	30	30
30	37	38	36	123	---	50	67	215	30	29	30	30
31	38	---	35	134	---	51	---	31	---	29	30	---
TOTAL	1,151	1,092	2,930	1,966	2,299	1,631	1,735	22,838	921	907	922	918
MEAN	37.1	36.4	94.5	63.4	79.3	52.6	57.8	737	30.7	29.3	29.7	30.6
MAX	38	38	821	158	137	66	172	2,770	32	30	32	32
MIN	36	35	34	34	37	37	37	31	30	28	29	30
AC-FT	2,280	2,170	5,810	3,900	4,560	3,240	3,440	45,300	1,830	1,800	1,830	1,820

WTR YR2004 TOTAL 39,310 MEAN 107 MAX 2770 MIN 28 AC-FT 77970

e Estimated

14315900 FISH CREEK POWER CANAL, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°15'50", long 122°27'32", in NE ¼ SE ¼ sec.33, T.27 S., R.3 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, 0.7 mi southwest of Toketee Falls.

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Elevation of gage is 2,858 ft above NGVD of 1929, from levels by Pacific Power.

REMARKS.--No estimated daily discharges. Records poor. Flow completely regulated.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 98 ft³/s Jan. 14; minimum daily discharge, 0.0 ft³/s Sept. 9-15, 25-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	36	51	92	95	93	95	95	63	29	17
2	12	11	40	47	94	95	94	96	95	61	28	17
3	12	11	46	48	95	94	95	97	95	59	28	17
4	12	11	48	46	96	94	96	97	95	57	27	17
5	12	11	54	43	96	93	96	96	94	55	28	17
6	12	11	70	42	95	92	95	95	94	55	28	17
7	12	9.5	11	77	93	92	95	96	95	53	28	9.9
8	11	12	59	58	94	95	95	97	95	50	27	1.7
9	11	13	46	80	92	95	95	96	95	48	26	0.00
10	12	14	40	86	91	97	95	95	95	45	25	0.00
11	13	16	31	86	88	97	95	95	94	44	24	0.00
12	14	16	39	91	83	97	96	95	95	44	24	0.00
13	12	14	79	83	80	97	95	95	95	42	24	0.00
14	12	13	54	98	77	97	94	95	95	40	24	0.00
15	12	14	5.6	97	76	97	94	95	95	40	22	0.00
16	13	14	2.5	96	84	96	93	96	95	40	20	0.06
17	13	16	41	96	93	96	94	95	94	40	19	1.9
18	13	20	63	95	91	96	96	98	94	39	19	3.7
19	12	20	54	96	91	95	95	97	94	37	19	2.0
20	12	20	67	96	92	95	96	96	94	37	19	0.04
21	12	19	72	95	93	95	96	96	93	35	18	0.65
22	12	16	74	92	95	95	96	96	92	34	18	1.7
23	12	13	75	94	95	95	96	95	89	34	19	2.6
24	12	12	81	97	94	93	95	94	79	34	20	0.31
25	11	14	84	95	92	93	96	95	78	32	22	0.00
26	11	14	82	95	93	94	97	96	78	30	25	0.00
27	11	14	74	96	94	93	96	97	75	30	23	0.00
28	11	14	66	97	94	93	95	97	69	30	20	0.00
29	11	42	63	97	95	92	95	95	63	30	18	0.00
30	11	53	62	51	---	93	95	95	63	30	17	0.00
31	11	---	56	87	---	93	---	95	---	29	17	---
TOTAL	366.5	490	1,741.1	2,478	2,638	2,934	2,854	2,968	2,672	1,297	705	126.56
MEAN	11.8	16.3	56.2	79.9	91.0	94.6	95.1	95.7	89.1	41.8	22.7	4.22
MAX	14	53	84	98	96	97	97	98	95	63	29	17
MIN	9.5	11	2.5	42	76	92	93	94	63	29	17	0.00
AC-FT	727	972	3,450	4,920	5,230	5,820	5,660	5,890	5,300	2,570	1,400	251
WTR YR	2004	TOTAL	21,270.16	MEAN	58.1	MAX	98	MIN	0.00	AC-FT	42190	

14315950 FISH CREEK ABOVE SLIPPER CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°15'50", long 122°27'32", in SE ¼ sec.1, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, 3 mi southeast of Toketee Falls and at mile 7.0.

DRAINAGE AREA.--61.6 mi².

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Elevation of gage is 3,050 ft above NGVD of 1929, from river profile map.

REMARKS.--Records good. Flow regulated by small diversion dam 500 ft upstream (operated by Pacific Power.)

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 663 ft³/s Feb. 17, gage height, 6.49 ft; minimum discharge, 13 ft³/s Oct. 19, Nov. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	41	33	148	51	106	221	170	41	26	27
2	17	17	32	30	130	47	89	250	164	35	52	27
3	17	17	28	21	107	39	90	276	166	33	40	27
4	16	16	23	19	81	35	106	267	163	32	30	26
5	16	18	87	19	60	32	124	239	154	30	28	25
6	16	17	145	23	66	35	129	204	141	27	27	24
7	19	19	45	36	63	33	128	206	149	28	26	38
8	17	22	31	48	45	54	129	224	138	30	25	45
9	18	19	29	55	34	100	132	181	151	31	24	45
10	19	17	e25	57	26	127	134	174	158	33	25	44
11	18	24	e30	43	22	121	147	165	135	33	25	44
12	23	18	e50	34	22	128	173	147	117	31	24	44
13	17	16	e500	52	23	131	190	136	105	32	23	51
14	17	15	e400	55	26	e130	172	131	95	32	23	e51
15	18	17	e200	97	31	134	147	135	85	30	24	48
16	19	32	e140	86	102	126	121	136	78	29	27	46
17	15	45	e90	63	380	127	101	133	70	28	28	43
18	14	20	e50	51	539	143	87	270	64	29	27	61
19	14	25	e60	58	356	157	84	259	56	30	26	52
20	15	22	e80	55	255	136	131	245	48	29	26	62
21	15	16	e65	39	192	152	159	248	42	30	26	49
22	14	16	e50	28	149	193	146	222	38	30	41	43
23	16	19	e40	65	126	218	143	202	38	29	34	44
24	15	20	e90	155	108	207	135	175	44	27	31	44
25	15	17	e70	113	105	182	146	174	39	29	32	43
26	15	17	e50	86	102	155	195	169	34	30	44	42
27	15	16	e30	111	82	146	269	201	33	28	27	42
28	15	19	e35	120	65	126	269	291	34	27	28	41
29	17	89	e40	200	54	126	219	245	41	26	29	41
30	17	36	e25	314	---	152	202	205	46	25	29	40
31	16	---	e25	194	---	131	---	184	---	26	28	---
TOTAL	512	676	2,606	2,360	3,499	3,674	4,403	6,315	2,796	930	905	1,259
MEAN	16.5	22.5	84.1	76.1	121	119	147	204	93.2	30.0	29.2	42.0
MAX	23	89	500	314	539	218	269	291	170	41	52	62
MIN	14	15	23	19	22	32	84	131	33	25	23	24
AC-FT	1,020	1,340	5,170	4,680	6,940	7,290	8,730	12,530	5,550	1,840	1,800	2,500

WTR YR 2004 TOTAL 29935 MEAN 81.8 MAX 539 MIN 14 AC-FT 59380

e Estimated

14316000 FISH CREEK AT BIG CAMAS RANGER STATION, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°13'50", long 122°26'45", in SE ¼ sec.10, T.27 S., R.3 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, 0.2 mi upstream from Camas Creek, 0.7 mi east of Big Camas ranger station, 3.2 mi south of town of Toketee Falls, and at mile 4.7.

DRAINAGE AREA.--68.8 mi² (see REMARKS).

PERIOD OF RECORD.--October 1947 to September 2004 (discontinued). Records since October 1983 are equivalent to earlier records if diversion to Fish Creek power canal is added to flow past station. Prior to October 1952, published as "at Big Camas ranger station."

REVISED RECORDS.--WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,858.52 ft above NGVD of 1929 (levels by PacifiCorp). Prior to July 10, 1951, water-stage recorder and July 10 to Aug. 10, 1951, nonrecording gage at site 1,000 ft upstream at datum 13.72 ft higher. Aug. 11 to Nov. 3, 1951, nonrecording gage at site 200 ft downstream at different datum. Nov. 4, 1951, to Sept. 30, 1956, water-stage recorder at present site at datum 1.92 ft higher.

REMARKS.--Records good. Records given herein do not include flow in Fish Creek power canal (diversion began June 18, 1952), which diverts water 2 mi upstream from station for power generation at Fish Creek powerplant; diversion discharged to North Umpqua River 600 ft downstream from Toketee powerplant.

AVERAGE DISCHARGE.--36 years (water years 1947-83), 237 ft³/s, 46.78 in/yr, 171,700 acre-ft/yr. 21 years (water years 1984-2004), 124 ft³/s, 24.49 in/yr, 89,860 acre-ft/yr (river only).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 12,100 ft³/s Dec. 22, 1964, gage height, 13.9 ft, from floodmark; minimum discharge, 2.3 ft³/s Sept. 25, 1957.

Combined flow, maximum discharge, 12,100 ft³/s Dec. 22, 1964; minimum daily, 19 ft³/s July 30, 1979, result of diversion dam manipulation.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,040 ft³/s Dec. 13, gage height, 5.94 ft; minimum discharge, 14 ft³/s Oct. 19, 22, 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	58	46	210	80	135	269	203	51	29	31
2	17	16	49	43	183	76	112	306	193	42	50	31
3	17	16	48	34	154	66	109	337	194	40	48	31
4	17	16	38	31	120	60	126	331	192	39	34	30
5	16	17	115	29	93	57	148	293	182	37	32	28
6	16	17	221	33	101	63	151	246	163	34	31	27
7	19	18	85	51	100	60	153	243	173	33	30	39
8	18	22	52	71	78	86	151	277	162	36	28	49
9	18	22	47	85	63	145	155	219	175	36	28	48
10	20	17	43	92	52	179	158	206	192	38	28	48
11	17	26	44	75	47	166	172	200	161	38	28	48
12	25	19	83	63	46	169	204	175	139	36	27	48
13	18	16	754	84	45	173	229	159	123	37	27	55
14	17	15	583	90	47	171	211	152	112	37	26	53
15	18	18	331	146	54	175	181	157	100	35	27	52
16	20	35	240	130	146	163	149	159	92	33	30	50
17	15	58	133	100	521	162	127	154	83	32	31	46
18	15	25	82	83	741	180	111	326	76	33	30	67
19	14	29	93	94	490	201	107	335	68	34	30	57
20	15	29	119	95	348	171	174	303	60	33	29	68
21	15	19	97	73	260	188	233	311	52	33	30	54
22	14	18	74	58	200	241	203	274	48	34	44	48
23	16	20	59	97	170	276	194	250	46	32	39	48
24	15	22	125	229	147	265	177	208	53	31	36	48
25	14	18	94	166	143	230	186	206	48	32	36	47
26	15	19	64	125	142	195	247	199	43	33	51	46
27	15	16	54	154	118	190	341	236	40	32	32	46
28	15	20	54	174	97	163	348	361	41	31	31	45
29	16	115	55	288	83	159	275	313	48	30	33	44
30	17	56	41	447	---	191	248	254	52	29	32	44
31	16	---	40	279	---	164	---	225	---	29	31	---
TOTAL	517	769	3,975	3,565	4,999	4,865	5,515	7,684	3,314	1,080	1,018	1,376
MEAN	16.7	25.6	128	115	172	157	184	248	110	34.8	32.8	45.9
MAX	25	115	754	447	741	276	348	361	203	51	51	68
MIN	14	15	38	29	45	57	107	152	40	29	26	27
AC-FT	1,030	1,530	7,880	7,070	9,920	9,650	10,940	15,240	6,570	2,140	2,020	2,730
CFSM	0.24	0.37	1.86	1.67	2.51	2.28	2.67	3.60	1.61	0.51	0.48	0.67
IN.	0.28	0.42	2.15	1.93	2.70	2.63	2.98	4.15	1.79	0.58	0.55	0.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

MEAN	27.3	89.3	159	185	163	187	217	230	131	39.0	34.7	29.7
MAX	78.8	387	747	682	545	581	434	505	429	111	74.5	74.5
(WY)	(1987)	(1997)	(1997)	(1997)	(1986)	(1993)	(1989)	(1993)	(1999)	(1999)	(1985)	(1986)
MIN	11.7	17.2	24.1	21.1	22.6	31.0	57.9	36.4	28.9	23.5	23.3	13.6
(WY)	(1984)	(1990)	(2001)	(2001)	(2001)	(1992)	(2001)	(1992)	(1987)	(1996)	(1992)	(1990)

14316000 FISH CREEK AT BIG CAMAS RANGER STATION, NEAR TOKETEE FALLS, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	45,862		38,677		124	
ANNUAL MEAN	126		106		247	1997
HIGHEST ANNUAL MEAN					36.8	2001
LOWEST ANNUAL MEAN					4,100	Jan 1, 1997
HIGHEST DAILY MEAN	1,140	Jan 30	754	Dec 13	5.9	Oct 25, 1983
LOWEST DAILY MEAN	14	Oct 19	14	Oct 19	6.8	Oct 15, 1983
ANNUAL SEVEN-DAY MINIMUM	15	Oct 19	15	Oct 19	89,860	
ANNUAL RUNOFF (AC-FT)	90,970		76,720		1.80	
ANNUAL RUNOFF (CFSM)	1.83		1.54		24.49	
ANNUAL RUNOFF (INCHES)	24.80		20.91		304	
10 PERCENT EXCEEDS	305		240		46	
50 PERCENT EXCEEDS	52		56		17	
90 PERCENT EXCEEDS	17		18			



2004 Water Year

UMPQUA RIVER BASIN

14316000 FISH CR AT BIG CAMAS RANGER STA, NR TOKETEE FALLS, OR

Latitude: 43° 13 ' 50"

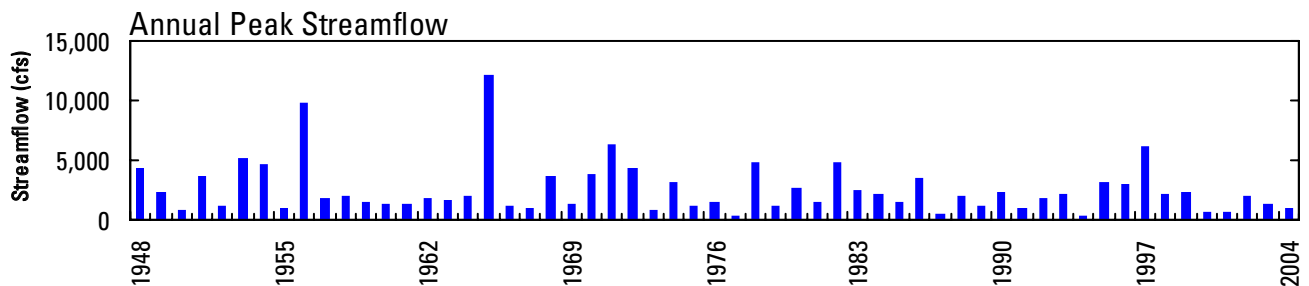
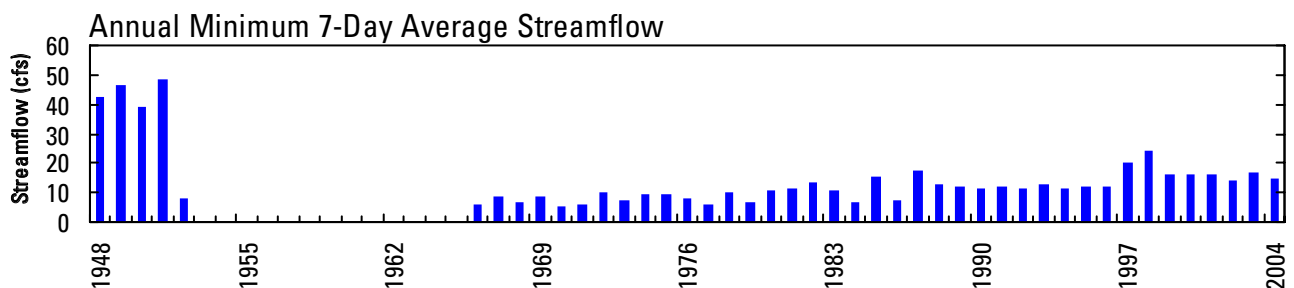
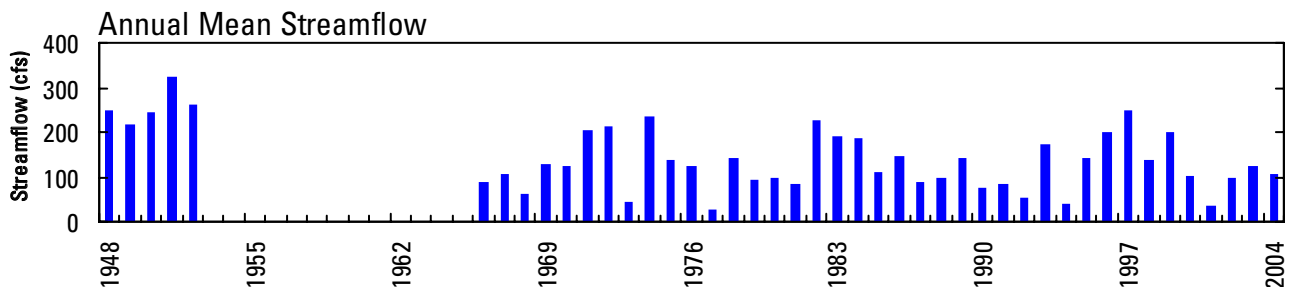
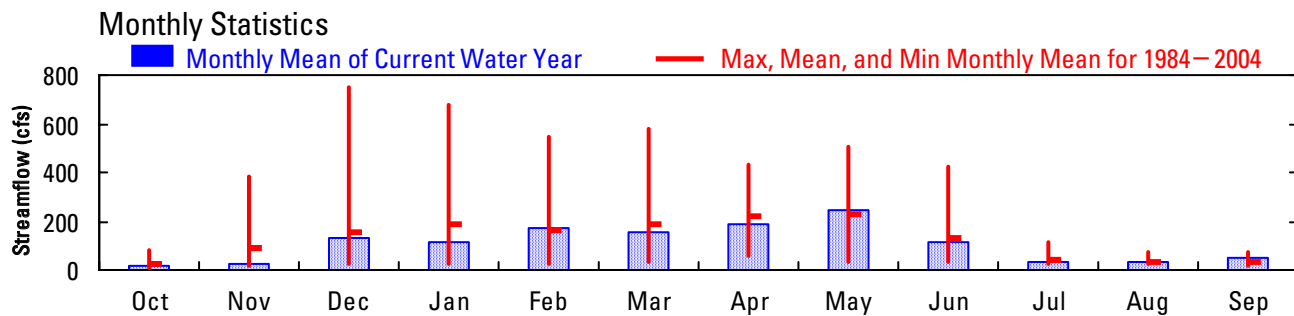
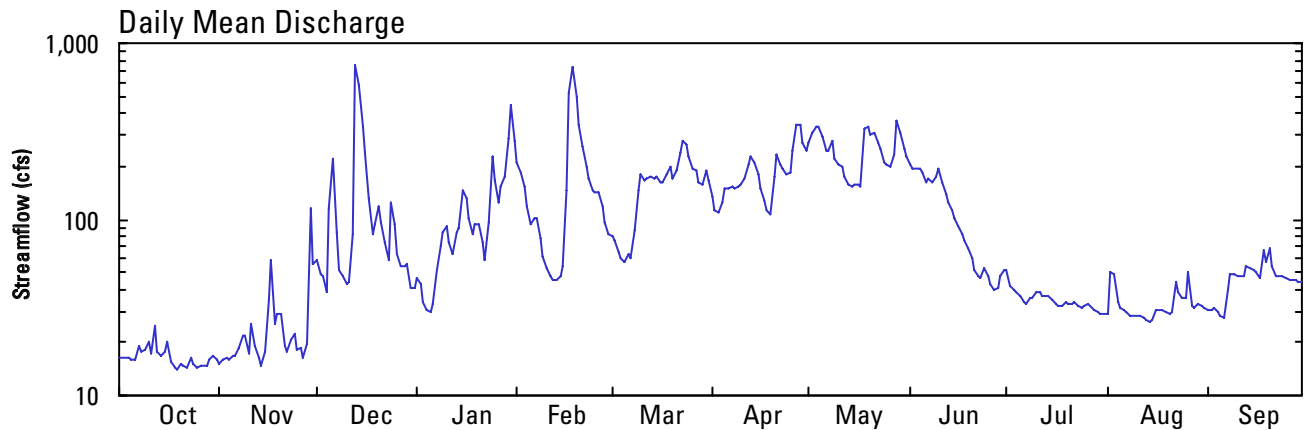
Longitude: 122° 26 ' 45"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 2,858.52 feet

Drainage Area: 68.8 square miles



14316455 NORTH UMPQUA RIVER BELOW SODA SPRINGS RESERVOIR, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°18'14", long 122°29'52", in SE ¼ sec.18, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, 0.8 mi southeast of Toketee Falls, and at mile 69.5.

DRAINAGE AREA.--435.1 mi².

PERIOD OF RECORD.--October 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 1,740 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow completely regulated.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,800 ft³/s May 3, gage height, 5.74 ft; minimum recorded discharge, 50 ft³/s Aug. 2-16.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	116	117	106	345	109	112	178	1,270	e480	e100	119
2	117	113	113	106	309	114	117	844	1,280	e265	e50	117
3	115	106	111	112	168	114	118	1,680	1,290	e295	e50	119
4	108	103	107	106	125	114	122	1,650	1,270	e260	e50	120
5	109	103	104	105	123	114	120	1,480	1,280	e260	e50	119
6	106	103	103	108	134	111	118	1,420	1,270	e215	e50	119
7	e107	102	112	108	136	107	116	1,260	1,240	e170	e50	119
8	108	102	185	119	132	106	126	1,390	1,180	e140	e50	118
9	110	100	611	123	136	110	120	1,260	1,180	e120	e50	111
10	114	e100	187	111	130	109	122	1,230	1,190	e115	e50	109
11	117	99	107	111	117	119	116	1,400	1,190	e120	e50	109
12	116	101	105	110	115	119	128	1,330	1,130	e115	e50	109
13	116	107	1,040	109	116	e115	122	1,280	1,080	e115	e50	110
14	118	107	e800	109	118	112	128	1,230	1,080	e120	e50	112
15	118	107	518	109	116	120	119	1,200	1,050	e115	e50	114
16	115	106	479	107	121	124	117	1,210	1,040	e115	e50	116
17	111	108	389	105	346	123	121	e1,250	1,050	e110	e90	116
18	109	108	191	105	855	125	118	e1,450	1,000	e110	e110	115
19	108	110	108	107	544	120	119	e1,450	1,000	e110	e130	115
20	107	111	105	113	293	120	122	e1,450	949	e105	e130	115
21	108	106	108	118	118	117	156	e1,450	771	e105	126	117
22	105	108	108	115	114	120	132	e1,450	762	e110	125	116
23	108	110	109	112	112	119	130	e1,430	749	e110	125	116
24	108	122	111	124	111	139	125	e1,400	778	e110	122	115
25	115	108	108	112	113	171	125	e1,400	825	e110	118	116
26	111	121	106	112	114	169	126	e1,350	863	e110	118	116
27	112	124	106	160	112	125	128	1,320	849	e105	119	116
28	109	114	106	231	106	120	171	1,630	e800	e100	119	117
29	110	110	104	493	106	115	161	1,620	531	e85	121	116
30	107	109	108	624	---	117	127	1,360	505	e180	120	118
31	110	---	106	452	---	118	---	1,320	---	e160	120	---
TOTAL	3,450	3,244	6,772	4,842	5,485	3,735	3,782	41,372	30,452	4,740	2,643	3,464
MEAN	111	108	218	156	189	120	126	1,335	1,015	153	85.3	115
MAX	118	124	1,040	624	855	171	171	1,680	1,290	480	130	120
MIN	105	99	103	105	106	106	112	178	505	85	50	109
AC-FT	6,840	6,430	13,430	9,600	10,880	7,410	7,500	82,060	60,400	9,400	5,240	6,870

WTR YR 2004 TOTAL 113,981 MEAN 311 MAX 1680 MIN 50 AC-FT 226100

e Estimated

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°18'22", long 122°30'42", in NE ¼ SW ¼ sec.18, T.26 S., R.3 E., Douglas County, Hydrologic Unit 17100301, on right bank 0.9 mi upstream from Boulder Creek, 4.5 mi west of Toketee Falls, and at mile 68.8.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1997 to current year.

pH: October 1997 to current year.

WATER TEMPERATURE: October 1997 to current year.

DISSOLVED OXYGEN: October 1997 to current year.

TURBIDITY: October 1999 to current year.

INSTRUMENTATION.--Water-quality monitor and data logger, satellite telemetry at station.

REMARKS.--

SPECIFIC CONDUCTANCE: Records good.

pH: Records excellent.

WATER TEMPERATURE: Records excellent.

DISSOLVED OXYGEN: Records good.

TURBIDITY: Records fair except for those greater than 20 FNU, which are poor. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 83 microsiemens May 24, 2001; minimum recorded, 30 microsiemens Apr. 14, 2002.

pH: Maximum recorded, 8.4 units July 30, Aug. 1-5, 2002; minimum recorded, 6.9 units Dec. 19, 2001.

WATER TEMPERATURE: Maximum recorded, 15.9°C July 23, 2003; minimum recorded, 1.9°C Jan. 29, 2002.

DISSOLVED OXYGEN: Maximum recorded, 15.2 mg/L Nov. 19, 2000; minimum recorded, 6.9 mg/L July 11, 2001, but may have been lower during period of missing record.

TURBIDITY: Maximum, greater than 200 FNU Dec. 14, 2003; minimum, <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 67 microsiemens July 17-19; minimum, 39 microsiemens Dec. 14.

pH: Maximum, 8.2 units Sept. 9, 15; minimum, 7.4 units several days throughout the year.

WATER TEMPERATURE: Maximum, 15.2°C July 25; minimum, 2.4°C Jan. 2.

DISSOLVED OXYGEN: Maximum recorded, 13.4 mg/L Nov. 27 but may have been higher during period of missing record; minimum recorded, 9.8 mg/L Aug. 15.

TURBIDITY: Maximum, greater than 200 FNU Dec. 14; minimum, <1 FNU many days throughout the year.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	64	62	63	64	60	62	58	56	57	56	54	55
2	63	62	62	62	60	61	58	56	57	56	54	55
3	63	59	62	62	58	60	58	56	57	56	55	56
4	64	62	63	63	58	60	58	55	57	57	55	57
5	63	62	62	63	60	61	57	52	55	58	56	57
6	64	61	62	63	59	61	52	46	50	57	56	56
7	63	61	62	62	59	61	54	50	52	57	55	56
8	63	61	62	63	59	60	56	52	54	57	53	55
9	63	61	62	62	59	60	57	54	56	55	53	54
10	62	60	61	63	59	60	56	55	55	54	51	53
11	62	60	61	62	59	60	57	55	56	55	52	53
12	62	60	61	63	60	61	57	53	56	55	53	54
13	62	60	61	63	60	61	53	40	46	55	52	54
14	63	61	61	63	59	61	46	39	44	54	52	53
15	62	60	61	62	59	60	49	46	48	53	50	51
16	63	60	61	62	59	61	53	47	51	53	50	52
17	63	61	62	63	58	60	55	53	54	54	50	52
18	62	60	61	63	59	61	56	53	54	53	52	53
19	62	60	60	63	60	61	56	54	55	53	50	52
20	62	60	61	61	58	60	55	53	54	52	50	51
21	63	60	61	61	59	60	56	53	54	53	50	52
22	64	61	62	62	58	60	56	54	55	53	52	52
23	64	61	62	62	59	60	56	54	55	53	49	52
24	64	62	63	61	58	59	55	51	53	49	47	48
25	63	61	62	61	59	60	54	51	52	50	48	49
26	63	61	62	61	59	60	55	52	53	52	48	50
27	63	61	62	61	58	59	56	53	54	51	47	49
28	64	61	62	62	59	60	55	53	54	51	49	50
29	64	61	62	60	55	58	55	54	54	50	47	48
30	64	61	62	58	55	56	56	54	55	47	45	46
31	64	60	62	---	---	---	57	54	55	48	46	47
MONTH	64	59	62	64	55	60	58	39	54	58	45	52

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	50	48	49	53	51	52	48	47	48	47	46	47
2	51	49	50	53	51	52	49	48	48	46	46	46
3	51	49	50	53	50	51	49	48	49	46	45	46
4	51	50	50	52	50	51	49	48	48	46	45	45
5	52	50	51	52	50	51	50	47	48	45	43	44
6	53	49	51	52	50	51	50	46	48	45	44	44
7	52	49	50	52	51	52	49	46	47	46	44	45
8	53	51	51	53	50	51	49	46	47	45	44	44
9	53	51	52	51	49	50	49	46	47	46	44	45
10	54	52	53	50	47	49	49	46	47	47	45	46
11	55	52	53	50	48	49	48	45	47	47	46	47
12	54	51	53	50	47	49	48	45	46	48	47	48
13	53	52	52	50	48	49	48	44	46	48	48	48
14	53	52	52	50	48	49	46	43	45	50	48	49
15	53	51	52	50	47	48	47	44	46	50	48	49
16	52	48	51	50	47	49	48	44	46	50	48	49
17	48	41	46	50	48	49	48	46	47	49	47	48
18	44	43	43	50	48	48	50	47	48	48	45	47
19	46	44	45	49	47	48	51	47	48	46	45	45
20	48	46	47	49	47	48	49	46	48	48	46	46
21	50	46	48	49	46	48	48	46	47	47	45	46
22	50	49	49	48	46	47	50	46	48	46	45	46
23	51	49	50	47	45	46	50	48	49	47	46	46
24	51	49	50	47	45	46	51	48	49	48	46	47
25	52	50	51	47	44	45	51	48	49	48	47	48
26	51	49	50	45	44	45	50	47	48	50	48	48
27	52	50	51	46	45	46	48	45	46	49	45	47
28	52	50	51	47	46	47	46	45	45	47	44	45
29	53	51	52	48	47	47	47	45	46	46	44	45
30	---	---	---	48	46	47	48	46	47	47	46	47
31	---	---	---	48	46	47	---	---	---	49	47	48
MONTH	55	41	50	53	44	49	51	43	47	50	43	46
	JUNE			JULY			AUGUST			SEPTEMBER		
1	49	47	48	55	48	50	62	61	62	63	62	62
2	48	47	48	55	48	52	61	60	61	64	62	62
3	48	47	48	57	48	52	60	59	60	63	60	61
4	48	47	47	57	50	53	60	60	60	62	61	61
5	47	47	47	58	50	54	60	60	60	62	61	61
6	48	47	48	58	51	55	61	60	61	64	61	62
7	48	47	48	59	51	57	62	61	62	63	61	61
8	49	47	48	61	53	58	62	61	62	62	60	60
9	49	48	48	62	59	60	62	61	62	66	61	62
10	50	48	49	62	60	61	62	61	62	64	61	62
11	51	49	50	62	60	61	64	60	61	63	61	62
12	51	49	50	63	54	59	61	59	60	65	61	62
13	51	50	50	62	57	59	62	59	60	64	61	62
14	52	50	51	60	57	58	62	60	61	64	61	62
15	52	50	51	60	58	59	62	60	61	64	61	62
16	52	51	52	66	59	61	62	60	61	64	61	61
17	52	51	52	67	65	66	62	60	61	64	61	62
18	53	52	52	67	63	65	62	58	60	62	60	61
19	54	52	52	67	60	64	59	57	58	63	60	61
20	53	52	52	65	59	61	59	57	58	62	59	60
21	53	52	52	61	59	60	63	56	57	62	59	60
22	54	53	53	61	60	60	63	62	62	62	59	60
23	55	53	53	62	60	60	62	62	62	62	59	60
24	56	53	54	62	60	61	63	62	62	62	60	61
25	56	53	54	63	61	61	64	61	63	63	60	61
26	56	54	55	63	61	62	62	60	61	63	60	61
27	56	55	55	63	58	61	62	61	61	63	60	61
28	57	55	55	60	53	58	62	61	61	63	60	61
29	57	55	55	60	58	59	62	61	62	63	61	62
30	57	50	54	58	57	58	63	61	62	63	61	62
31	---	---	---	62	54	58	63	61	62	---	---	---
MONTH	57	47	51	67	48	59	64	56	61	66	59	61
YEAR	67	39	54									

UMPQUA RIVER BASIN

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.9	7.6	7.8	7.8	7.6	7.7	7.6	7.5	7.5	7.6	7.5	7.5
2	7.9	7.7	7.7	7.8	7.6	7.7	7.6	7.5	7.5	7.6	7.5	7.5
3	8.0	7.7	7.7	7.8	7.6	7.7	7.6	7.5	7.5	7.6	7.5	7.6
4	8.0	7.7	7.7	7.8	7.6	7.7	7.6	7.5	7.5	7.6	7.5	7.6
5	7.9	7.7	7.7	7.8	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.6
6	7.9	7.7	7.7	7.8	7.6	7.6	7.5	7.5	7.5	7.6	7.5	7.5
7	7.9	7.7	7.7	7.8	7.6	7.6	7.5	7.5	7.5	7.6	7.5	7.5
8	7.9	7.6	7.7	7.8	7.6	7.6	7.5	7.5	7.5	7.6	7.5	7.5
9	7.9	7.7	7.7	7.8	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.5
10	7.9	7.6	7.7	7.8	7.5	7.6	7.6	7.5	7.5	7.5	7.5	7.5
11	7.8	7.6	7.7	7.8	7.5	7.6	7.7	7.6	7.6	7.5	7.5	7.5
12	7.9	7.6	7.7	7.7	7.5	7.6	7.6	7.6	7.6	7.5	7.5	7.5
13	7.9	7.6	7.7	7.7	7.5	7.6	7.6	7.4	7.5	7.5	7.5	7.5
14	7.8	7.7	7.7	7.8	7.5	7.6	7.5	7.4	7.5	7.5	7.5	7.5
15	7.7	7.6	7.7	7.8	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5
16	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.5
17	7.8	7.6	7.6	7.7	7.5	7.6	7.5	7.5	7.5	7.6	7.5	7.5
18	7.8	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.5
19	7.8	7.6	7.7	7.7	7.5	7.6	7.6	7.5	7.5	7.5	7.5	7.5
20	7.8	7.6	7.6	7.7	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5
21	7.8	7.6	7.6	7.8	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5
22	7.9	7.6	7.7	7.8	7.6	7.7	7.6	7.5	7.6	7.6	7.5	7.5
23	7.8	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5
24	7.8	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5
25	7.8	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.5
26	7.8	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5
27	7.8	7.6	7.7	7.8	7.6	7.6	7.6	7.5	7.6	7.5	7.5	7.5
28	7.8	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.6	7.5	7.5	7.5
29	7.9	7.6	7.7	7.6	7.5	7.6	7.6	7.5	7.5	7.5	7.5	7.5
30	7.8	7.6	7.7	7.6	7.5	7.5	7.6	7.5	7.5	7.6	7.5	7.5
31	7.8	7.6	7.7	---	---	---	7.6	7.5	7.6	7.5	7.5	7.5
MAX	8.0	7.7	7.8	7.8	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.6
MIN	7.7	7.6	7.6	7.6	7.5	7.5	7.5	7.4	7.5	7.5	7.5	7.5
FEBRUARY			MARCH			APRIL			MAY			
1	7.6	7.5	7.5	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5
2	7.6	7.5	7.5	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5
3	7.6	7.5	7.5	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5
4	7.6	7.5	7.6	7.7	7.6	7.6	7.7	7.6	7.6	7.6	7.5	7.5
5	7.6	7.5	7.6	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.5
6	7.6	7.5	7.6	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6
7	7.6	7.5	7.6	7.6	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6
8	7.6	7.5	7.6	7.6	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6
9	7.6	7.6	7.6	7.7	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.6
10	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.6
11	7.6	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.6
12	7.6	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.6
13	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.6
14	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.5
15	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.4	7.5	7.6	7.5	7.5
16	7.6	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.6
17	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.5
18	7.6	7.5	7.5	7.6	7.5	7.6	7.6	7.5	7.6	7.5	7.5	7.5
19	7.6	7.5	7.6	7.6	7.5	7.6	7.7	7.5	7.6	7.6	7.5	7.5
20	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.6	7.6	7.5	7.5
21	7.6	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.5	7.6	7.5	7.5
22	7.6	7.5	7.6	7.6	7.5	7.5	7.7	7.5	7.6	7.5	7.5	7.5
23	7.6	7.5	7.6	7.6	7.5	7.5	7.7	7.5	7.6	7.6	7.5	7.5
24	7.6	7.6	7.6	7.5	7.5	7.5	7.6	7.5	7.6	7.6	7.5	7.5
25	7.6	7.5	7.6	7.6	7.4	7.5	7.6	7.5	7.6	7.6	7.5	7.5
26	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.4	7.5
27	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.5	7.5	7.5	7.5
28	7.7	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.5	7.5	7.5	7.5
29	7.6	7.6	7.6	7.6	7.5	7.6	7.5	7.5	7.5	7.5	7.4	7.5
30	---	---	---	7.6	7.5	7.6	7.6	7.5	7.5	7.5	7.4	7.5
31	---	---	---	7.6	7.5	7.6	---	---	---	7.6	7.5	7.5
MAX	7.7	7.6	7.6	7.7	7.6	7.6	7.7	7.6	7.6	7.6	7.5	7.6
MIN	7.6	7.5	7.5	7.5	7.4	7.5	7.5	7.4	7.5	7.5	7.4	7.5

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR—Continued

 PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.6	7.5	7.5	7.9	7.8	7.8	7.9	7.6	7.7	8.1	---	7.8
2	7.7	7.4	7.6	7.9	7.8	7.8	8.0	7.6	7.7	8.0	7.7	7.8
3	7.7	7.6	7.7	7.9	7.8	7.8	7.8	7.6	7.7	8.0	7.8	7.8
4	7.7	7.6	7.7	7.9	7.8	7.8	7.9	7.6	7.7	8.1	7.8	7.9
5	7.7	7.6	7.7	7.9	7.8	7.8	8.0	7.7	7.8	8.1	7.8	7.9
6	7.7	7.6	7.7	7.9	7.8	7.8	7.8	7.6	7.8	8.1	7.8	7.9
7	7.7	7.6	7.7	8.0	7.8	7.9	7.9	7.6	7.7	8.1	7.8	7.9
8	7.7	7.6	7.6	8.0	7.8	7.9	7.8	7.6	7.7	8.0	7.8	7.9
9	7.7	7.6	7.6	8.0	7.8	7.8	7.9	7.6	7.7	8.2	7.8	7.9
10	7.7	7.6	7.7	8.0	7.8	7.8	7.9	7.6	7.7	8.1	7.8	7.9
11	7.8	7.7	7.7	8.0	7.8	7.8	8.0	7.6	7.7	8.0	7.8	7.9
12	7.8	7.6	7.7	8.0	7.8	7.8	8.0	7.7	7.8	8.1	7.8	7.9
13	7.8	7.6	7.7	8.0	7.8	7.8	8.0	7.7	7.8	8.0	7.8	7.9
14	7.8	7.6	7.7	8.0	7.7	7.8	8.1	7.7	7.8	8.0	7.8	7.8
15	7.7	7.6	7.7	8.0	7.7	7.8	8.1	7.8	7.8	8.2	7.8	7.9
16	7.8	7.6	7.7	8.0	7.7	7.8	8.1	7.7	7.8	8.1	7.8	7.8
17	7.7	7.6	7.6	7.9	7.7	7.7	8.0	7.7	7.8	8.0	7.8	7.9
18	7.7	7.6	7.6	7.9	7.7	7.8	8.0	7.7	7.8	8.0	7.7	7.8
19	7.7	7.6	7.6	7.9	7.7	7.8	8.0	7.7	7.8	8.0	7.8	7.8
20	7.7	7.6	7.6	7.9	7.7	7.8	8.0	7.7	7.8	8.0	7.8	7.9
21	7.7	7.6	7.6	8.0	7.7	7.8	8.1	7.7	7.8	8.0	7.8	7.8
22	7.7	7.6	7.7	7.9	7.7	7.8	7.9	7.7	7.8	8.1	7.8	7.9
23	7.8	7.7	7.7	7.9	7.7	7.8	7.9	7.6	7.7	8.1	7.8	7.9
24	7.8	7.6	7.7	8.0	7.7	7.8	8.0	7.6	7.7	8.0	7.8	7.9
25	7.8	7.6	7.7	8.0	7.7	7.8	8.0	7.7	7.8	8.0	7.8	7.8
26	7.8	7.6	7.7	8.0	7.7	7.8	8.0	7.6	7.7	8.0	7.8	7.8
27	7.8	7.6	7.6	8.0	7.7	7.8	8.0	7.6	7.7	7.9	7.7	7.8
28	7.8	7.6	7.7	8.0	7.7	7.8	7.9	7.6	7.7	8.0	7.7	7.8
29	7.8	7.6	7.7	8.0	7.7	7.8	8.0	7.6	7.7	7.9	7.7	7.8
30	7.9	7.6	7.8	8.0	7.7	7.8	8.0	7.6	7.7	7.9	7.7	7.8
31	---	---	---	8.0	7.7	7.8	8.0	7.6	7.7	---	---	---
MAX	7.9	7.7	7.8	8.0	7.8	7.9	8.1	7.8	7.8	8.2	---	7.9
MIN	7.6	7.4	7.5	7.9	7.7	7.7	7.8	7.6	7.7	7.9	---	7.8

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.5	9.7	10.1	5.1	4.4	4.8	4.7	4.4	4.5	3.4	2.7	3.1
2	10.5	10.1	10.3	5.0	4.4	4.7	4.8	4.4	4.6	2.8	2.4	2.6
3	10.3	10.0	10.2	4.9	4.5	4.7	5.1	4.6	4.9	2.9	2.7	2.9
4	10.3	9.9	10.1	5.1	4.6	4.9	4.9	4.5	4.7	2.9	2.7	2.8
5	10.7	10.0	10.2	4.8	4.6	4.7	5.4	4.6	5.0	3.2	2.7	3.0
6	10.6	10.1	10.3	4.9	4.6	4.7	5.4	5.1	5.3	3.6	3.1	3.4
7	10.5	10.2	10.4	5.2	4.6	4.9	5.1	4.1	4.7	4.0	3.5	3.8
8	10.3	9.7	10.1	5.6	5.0	5.3	4.2	3.6	3.9	4.4	3.9	4.2
9	9.8	9.1	9.4	5.7	5.3	5.5	4.2	3.9	4.1	4.6	4.2	4.4
10	9.3	8.8	9.0	5.8	5.4	5.6	4.2	4.0	4.1	4.6	4.3	4.4
11	8.8	8.2	8.5	6.1	5.6	5.9	4.5	4.1	4.3	4.4	4.1	4.3
12	8.5	8.0	8.2	6.0	5.6	6.0	4.5	4.0	4.4	4.5	4.1	4.2
13	8.3	8.0	8.2	5.6	5.0	5.3	5.3	4.1	4.8	4.5	4.2	4.3
14	8.5	8.1	8.3	5.2	4.9	5.0	4.4	4.1	4.2	4.8	4.3	4.6
15	8.3	7.7	8.1	5.5	5.0	5.3	4.1	3.9	4.0	5.1	4.7	4.9
16	7.8	7.6	7.7	5.5	5.3	5.4	4.2	4.0	4.1	5.0	4.7	4.8
17	8.2	7.7	7.9	5.5	5.2	5.3	4.1	3.9	4.0	4.7	4.2	4.4
18	8.3	7.9	8.1	5.8	5.5	5.6	4.0	3.7	3.8	5.0	4.3	4.6
19	8.6	7.9	8.3	5.8	5.3	5.6	4.2	3.7	3.9	5.0	4.8	4.9
20	8.8	8.4	8.5	5.3	4.4	4.9	4.6	4.2	4.4	4.9	4.2	4.5
21	9.1	8.6	8.8	4.5	4.1	4.3	4.7	4.5	4.6	4.2	3.6	3.9
22	9.0	8.4	8.7	4.1	3.6	3.8	4.5	4.0	4.2	3.7	3.3	3.5
23	8.7	8.1	8.5	3.6	3.2	3.4	4.5	4.1	4.3	4.4	3.4	3.9
24	8.1	7.3	7.8	3.7	3.3	3.4	4.8	4.5	4.7	4.8	4.4	4.6
25	7.6	7.3	7.5	3.8	3.4	3.6	4.6	3.8	4.2	4.5	4.0	4.1
26	8.2	7.6	7.9	3.5	2.6	3.1	3.8	3.3	3.6	4.2	3.8	4.0
27	8.4	7.8	8.2	3.3	2.8	3.0	3.5	3.3	3.4	4.5	3.8	4.1
28	8.3	7.8	8.0	3.7	3.0	3.3	3.5	3.1	3.4	4.9	4.5	4.7
29	8.3	7.5	8.1	4.2	3.7	3.9	3.2	2.9	3.1	5.4	4.8	5.1
30	7.5	6.2	7.1	4.5	4.1	4.3	3.4	3.0	3.2	5.4	4.4	4.8
31	6.2	4.9	5.7	---	---	---	4.0	3.1	3.4	4.4	4.1	4.1
MONTH	10.7	4.9	8.7	6.1	2.6	4.7	5.4	2.9	4.2	5.4	2.4	4.1
FEBRUARY			MARCH			APRIL			MAY			
1	4.6	4.0	4.2	5.0	4.5	4.8	6.2	5.1	5.6	9.3	7.8	8.5
2	4.9	4.5	4.7	5.3	5.0	5.2	6.7	5.2	5.9	9.6	7.8	8.7
3	5.0	4.6	4.8	5.2	4.4	4.8	7.4	6.6	6.9	9.7	8.3	9.0
4	5.0	4.7	4.8	4.8	4.4	4.6	7.7	7.2	7.4	9.7	8.1	8.7
5	4.9	4.2	4.5	4.7	4.5	4.6	7.8	7.1	7.5	9.2	7.9	8.6
6	4.7	4.4	4.6	5.5	4.7	5.0	7.6	7.0	7.2	9.1	7.8	8.2
7	4.6	4.3	4.4	5.9	5.3	5.6	7.6	7.1	7.3	8.5	7.5	7.9
8	4.5	4.2	4.3	6.1	5.6	5.9	7.8	7.2	7.5	8.4	7.5	7.9
9	4.3	3.8	4.0	6.3	5.8	6.0	7.9	7.3	7.6	8.5	7.6	7.9
10	4.0	3.7	3.8	6.3	5.4	5.7	7.8	7.3	7.6	7.7	7.3	7.4
11	4.3	3.9	4.1	6.0	5.1	5.5	8.1	7.4	7.8	7.7	6.8	7.1
12	4.3	3.9	4.1	6.2	5.4	5.8	8.3	7.8	8.1	8.9	7.5	8.0
13	4.2	4.0	4.1	6.2	5.4	5.8	8.3	7.6	8.0	9.1	8.0	8.5
14	4.6	4.1	4.4	6.4	5.9	6.2	7.7	6.7	7.0	9.4	8.6	8.9
15	4.6	4.2	4.4	6.5	5.7	5.9	6.8	5.7	6.1	9.6	8.8	9.1
16	4.9	4.4	4.7	6.2	5.5	5.8	6.5	5.7	6.0	9.4	8.5	9.0
17	5.2	4.7	5.0	6.3	5.7	6.0	6.5	6.0	6.3	9.6	8.4	8.9
18	5.3	5.0	5.2	6.6	5.7	6.2	6.4	6.1	6.3	8.6	7.7	8.1
19	5.3	4.9	5.1	6.7	5.8	6.2	6.3	5.8	6.1	9.2	7.5	8.1
20	5.0	4.2	4.5	6.3	5.4	5.8	6.3	5.8	6.1	9.5	8.5	9.0
21	5.1	4.6	4.8	7.0	6.1	6.4	5.8	5.4	5.5	10.0	8.4	9.1
22	5.5	4.9	5.1	7.1	6.4	6.7	7.0	5.2	5.8	10.0	8.3	8.9
23	5.5	5.1	5.3	7.1	6.7	6.9	7.1	6.6	6.9	9.0	7.7	8.3
24	5.6	5.0	5.3	7.0	6.1	6.4	7.7	6.6	7.0	9.3	8.1	8.8
25	5.2	4.7	4.9	6.4	5.4	5.8	8.6	7.4	7.9	10.4	9.1	9.5
26	5.0	4.7	4.9	5.5	4.7	5.0	9.0	8.1	8.5	10.5	9.6	10.0
27	5.1	4.7	4.9	6.1	5.2	5.6	9.2	8.4	8.8	10.2	9.0	9.6
28	5.2	4.8	5.0	6.8	5.2	5.7	9.2	7.6	8.1	9.0	8.3	8.5
29	5.3	4.8	5.0	7.6	6.0	6.6	8.5	6.7	7.6	8.4	7.6	8.0
30	---	---	---	7.6	6.3	6.9	9.0	7.6	8.1	9.6	7.8	8.6
31	---	---	---	6.3	5.6	5.9	---	---	---	10.4	9.3	9.7
MONTH	5.6	3.7	4.7	7.6	4.4	5.8	9.2	5.1	7.1	10.5	6.8	8.6

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.22	10.96	11.12	12.37	12.20	12.29	12.56	12.32	12.44	---	---	---
2	11.18	10.82	11.04	12.37	12.15	12.29	12.59	12.33	12.46	---	---	---
3	11.24	10.86	11.03	12.56	12.20	12.36	12.48	12.28	12.38	---	---	---
4	11.28	10.86	11.03	12.53	12.33	12.40	12.33	12.19	12.28	---	---	---
5	11.09	10.83	10.96	12.70	12.39	12.48	12.25	11.95	12.14	---	---	---
6	11.12	10.85	10.95	12.60	12.39	12.47	12.07	11.89	11.96	---	---	---
7	11.14	10.73	10.95	12.57	12.22	12.40	12.35	11.93	12.12	---	---	---
8	11.23	10.83	11.00	12.37	12.06	12.21	12.75	12.29	12.53	---	---	---
9	11.49	10.95	11.20	12.34	12.06	12.17	13.08	12.40	12.64	---	---	---
10	11.61	11.15	11.33	12.44	12.16	12.26	---	---	---	---	---	---
11	11.50	11.30	11.38	12.37	12.09	12.23	---	---	---	---	---	---
12	11.79	11.44	11.57	12.27	12.05	12.15	---	---	---	---	---	---
13	11.81	11.41	11.57	12.35	12.13	12.23	---	---	---	---	---	---
14	11.65	11.34	11.50	12.45	12.20	12.31	---	---	---	---	---	---
15	11.51	11.35	11.42	12.40	12.06	12.23	---	---	---	---	---	---
16	11.72	11.44	11.55	12.23	12.05	12.14	---	---	---	---	---	---
17	11.62	11.42	11.54	12.41	12.08	12.22	---	---	---	---	---	---
18	11.52	11.39	11.43	12.33	12.05	12.19	---	---	---	---	---	---
19	11.51	11.31	11.44	12.37	12.12	12.24	---	---	---	---	---	---
20	11.49	11.28	11.39	12.60	12.32	12.47	---	---	---	---	---	---
21	11.43	11.20	11.29	12.88	12.50	12.65	---	---	---	---	---	---
22	11.55	11.24	11.36	13.16	12.67	12.90	---	---	---	---	---	---
23	11.83	11.40	11.47	13.13	12.88	12.98	---	---	---	12.95	12.33	12.65
24	11.83	11.49	11.63	13.09	12.74	12.91	---	---	---	12.46	12.24	12.34
25	11.80	11.57	11.73	12.91	12.72	12.78	---	---	---	12.85	12.45	12.65
26	11.70	11.44	11.60	13.21	12.72	13.02	---	---	---	12.68	12.43	12.57
27	11.66	11.44	11.54	13.35	13.04	13.15	---	---	---	12.63	12.35	12.51
28	11.62	11.34	11.51	13.15	12.78	13.00	---	---	---	12.50	12.30	12.40
29	11.58	11.37	11.44	12.81	12.49	12.68	---	---	---	12.37	12.15	12.29
30	11.84	11.46	11.65	12.63	12.40	12.52	---	---	---	13.16	12.15	12.56
31	12.21	11.84	12.03	---	---	---	---	---	---	12.71	12.50	12.61
MONTH	12.21	10.73	11.38	13.35	12.05	12.48	---	---	---	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	12.58	12.36	12.48	12.49	12.19	12.31	12.31	11.84	12.03	11.60	11.07	11.31
2	12.38	12.19	12.28	12.48	12.22	12.31	12.11	11.67	11.86	11.84	11.13	11.50
3	12.39	12.10	12.26	12.49	12.24	12.36	11.79	11.48	11.62	11.78	11.18	11.46
4	12.55	12.24	12.42	12.46	12.26	12.36	11.69	11.33	11.51	11.77	11.17	11.47
5	12.67	12.33	12.54	12.53	12.25	12.35	11.63	11.32	11.47	11.67	11.06	11.33
6	12.57	12.27	12.43	12.49	12.16	12.31	11.78	11.50	11.62	11.51	11.04	11.31
7	12.74	12.36	12.58	12.34	12.06	12.19	11.86	11.47	11.67	11.56	11.17	11.41
8	12.85	12.55	12.70	12.23	11.95	12.07	11.78	11.46	11.61	11.67	11.32	11.52
9	12.94	12.68	12.81	12.21	11.85	12.05	11.78	11.40	11.58	11.64	11.29	11.49
10	12.91	12.68	12.81	12.36	11.91	12.14	11.74	11.37	11.54	11.68	11.44	11.56
11	12.80	12.57	12.68	12.34	11.97	12.15	11.65	11.32	11.46	11.87	11.55	11.72
12	12.68	12.42	12.55	12.22	11.80	12.03	11.55	11.19	11.37	11.74	11.17	11.51
13	12.60	12.38	12.47	12.24	11.80	12.03	11.41	11.17	11.30	11.63	11.14	11.37
14	12.58	12.26	12.42	12.16	11.78	11.98	11.69	11.29	11.51	11.43	11.02	11.23
15	12.64	12.30	12.42	12.32	11.83	12.08	11.97	11.45	11.72	11.32	10.93	11.16
16	12.41	12.01	12.19	12.25	11.85	12.05	11.96	11.67	11.78	11.42	11.00	11.21
17	12.30	11.97	12.10	12.17	11.72	11.95	11.99	11.62	11.77	11.32	10.93	11.18
18	12.32	12.17	12.26	12.04	11.62	11.84	11.98	11.64	11.81	11.68	11.23	11.48
19	12.41	12.22	12.30	12.10	11.67	11.90	12.00	11.71	11.84	11.75	11.14	11.54
20	12.55	12.14	12.35	12.27	11.85	12.01	11.92	11.67	11.79	11.47	11.11	11.26
21	12.35	11.98	12.14	12.04	11.61	11.80	12.12	11.72	11.92	11.53	10.96	11.28
22	12.18	11.89	12.01	11.89	11.45	11.67	12.35	11.64	12.04	11.50	10.96	11.30
23	12.16	11.83	11.98	11.85	11.50	11.66	12.05	11.59	11.77	11.71	11.22	11.50
24	12.22	11.82	12.03	11.94	11.49	11.74	12.00	11.52	11.70	11.58	11.12	11.33
25	12.51	11.85	12.02	11.95	11.63	11.81	11.76	11.22	11.46	11.36	10.86	11.13
26	12.16	11.78	11.99	12.20	11.87	12.05	11.62	11.11	11.31	11.21	10.82	10.99
27	12.32	11.95	12.16	12.17	11.89	12.03	11.59	11.05	11.27	11.25	10.91	11.07
28	12.41	12.09	12.28	12.26	11.74	12.04	11.65	11.09	11.39	11.60	11.25	11.48
29	12.40	12.12	12.23	11.95	11.47	11.70	11.82	11.26	11.51	11.87	11.54	11.70
30	---	---	---	11.84	11.25	11.63	11.75	11.13	11.40	11.78	11.16	11.53
31	---	---	---	12.11	11.72	11.93	---	---	---	11.36	10.92	11.18
MONTH	12.94	11.78	12.34	12.53	11.25	12.02	12.35	11.05	11.62	11.87	10.82	11.37

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.32	10.85	11.08	11.42	10.79	10.98	10.89	10.13	10.40	11.08	10.37	10.70
2	11.22	10.74	10.96	11.20	10.80	10.99	10.98	10.11	10.34	11.02	10.57	10.79
3	11.07	10.63	10.83	11.16	10.73	10.90	10.74	10.22	10.42	11.91	10.86	11.13
4	11.05	10.60	10.81	11.08	10.72	10.85	10.76	10.30	10.49	11.20	10.92	11.04
5	11.11	10.58	10.88	11.22	10.76	10.91	10.77	10.30	10.48	11.18	10.89	11.01
6	11.30	10.96	11.13	11.35	10.76	10.91	10.85	10.30	10.58	11.26	10.92	11.04
7	11.39	10.99	11.22	11.20	10.56	10.83	10.99	10.57	10.76	11.28	10.93	11.07
8	11.58	11.23	11.43	11.18	10.53	10.80	11.33	10.39	10.63	11.29	10.94	11.05
9	11.57	11.38	11.49	10.86	10.48	10.62	10.88	10.39	10.56	11.31	10.95	11.09
10	11.82	11.32	11.55	10.94	10.44	10.63	10.77	10.31	10.51	11.25	10.98	11.10
11	11.69	11.09	11.35	11.26	10.43	10.74	10.77	10.27	10.46	11.26	10.96	11.09
12	11.52	10.99	11.22	11.38	10.77	11.04	10.90	10.23	10.41	11.32	10.96	11.11
13	11.47	10.88	11.08	11.33	10.32	10.83	10.64	10.12	10.35	11.39	11.01	11.18
14	11.36	10.75	10.97	10.66	10.21	10.39	10.45	9.91	10.21	11.89	11.16	11.31
15	11.26	10.68	10.89	10.71	10.23	10.42	10.36	9.85	10.11	11.83	11.10	11.24
16	11.10	10.51	10.73	11.20	10.17	10.44	10.53	10.09	10.26	11.59	11.11	11.24
17	11.07	10.49	10.68	10.61	10.15	10.35	10.62	10.15	10.35	11.47	11.05	11.20
18	10.95	10.39	10.60	10.88	10.18	10.46	11.04	10.18	10.50	11.88	11.08	11.26
19	10.97	10.35	10.59	11.20	10.70	10.97	10.62	10.17	10.36	11.71	11.28	11.48
20	10.98	10.41	10.63	11.31	10.36	10.89	10.59	10.14	10.33	11.80	11.42	11.58
21	10.85	10.38	10.61	10.67	10.20	10.40	10.61	10.14	10.35	12.49	11.53	11.70
22	11.04	10.26	10.49	10.57	10.06	10.28	10.67	10.26	10.40	12.55	11.43	11.70
23	10.78	10.16	10.42	10.50	10.04	10.21	10.91	10.32	10.63	12.11	11.28	11.47
24	10.82	10.27	10.44	10.47	10.00	10.18	11.04	10.62	10.80	11.44	11.16	11.31
25	10.65	10.12	10.31	10.48	10.03	10.20	11.50	10.61	10.83	11.57	11.16	11.25
26	10.72	10.14	10.38	10.49	9.99	10.22	11.79	10.65	10.93	11.39	11.08	11.22
27	10.79	10.24	10.45	11.21	10.11	10.55	11.51	10.65	10.92	11.64	11.05	11.16
28	10.90	10.19	10.43	10.97	10.12	10.55	10.97	10.54	10.75	11.34	11.04	11.15
29	11.13	10.65	10.89	10.54	10.17	10.33	10.87	10.41	10.63	11.29	11.02	11.13
30	11.50	10.78	11.03	10.60	10.27	10.41	10.82	10.37	10.57	11.30	10.97	11.08
31	---	---	---	11.07	10.16	10.45	10.83	10.37	10.55	---	---	---
MONTH	11.82	10.12	10.85	11.42	9.99	10.60	11.79	9.85	10.51	12.55	10.37	11.20

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	2	<1	<1	2	<1	1	3	1	2	2	<1	<1
2	1	<1	<1	1	<1	<1	2	1	1	2	<1	1
3	2	<1	<1	1	<1	<1	4	<1	1	1	<1	<1
4	5	<1	<1	2	<1	<1	1	<1	<1	1	<1	<1
5	5	<1	<1	<1	<1	<1	2	<1	<1	1	<1	1
6	2	<1	<1	<1	<1	<1	15	2	5	1	<1	1
7	2	<1	<1	<1	<1	<1	7	2	4	2	<1	1
8	4	<1	<1	<1	<1	<1	4	2	2	2	1	2
9	<1	<1	<1	<1	<1	<1	5	1	3	3	2	2
10	<1	<1	<1	<1	<1	<1	2	<1	<1	3	2	2
11	2	<1	<1	<1	<1	<1	<1	<1	<1	2	1	2
12	<1	<1	<1	<1	<1	<1	2	<1	<1	2	1	1
13	2	<1	<1	<1	<1	<1	18	2	12	2	1	1
14	<1	<1	<1	<1	<1	<1	>200	7	12	1	1	1
15	2	<1	<1	1	<1	<1	8	3	5	2	1	1
16	1	<1	<1	2	<1	<1	4	2	2	2	1	1
17	<1	<1	<1	2	<1	1	3	2	2	1	<1	<1
18	1	<1	<1	3	1	1	2	1	2	<1	<1	<1
19	<1	<1	<1	2	<1	<1	1	1	1	1	<1	<1
20	<1	<1	<1	1	<1	<1	2	1	1	1	<1	<1
21	2	<1	<1	2	<1	<1	3	<1	1	1	<1	<1
22	2	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
23	<1	<1	<1	<1	<1	<1	3	<1	<1	2	<1	<1
24	1	<1	<1	2	<1	<1	4	<1	<1	3	2	2
25	1	<1	<1	1	<1	<1	2	<1	<1	2	1	2
26	1	<1	<1	1	<1	<1	<1	<1	<1	2	1	1
27	1	<1	<1	2	<1	<1	1	<1	<1	3	1	2
28	<1	<1	<1	1	<1	<1	1	<1	<1	3	2	2
29	<1	<1	<1	9	<1	3	2	<1	1	3	2	3
30	<1	<1	<1	5	2	4	2	<1	1	6	2	3
31	2	<1	<1	---	---	---	2	<1	1	3	1	2
MAX	5	<1	<1	9	2	4	>200	7	12	6	2	3
MIN	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FEBRUARY				MARCH			APRIL			MAY		
1	2	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2	3	1	2	<1	<1	<1	<1	<1	<1	1	<1	<1
3	1	<1	1	<1	<1	<1	<1	<1	<1	1	<1	<1
4	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
9	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
11	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
14	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
15	<1	<1	<1	<1	<1	<1	10	<1	<1	<1	<1	<1
16	1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
17	6	1	2	<1	<1	<1	<1	<1	<1	1	<1	<1
18	6	2	3	<1	<1	<1	<1	<1	<1	2	<1	<1
19	3	1	2	<1	<1	<1	<1	<1	<1	1	<1	<1
20	2	<1	1	<1	<1	<1	<1	<1	<1	2	<1	<1
21	1	<1	<1	<1	<1	<1	4	<1	1	2	1	1
22	<1	<1	<1	<1	<1	<1	2	1	1	1	<1	<1
23	<1	<1	<1	<1	<1	<1	1	<1	<1	1	<1	<1
24	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	1
25	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	1
26	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	1
27	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	1
28	<1	<1	<1	<1	<1	<1	1	<1	<1	3	<1	1
29	<1	<1	<1	<1	<1	<1	2	<1	<1	3	1	1
30	---	---	---	<1	<1	<1	<1	<1	<1	1	<1	<1
31	---	---	---	<1	<1	<1	---	---	---	<1	<1	<1
MAX	6	2	3	<1	<1	<1	10	1	1	3	1	1
MIN	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

14316460 NORTH UMPQUA RIVER AT SODA SPRINGS, NEAR TOKETEE FALLS, OR—Continued

 TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
4	<1	<1	<1	<1	<1	<1	4	<1	<1	<1	<1	<1
5	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
6	<1	<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1
7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
8	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
9	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
10	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
11	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
12	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
13	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
14	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
15	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
18	<1	<1	<1	<1	<1	<1	4	<1	<1	<1	<1	<1
19	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
20	1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1
21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
22	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
23	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
24	<1	<1	<1	3	<1	<1	1	<1	<1	<1	<1	<1
25	<1	<1	<1	9	<1	<1	<1	<1	<1	<1	<1	<1
26	<1	<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1
27	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
28	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
29	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
30	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
31	---	---	---	<1	<1	<1	3	<1	<1	---	---	---
MAX	1	<1	<1	9	<1	<1	4	<1	<1	2	<1	<1
MIN	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

> Actual value is known to be greater than the value shown

14316495 BOULDER CREEK NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°18'13", long 122°31'45", in NE ¼ SW ¼ sec.13, T.26 S., R.2 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, and at mile 0.1.

DRAINAGE AREA.--30.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,640 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--7 years (water years 1998-2004), 96.0 ft³/s, 42.93 in/yr, 69,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,370 ft³/s Nov. 21, 1998, gage height, 6.98 ft; minimum discharge, 1.9 ft³/s Oct. 5-8, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1500	737	4.99	Jan 24	0330	673	4.87
Dec 13	0800	*1,830	*6.37	Jan 29	0330	623	4.77

Minimum discharge, 2.9 ft³/s, Oct. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.8	190	98	264	136	97	110	125	25	7.1	6.2
2	3.1	4.5	151	91	260	143	87	112	107	21	6.9	5.9
3	3.2	5.1	131	76	243	123	84	114	96	20	7.1	6.1
4	3.1	5.4	109	67	200	127	93	111	87	20	6.8	5.8
5	3.0	6.9	113	58	168	166	100	100	79	19	6.7	5.6
6	3.0	7.4	271	63	155	202	97	91	72	18	6.8	5.4
7	2.9	6.6	194	131	164	194	94	88	74	17	7.0	5.2
8	3.0	8.1	152	208	145	261	92	92	82	16	6.5	5.1
9	3.2	9.4	129	372	124	298	92	81	110	16	6.1	4.9
10	4.4	7.9	126	349	112	248	93	88	182	15	5.9	4.9
11	4.5	19	102	268	120	203	97	140	139	14	5.8	4.8
12	8.9	18	278	299	131	198	106	133	110	14	5.6	5.0
13	5.2	11	1,330	328	126	183	112	109	93	13	5.5	7.0
14	4.3	8.5	693	410	117	172	100	95	80	13	5.4	8.5
15	4.3	10	309	459	126	164	93	88	70	12	5.2	9.5
16	6.4	41	196	329	169	152	88	84	62	11	5.1	10
17	4.9	116	174	239	373	152	86	80	55	11	5.0	7.6
18	4.2	57	211	207	467	156	82	199	50	11	4.9	13
19	3.9	51	245	269	317	147	79	260	45	11	4.9	14
20	4.0	52	290	267	230	124	111	191	41	11	4.8	26
21	3.9	35	233	196	179	137	213	176	37	9.9	4.7	17
22	3.7	27	181	152	149	160	200	145	34	9.5	9.0	12
23	4.1	22	149	280	143	162	186	132	32	9.1	11	9.5
24	4.0	24	168	552	134	147	158	112	30	8.7	11	8.3
25	3.7	24	160	372	124	126	141	100	28	8.3	9.0	7.5
26	3.6	27	129	252	125	110	147	94	27	8.1	27	7.0
27	3.5	25	108	365	128	118	152	107	26	7.8	15	6.6
28	3.4	29	99	430	130	111	142	212	24	7.7	9.8	6.1
29	4.0	467	117	561	122	112	120	252	23	7.5	8.0	5.9
30	4.7	297	107	538	---	125	109	197	23	7.3	7.1	5.6
31	4.0	---	90	369	---	112	---	154	---	7.2	6.5	---
TOTAL	125.3	1,425.6	6,935	8,655	5,245	4,969	3,451	4,047	2,043	399.1	237.2	246.0
MEAN	4.04	47.5	224	279	181	160	115	131	68.1	12.9	7.65	8.20
MAX	8.9	467	1,330	561	467	298	213	260	182	25	27	26
MIN	2.9	3.8	90	58	112	110	79	80	23	7.2	4.7	4.8
AC-FT	249	2,830	13,760	17,170	10,400	9,860	6,850	8,030	4,050	792	470	488
CFSM	0.13	1.56	7.36	9.18	5.95	5.27	3.78	4.29	2.24	0.42	0.25	0.27
IN.	0.15	1.74	8.49	10.59	6.42	6.08	4.22	4.95	2.50	0.49	0.29	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	14.7	64.3	152	226	158	165	151	134	61.7	15.4	6.91	5.26
MAX	60.3	189	239	311	256	251	232	287	144	34.6	13.1	8.20
(WY)	(1998)	(1999)	(1999)	(1999)	(1999)	(2003)	(2002)	(1999)	(1999)	(1999)	(1999)	(2004)
MIN	4.04	18.7	63.3	36.3	41.9	92.0	83.8	84.0	18.6	7.50	4.15	3.08
(WY)	(2004)	(2003)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2003)	(2001)	(2001)

14316495 BOULDER CREEK NEAR TOKETEE FALLS, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	38,823.1		37,778.2			
ANNUAL MEAN	106		103		96.0	
HIGHEST ANNUAL MEAN					155	1999
LOWEST ANNUAL MEAN					38.8	2001
HIGHEST DAILY MEAN	1,330	Dec 13	1,330	Dec 13	1,330	Dec 13, 2003
LOWEST DAILY MEAN	2.9	Oct 7	2.9	Oct 7	1.9	Oct 5, 2001
ANNUAL SEVEN-DAY MINIMUM	3.0	Oct 2	3.0	Oct 2	2.0	Oct 2, 2001
ANNUAL RUNOFF (AC-FT)	77,010		74,930		69,580	
ANNUAL RUNOFF (CFSM)	3.50		3.40		3.16	
ANNUAL RUNOFF (INCHES)	47.51		46.23		42.93	
10 PERCENT EXCEEDS	270		249		234	
50 PERCENT EXCEEDS	58		87		58	
90 PERCENT EXCEEDS	3.8		4.9		4.5	



2004 Water Year
UMPQUA RIVER BASIN

14316495 BOULDER CREEK NEAR TOKETEE FALLS, OR

Latitude: 43° 18 ' 13"

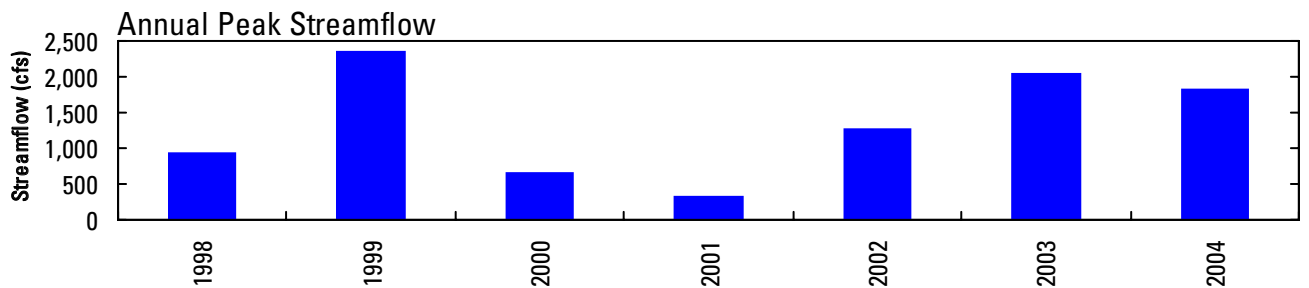
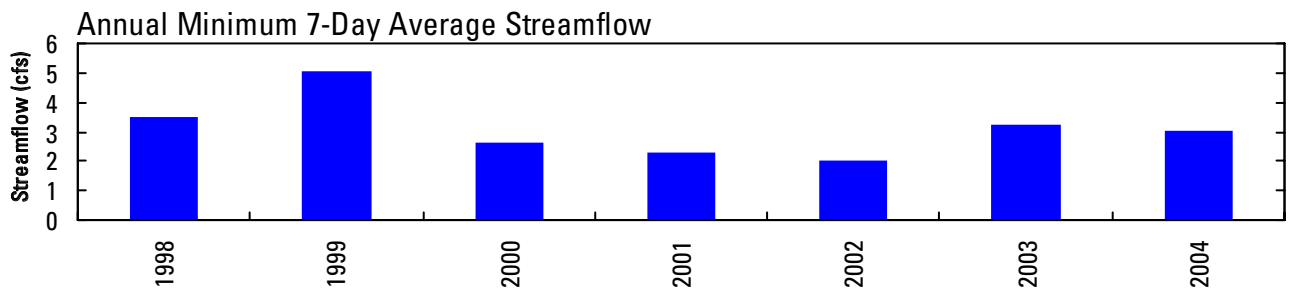
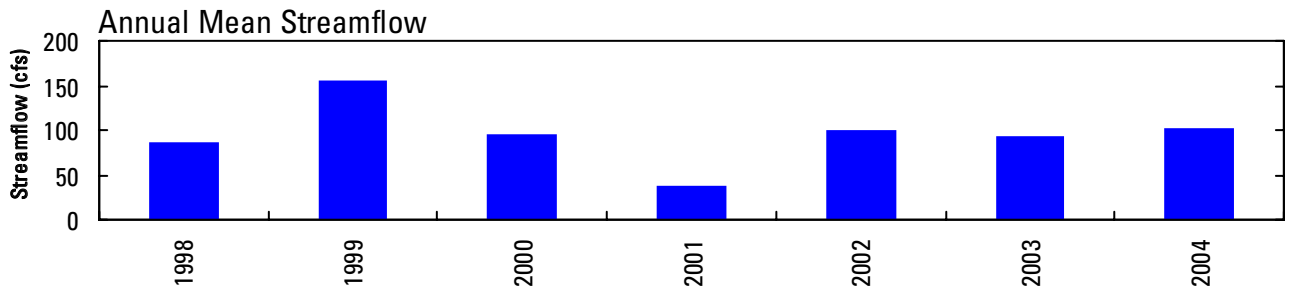
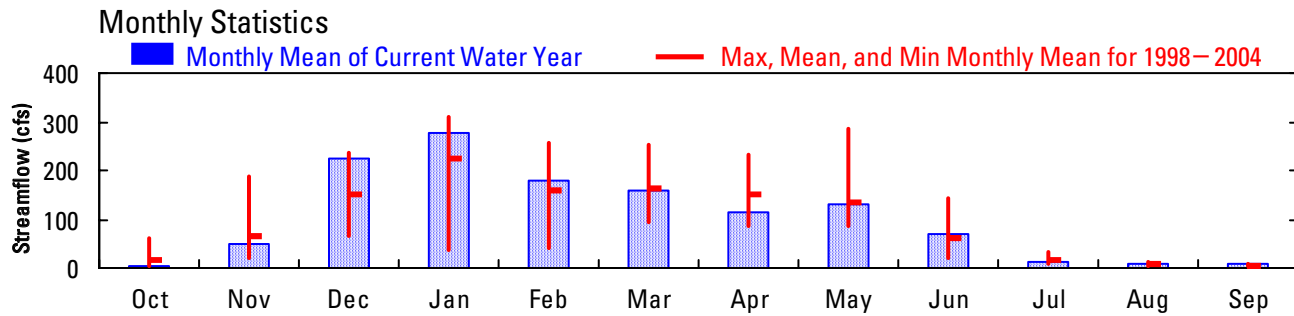
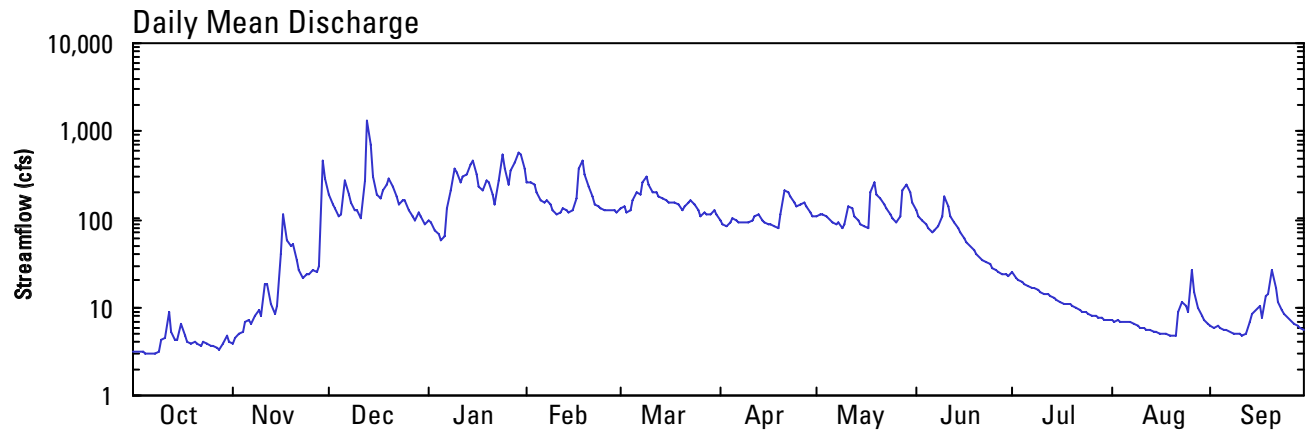
Longitude: 122° 31 ' 45"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 1,640 feet

Drainage Area: 30.4 square miles



14316495 BOULDER CREEK NEAR TOKETEE FALLS, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: February 1999 to current year.

INSTRUMENTATION.--Water-quality monitor and data logger.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 22.1°C July 13, 2002, July 30, 2003; minimum, 1.2°C Jan. 17, Feb. 13, 2001.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.6°C Aug. 14; minimum, 2.3°C Nov. 26.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.7	12.7	13.5	5.4	4.4	4.9	6.6	6.1	6.4	4.0	3.1	3.6
2	14.0	12.7	13.3	4.9	4.4	4.7	6.8	6.1	6.5	4.0	3.4	3.7
3	13.9	12.6	13.2	5.3	4.6	5.0	7.0	6.3	6.7	3.8	3.2	3.5
4	13.9	12.6	13.3	4.9	4.5	4.7	6.8	5.7	6.2	3.2	2.5	2.9
5	14.6	12.7	13.4	5.3	4.5	4.9	7.0	6.8	6.9	3.6	3.1	3.3
6	14.2	12.5	13.3	5.2	4.3	4.8	7.1	6.5	6.8	3.8	3.4	3.6
7	14.8	13.3	13.8	5.7	4.8	5.3	6.5	5.2	6.0	5.0	3.7	4.4
8	13.5	12.5	12.9	6.1	5.3	5.7	5.8	5.2	5.5	5.7	5.0	5.4
9	12.8	11.6	12.2	6.3	5.5	5.9	5.9	5.5	5.7	6.3	5.6	6.0
10	12.0	10.6	11.2	6.6	5.8	6.3	6.3	5.6	5.9	6.3	5.8	6.1
11	10.6	9.9	10.1	7.1	6.6	6.8	6.3	5.8	6.0	6.1	5.6	5.8
12	10.5	9.5	10.0	7.1	6.4	6.8	6.7	5.2	5.9	6.1	5.6	5.9
13	9.9	8.7	9.4	6.4	5.4	5.7	7.4	5.9	6.9	6.2	5.6	5.9
14	10.8	9.3	9.8	5.4	4.8	5.2	6.3	5.6	6.0	6.3	6.0	6.2
15	9.6	9.1	9.3	6.0	5.4	5.7	5.7	5.2	5.4	6.7	6.1	6.3
16	10.0	9.1	9.5	6.1	5.7	5.8	5.3	4.9	5.1	6.4	5.6	6.0
17	10.7	9.3	9.9	7.3	6.1	6.8	5.5	5.0	5.2	5.9	5.2	5.5
18	10.5	9.1	9.8	7.6	7.1	7.3	5.7	5.2	5.4	6.2	5.6	5.8
19	10.9	9.8	10.3	7.3	5.8	6.7	6.3	5.6	6.0	6.2	5.7	5.9
20	11.8	10.5	11.1	5.8	4.6	5.4	6.7	6.2	6.4	5.8	5.2	5.5
21	12.4	11.1	11.6	4.8	4.3	4.6	6.6	5.9	6.3	5.2	4.5	4.9
22	12.1	10.8	11.5	4.3	3.3	3.6	6.1	5.3	5.7	4.8	4.2	4.5
23	11.7	10.4	11.1	3.3	2.7	3.0	6.5	5.7	6.0	5.8	4.6	5.2
24	10.4	9.3	9.8	3.3	2.9	3.1	6.4	5.7	6.2	6.2	5.1	5.8
25	10.0	8.8	9.4	3.4	2.7	3.1	5.7	4.5	4.9	5.4	4.9	5.2
26	10.3	9.0	9.5	3.0	2.3	2.7	4.6	4.2	4.4	5.2	4.5	5.0
27	10.5	9.3	9.8	3.5	2.9	3.2	4.3	3.6	3.9	6.1	4.6	5.5
28	10.8	9.4	10.0	4.3	3.3	3.7	3.8	3.1	3.6	6.1	5.9	6.0
29	10.4	8.6	9.7	6.9	4.3	5.8	4.4	2.9	3.8	6.4	6.1	6.2
30	8.8	7.0	8.1	7.0	6.6	6.8	4.6	4.3	4.4	6.2	5.2	5.6
31	7.0	5.4	6.1	---	---	---	4.5	4.0	4.2	5.3	4.8	5.1
MONTH	14.8	5.4	10.8	7.6	2.3	5.1	7.4	2.9	5.6	6.7	2.5	5.2

UMPQUA RIVER BASIN

14316495 BOULDER CREEK NEAR TOKETEE FALLS, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.3	4.7	5.0	6.1	5.1	5.5	5.8	3.9	4.9	10.3	7.6	8.9
2	6.0	5.2	5.5	6.2	5.3	5.8	6.8	4.0	5.4	10.6	7.6	9.1
3	6.0	5.5	5.7	5.5	4.6	5.0	8.1	5.7	6.8	10.7	8.0	9.4
4	6.0	5.3	5.6	5.5	5.2	5.3	8.4	6.2	7.3	10.0	7.9	8.9
5	5.6	4.7	5.2	5.8	5.2	5.5	8.0	7.0	7.5	9.6	7.5	8.5
6	5.6	5.2	5.4	6.9	5.6	6.2	8.2	6.8	7.4	9.1	7.1	8.2
7	5.3	4.7	5.0	7.3	5.5	6.4	8.0	6.3	7.2	9.0	7.8	8.4
8	5.0	4.4	4.8	7.5	5.7	6.4	8.4	6.2	7.4	9.1	7.7	8.3
9	4.5	3.8	4.2	7.4	5.9	6.5	8.4	6.0	7.3	8.4	7.5	8.0
10	4.8	3.8	4.2	6.9	5.3	6.1	8.5	6.3	7.5	8.0	7.3	7.6
11	5.3	4.0	4.6	7.0	5.2	6.0	9.2	6.6	7.9	7.9	6.7	7.3
12	5.2	4.0	4.6	7.0	5.3	6.1	9.2	7.2	8.2	9.1	7.1	8.0
13	5.3	4.3	4.8	7.0	5.2	6.1	8.5	7.2	7.6	9.8	6.8	8.3
14	5.6	4.8	5.2	7.3	5.9	6.5	7.2	6.4	6.8	10.3	7.8	9.0
15	5.7	4.6	5.1	6.9	5.2	6.1	6.5	5.2	5.7	10.0	8.6	9.3
16	5.8	5.4	5.5	7.1	5.2	6.1	6.0	4.6	5.3	10.3	8.3	9.3
17	6.5	5.5	6.0	7.2	5.3	6.2	6.8	5.2	5.9	9.5	8.0	8.7
18	6.4	5.8	6.2	7.4	5.8	6.5	6.4	5.6	6.0	8.8	8.3	8.5
19	6.2	5.3	5.7	6.6	5.4	6.0	6.4	5.4	5.9	9.7	8.0	8.7
20	5.7	4.7	5.2	7.1	4.6	5.8	6.2	5.7	5.9	9.7	7.9	8.9
21	6.2	5.2	5.6	7.8	5.8	6.7	6.3	5.5	5.9	10.6	8.5	9.3
22	6.3	5.4	5.9	8.0	6.0	7.0	8.0	5.7	6.7	9.5	8.3	8.7
23	6.4	5.6	6.0	7.7	6.6	7.0	7.9	6.3	7.1	8.8	7.5	8.1
24	6.0	5.4	5.7	6.8	6.1	6.4	8.5	5.8	7.1	9.8	7.0	8.3
25	6.1	5.2	5.6	6.3	5.4	5.8	9.5	6.5	7.9	10.9	8.1	9.5
26	5.9	5.4	5.7	5.4	4.5	5.0	10.2	7.4	8.7	10.7	9.3	10
27	5.7	5.2	5.5	6.5	5.1	5.7	10.1	7.7	8.9	10.2	9.1	9.6
28	6.0	5.2	5.6	7.1	4.5	5.8	8.8	6.3	7.6	9.1	8.0	8.6
29	5.7	5.2	5.5	8.0	5.6	6.7	9.0	5.8	7.4	8.4	7.6	8.0
30	---	---	---	7.7	5.8	6.8	9.8	6.8	8.2	10.0	7.5	8.6
31	---	---	---	6.1	5.0	5.5	---	---	---	10.8	8.3	9.4
MONTH	6.5	3.8	5.3	8.0	4.5	6.1	10.2	3.9	7.0	10.9	6.7	8.7
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.2	8.3	9.7	17.1	14.8	16.1	20.7	17.9	19.3	17.6	16.0	16.8
2	12.1	8.9	10.4	17.1	14.8	15.9	20.1	18.0	19.0	16.0	14.4	14.9
3	12.9	9.9	11.4	17.9	15.4	16.5	19.7	17.2	18.4	15.3	13.4	14.3
4	13.2	10.3	11.8	17.7	15.3	16.5	19.3	16.7	18.0	15.3	13.2	14.2
5	12.4	10.8	11.3	17.5	14.9	16.2	18.5	16.6	17.5	15.7	13.6	14.5
6	10.9	9.8	10.4	17.6	15.1	16.3	17.2	16.2	16.6	15.7	13.5	14.6
7	10.1	8.8	9.3	17.9	15.9	16.6	17.9	15.1	16.5	15.7	13.6	14.6
8	8.9	8.2	8.5	16.9	14.3	15.6	18.4	15.3	16.9	15.9	13.7	14.7
9	9.0	8.4	8.7	16.7	14.2	15.3	19.2	16.3	17.8	15.5	13.6	14.6
10	10.0	8.6	9.2	17.1	14.5	15.4	19.9	17.0	18.4	15.7	13.6	14.6
11	10.0	8.5	9.1	16.6	13.6	15.1	20.3	17.4	18.9	15.5	14.4	14.9
12	10.6	8.4	9.4	17.8	14.7	16.1	20.7	18.1	19.4	15.6	14.4	15.0
13	11.6	9.4	10.4	18.8	15.8	17.1	21.3	18.6	19.9	14.5	13.5	14.0
14	11.8	9.3	10.6	19.2	16.3	17.6	21.6	19.1	20.3	14.4	12.9	13.6
15	12.4	9.3	10.9	19.3	16.4	17.7	21.3	18.8	20.1	14.3	13.5	13.8
16	12.7	9.9	11.5	19.3	16.2	17.6	21.2	18.7	19.8	14.2	12.8	13.4
17	13.5	10.3	12.0	19.8	17.1	18.2	20.4	17.8	19.1	13.8	12.9	13.3
18	14.2	11.3	12.9	18.5	17.0	17.8	20.3	17.6	18.9	12.9	11.3	12.1
19	14.3	11.8	13.3	18.9	17.0	17.9	20.5	17.9	19.1	11.3	10.5	10.9
20	14.2	11.6	13.2	19.3	16.3	17.7	20.7	18.0	19.3	10.7	10.0	10.4
21	14.8	12.1	13.7	19.4	16.3	17.8	19.6	17.5	18.6	10.2	8.9	9.7
22	15.5	13.1	14.4	19.8	16.5	18.2	18.6	16.7	17.7	11.1	9.5	10.3
23	15.7	13.7	14.8	20.4	17.1	18.7	16.7	15.8	16.2	12.0	10.4	11.2
24	16.5	14.2	15.4	21.0	17.8	19.3	16.1	15.4	15.8	12.7	11.1	11.9
25	16.8	14.7	15.8	21.2	18.2	19.6	15.9	15.1	15.5	13.4	11.7	12.5
26	16.4	14.3	15.4	20.4	17.6	19.0	15.2	14.2	14.6	14.0	12.6	13.2
27	16.0	13.7	15.0	19.9	16.8	18.5	15.4	13.6	14.5	14.0	12.3	13.2
28	16.4	13.9	15.3	20.3	17.2	18.7	16.3	14.0	15.1	14.1	12.6	13.4
29	16.8	14.9	15.8	20.3	17.3	18.8	17.1	14.7	15.9	14.9	13.5	13.9
30	17.3	14.7	16.0	20.3	17.4	18.9	17.5	15.2	16.4	14.0	12.6	13.3
31	---	---	---	20.5	17.7	19.1	17.7	16.1	16.9	---	---	---
MONTH	17.3	8.2	12.2	21.2	13.6	17.4	21.6	13.6	17.8	17.6	8.9	13.4
YEAR	21.6	2.3	9.6									

14316500 NORTH UMPQUA RIVER ABOVE COPELAND CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--(Revised)Lat 43°17'46", long 122°32'08", in NW ¼ sec.24, T.26 S., R.2 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on left bank 0.6 mi upstream from Copeland Creek, 4.7 mi west of town of Toketee Falls, and at mile 67.2.

DRAINAGE AREA.--475 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1949 to current year. Monthly discharge only September 1949, published in WSP 1318. Prior to October 1952, published as "above Copeland Creek."

REVISED RECORDS.--WSP 1448: 1953(M), 1954, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,580 ft above NGVD of 1929, from river-profile map. Prior to Aug. 1, 1976, on right bank at same datum.

REMARKS.--No estimated daily discharges. Records good. Considerable fluctuation caused by powerplants upstream; flow slightly regulated by Diamond Lake and by Lemolo Lake (station 14313000). No diversion upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years (water years 1950-2004), 1,464 ft³/s, 1,061,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,700 ft³/s Dec. 22, 1964, gage height, 19.1 ft, from floodmark, from rating curve extended above 7,200 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 327 ft³/s July 11, 2004; minimum daily, 565 ft³/s Sept. 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,990 ft³/s Dec. 13, gage height, 9.12 ft; minimum discharge, 327 ft³/s July 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	780	754	1,080	1,170	2,240	1,380	1,660	1,880	1,670	1,060	780	766
2	787	754	1,070	1,150	2,130	1,380	1,480	1,980	1,670	1,050	792	778
3	792	744	1,060	1,160	2,010	1,370	1,360	2,030	1,660	1,050	798	793
4	782	735	1,040	1,130	1,800	1,380	1,340	2,050	1,640	1,040	799	795
5	786	735	1,090	1,040	1,650	1,460	1,390	1,890	1,640	1,020	795	793
6	788	736	1,510	991	1,650	1,570	1,390	1,810	1,620	989	795	793
7	785	735	1,490	1,110	1,660	1,580	1,390	1,610	1,580	958	794	792
8	789	737	1,350	1,300	1,520	1,610	1,390	1,770	1,490	946	786	793
9	792	735	1,260	1,730	1,440	1,790	1,390	1,610	1,530	917	773	787
10	795	732	1,100	1,730	1,400	1,870	1,390	1,570	1,610	929	754	785
11	799	744	991	1,530	1,360	1,800	1,400	1,810	1,580	893	733	785
12	801	746	1,240	1,540	1,300	1,770	1,460	1,740	1,480	908	721	785
13	798	744	4,000	1,610	1,260	1,740	1,550	1,660	1,400	891	720	797
14	798	743	3,000	1,690	1,260	1,720	1,690	1,570	1,390	863	740	811
15	796	744	1,810	1,880	1,330	1,720	1,730	1,530	1,330	843	764	833
16	795	771	1,390	1,680	1,460	1,680	1,580	1,540	1,310	854	770	850
17	789	831	1,370	1,560	2,340	1,690	1,440	1,570	1,320	861	775	788
18	786	797	1,350	1,520	3,070	1,750	1,360	1,950	1,260	860	763	809
19	786	791	1,560	1,600	2,540	1,720	1,360	2,040	1,260	862	757	838
20	785	791	1,670	1,700	2,170	1,670	1,460	1,980	1,230	867	743	852
21	789	762	1,550	1,560	1,910	1,660	1,700	1,980	1,190	882	740	844
22	787	748	1,460	1,420	1,830	1,710	1,670	1,990	1,180	883	743	824
23	785	746	1,390	1,540	1,760	1,810	1,660	1,930	1,130	866	765	808
24	783	764	1,330	2,250	1,740	1,890	1,670	1,690	1,130	855	773	802
25	792	746	1,410	2,040	1,720	1,920	1,650	1,650	1,090	840	778	770
26	785	765	1,390	1,810	1,700	1,910	1,660	1,630	1,070	827	866	756
27	766	761	1,280	2,100	1,650	1,850	1,740	1,700	1,050	828	840	754
28	747	756	1,160	2,320	1,560	1,790	1,920	2,190	1,030	818	792	772
29	748	1,280	1,200	2,800	1,450	1,730	1,880	2,230	1,050	803	748	786
30	742	1,210	1,170	2,900	---	1,750	1,840	1,860	1,050	792	738	782
31	748	---	1,130	2,490	---	1,760	---	1,760	---	784	746	---
TOTAL	24,281	23,637	44,901	52,051	50,910	52,430	46,600	56,200	40,640	27,839	23,881	23,921
MEAN	783	788	1,448	1,679	1,756	1,691	1,553	1,813	1,355	898	770	797
MAX	801	1,280	4,000	2,900	3,070	1,920	1,920	2,230	1,670	1,060	866	852
MIN	742	732	991	991	1,260	1,370	1,340	1,530	1,030	784	720	754
AC-FT	48,160	46,880	89,060	103,200	101,000	104,000	92,430	111,500	80,610	55,220	47,370	47,450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)
1950	920	1,568	661	(1951)
1951	1,258	2,324	754	(1952)
1952	1,750	5,163	803	(1953)
1953	1,806	3,592	788	(1954)
1954	1,818	3,462	670	(1955)
1955	1,762	4,221	873	(1956)
1956	1,866	2,876	1,065	(1957)
1957	1,998	3,191	855	(1958)
1958	1,625	2,933	700	(1959)
1959	1,061	1,652	664	(1960)
1960	879	1,178	598	(1961)
1961	848	1,107	612	(1962)
1962	848	1,107	612	(1963)
1963	848	1,107	612	(1964)
1964	848	1,107	612	(1965)
1965	848	1,107	612	(1966)
1966	848	1,107	612	(1967)
1967	848	1,107	612	(1968)
1968	848	1,107	612	(1969)
1969	848	1,107	612	(1970)
1970	848	1,107	612	(1971)
1971	848	1,107	612	(1972)
1972	848	1,107	612	(1973)
1973	848	1,107	612	(1974)
1974	848	1,107	612	(1975)
1975	848	1,107	612	(1976)
1976	848	1,107	612	(1977)
1977	848	1,107	612	(1978)
1978	848	1,107	612	(1979)
1979	848	1,107	612	(1980)
1980	848	1,107	612	(1981)
1981	848	1,107	612	(1982)
1982	848	1,107	612	(1983)
1983	848	1,107	612	(1984)
1984	848	1,107	612	(1985)
1985	848	1,107	612	(1986)
1986	848	1,107	612	(1987)
1987	848	1,107	612	(1988)
1988	848	1,107	612	(1989)
1989	848	1,107	612	(1990)
1990	848	1,107	612	(1991)
1991	848	1,107	612	(1992)
1992	848	1,107	612	(1993)
1993	848	1,107	612	(1994)
1994	848	1,107	612	(1995)
1995	848	1,107	612	(1996)
1996	848	1,107	612	(1997)
1997	848	1,107	612	(1998)
1998	848	1,107	612	(1999)
1999	848	1,107	612	(2000)
2000	848	1,107	612	(2001)
2001	848	1,107	612	(2002)
2002	848	1,107	612	(2003)
2003	848	1,107	612	(2004)

UMPQUA RIVER BASIN

14316500 NORTH UMPQUA RIVER ABOVE COPELAND CREEK, NEAR TOKETEE FALLS, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	475,329		467,291			
ANNUAL MEAN	1,302		1,277		1,464	
HIGHEST ANNUAL MEAN					2,080	1956
LOWEST ANNUAL MEAN					897	1977
HIGHEST DAILY MEAN	5,010	Jan 30	4,000	Dec 13	24,300	Dec 22, 1964
LOWEST DAILY MEAN	682	Aug 26	720	Aug 13	565	Sep 13, 1959
ANNUAL SEVEN-DAY MINIMUM	691	Aug 24	735	Nov 4	587	Sep 2, 1992
ANNUAL RUNOFF (AC-FT)	942,800		926,900		1,061,000	
10 PERCENT EXCEEDS	2,180		1,870		2,390	
50 PERCENT EXCEEDS	1,150		1,260		1,220	
90 PERCENT EXCEEDS	740		757		760	



2004 Water Year
UMPQUA RIVER BASIN

14316500 N UMPQUA RIVER ABV COPELAND CK, NR TOKETEE FALLS, OR

Latitude: 43° 17 ' 46"

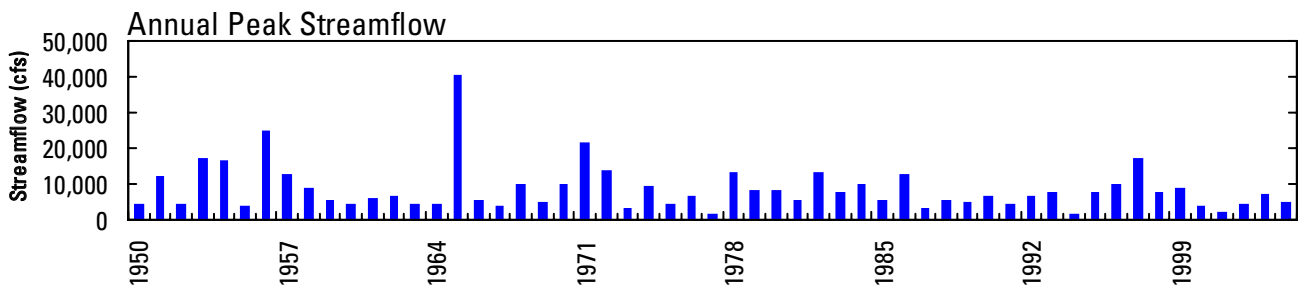
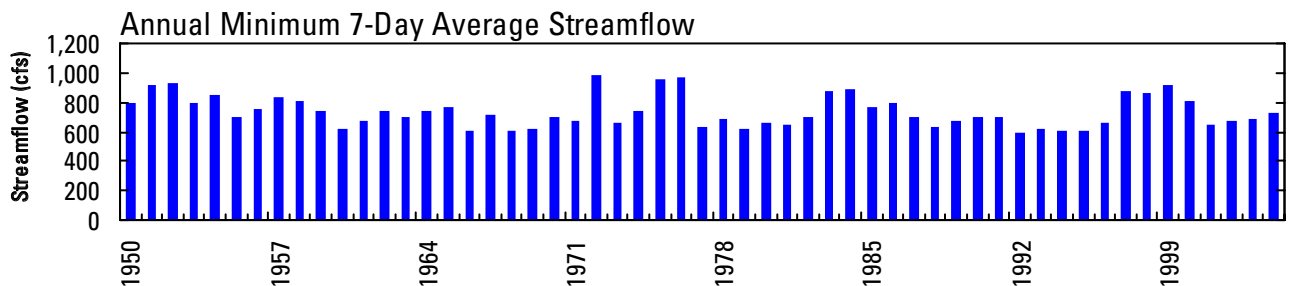
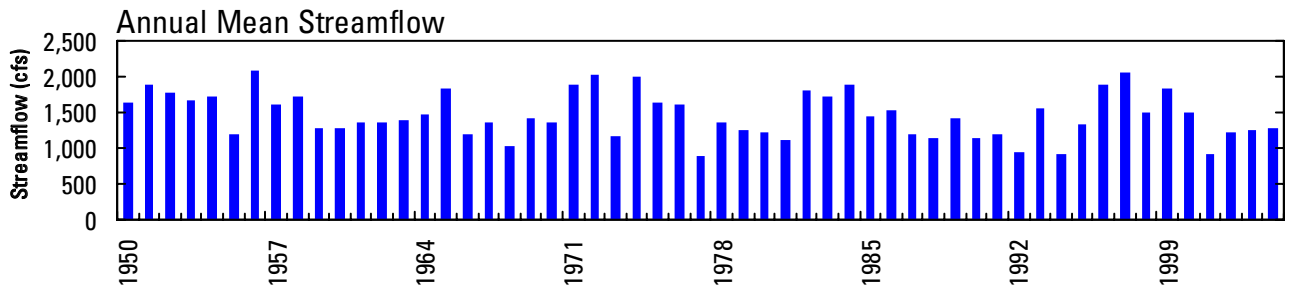
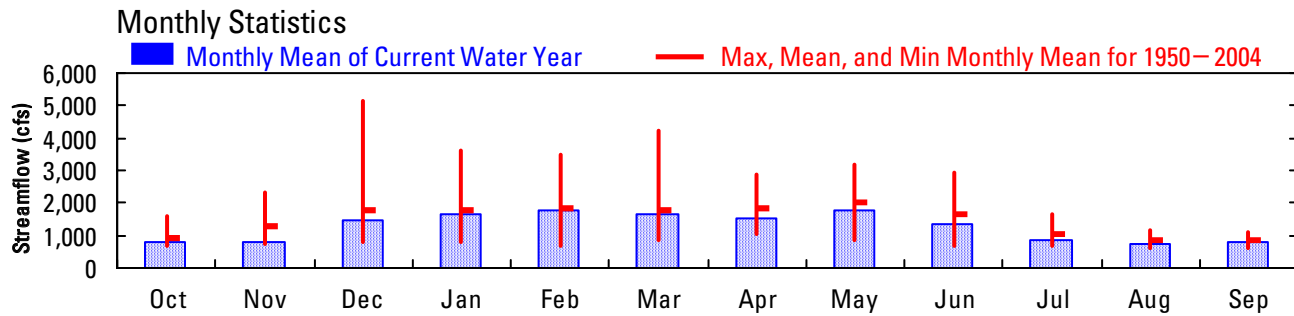
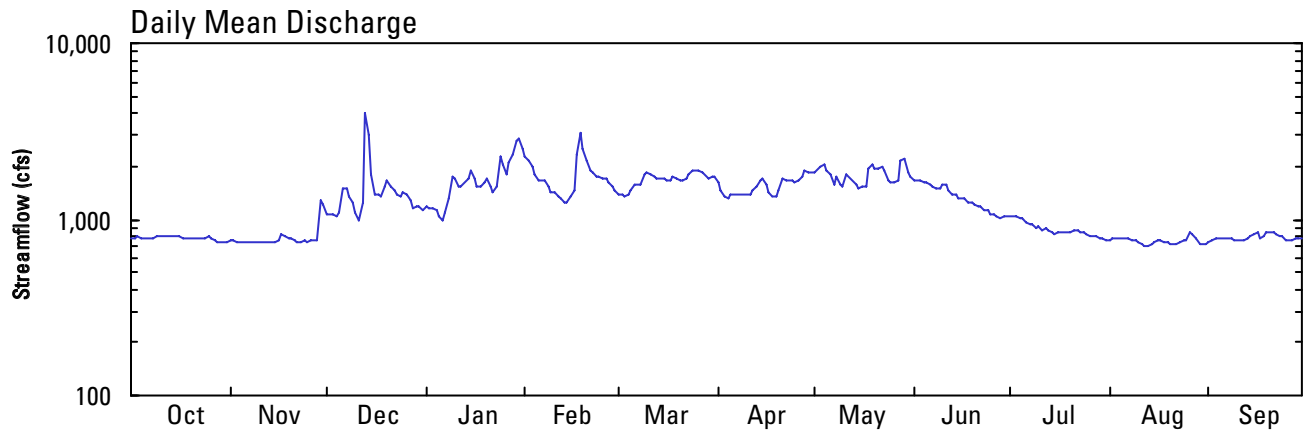
Longitude: 122° 32 ' 08"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 1,580.00 feet

Drainage Area: 475 square miles



14316500 NORTH UMPQUA RIVER ABOVE COPELAND CREEK, NEAR TOKETEE FALLS, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1998 to September 2003.

pH: June 1998 to September 2003.

WATER TEMPERATURE: June 1998 to current year.

DISSOLVED OXYGEN: June 1998 to September 2003.

TURBIDITY: June 2000 to September 2003.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Seasonal records only (June 1998 to September 2003) (July to September 2004).

WATER TEMPERATURE: Records good.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE FOR PERIOD JUNE TO SEPTEMBER: Maximum recorded, 69 microsiemens Sept. 24, 25, 2001; minimum recorded, 35 microsiemens June 15, 1999.

pH FOR PERIOD JUNE TO SEPTEMBER: Maximum recorded, 8.4 units July 28-30, 2001, July 30, Aug. 13, 2002, July 17, 18, 2003; minimum recorded, 7.1 units Aug. 22, 1998.

WATER TEMPERATURE FOR PERIOD JUNE TO SEPTEMBER: Maximum recorded, 16.2°C July 23, 2003; minimum recorded, 6.5°C June 9, 1999.

DISSOLVED OXYGEN FOR PERIOD JUNE TO SEPTEMBER: Maximum recorded, 12.6 mg/L June 8, 9, 1999; minimum recorded, 6.6 mg/L July 30, 1998.

TURBIDITY FOR PERIOD JUNE TO SEPTEMBER: Maximum recorded, 89 NTU June 22, 2001; minimum recorded, <1 many days most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE FOR PERIOD JULY TO SEPTEMBER: Maximum, 15.8°C July 25; minimum recorded, 8.5°C Sept. 21.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	13.3	12.6	13.0	15.2	13.8	14.3	12.7	12.1	12.3
2	---	---	---	13.6	12.7	13.0	14.9	13.3	14.1	12.2	11.1	11.8
3	---	---	---	13.8	12.9	13.4	14.1	13.1	13.6	11.5	10.4	10.9
4	---	---	---	14.1	13.3	13.6	14.3	12.9	13.4	12.0	10.8	11.2
5	---	---	---	13.9	13.2	13.5	14.0	12.9	13.4	12.1	11.0	11.4
6	---	---	---	13.9	13.2	13.5	13.0	12.0	12.7	12.1	11.1	11.5
7	---	---	---	14.1	13.4	13.7	13.4	11.9	12.4	12.0	11.0	11.4
8	---	---	---	13.8	12.7	13.4	13.8	12.1	12.9	12.0	11.0	11.4
9	---	---	---	13.6	12.6	13.0	14.1	12.7	13.3	11.9	11.0	11.3
10	---	---	---	13.5	12.7	13.0	14.6	12.9	13.7	12.0	10.9	11.2
11	---	---	---	13.5	12.6	13.0	15.0	13.0	13.8	11.5	10.9	11.1
12	---	---	---	14.0	12.7	13.3	14.7	13.4	13.9	11.4	10.7	11.0
13	---	---	---	14.6	13.4	13.9	14.7	13.5	14.0	11.0	10.4	10.7
14	---	---	---	14.6	13.8	14.1	15.4	13.6	14.4	11.0	10.2	10.4
15	---	---	---	14.7	13.7	14.1	15.4	14.4	14.9	11.3	10.3	10.7
16	---	---	---	14.7	13.6	14.1	15.1	13.8	14.3	11.0	10.3	10.5
17	---	---	---	15.0	14.0	14.4	14.6	13.6	14.0	10.8	10.1	10.5
18	---	---	---	14.5	13.8	14.2	14.5	13.4	13.8	10.2	9.4	10
19	---	---	---	14.2	13.4	13.8	14.6	13.4	13.8	9.6	9.0	9.3
20	---	---	---	14.6	12.8	13.5	14.8	13.5	13.9	9.6	9.0	9.2
21	---	---	---	14.7	13.4	13.8	14.0	13.2	13.7	9.3	8.5	8.8
22	---	---	---	14.8	13.6	14.1	13.2	12.6	12.9	9.8	8.5	9.1
23	---	---	---	15.1	14.1	14.4	12.7	11.4	12.0	10.4	9.1	9.7
24	---	---	---	15.6	14.1	14.7	11.7	11.2	11.4	10.5	9.6	9.9
25	---	---	---	15.8	14.4	14.8	11.8	11.3	11.5	10.9	9.8	10.2
26	---	---	---	15.5	14.0	14.7	12.0	11.4	11.6	11.2	10.0	10.5
27	---	---	---	15.2	13.8	14.3	12.3	10.9	11.5	11.1	10.2	10.6
28	---	---	---	15.1	13.8	14.2	12.9	11.5	12.1	11.0	10.0	10.4
29	---	---	---	15.2	13.7	14.3	13.3	12.0	12.4	11.1	10.0	10.5
30	---	---	---	15.1	13.3	14.1	13.6	12.2	12.7	10.9	9.9	10.4
31	---	---	---	15.1	13.3	14.2	13.2	12.4	12.7	---	---	---
MONTH	---	---	---	15.8	12.6	13.8	15.4	10.9	13.2	12.7	8.5	10.6

14316700 STEAMBOAT CREEK NEAR GLIDE, OR

LOCATION.--Lat 43°21'00", long 122°43'40", in N 1/2 sec.32, T.25-1/2 S., R.1 E., Douglas County, Hydrologic Unit 17100301, in Umpqua National Forest, on right bank in Canton Creek Forest Service Park, 200 ft downstream from Canton Creek, 19 mi northeast of Glide, and at mile 0.5.

DRAINAGE AREA.--227 mi².

PERIOD OF RECORD.--Annual maximum, water year 1956, June 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,128.55 ft above NGVD of 1929 (levels by Federal Highway Administration). October 1955 to June 1956, nonrecording gage at site 100 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--48 years (water years 1957-2004), 728 ft³/s, 43.59 in/yr, 527,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s Dec. 22, 1964, gage height, 25.6 ft, from floodmark, from rating curve extended above 13,000 ft³/s on basis of slope-area measurement at 17.96 ft; minimum discharge, 25 ft³/s Sept. 24, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 13	2100	*13,400	*12.24	No other peak greater than base discharge.			

Minimum discharge, 29 ft³/s, Oct. 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	37	1,160	1,230	2,140	1,320	498	394	599	107	48	48
2	30	40	845	1,140	2,440	1,480	426	382	478	103	47	45
3	30	46	930	857	2,140	1,140	389	367	402	99	47	45
4	30	47	784	710	1,700	1,140	382	346	347	97	45	44
5	30	55	1,040	587	1,400	1,640	382	308	311	96	45	42
6	30	66	2,290	585	1,290	2,020	361	279	288	93	46	41
7	31	62	1,560	1,630	1,680	1,610	339	262	317	91	47	39
8	31	64	1,440	2,540	1,440	1,510	322	286	389	89	45	38
9	34	71	1,130	3,290	1,140	1,450	312	253	568	87	42	36
10	42	63	1,350	2,920	959	1,220	305	281	970	86	40	36
11	46	79	889	2,240	911	999	306	428	840	83	39	36
12	72	125	2,160	2,200	923	909	321	429	615	81	38	38
13	59	78	10,700	2,180	845	807	331	339	476	79	39	49
14	46	60	5,410	2,630	779	725	317	291	388	76	41	66
15	45	73	2,210	2,920	843	681	337	266	331	74	42	64
16	63	288	1,400	2,200	1,380	607	417	255	290	71	41	79
17	54	1,110	1,290	1,690	2,960	572	451	248	255	69	41	65
18	44	400	1,610	1,470	3,020	570	437	786	229	68	40	189
19	40	276	1,620	2,030	2,300	552	438	1,280	208	67	39	173
20	38	439	1,740	2,160	1,720	475	974	785	189	66	38	178
21	36	250	1,450	1,500	1,300	460	2,660	565	175	63	37	129
22	36	179	1,100	1,130	1,050	515	2,120	446	165	61	66	91
23	43	136	888	1,600	958	529	1,380	407	157	60	114	74
24	42	144	1,030	3,600	876	516	1,030	340	149	57	83	64
25	38	183	1,400	2,450	823	467	830	298	140	55	74	59
26	36	286	1,130	1,780	969	491	752	276	132	53	192	55
27	34	277	869	3,160	1,120	948	696	302	126	51	136	52
28	34	203	948	3,900	1,170	804	598	1,780	122	51	82	50
29	36	2,450	1,820	4,350	1,050	638	483	1,720	116	50	64	47
30	43	1,900	1,670	3,980	---	650	418	1,140	113	49	56	46
31	41	---	1,120	2,740	---	603	---	801	---	49	51	---
TOTAL	1,244	9,487	54,983	67,399	41,326	28,048	19,012	16,340	9,885	2,281	1,805	2,018
MEAN	40.1	316	1,774	2,174	1,425	905	634	527	330	73.6	58.2	67.3
MAX	72	2,450	10,700	4,350	3,020	2,020	2,660	1,780	970	107	192	189
MIN	30	37	784	585	779	460	305	248	113	49	37	36
AC-FT	2,470	18,820	109,100	133,700	81,970	55,630	37,710	32,410	19,610	4,520	3,580	4,000
CFSM	0.18	1.39	7.81	9.58	6.28	3.99	2.79	2.32	1.45	0.32	0.26	0.30
IN.	0.20	1.55	9.01	11.05	6.77	4.60	3.12	2.68	1.62	0.37	0.30	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	160	857	1,511	1,527	1,393	1,232	972	630	270	95.5	59.5	67.2
MAX	536	2,887	5,391	3,415	3,195	2,774	2,017	1,337	780	193	158	260
(WY)	(1957)	(1974)	(1965)	(1970)	(1986)	(1972)	(1993)	(1963)	(1984)	(1983)	(1976)	(1986)
MIN	31.5	56.5	62.6	108	142	211	287	165	87.5	53.5	35.9	31.2
(WY)	(1988)	(1994)	(1977)	(1977)	(1977)	(1992)	(1968)	(1992)	(1992)	(2003)	(1994)	(2001)

UMPQUA RIVER BASIN

14316700 STEAMBOAT CREEK NEAR GLIDE, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	250,074		253,828		728	
ANNUAL MEAN	685		694		1,253	
HIGHEST ANNUAL MEAN					239	
LOWEST ANNUAL MEAN					1974	
HIGHEST DAILY MEAN	10,700	Dec 13	10,700	Dec 13	33,000	Dec 22, 1964
LOWEST DAILY MEAN	28	Sep 4	30	Oct 1	26	Sep 23, 2001
ANNUAL SEVEN-DAY MINIMUM	29	Aug 30	30	Oct 1	27	Sep 18, 2001
ANNUAL RUNOFF (AC-FT)	496,000		503,500		527,700	
ANNUAL RUNOFF (CFSM)	3.02		3.06		3.21	
ANNUAL RUNOFF (INCHES)	40.98		41.60		43.59	
10 PERCENT EXCEEDS	1,790		1,780		1,750	
50 PERCENT EXCEEDS	270		319		326	
90 PERCENT EXCEEDS	34		41		46	



2004 Water Year

UMPQUA RIVER BASIN

14316700 STEAMBOAT CREEK NEAR GLIDE, OR

Latitude: 43° 21 ' 00"

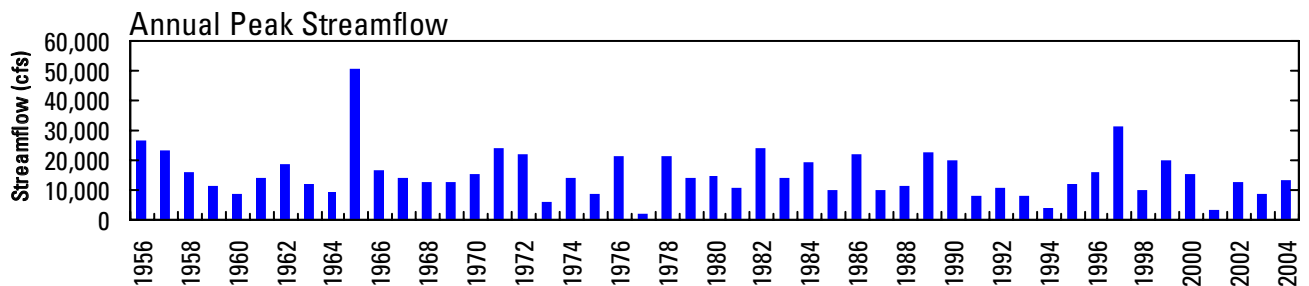
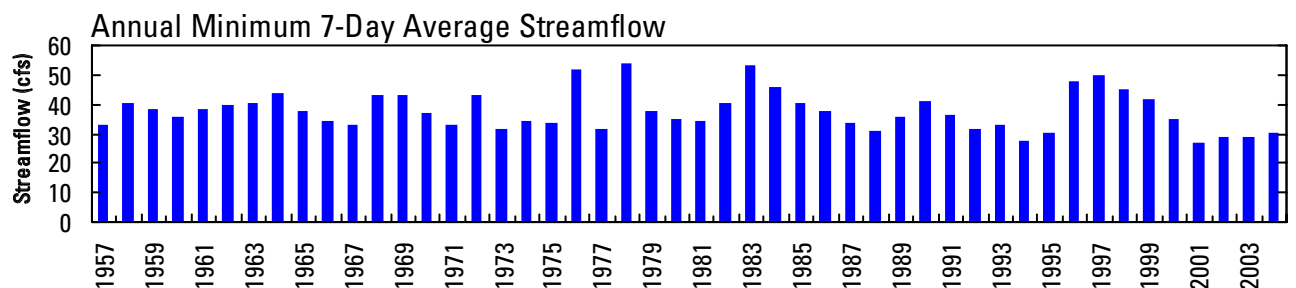
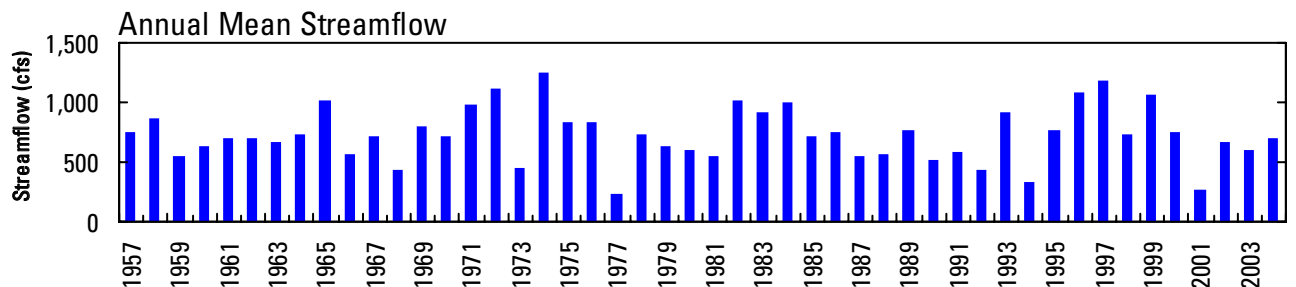
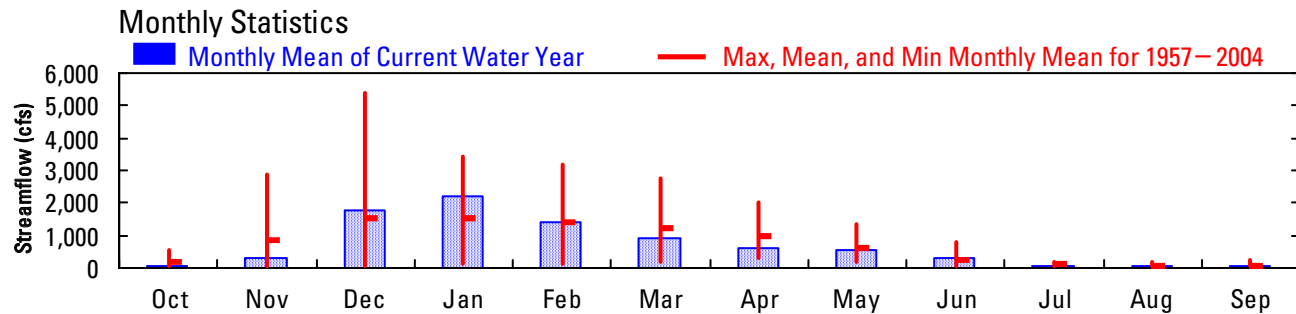
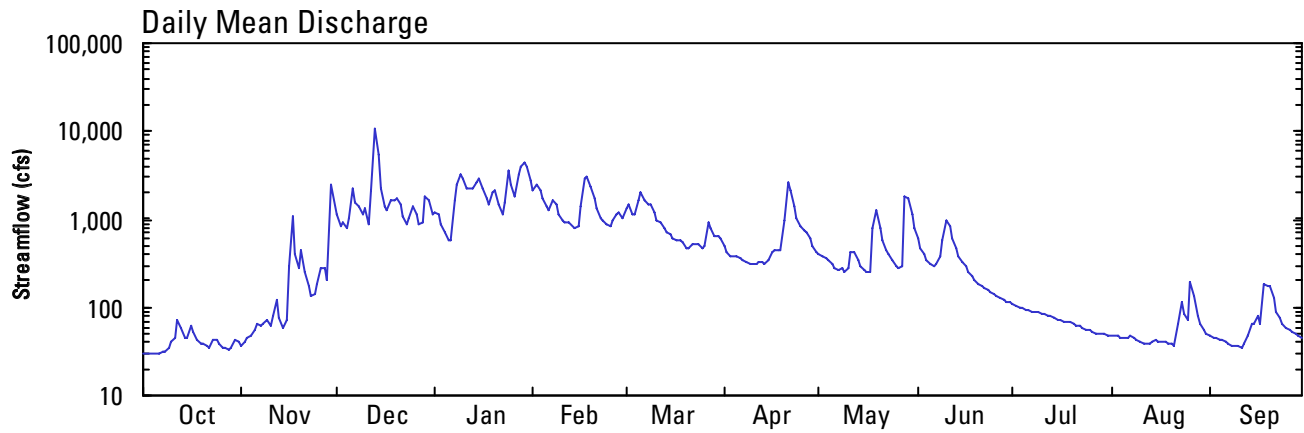
Longitude: 122° 43 ' 40"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 1,128.55 feet

Drainage Area: 227 square miles



14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR

LOCATION.--Lat 43°19'29", long 122°59'55", IN SW ¼ NE ¼ sec.12, T.26 S., R.3 W., Douglas County, Hydrologic Unit 17100301, on right bank 0.5 mi upstream from Rock Creek bridge, 2 mi east of Idleyld Park, and at mile 36.3.

DRAINAGE AREA.--886 mi², at former site 0.5 mi downstream.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1998 to current year.

pH: January 1998 to current year.

WATER TEMPERATURE: January 1998 to current year.

DISSOLVED OXYGEN: January 1998 to current year.

TURBIDITY: October 1999 to current year. Turbidity sensor calibrated to polymer bead standards.

INSTRUMENTATION.--Water-quality monitor and data logger since January 1998.

REMARKS.--

SPECIFIC CONDUCTANCE: Records excellent.

pH: Records good except those for the periods June 15 to September 15, which are poor.

WATER TEMPERATURE: Records excellent.

DISSOLVED OXYGEN: Records good except those for the periods Dec. 9 to Jan. 6, Mar. 2-24, June 1 to July 20, which are fair, Oct. 20 to Nov. 18, Mar. 24 to Apr. 14, Aug. 31 to Sept. 20, which are poor.

TURBIDITY: Records poor. Turbidity data are highly dependent on the instrumentation used for the measurement. See the "Definitions" section for turbidity in the front of this report.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 76 microsiemens June 22, 2001; minimum recorded, 26 microsiemens Nov. 21, 1998, but may have been lower during period of missing record.

pH: Maximum, 9.8 units July 25, 2004; minimum recorded, 6.1 units Dec. 18, 1999, but may have been lower during period of missing record.

WATER TEMPERATURE: Maximum, 21.4°C July 30, 2003; minimum recorded, 2.2°C Nov. 18, 19, 2000.

DISSOLVED OXYGEN: Maximum recorded, 14.5 mg/L Feb. 10, 1999, but may have been higher during period of missing record; minimum recorded, 6.4 mg/L Aug. 14, 2001.

TURBIDITY: Maximum recorded, 220 FNU Dec. 14, 2001; minimum, <1 FNU many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 69 microsiemens Oct. 12, 13, 18; minimum, 31 microsiemens Dec. 13, 14.

pH: Maximum, 9.8 units July 25; minimum, 7.0 units Dec. 13.

WATER TEMPERATURE: Maximum, 20.9°C July 25; minimum, 3.6°C Nov. 23, 24.

DISSOLVED OXYGEN: Maximum recorded, 14.0 mg/L Feb. 11; minimum, 9.1 mg/L July 17, 25.

TURBIDITY: Maximum recorded, 39 FNU Dec. 14; minimum, <1 FNU many days during year.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	67	65	66	68	65	66	48	46	47	48	47	48
2	66	65	65	67	64	65	50	48	49	49	47	48
3	65	65	65	67	65	65	51	49	50	50	49	50
4	66	65	65	67	64	66	50	48	49	51	50	51
5	67	66	66	68	65	66	51	47	49	52	51	52
6	67	65	66	68	66	67	47	42	44	53	51	52
7	67	65	66	68	66	67	46	43	45	51	45	48
8	67	66	66	68	65	66	49	46	47	45	42	44
9	68	66	67	68	65	66	50	49	49	42	41	41
10	68	66	67	68	65	66	50	46	48	42	41	41
11	68	66	67	67	64	65	50	48	49	43	42	43
12	69	66	67	68	66	67	50	40	47	44	42	43
13	69	68	68	68	65	66	40	31	34	43	42	43
14	68	66	67	66	64	65	37	31	35	43	40	41
15	67	66	67	66	64	65	42	37	40	40	39	39
16	68	66	67	67	65	66	44	42	43	42	40	41
17	68	67	68	65	53	58	46	44	46	44	42	43
18	69	67	68	59	53	55	46	44	45	45	44	45
19	68	66	67	60	58	59	45	45	45	45	41	43
20	68	64	66	60	58	59	45	44	44	43	40	41
21	66	64	65	60	58	58	45	44	45	45	43	44
22	66	64	64	62	60	60	47	45	46	47	45	46
23	66	64	64	64	62	62	48	47	48	47	43	46
24	67	65	65	64	61	62	49	45	48	43	38	39
25	67	65	66	63	61	62	45	44	44	42	39	41
26	66	64	65	62	60	61	47	45	47	44	42	43
27	66	64	65	62	61	62	49	47	48	44	40	42
28	66	65	65	63	61	62	49	47	48	41	39	40
29	67	65	66	63	41	53	47	44	46	39	39	39
30	68	65	66	46	41	43	47	44	45	39	38	38
31	68	66	67	---	---	---	48	47	48	42	39	41
MONTH	69	64	66	68	41	62	51	31	46	53	38	44

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	44	42	43	47	46	47	48	46	47	47	46	46
2	43	42	43	46	45	46	48	47	48	46	45	46
3	44	43	43	47	46	47	49	48	48	45	45	45
4	45	44	44	48	47	48	49	48	49	45	44	44
5	46	45	45	48	45	46	49	47	48	44	44	44
6	47	45	46	46	44	45	48	46	47	45	44	45
7	45	44	44	47	45	46	48	47	47	46	45	46
8	45	44	44	47	46	46	48	46	47	46	45	46
9	46	45	46	46	44	45	49	47	47	46	45	46
10	47	46	47	45	44	44	48	46	47	47	46	46
11	49	47	48	46	44	45	48	47	47	47	46	47
12	49	48	49	46	45	46	48	46	47	48	47	47
13	49	48	49	47	45	46	47	45	46	48	47	48
14	49	49	49	47	46	46	47	44	45	48	48	48
15	49	48	49	47	46	46	46	44	46	49	48	48
16	49	45	48	47	46	47	47	46	46	49	48	49
17	45	40	41	48	47	47	48	47	47	49	48	49
18	40	38	39	48	47	47	49	47	48	49	47	48
19	42	39	41	48	46	47	49	47	48	47	44	44
20	44	42	43	47	46	47	50	46	48	46	45	45
21	46	44	44	48	47	47	46	42	43	47	45	46
22	47	46	46	48	46	47	45	42	43	47	46	46
23	48	47	47	46	44	45	46	45	45	47	47	47
24	48	47	48	45	44	44	47	46	46	48	47	47
25	48	48	48	45	44	45	47	46	47	49	48	48
26	48	47	48	46	45	45	48	46	47	50	49	49
27	48	46	46	46	44	45	47	45	46	50	48	49
28	47	46	46	46	44	45	45	44	44	48	42	45
29	47	47	47	47	46	46	45	44	45	44	42	43
30	---	---	---	47	46	46	46	45	45	46	44	45
31	---	---	---	47	45	46	---	---	---	48	46	46
MONTH	49	38	46	48	44	46	50	42	46	50	42	46
	JUNE			JULY			AUGUST			SEPTEMBER		
1	48	47	48	59	57	58	64	63	63	66	65	65
2	49	48	48	59	57	58	65	63	64	66	65	65
3	49	49	49	60	58	59	65	64	64	66	65	65
4	49	49	49	60	59	59	65	63	64	66	64	65
5	49	49	49	59	58	59	64	63	63	65	64	65
6	49	48	49	60	58	59	64	63	64	66	64	65
7	50	49	49	60	58	59	65	63	64	66	65	65
8	50	49	49	60	59	59	65	64	64	66	65	65
9	50	49	49	61	60	60	65	63	63	66	64	65
10	49	47	48	61	60	60	65	63	64	67	65	66
11	49	47	48	61	60	61	65	64	64	67	65	66
12	50	49	49	61	60	61	66	65	65	67	65	66
13	51	50	50	61	60	60	66	64	65	67	65	66
14	52	50	51	62	61	61	66	65	66	68	65	66
15	52	51	52	62	61	62	67	65	66	68	65	66
16	53	51	52	62	61	62	66	66	66	67	65	66
17	53	52	53	63	62	62	66	65	66	67	65	66
18	54	53	53	64	63	63	66	66	66	67	64	65
19	54	53	54	64	62	63	66	66	66	67	65	66
20	55	53	54	64	62	63	68	65	66	65	63	64
21	55	54	55	63	62	63	67	65	66	64	63	63
22	55	54	55	64	63	63	65	64	64	65	62	63
23	55	54	55	64	63	64	66	64	65	65	63	64
24	55	54	55	65	64	64	67	64	66	65	64	64
25	57	55	56	65	63	64	65	63	64	66	65	65
26	57	55	56	65	64	64	65	63	64	66	65	65
27	57	56	57	65	63	64	65	63	64	67	66	66
28	57	56	57	64	63	64	64	62	63	66	66	66
29	58	56	57	64	63	63	63	62	63	66	65	66
30	59	57	58	65	63	64	64	62	63	66	65	66
31	---	---	---	64	63	64	66	63	65	---	---	---
MONTH	59	47	52	65	57	62	68	62	65	68	62	65
YEAR	69	31	54									

UMPQUA RIVER BASIN

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.1	7.5	7.7	7.8	7.5	7.6	7.5	7.4	7.4	7.4	7.3	7.4
2	8.2	7.5	7.8	7.7	7.5	7.6	7.6	7.4	7.4	7.5	7.3	7.4
3	8.3	7.5	7.8	7.8	7.5	7.6	7.7	7.4	7.4	7.5	7.4	7.4
4	8.3	7.5	7.8	7.7	7.5	7.6	7.5	7.4	7.4	7.5	7.4	7.4
5	8.1	7.5	7.7	7.8	7.5	7.6	7.5	7.4	7.4	7.5	7.4	7.4
6	8.2	7.5	7.7	7.8	7.5	7.6	7.4	7.3	7.4	7.5	7.4	7.4
7	8.2	7.5	7.8	7.7	7.5	7.5	7.4	7.3	7.4	7.5	7.5	7.5
8	8.1	7.5	7.7	7.8	7.5	7.6	7.5	7.4	7.4	7.5	7.4	7.4
9	8.2	7.6	7.8	7.8	7.5	7.6	7.5	7.4	7.4	7.4	7.4	7.4
10	8.1	7.6	7.8	7.8	7.5	7.6	7.5	7.4	7.4	7.4	7.3	7.4
11	7.8	7.5	7.7	7.8	7.5	7.6	7.6	7.4	7.5	7.5	7.4	7.4
12	8.1	7.5	7.7	7.8	7.5	7.6	7.5	7.3	7.4	7.4	7.4	7.4
13	8.1	7.6	7.7	7.7	7.5	7.6	7.3	7.0	7.1	7.4	7.3	7.4
14	8.0	7.5	7.7	7.8	7.5	7.6	7.2	7.1	7.1	7.4	7.3	7.4
15	7.8	7.5	7.6	7.8	7.5	7.6	7.3	7.2	7.2	7.4	7.3	7.3
16	7.9	7.5	7.7	7.6	7.5	7.5	7.3	7.3	7.3	7.4	7.3	7.4
17	7.8	7.5	7.7	7.5	7.4	7.5	7.4	7.3	7.3	7.4	7.3	7.4
18	7.9	7.5	7.7	7.6	7.4	7.4	7.4	7.3	7.3	7.5	7.3	7.4
19	8.0	7.5	7.6	7.6	7.5	7.6	7.4	7.3	7.4	7.4	7.3	7.3
20	8.0	7.5	7.6	7.7	7.5	7.6	7.4	7.3	7.3	7.4	7.3	7.3
21	7.8	7.5	7.6	7.7	7.5	7.6	7.4	7.3	7.4	7.4	7.3	7.3
22	8.0	7.5	7.7	7.8	7.5	7.6	7.5	7.3	7.4	7.4	7.3	7.4
23	7.8	7.5	7.6	7.7	7.5	7.6	7.5	7.4	7.4	7.4	7.3	7.4
24	7.8	7.5	7.6	7.8	7.5	7.6	7.5	7.4	7.4	7.3	7.2	7.2
25	7.8	7.5	7.6	7.7	7.5	7.6	7.4	7.3	7.4	7.3	7.2	7.3
26	7.8	7.5	7.6	7.7	7.5	7.6	7.5	7.4	7.4	7.3	7.2	7.3
27	7.8	7.5	7.6	7.8	7.5	7.6	7.5	7.4	7.4	7.2	7.2	7.2
28	7.8	7.5	7.6	7.8	7.5	7.5	7.5	7.4	7.4	7.2	7.2	7.2
29	8.0	7.5	7.7	7.5	7.3	7.5	7.4	7.3	7.4	7.3	7.1	7.2
30	7.9	7.5	7.6	7.4	7.3	7.3	7.4	7.3	7.4	7.3	7.2	7.3
31	7.8	7.6	7.6	---	---	---	7.5	7.4	7.4	7.4	7.3	7.3
MAX	8.3	7.6	7.8	7.8	7.5	7.6	7.7	7.4	7.5	7.5	7.5	7.5
MIN	7.8	7.5	7.6	7.4	7.3	7.3	7.2	7.0	7.1	7.2	7.1	7.2
FEBRUARY			MARCH			APRIL			MAY			
1	7.4	7.3	7.4	7.6	7.4	7.5	7.7	7.5	7.6	7.7	7.4	7.5
2	7.5	7.3	7.4	7.5	7.4	7.5	7.7	7.6	7.6	7.7	7.4	7.5
3	7.5	7.3	7.4	7.6	7.4	7.5	7.8	7.6	7.6	7.7	7.4	7.5
4	7.5	7.3	7.4	7.6	7.4	7.5	7.8	7.6	7.7	7.9	7.4	7.6
5	7.5	7.4	7.4	7.6	7.4	7.5	7.8	7.6	7.7	8.0	7.7	7.8
6	7.5	7.4	7.4	7.6	7.4	7.5	7.8	7.6	7.7	8.0	7.8	7.9
7	7.5	7.4	7.4	7.6	7.5	7.5	7.8	7.6	7.7	8.0	7.8	7.8
8	7.5	7.4	7.5	7.6	7.4	7.5	7.8	7.6	7.7	8.0	7.8	7.8
9	7.5	7.4	7.5	7.6	7.4	7.5	7.8	7.6	7.7	8.1	7.8	7.9
10	7.5	7.5	7.5	7.6	7.4	7.5	7.8	7.6	7.7	8.0	7.8	7.8
11	7.6	7.5	7.5	7.6	7.5	7.5	7.8	7.6	7.7	8.0	7.8	7.8
12	7.6	7.5	7.5	7.6	7.5	7.5	7.8	7.6	7.7	8.0	7.8	7.8
13	7.6	7.5	7.5	7.6	7.4	7.5	7.8	7.6	7.7	8.0	7.7	7.8
14	7.6	7.5	7.5	7.6	7.4	7.5	7.9	7.6	7.7	8.0	7.7	7.8
15	7.6	7.5	7.5	7.6	7.5	7.5	7.8	7.6	7.7	8.0	7.7	7.8
16	7.5	7.5	7.5	7.6	7.5	7.5	7.8	7.6	7.7	8.0	7.7	7.8
17	7.5	7.4	7.5	7.6	7.5	7.5	7.8	7.7	7.7	8.0	7.7	7.8
18	7.4	7.3	7.4	7.7	7.5	7.5	7.8	7.7	7.7	7.8	7.7	7.7
19	7.4	7.3	7.4	7.7	7.5	7.6	7.8	7.7	7.7	7.9	7.6	7.7
20	7.5	7.4	7.4	7.7	7.5	7.6	7.7	7.5	7.7	7.9	7.7	7.7
21	7.5	7.4	7.4	7.7	7.5	7.6	7.5	7.5	7.5	8.0	7.6	7.7
22	7.6	7.4	7.5	7.7	7.5	7.5	7.6	7.4	7.5	7.9	7.7	7.7
23	7.6	7.4	7.5	7.7	7.5	7.6	7.7	7.5	7.5	8.0	7.7	7.8
24	7.6	7.4	7.5	7.7	7.5	7.5	7.7	7.5	7.5	8.0	7.6	7.7
25	7.6	7.5	7.5	7.6	7.5	7.5	7.7	7.5	7.5	8.0	7.6	7.7
26	7.6	7.4	7.5	7.7	7.5	7.5	7.7	7.4	7.5	8.0	7.6	7.7
27	7.5	7.4	7.5	7.6	7.5	7.5	7.7	7.4	7.5	7.9	7.6	7.7
28	7.6	7.4	7.5	7.6	7.5	7.5	7.7	7.4	7.5	7.7	7.6	7.6
29	7.6	7.4	7.5	7.7	7.5	7.5	7.7	7.4	7.5	7.8	7.5	7.6
30	---	---	---	7.7	7.5	7.5	7.7	7.4	7.5	7.9	7.5	7.7
31	---	---	---	7.7	7.5	7.6	---	---	---	7.9	7.6	7.7
MAX	7.6	7.5	7.5	7.7	7.5	7.6	7.9	7.7	7.7	8.1	7.8	7.9
MIN	7.4	7.3	7.4	7.5	7.4	7.5	7.5	7.4	7.5	7.7	7.4	7.5

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.1	7.5	7.7	9.0	8.0	8.4	9.2	7.9	8.4	9.2	8.1	8.6
2	8.2	7.8	7.9	9.0	8.0	8.4	9.2	7.9	8.4	9.0	8.1	8.5
3	8.2	7.8	7.9	9.0	8.0	8.4	9.0	7.9	8.4	9.0	8.2	8.5
4	8.2	7.8	7.9	9.1	8.0	8.4	9.0	7.8	8.2	8.9	8.1	8.4
5	8.2	7.8	7.9	9.0	8.0	8.3	9.0	7.8	8.2	8.8	8.1	8.3
6	8.3	7.8	8.0	9.1	8.0	8.3	8.8	7.8	8.2	8.7	8.0	8.2
7	8.2	7.8	8.0	9.2	8.0	8.4	8.9	7.7	8.1	8.7	8.0	8.2
8	8.2	7.8	7.9	9.1	8.0	8.4	8.9	7.8	8.1	8.7	7.9	8.1
9	8.1	7.8	7.9	9.1	8.0	8.4	9.0	7.8	8.2	8.8	7.9	8.2
10	8.2	7.8	7.9	9.1	8.0	8.4	9.4	7.8	8.2	8.5	7.8	8.1
11	8.2	7.8	8.0	9.1	8.0	8.3	9.4	8.2	8.6	8.6	7.8	8.0
12	8.2	7.8	8.0	9.1	7.9	8.3	9.5	8.1	8.6	8.7	7.8	8.1
13	8.2	7.8	7.9	9.2	8.0	8.4	9.4	8.1	8.6	8.4	7.7	8.0
14	8.3	7.8	8.0	9.2	7.9	8.4	9.4	8.1	8.6	8.4	7.7	7.9
15	8.3	7.7	7.9	9.2	7.9	8.4	9.4	8.1	8.6	8.3	7.6	7.8
16	8.3	7.7	7.9	9.2	7.9	8.4	9.3	8.0	8.5	8.3	7.6	7.8
17	8.4	7.6	7.9	9.2	7.9	8.4	9.1	7.8	8.3	8.2	7.5	7.7
18	8.4	7.6	7.9	9.2	7.9	8.4	9.1	7.8	8.2	8.2	7.5	7.7
19	8.4	7.7	7.9	9.2	7.9	8.4	9.1	7.7	8.2	8.1	7.5	7.7
20	8.5	7.6	7.9	9.5	7.9	8.4	9.1	7.7	8.2	8.2	7.5	7.7
21	8.5	7.6	7.9	9.7	8.6	8.9	9.0	7.7	8.2	8.0	7.5	7.7
22	8.4	7.7	7.9	9.7	8.6	8.9	8.7	7.7	8.0	8.0	7.5	7.7
23	8.7	7.7	7.9	9.7	8.5	8.9	8.8	7.6	8.0	8.0	7.5	7.7
24	8.7	7.6	8.0	9.7	8.5	8.9	8.8	7.6	8.0	8.0	7.5	7.6
25	8.8	7.6	8.0	9.8	8.5	9.0	8.6	7.5	7.9	8.1	7.5	7.6
26	8.8	7.6	8.1	9.5	8.3	8.9	8.7	7.5	7.9	8.2	7.5	7.6
27	8.8	7.6	8.0	9.2	8.2	8.6	8.5	7.5	7.8	8.1	7.4	7.6
28	8.8	7.6	8.0	8.8	7.7	8.1	8.6	7.5	7.8	8.0	7.4	7.6
29	9.0	7.6	8.0	9.1	7.5	8.1	8.5	7.5	7.8	8.1	7.5	7.6
30	9.0	8.0	8.4	9.4	8.0	8.6	8.6	7.5	7.8	8.1	7.5	7.6
31	---	---	---	9.3	8.1	8.6	9.0	7.5	7.7	---	---	---
MAX	9.0	8.0	8.4	9.8	8.6	9.0	9.5	8.2	8.6	9.2	8.2	8.6
MIN	8.1	7.5	7.7	8.8	7.5	8.1	8.5	7.5	7.7	8.0	7.4	7.6

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.1	12.1	12.5	5.6	4.6	5.1	7.0	6.7	6.8	5.0	4.7	4.9
2	12.6	11.9	12.2	5.2	4.6	4.9	6.8	6.5	6.7	5.0	4.7	4.8
3	13.3	12.2	12.6	5.7	4.9	5.3	7.1	6.7	6.9	4.9	4.5	4.6
4	13.2	11.9	12.5	5.5	5.1	5.4	7.0	6.6	6.7	4.5	4.0	4.2
5	13.4	12.3	12.7	6.0	5.1	5.5	7.4	6.7	7.0	4.5	4.1	4.3
6	13.0	12.1	12.4	5.8	5.3	5.6	7.6	7.4	7.5	4.9	4.5	4.7
7	13.1	12.1	12.6	6.1	5.4	5.7	7.4	6.6	6.9	5.7	4.9	5.2
8	12.4	11.4	12.0	6.6	5.9	6.2	6.6	6.1	6.2	6.4	5.7	6.1
9	11.8	11.1	11.5	6.8	6.2	6.5	6.1	---	---	6.7	6.3	6.5
10	11.4	10.3	11.0	7.1	6.5	6.8	6.3	5.9	6.0	6.7	6.3	6.5
11	10.3	9.4	10	7.4	6.9	7.2	6.3	6.1	6.2	6.4	5.9	6.1
12	10.3	9.4	9.8	7.3	7.0	7.2	7.3	6.3	6.6	6.2	5.6	5.9
13	10.0	9.3	9.7	7.0	5.9	6.5	8.3	7.1	7.8	6.3	5.9	6.1
14	10.4	9.3	9.8	6.0	5.5	5.8	7.1	6.1	6.5	6.7	6.2	6.5
15	9.5	8.9	9.3	6.5	5.7	6.1	6.1	5.6	5.9	7.0	6.6	6.8
16	10.0	8.9	9.4	6.6	6.3	6.5	5.6	5.4	5.5	7.0	6.4	6.6
17	10.1	9.2	9.6	7.6	6.6	7.3	5.7	5.5	5.6	6.4	5.8	6.0
18	9.7	8.8	9.2	7.7	7.6	7.7	5.7	5.4	5.5	6.5	5.9	6.2
19	10.3	8.9	9.6	7.6	6.6	7.2	6.2	5.5	5.7	6.8	6.5	6.6
20	10.9	9.8	10.2	6.6	6.0	6.4	6.7	6.2	6.5	6.8	5.9	6.3
21	11.0	10.3	10.6	6.0	5.2	5.6	6.7	6.4	6.6	5.9	4.9	5.3
22	10.9	10.1	10.5	5.2	4.4	4.9	6.4	5.7	5.9	4.9	4.3	4.5
23	10.8	10	10.4	4.4	3.6	4.0	6.3	5.6	5.9	5.9	4.4	4.9
24	10	8.9	9.5	4.2	3.6	3.9	6.5	6.3	6.4	6.7	5.9	6.4
25	9.0	8.3	8.7	4.2	4.1	4.2	6.4	5.5	5.8	6.1	5.6	5.8
26	8.8	8.1	8.4	4.9	4.2	4.6	5.5	4.9	5.2	5.8	5.5	5.6
27	9.2	8.2	8.7	4.7	4.2	4.4	4.9	4.6	4.7	6.8	5.4	6.0
28	9.6	8.7	9.2	4.7	4.2	4.5	5.3	4.7	4.9	7.0	6.7	6.8
29	9.7	8.9	9.4	7.0	4.7	5.7	5.8	5.2	5.5	7.3	7.0	7.1
30	8.9	7.5	8.4	7.1	7.0	7.0	5.8	5.5	5.6	7.3	6.1	6.7
31	7.5	5.6	6.7	---	---	---	5.5	5.0	5.2	6.1	5.7	5.9
MONTH	13.4	5.6	10.3	7.7	3.6	5.8	8.3	---	---	7.3	4.0	5.8
FEBRUARY			MARCH			APRIL			MAY			
1	6.2	5.6	5.8	6.5	6.0	6.2	7.3	5.9	6.8	12.0	9.6	10.8
2	6.7	6.0	6.3	7.1	6.4	6.7	7.8	5.8	6.9	12.4	9.8	11.2
3	6.7	6.3	6.4	6.8	5.9	6.2	9.2	6.8	7.9	12.6	10.3	11.5
4	6.5	6.3	6.4	6.4	6.0	6.2	9.9	8.2	8.9	12.1	10.3	11.0
5	6.3	5.7	5.8	6.6	6.1	6.3	9.9	8.7	9.0	11.7	9.7	10.8
6	6.0	5.7	5.8	7.4	6.6	7.0	9.2	8.6	8.9	11.2	9.5	10.3
7	6.0	5.8	5.9	7.6	6.8	7.3	9.7	8.5	9.0	10.7	9.6	10.2
8	6.0	5.5	5.7	8.0	7.1	7.6	10.1	8.5	9.3	10.7	9.2	10.1
9	5.5	4.8	5.0	8.2	7.4	7.8	10.3	8.7	9.5	10.6	9.5	10.1
10	4.8	4.3	4.6	8.0	7.2	7.5	10.5	8.9	9.8	10.3	9.2	9.6
11	4.9	4.3	4.6	7.4	6.6	7.1	10.7	8.9	9.9	9.8	8.6	9.2
12	4.8	4.4	4.6	7.7	6.7	7.2	10.8	9.4	10.2	11.2	8.6	9.8
13	4.8	4.2	4.5	7.6	6.5	7.1	10.8	9.5	9.9	11.9	9.4	10.7
14	5.8	4.8	5.3	8.3	7.1	7.6	9.9	8.8	9.2	12.5	10	11.3
15	6.1	5.6	5.8	7.9	7.0	7.5	8.9	7.6	8.0	12.3	10.7	11.5
16	6.4	6.0	6.1	7.7	6.5	7.2	7.9	6.9	7.5	12.5	10.7	11.7
17	7.1	6.3	6.6	7.8	6.5	7.2	8.7	7.1	7.8	12.3	10.6	11.4
18	7.1	6.7	6.9	8.0	6.8	7.4	8.7	7.7	8.1	11.6	9.7	10.3
19	6.8	6.4	6.5	7.9	7.1	7.6	7.9	7.3	7.7	11.4	9.2	10.0
20	6.4	5.6	5.9	7.5	6.4	7.0	7.7	7.1	7.4	12.4	9.9	11.1
21	6.3	5.7	6.0	8.3	6.6	7.5	7.4	7.0	7.2	12.4	10.6	11.4
22	6.7	6.1	6.4	9.0	7.6	8.3	8.9	7.0	7.8	12.2	10.7	11.2
23	7.0	6.6	6.8	9.1	8.1	8.6	8.9	7.9	8.5	11.1	9.6	10.4
24	6.8	6.5	6.6	8.5	7.7	8.1	9.7	7.9	8.8	12.5	9.4	10.9
25	6.5	6.1	6.3	7.9	6.7	7.2	10.7	8.4	9.6	13.4	10.6	12.0
26	6.5	6.0	6.3	6.7	6.2	6.4	11.7	9.5	10.7	13.2	11.5	12.4
27	6.5	6.2	6.4	7.5	6.0	6.7	12.1	10.2	11.2	12.9	11.6	12.0
28	6.7	6.2	6.4	7.8	6.4	7.2	11.6	9.7	10.6	11.6	10.1	10.8
29	6.6	6.2	6.4	8.7	6.8	7.7	10.6	8.5	9.7	10.2	9.2	9.7
30	---	---	---	8.6	8.0	8.3	11.5	8.9	10.2	12.0	9.2	10.3
31	---	---	---	8.0	6.9	7.5	---	---	---	13.0	10.5	11.7
MONTH	7.1	4.2	5.9	9.1	5.9	7.3	12.1	5.8	8.9	13.4	8.6	10.8

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.7	11.1	12.5	17.9	16.8	17.4	20.3	18.0	18.9	16.6	15.7	16.1
2	14.2	11.6	12.9	17.6	16.6	17.3	19.8	18.1	18.8	15.7	13.8	14.8
3	15.1	12.4	13.8	18.0	16.9	17.5	19.6	17.7	18.4	15.0	13.4	14.1
4	15.4	12.9	14.3	18.3	17.0	17.7	19.0	17.2	18.0	15.0	13.3	14.1
5	15.1	13.1	13.7	18.3	17.0	17.7	18.2	16.7	17.3	15.4	13.6	14.3
6	13.3	11.9	12.5	18.5	17.1	17.8	17.0	16.1	16.6	15.6	13.8	14.5
7	12.5	11.1	11.8	18.3	17.5	17.9	17.8	15.3	16.4	15.5	13.9	14.5
8	11.6	10.4	10.8	18.0	16.5	17.3	18.6	16.1	17.1	15.4	13.8	14.4
9	10.6	10.0	10.2	17.9	16.6	17.1	19.3	16.6	17.7	15.3	13.8	14.4
10	11.2	9.8	10.4	17.7	16.5	16.9	19.7	17.2	18.0	15.4	13.5	14.3
11	11.4	10.3	10.8	17.7	15.9	16.7	20.1	17.5	18.6	14.9	13.9	14.4
12	12.3	10.5	11.4	18.7	16.7	17.5	20.1	17.8	18.8	15.1	13.7	14.3
13	13.8	11.5	12.5	19.1	17.4	18.1	20.3	17.9	19.0	14.0	13.2	13.6
14	14.4	12.4	13.5	19.8	17.8	18.6	20.5	18.3	19.2	14.3	13.1	13.6
15	14.9	12.6	13.8	19.8	18.2	18.8	20.1	18.1	18.9	13.7	12.9	13.4
16	15.4	13.2	14.4	20.1	17.9	18.8	20.0	18.4	19.0	13.8	12.8	13.2
17	15.9	13.6	14.9	19.6	18.4	18.8	19.5	17.8	18.5	13.5	12.5	13.2
18	16.4	14.1	15.4	19.4	17.9	18.7	19.5	17.6	18.3	13.0	12.0	12.4
19	16.6	14.6	15.9	19.8	17.9	18.8	19.6	17.6	18.3	12.1	11.4	11.8
20	16.5	14.6	15.8	---	17.7	---	19.7	17.7	18.4	11.8	11.0	11.3
21	16.6	14.7	15.9	19.5	17.4	18.3	19.2	17.4	18.1	11.5	10.5	11.0
22	16.6	14.6	15.4	19.8	17.7	18.5	17.5	16.2	17.1	11.7	10.4	11.0
23	16.4	15.3	15.8	20.4	18.3	19.1	16.4	15.4	15.8	12.5	10.8	11.5
24	16.9	15.8	16.4	20.7	18.8	19.5	15.5	14.7	15.2	13.0	11.4	12.1
25	18.0	16.7	17.5	20.9	19.1	19.7	15.1	14.3	14.6	12.8	11.8	12.2
26	17.9	16.8	17.5	20.4	18.5	19.3	15.3	14.1	14.6	13.3	11.8	12.7
27	17.6	16.4	17.2	20.3	18.1	18.9	16.0	14.2	15.0	14.1	12.5	13.2
28	17.6	16.3	17.1	20.4	18.1	19.0	16.5	14.9	15.6	14.0	12.9	13.3
29	18.2	16.9	17.6	20.4	18.3	19.0	17.4	15.3	16.2	13.3	12.6	12.9
30	18.1	16.7	17.6	20.3	18.2	19.0	17.9	15.8	16.6	13.6	12.4	12.9
31	---	---	---	20.1	18.2	18.9	17.8	15.9	16.6	---	---	---
MONTH	18.2	9.8	14.3	---	15.9	---	20.5	14.1	17.4	16.6	10.4	13.3

UMPQUA RIVER BASIN

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.7	11.1	11.3	---	---	---	12.2	11.9	12.0	12.9	12.5	12.7
2	11.6	11.0	11.3	---	---	---	12.4	12.0	12.2	13.1	12.9	13.0
3	11.4	10.9	11.1	---	---	---	12.5	12.0	12.2	13.2	13.0	13.1
4	11.5	10.9	11.1	---	---	---	12.2	12.0	12.1	13.5	13.2	13.4
5	11.3	10.8	11.0	---	---	---	12.1	11.7	12.0	13.5	13.1	13.3
6	11.4	10.9	11.1	---	---	---	11.9	11.7	11.9	13.2	12.6	13.0
7	11.3	10.8	11.0	---	---	---	12.3	11.9	12.1	12.7	12.4	12.6
8	11.4	10.8	11.1	---	---	---	12.6	12.3	12.4	12.5	12.3	12.4
9	11.4	11.1	11.2	---	---	---	12.5	12.3	12.4	12.4	12.3	12.3
10	11.7	11.2	11.4	---	---	---	12.5	12.2	12.4	12.5	12.3	12.4
11	11.7	11.3	11.5	---	---	---	12.6	12.2	12.3	12.6	12.4	12.5
12	11.9	11.5	11.7	---	---	---	12.4	12.0	12.2	12.7	12.5	12.6
13	12.0	11.5	11.6	---	---	---	12.2	11.9	12.0	12.7	12.5	12.6
14	11.7	11.3	11.5	---	---	---	12.4	12.2	12.3	12.7	12.5	12.6
15	11.7	11.3	11.5	---	---	---	12.6	12.4	12.5	12.6	12.4	12.5
16	11.8	11.3	11.5	---	---	---	12.8	12.6	12.6	12.6	12.4	12.5
17	11.6	11.3	11.4	---	---	---	12.7	12.5	12.6	12.8	12.5	12.7
18	11.6	11.2	11.4	11.5	11.2	11.3	12.7	12.5	12.6	12.8	12.5	12.7
19	11.5	11.1	11.3	11.6	11.2	11.4	12.6	12.3	12.5	12.7	12.5	12.6
20	---	---	---	12.0	11.6	11.8	12.4	12.2	12.3	13.0	12.5	12.7
21	---	---	---	12.3	11.9	12.1	12.4	12.2	12.3	13.2	12.8	13.0
22	---	---	---	12.8	12.2	12.5	12.6	12.4	12.5	13.3	12.9	13.2
23	---	---	---	12.9	12.6	12.8	12.5	12.1	12.4	13.1	12.5	12.9
24	---	---	---	13.0	12.6	12.8	12.2	12.1	12.1	12.6	12.4	12.5
25	---	---	---	12.8	12.5	12.6	12.7	12.2	12.5	12.9	12.6	12.8
26	---	---	---	12.9	12.6	12.7	13.0	12.7	12.9	12.9	12.7	12.8
27	---	---	---	13.0	12.6	12.8	13.2	12.9	13.1	12.8	12.5	12.7
28	---	---	---	12.9	12.5	12.7	13.1	12.6	13.0	12.6	12.5	12.5
29	---	---	---	12.5	12.0	12.3	12.6	12.5	12.6	12.5	12.3	12.5
30	---	---	---	12.1	11.9	12.0	12.8	12.6	12.7	12.9	12.3	12.6
31	---	---	---	---	---	---	12.9	12.7	12.8	13.0	12.8	12.9
MONTH	---	---	---	---	---	---	13.2	11.7	12.4	13.5	12.3	12.7
FEBRUARY			MARCH			APRIL			MAY			
1	13.0	12.7	12.9	13.2	12.9	13.0	13.4	12.8	13.1	12.6	11.9	12.3
2	12.7	12.4	12.6	13.2	12.5	12.9	13.4	12.6	13.0	12.5	11.8	12.1
3	12.8	12.5	12.7	13.1	12.6	12.8	13.0	12.3	12.7	12.2	11.6	11.9
4	13.0	12.7	12.9	13.0	12.7	12.8	12.8	12.1	12.4	12.1	10.6	11.4
5	13.3	12.9	13.1	13.0	12.7	12.8	12.7	12.1	12.4	11.2	10.4	10.9
6	13.1	13.0	13.1	12.8	12.5	12.7	12.7	12.4	12.5	11.3	10.5	10.9
7	13.3	13.1	13.2	12.9	12.4	12.6	12.8	12.3	12.5	11.3	10.7	11.0
8	13.4	13.2	13.3	12.8	12.3	12.5	12.8	12.2	12.5	11.5	10.9	11.1
9	13.7	13.3	13.5	12.7	12.3	12.5	13.0	12.2	12.6	11.5	10.9	11.2
10	13.8	13.5	13.6	12.8	12.4	12.6	13.0	12.3	12.6	11.6	10.9	11.3
11	14.0	13.3	13.5	12.9	12.5	12.7	12.9	12.3	12.6	11.9	11.2	11.5
12	13.6	13.3	13.4	12.9	12.4	12.6	12.9	12.4	12.6	11.9	10.8	11.4
13	13.6	13.3	13.4	12.9	12.5	12.7	12.8	12.4	12.7	11.7	10.6	11.1
14	13.3	13.0	13.2	12.8	12.3	12.6	13.1	12.1	12.6	11.5	10.4	11.0
15	13.2	12.8	13.0	12.9	12.4	12.6	13.5	12.4	13.2	11.4	10.4	10.9
16	12.9	12.8	12.8	13.0	12.5	12.7	13.7	13.2	13.5	11.4	10.5	10.9
17	12.8	12.6	12.7	12.9	12.3	12.6	13.6	13.0	13.4	11.5	10.5	11.0
18	12.9	12.6	12.8	12.7	12.3	12.5	13.5	13.0	13.3	11.8	10.9	11.5
19	13.1	12.8	12.9	12.8	12.4	12.6	13.5	13.2	13.3	12.1	11.2	11.8
20	13.3	12.9	13.1	13.0	12.5	12.7	13.6	13.2	13.4	11.9	10.9	11.4
21	13.1	12.8	13.0	12.8	12.2	12.6	13.5	13.3	13.4	11.7	10.8	11.3
22	13.0	12.7	12.8	12.6	12.0	12.3	13.7	13.0	13.4	11.6	10.8	11.4
23	12.8	12.6	12.7	12.4	12.0	12.2	13.4	13.0	13.2	12.2	11.4	11.8
24	12.9	12.6	12.8	12.6	12.2	12.3	13.4	12.8	13.1	12.2	11.0	11.6
25	12.9	12.6	12.8	12.8	12.2	12.6	13.2	12.4	12.8	11.8	10.7	11.3
26	13.0	12.7	12.8	13.2	12.8	13.1	12.9	12.2	12.6	11.6	10.7	11.2
27	13.2	12.8	13.0	13.3	12.9	13.1	12.7	12.1	12.4	11.6	10.8	11.3
28	13.3	12.9	13.1	13.3	12.7	13.0	12.8	12.2	12.5	12.2	11.3	11.9
29	13.2	12.9	13.0	13.0	12.4	12.7	13.0	12.3	12.6	12.8	12.2	12.5
30	---	---	---	12.8	12.4	12.6	12.8	12.1	12.5	12.8	11.6	12.3
31	---	---	---	13.1	12.6	12.9	---	---	---	12.4	11.2	11.8
MONTH	14.0	12.4	13.0	13.3	12.0	12.7	13.7	12.1	12.8	12.8	10.4	11.5

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	12.1	10.7	11.4	10.5	9.5	9.9	10.2	9.3	9.7	11.4	10.5	10.9
2	11.7	10.4	11.0	10.6	9.5	10.0	10.2	9.4	9.8	11.8	10.8	11.3
3	11.3	10.2	10.7	10.5	9.5	9.9	10.4	9.7	9.9	12.0	11.2	11.5
4	11.2	10.2	10.6	10.5	9.4	9.9	10.6	9.7	10.0	12.0	11.2	11.5
5	11.2	10.2	10.8	10.5	9.4	9.9	10.7	10	10.3	11.8	11.1	11.4
6	11.6	10.8	11.2	10.4	9.4	9.9	11.0	10.2	10.5	11.7	11.0	11.3
7	11.8	11.0	11.5	10.4	9.4	9.8	11.2	10.3	10.7	11.8	11.0	11.3
8	12.2	11.4	11.9	10.6	9.5	10	11.0	10.2	10.5	11.7	11.0	11.2
9	12.3	11.8	12.1	10.5	9.6	10.0	10.8	10	10.3	11.7	11.0	11.2
10	12.5	11.8	12.2	10.6	9.7	10.1	10.8	9.7	10.1	11.6	10.9	11.2
11	12.4	11.6	12.0	10.7	9.8	10.2	10.4	9.5	9.9	11.7	10.8	11.2
12	12.3	11.3	11.8	10.3	9.6	9.9	10.4	9.5	9.9	11.5	10.9	11.1
13	12.0	10.8	11.5	10.3	9.4	9.7	10.3	9.4	9.8	11.7	10.9	11.3
14	11.7	10.7	11.2	10.1	9.2	9.6	10.3	9.4	9.7	11.8	11.1	11.4
15	11.6	10.4	11.1	10.1	9.2	9.5	10.4	9.5	9.8	11.7	10.9	11.3
16	11.5	10.2	10.8	10.1	9.2	9.5	10.4	9.5	9.8	11.8	11.2	11.4
17	11.3	10.1	10.7	10.0	9.1	9.5	10.6	9.7	10.0	11.7	11.0	11.3
18	11.2	10.0	10.6	9.9	9.1	9.5	10.6	9.7	10.0	11.9	11.3	11.6
19	11.2	10	10.5	10.2	9.2	9.6	10.6	9.6	10	12.1	11.4	11.8
20	11.2	10	10.6	10.3	9.1	9.6	10.5	9.6	10	12.6	11.8	12.0
21	11.1	10	10.5	10.3	9.4	9.7	10.5	9.7	10.0	12.5	11.9	12.2
22	11.2	9.9	10.6	10.1	9.3	9.6	10.7	9.8	10.2	12.5	12.0	12.1
23	11.2	10.1	10.6	10	9.2	9.5	11.2	10.4	10.8	12.2	11.7	11.9
24	11.1	9.9	10.4	9.9	9.1	9.4	11.4	10.6	11.0	12.1	11.5	11.7
25	10.8	9.7	10.2	9.9	9.1	9.4	11.6	10.9	11.3	12.0	11.4	11.6
26	10.8	9.6	10.2	10.1	9.2	9.5	11.8	11.1	11.4	11.8	11.3	11.5
27	10.9	9.7	10.2	10.2	9.3	9.6	11.7	11.0	11.3	11.6	11.1	11.3
28	10.8	9.8	10.2	10.2	9.3	9.6	11.6	10.8	11.1	11.6	11.0	11.2
29	10.6	9.5	10	10.2	9.3	9.6	11.3	10.5	10.8	11.7	11.1	11.4
30	10.5	9.4	9.9	10.2	9.3	9.6	11.2	10.3	10.7	11.7	11.2	11.4
31	---	---	---	10.2	9.3	9.7	11.2	10.4	10.7	---	---	---
MONTH	12.5	9.4	10.9	10.7	9.1	9.7	11.8	9.3	10.3	12.6	10.5	11.4

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	2	<1	1	1	<1	<1	10	5	7	7	3	5
2	3	<1	1	2	<1	1	6	3	4	6	4	5
3	2	<1	1	1	<1	1	4	3	3	4	3	3
4	2	<1	1	2	<1	<1	3	2	3	3	2	3
5	3	<1	1	1	<1	1	4	2	3	2	2	2
6	2	<1	1	1	<1	<1	28	4	16	3	2	2
7	2	<1	1	4	<1	<1	15	8	9	4	2	3
8	2	<1	1	1	<1	<1	9	7	8	7	4	5
9	2	<1	1	2	<1	<1	8	3	6	10	6	7
10	3	<1	1	<1	<1	<1	4	3	3	6	4	5
11	2	<1	1	2	<1	<1	3	2	2	4	3	4
12	3	1	2	2	<1	1	15	2	4	3	2	3
13	2	1	1	1	<1	1	---	15	---	3	2	2
14	2	<1	1	1	<1	<1	39	14	---	4	2	2
15	2	<1	1	2	<1	<1	14	7	10	4	3	4
16	2	1	1	9	<1	2	7	5	6	3	2	2
17	2	1	1	32	9	17	5	4	4	2	2	2
18	2	<1	1	10	4	6	4	4	4	2	2	2
19	2	1	1	4	2	3	4	3	4	2	2	2
20	2	1	1	7	3	3	4	3	3	3	2	2
21	2	<1	1	5	2	3	3	2	3	2	2	2
22	2	1	1	2	1	2	2	2	2	2	2	2
23	3	1	1	2	1	1	2	2	2	4	1	2
24	2	1	1	2	1	1	2	2	2	8	4	6
25	1	<1	1	3	1	2	3	2	3	5	3	4
26	2	<1	1	7	3	5	3	2	3	4	3	3
27	2	1	1	5	4	4	2	2	2	10	4	8
28	2	1	1	4	2	3	6	2	2	8	6	6
29	2	<1	1	---	2	---	9	5	8	8	5	7
30	1	<1	1	28	10	14	8	5	6	6	5	6
31	3	<1	1	---	---	---	5	3	4	5	3	4
MAX	3	1	2	---	10	---	---	15	---	10	6	8
MIN	1	<1	1	---	<1	---	---	2	---	2	1	2
FEBRUARY			MARCH			APRIL			MAY			
1	3	3	3	2	1	2	<1	<1	<1	<1	<1	<1
2	3	2	3	2	2	2	<1	<1	<1	<1	<1	<1
3	3	2	2	2	1	2	<1	<1	<1	<1	<1	<1
4	2	2	2	2	1	1	<1	<1	<1	<1	<1	<1
5	2	2	2	2	2	2	<1	<1	<1	<1	<1	<1
6	2	2	2	3	2	2	<1	<1	<1	<1	<1	<1
7	2	2	2	2	1	2	<1	<1	<1	<1	<1	<1
8	2	2	2	2	1	1	2	<1	<1	<1	<1	<1
9	2	2	2	1	1	1	<1	<1	<1	<1	<1	<1
10	2	1	1	1	<1	<1	<1	<1	<1	<1	<1	<1
11	1	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
12	1	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
13	1	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
14	1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
15	1	<1	1	<1	<1	<1	1	<1	<1	<1	<1	<1
16	3	1	1	<1	<1	<1	1	<1	<1	<1	<1	<1
17	6	3	5	<1	<1	<1	<1	<1	<1	<1	<1	<1
18	8	4	6	<1	<1	<1	<1	<1	<1	4	<1	1
19	4	3	4	<1	<1	<1	<1	<1	<1	2	2	3
20	3	2	3	<1	<1	<1	2	<1	<1	2	1	2
21	4	2	2	<1	<1	<1	6	2	6	2	1	1
22	2	1	2	<1	<1	<1	6	4	5	2	<1	1
23	1	1	1	<1	<1	<1	4	2	3	<1	<1	<1
24	1	1	1	<1	<1	<1	2	1	2	<1	<1	<1
25	1	<1	1	<1	<1	<1	1	<1	1	<1	<1	<1
26	1	1	1	<1	<1	<1	1	<1	<1	<1	<1	<1
27	2	1	1	<1	<1	<1	1	<1	<1	1	<1	<1
28	1	1	1	<1	<1	<1	<1	<1	<1	4	1	3
29	2	1	1	<1	<1	<1	<1	<1	<1	3	2	2
30	---	---	---	<1	<1	<1	<1	<1	<1	2	1	2
31	---	---	---	<1	<1	<1	---	---	---	1	<1	1
MAX	8	4	6	3	2	2	6	4	6	4	2	3
MIN	1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1

14317450 NORTH UMPQUA RIVER NEAR IDLEYLD PARK, OR—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
2	<1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
3	<1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
4	2	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
5	<1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
6	<1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
7	<1	<1	<1	<1	<1	<1	---	---	---	1	<1	<1
8	<1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
9	<1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1
10	1	<1	1	<1	<1	<1	---	---	---	<1	<1	<1
11	4	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
14	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1
15	<1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1
16	<1	<1	<1	2	<1	<1	<1	<1	<1	1	<1	<1
17	1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
18	1	<1	<1	2	<1	<1	<1	<1	<1	1	<1	<1
19	<1	<1	<1	2	<1	<1	1	<1	<1	3	<1	1
20	<1	<1	<1	2	<1	<1	3	<1	1	<1	<1	<1
21	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
22	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
23	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
24	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
26	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
27	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
28	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
29	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
30	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
31	---	---	---	<1	<1	<1	<1	<1	<1	---	---	---
MAX	4	<1	1	3	<1	<1	---	---	---	3	<1	1
MIN	<1	<1	<1	<1	<1	<1	---	---	---	<1	<1	<1

14318000 LITTLE RIVER AT PEEL, OR

LOCATION.--Lat 43°15'10", long 123°01'30", in NW ¼ sec.2, T.27 S., R.3 W., Douglas County, Hydrologic Unit 17100301, on left bank 0.6 mi southeast of Peel, 0.9 mi downstream from Cavitt Creek, and at mile 6.3.

DRAINAGE AREA.--177 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1954 to September 1989, July 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.33 ft above NGVD of 1929.

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

AVERAGE DISCHARGE.--39 years (1955-89, 2000-04), 456 ft³/s, 34.98 in/yr, 330,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft³/s Dec. 11, 1956, gage height, 19.63 ft, from rating curve extended above 5,900 ft³/s on basis of slope-area measurement at gage height 16.55 ft; minimum discharge, 7.5 ft³/s Sept. 5, 2003.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 22, 23, 1953, reached a stage of 20.6 ft, from floodmark, discharge, 22,700 ft³/s, from rating curve extended above 5,900 ft³/s on basis of slope-area measurement at gage height 16.55 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 13	2200	*6,940	*10.97				

No other peak greater than base discharge.

Minimum discharge, 12 ft³/s, Aug. 21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	24	543	1,360	1,350	1,090	319	220	314	59	23	20
2	15	28	407	1,150	1,300	1,100	282	207	262	56	22	20
3	16	36	399	779	1,070	871	259	196	225	55	22	21
4	16	33	386	626	898	865	251	186	195	54	21	20
5	16	53	569	527	768	1,130	246	175	175	52	21	19
6	15	54	1,550	648	723	1,280	235	162	171	50	22	18
7	16	41	967	1,300	950	1,040	223	155	187	48	21	17
8	17	41	881	1,500	895	914	214	158	193	49	20	16
9	18	49	625	1,800	741	857	207	143	224	46	19	15
10	25	43	559	1,510	626	755	200	160	401	44	17	15
11	27	57	419	1,130	553	637	196	305	438	43	16	15
12	33	78	1,120	1,070	512	568	197	291	346	42	16	17
13	31	52	5,570	1,000	468	510	194	226	284	40	16	21
14	25	42	3,560	1,060	443	469	189	192	229	39	16	35
15	23	45	1,580	1,150	480	443	195	171	197	37	15	32
16	27	124	1,030	903	759	404	210	157	174	36	14	39
17	26	488	936	708	1,920	380	195	150	155	35	14	31
18	22	247	1,080	630	2,050	374	197	533	139	34	13	50
19	20	166	1,080	851	1,540	367	204	821	124	33	13	60
20	18	196	1,040	1,050	1,150	330	375	543	110	32	13	60
21	18	160	808	782	876	318	1,140	396	102	32	12	45
22	19	123	626	610	703	332	1,080	320	96	30	22	35
23	28	89	517	989	604	338	704	321	96	29	37	30
24	28	115	724	2,380	540	335	535	266	96	28	36	27
25	24	150	969	1,800	518	325	436	227	83	27	32	25
26	21	264	797	1,350	724	346	376	200	77	25	63	24
27	19	214	611	2,290	826	400	341	198	73	25	49	24
28	18	170	638	2,540	1,020	384	307	447	70	24	33	23
29	21	929	1,540	2,430	891	337	270	685	66	24	27	22
30	30	886	1,120	2,610	---	381	240	522	64	23	24	21
31	28	---	789	1,840	---	377	---	392	---	23	22	---
TOTAL	675	4,997	33,440	40,373	25,898	18,257	10,017	9,125	5,366	1,174	711	817
MEAN	21.8	167	1,079	1,302	893	589	334	294	179	37.9	22.9	27.2
MAX	33	929	5,570	2,610	2,050	1,280	1,140	821	438	59	63	60
MIN	15	24	386	527	443	318	189	143	64	23	12	15
AC-FT	1,340	9,910	66,330	80,080	51,370	36,210	19,870	18,100	10,640	2,330	1,410	1,620
CFSM	0.12	0.94	6.09	7.36	5.05	3.33	1.89	1.66	1.01	0.21	0.13	0.15
IN.	0.14	1.05	7.03	8.49	5.44	3.84	2.11	1.92	1.13	0.25	0.15	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
97.4	366	(1963)	14.4	(1988)	
542	2,162	(1974)	41.3	(1977)	
955	3,090	(1965)	34.9	(1977)	
954	2,122	(1971)	53.4	(1977)	
808	1,857	(1986)	70.2	(1977)	
791	1,757	(1972)	249	(1978)	
630	1,065	(1979)	237	(1968)	
416	956	(1963)	108	(1987)	
164	501	(1984)	54.0	(1987)	
56.0	137	(1983)	29.5	(2003)	
31.6	88.6	(1976)	15.9	(2002)	
36.4	181	(1986)	15.8	(2001)	

14318000 LITTLE RIVER AT PEEL, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1955 - 2004	
ANNUAL TOTAL	156,591.4		150,850		456	
ANNUAL MEAN	429		412		805	
HIGHEST ANNUAL MEAN					158	
LOWEST ANNUAL MEAN					1974	
HIGHEST DAILY MEAN	5,570	Dec 13	5,570	Dec 13	15,200	Dec 22, 1964
LOWEST DAILY MEAN	8.4	Sep 6	12	Aug 21	8.4	Sep 6, 2003
ANNUAL SEVEN-DAY MINIMUM	10	Aug 31	13	Aug 15	10	Aug 31, 2003
ANNUAL RUNOFF (AC-FT)	310,600		299,200		330,100	
ANNUAL RUNOFF (CFSM)	2.42		2.33		2.57	
ANNUAL RUNOFF (INCHES)	32.91		31.70		34.98	
10 PERCENT EXCEEDS	1,150		1,080		1,100	
50 PERCENT EXCEEDS	174		196		214	
90 PERCENT EXCEEDS	17		20		24	



2004 Water Year

UMPQUA RIVER BASIN

14318000 LITTLE RIVER AT PEEL, OR

Latitude: 43° 15 ' 10"

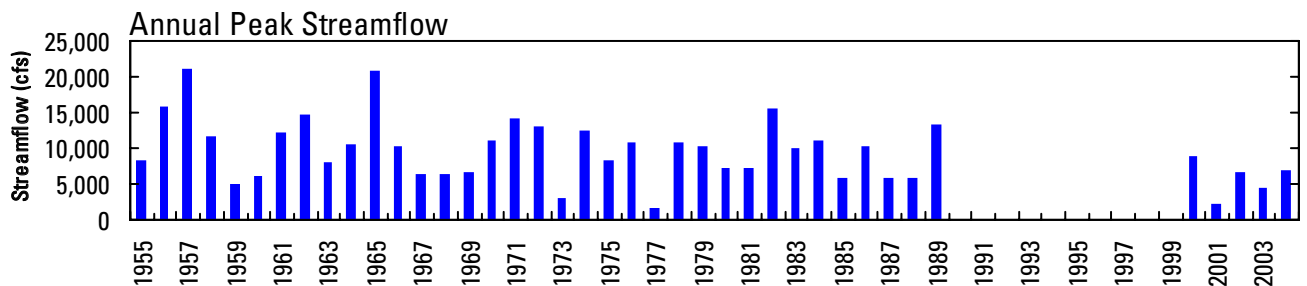
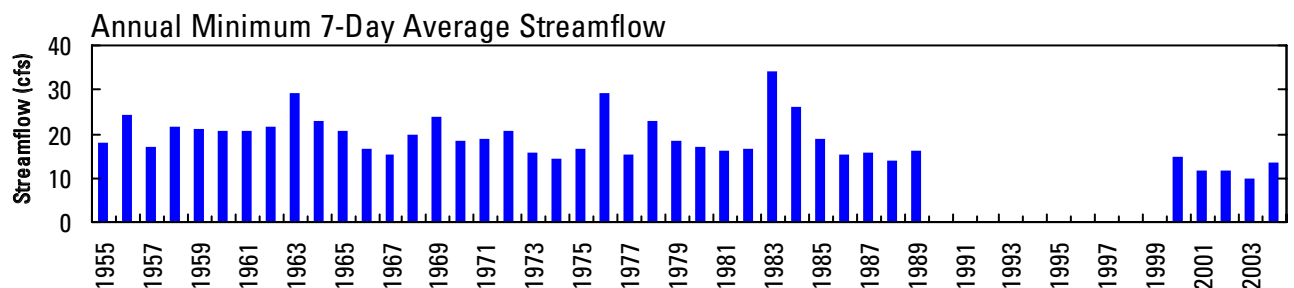
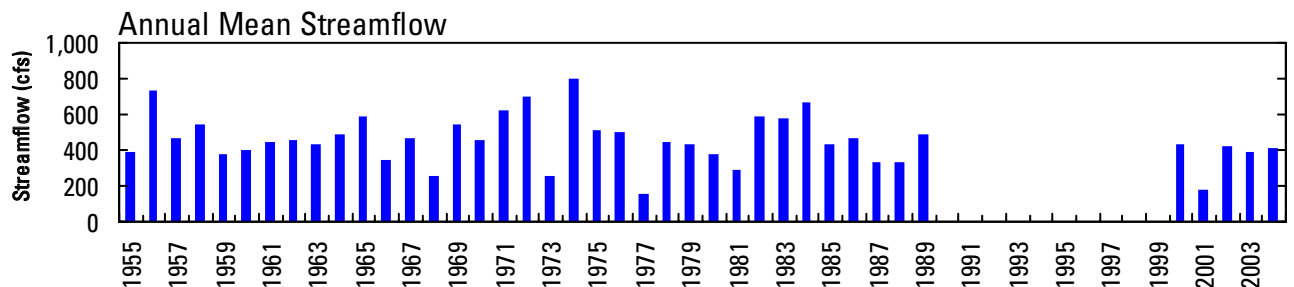
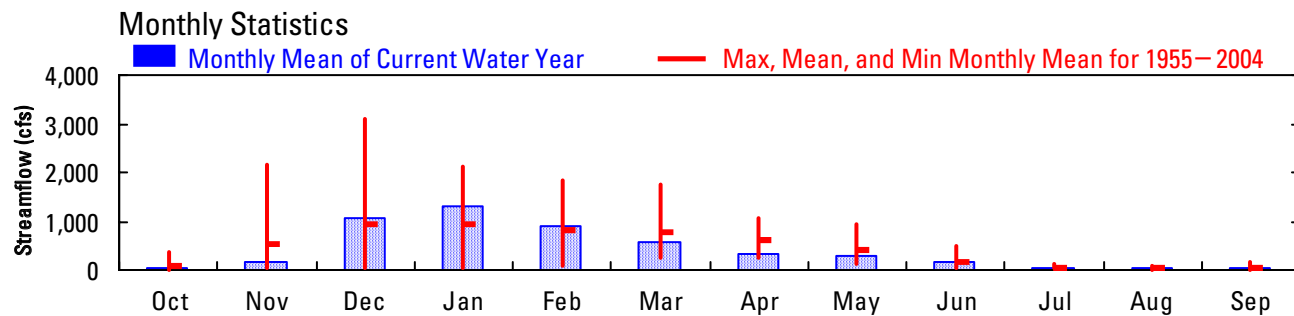
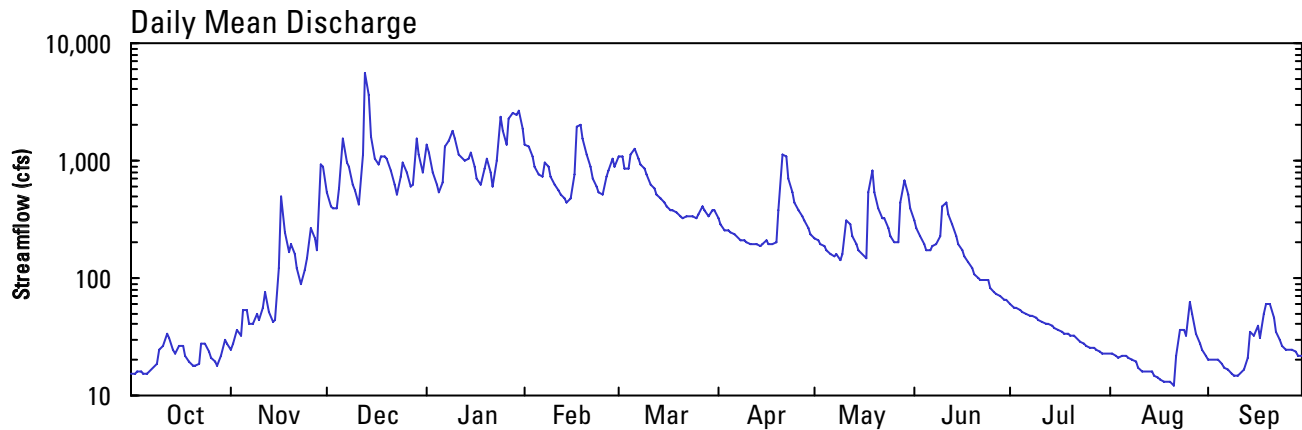
Longitude: 123° 01 ' 30"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 828.33 feet

Drainage Area: 177 square miles



14318000 LITTLE RIVER AT PEEL, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURE: June 1999 to current year.

INSTRUMENTATION.--Temperature recorder since June 1999.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 24.7°C July 30, 2003; minimum, 0.5°C Nov. 19, 2000.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 24.2°C July 24; minimum, 3.3°C Nov. 23.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.4	13.8	14.8	5.4	4.2	4.6	7.7	7.1	7.4	6.0	5.3	5.7
2	15.0	13.5	14.0	4.7	4.2	4.5	7.7	7.0	7.4	6.0	5.3	5.6
3	15.4	13.8	14.6	5.8	4.7	5.3	8.2	7.6	7.9	5.8	5.2	5.4
4	15.2	14.4	14.8	5.8	5.3	5.4	8.0	6.7	7.3	5.4	4.9	5.2
5	15.7	14.6	15.1	6.6	5.3	5.9	8.5	8.0	8.3	5.7	4.9	5.3
6	15.7	14.2	15.1	6.2	5.2	5.6	8.3	7.3	7.9	6.1	5.4	5.7
7	16.6	14.9	15.6	6.9	5.5	6.2	7.3	7.0	7.2	6.6	5.7	6.2
8	15.6	13.6	14.2	7.7	6.4	7.0	7.1	6.8	7.0	7.1	6.5	6.8
9	13.6	12.6	13.0	7.6	6.8	7.3	7.1	6.7	6.9	7.5	6.9	7.2
10	13.1	11.9	12.5	8.3	7.2	7.7	7.0	6.3	6.7	7.1	6.5	6.8
11	11.9	10.5	11.0	8.8	8.2	8.5	6.9	5.9	6.3	7.0	6.2	6.6
12	11.3	10.2	10.7	8.7	7.9	8.3	7.6	6.5	7.0	7.0	5.9	6.5
13	10.8	9.1	10.1	7.9	6.6	7.4	8.6	6.2	8.0	7.1	6.4	6.8
14	11.5	10.3	10.8	6.6	5.5	6.0	6.6	6.0	6.3	7.4	7.0	7.2
15	10.8	9.8	10.1	7.2	6.4	6.7	6.2	5.7	6.0	7.4	6.8	7.1
16	11.4	9.7	10.5	7.2	6.8	7.0	6.1	5.6	5.9	7.1	6.0	6.4
17	12.0	10.9	11.5	8.0	7.1	7.6	6.4	5.8	6.1	6.4	5.2	5.8
18	11.8	10.7	11.3	8.7	7.9	8.3	6.2	5.6	5.9	7.2	6.2	6.7
19	12.2	11.2	11.7	8.2	6.7	7.5	7.2	5.9	6.5	7.2	6.7	7.0
20	13.9	12.2	13.0	6.7	5.8	6.0	7.4	7.0	7.2	7.0	5.8	6.2
21	14.4	13.1	13.8	5.8	5.1	5.5	7.3	6.5	7.0	5.8	4.8	5.1
22	14.3	13.3	13.8	5.1	4.5	4.7	6.5	5.6	6.1	4.8	4.1	4.5
23	14.0	12.6	13.5	4.5	3.3	3.8	7.8	6.3	7.0	7.0	4.7	5.9
24	12.6	10.7	11.5	4.5	3.4	4.0	7.7	6.8	7.4	7.0	5.9	6.7
25	10.7	9.6	10.1	4.6	4.0	4.2	6.8	5.5	6.0	6.3	5.6	5.9
26	10.3	9.2	9.8	5.9	4.6	5.3	5.6	5.0	5.3	6.1	5.7	5.9
27	10.3	9.1	9.8	5.5	4.3	4.8	5.4	4.9	5.1	7.3	6.1	6.7
28	10.8	9.4	10.1	6.5	5.1	5.6	5.9	5.3	5.6	7.3	7.0	7.1
29	10.9	9.9	10.6	7.4	6.5	6.9	6.6	5.8	6.3	8.0	7.3	7.6
30	9.9	8.0	9.0	7.7	7.2	7.4	6.0	5.7	5.9	7.6	6.2	6.8
31	8.0	5.4	6.5	---	---	---	6.0	5.7	5.8	6.4	5.9	6.2
MONTH	16.6	5.4	12.0	8.8	3.3	6.2	8.6	4.9	6.7	8.0	4.1	6.3

UMPQUA RIVER BASIN

14318000 LITTLE RIVER AT PEEL, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.1	6.2	6.6	6.7	6.2	6.4	7.8	5.0	6.5	13.8	10.7	12.4
2	7.4	6.6	7.0	7.5	6.5	6.9	8.4	5.0	6.8	14.4	10.9	12.8
3	7.0	5.9	6.4	6.5	5.5	6.0	10.2	6.5	8.4	14.5	11.6	13.3
4	6.9	6.2	6.5	7.0	6.4	6.7	10.3	7.7	9.1	14.0	11.6	12.4
5	6.4	5.2	5.9	7.0	6.2	6.6	10.0	8.5	8.9	13.3	10.6	12.0
6	6.9	6.3	6.6	8.1	6.9	7.4	10.1	8.2	9.0	12.7	10.3	11.3
7	6.5	6.0	6.3	8.5	6.7	7.6	10.4	7.7	9.1	12.4	10.8	11.5
8	6.4	5.8	6.1	8.9	7.0	8.0	10.4	8.3	9.3	13.1	10.6	11.9
9	5.9	5.3	5.6	9.2	7.5	8.3	11.0	7.9	9.7	12.3	11.0	11.7
10	5.6	4.4	5.1	8.4	7.3	7.9	11.8	8.6	10.4	11.8	10.7	11.3
11	6.0	4.6	5.3	8.1	6.4	7.2	12.4	9.2	11.1	10.9	9.5	10.1
12	5.5	4.4	5.0	8.2	6.5	7.3	12.2	10.0	11.2	12.7	9.3	10.8
13	6.2	4.4	5.2	8.2	6.0	7.1	11.5	9.5	10.6	13.1	9.4	11.4
14	6.6	5.6	6.2	9.4	7.6	8.4	10.8	9.1	9.9	13.5	10.8	12.2
15	6.7	5.7	6.3	8.6	6.7	7.7	9.8	8.1	8.7	12.9	11.4	12.2
16	7.2	6.6	6.9	8.6	6.2	7.4	9.6	7.4	8.6	14.6	11.6	13.0
17	7.6	6.5	7.0	8.8	6.4	7.6	9.7	7.9	8.9	13.6	11.7	12.3
18	7.3	6.9	7.1	9.2	7.3	8.3	9.6	8.0	8.7	11.9	10.0	10.8
19	7.0	6.3	6.7	8.3	7.1	7.8	8.9	7.3	8.1	12.3	9.7	10.7
20	6.5	5.2	5.9	8.3	5.6	7.0	8.3	7.5	7.8	13.1	9.6	11.2
21	6.9	5.9	6.4	9.7	6.9	8.4	7.6	7.1	7.4	12.5	11.0	11.7
22	7.4	6.2	6.8	10.2	8.0	9.2	9.4	6.3	7.7	12.3	11.1	11.6
23	7.7	6.7	7.2	10.3	8.8	9.6	9.6	7.7	8.6	12.5	10.2	11.3
24	7.6	6.4	7.0	9.4	7.9	8.7	10.7	7.8	9.1	13.7	9.4	11.6
25	7.3	6.2	6.7	8.5	7.2	7.8	12.1	7.9	9.8	14.8	11.0	13.0
26	7.2	6.1	6.6	7.3	6.3	6.9	13.8	9.7	11.6	14.5	12.6	13.6
27	6.7	6.2	6.5	8.5	6.6	7.5	14.0	10.9	12.5	14.2	13.0	13.4
28	7.2	6.3	6.7	8.8	6.0	7.5	12.7	9.9	11.3	13.0	11.1	12.0
29	6.7	6.2	6.5	10.2	6.9	8.5	12.2	8.5	10.5	11.3	9.8	10.6
30	---	---	---	9.8	7.6	8.8	13.5	9.4	11.5	12.9	9.5	11.1
31	---	---	---	8.4	6.4	7.4	---	---	---	14.3	10.9	12.4
MONTH	7.7	4.4	6.3	10.3	5.5	7.7	14.0	5.0	9.4	14.8	9.3	11.9
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.7	10.9	12.8	21.5	18.4	20.1	22.5	20.9	21.8	19.8	18.4	19.1
2	14.4	12.3	13.2	21.2	18.0	19.8	22.2	20.8	21.4	18.4	16.5	17.1
3	16.3	12.3	14.4	20.6	18.6	19.7	21.9	20.0	21.0	17.3	15.6	16.5
4	17.0	13.4	15.4	20.9	18.2	19.6	21.8	20.2	20.9	17.1	15.5	16.4
5	16.2	14.0	14.6	21.4	17.8	19.7	20.5	18.9	19.8	17.3	15.6	16.6
6	14.0	12.9	13.5	21.8	18.0	20.0	20.0	18.8	19.2	17.4	15.8	16.7
7	13.2	12.1	12.7	21.3	19.2	20.2	20.8	18.1	19.5	17.1	15.6	16.5
8	12.5	11.1	11.6	20.2	16.9	18.8	21.2	18.8	20.1	17.4	15.5	16.5
9	11.5	10.9	11.2	19.9	16.9	18.6	22.3	19.9	21.2	17.6	15.9	16.8
10	11.8	10.8	11.2	19.8	17.5	18.7	22.6	20.4	21.7	17.7	15.9	16.9
11	11.8	10.3	11.0	20.3	16.8	18.7	23.0	20.8	22.1	17.8	16.8	17.3
12	12.7	9.9	11.3	21.4	17.6	19.6	23.1	21.4	22.4	17.9	16.9	17.4
13	14.7	11.5	12.9	21.8	18.9	20.5	23.4	21.4	22.5	17.4	16.4	16.7
14	15.5	12.1	13.9	22.3	19.1	20.9	23.5	21.6	22.7	16.9	15.4	16.3
15	15.6	12.0	14.0	22.0	19.6	21.1	23.0	21.2	22.2	16.7	15.6	16.1
16	16.7	12.6	14.8	22.5	19.5	21.2	22.3	20.3	21.5	16.3	14.9	15.7
17	17.8	13.6	15.9	22.6	20.4	21.7	22.0	19.9	21.1	16.0	15.0	15.6
18	18.7	14.9	17.0	22.0	19.9	21.0	22.3	20.0	21.3	15.4	13.9	14.5
19	19.2	15.7	17.6	22.8	20.5	21.6	22.7	20.5	21.7	13.9	12.7	13.3
20	19.4	15.7	17.7	22.4	20.2	21.6	22.9	20.8	21.9	13.5	12.1	12.8
21	19.8	16.2	18.1	22.3	19.9	21.3	22.2	20.2	21.4	13.0	11.2	12.2
22	18.9	15.8	17.0	22.6	19.8	21.4	21.4	19.4	20.3	13.4	11.2	12.4
23	16.0	15.0	15.5	23.5	20.6	22.2	19.4	18.0	18.5	14.0	12.1	13.2
24	16.9	15.4	16.0	24.2	21.6	23.0	18.5	17.6	18.1	14.6	12.8	13.8
25	19.6	16.1	17.6	24.0	22.3	23.3	18.3	17.5	18.0	14.3	13.3	13.7
26	20.0	17.0	18.5	23.3	21.1	22.2	18.1	16.9	17.6	14.3	13.5	13.9
27	20.1	17.3	18.7	22.5	20.3	21.6	18.5	15.9	17.3	15.9	14.2	15.0
28	20.4	17.0	18.8	23.0	20.7	21.9	18.6	16.4	17.6	15.8	14.5	15.3
29	21.2	17.6	19.4	23.3	21.3	22.4	19.5	17.0	18.4	15.6	14.8	15.2
30	21.6	18.0	19.9	23.1	21.4	22.4	19.9	17.8	19.0	15.5	14.3	14.9
31	---	---	---	22.8	21.2	22.0	20.1	18.5	19.4	---	---	---
MONTH	21.6	9.9	15.2	24.2	16.8	20.9	23.5	15.9	20.4	19.8	11.2	15.5
YEAR	24.2	3.3	11.6									

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR

LOCATION.--Lat 43°16'20", long 123°24'40", in NW ¼ NE ¼ sec.33, T.26 S., R.6 W., Douglas County, Hydrologic Unit 17100301, on left bank 300 ft downstream from county bridge, 3.0 mi west of Winchester, and at mile 1.8.

DRAINAGE AREA.--1,344 mi².

PERIOD OF RECORD.--October 1908 to December 1913, October 1923 to September 1929, August 1954 to current year. Prior to December 1908, monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1448: 1909-12, drainage area. WDR OR-65-1: 1954(M). WDR OR-72-1: 1965(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 372.97 ft above NGVD of 1929 (Douglas County Road Department bench mark). Oct. 1, 1908, to Dec. 31, 1913, and Oct. 1, 1923, to Sept. 30, 1929, nonrecording gage at site 4.8 mi upstream at different datums. Aug. 27, 1954, to Aug. 12, 1965, water-stage recorder on right bank at same datum.

REMARKS.--Records fair. Occasional regulation caused by upstream powerplants; slight regulation by Lemolo Lake and Diamond Lake. Several small diversions for irrigation upstream from station. Continuous water-quality records for water years 1967-69, 1971-91, have been collected at this site.

AVERAGE DISCHARGE.--61 years (water years 1909-13, 1924-29, 1955-2004), 3,705 ft³/s, 37.46 in/yr, 2,684,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s Dec. 22, 1964, gage height, 34.2 ft, from floodmark; minimum discharge, 235 ft³/s Aug. 27, 1987, result of regulation at Winchester Dam 5.2 mi upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of 23.2 ft, from floodmark, at site 4.8 mi upstream at different datum, discharge, 88,000 ft³/s. Flood of Nov. 23, 1953, reached a stage of 28.4 ft, from floodmarks, present site and datum, discharge, 93,300 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 13	2130	*44,200	*16.49	No other peak greater than base discharge.			

Minimum discharge, 818 ft³/s, Oct. 1, 29, Aug. 14, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	839	e900	4,340	8,250	9,470	6,410	3,450	3,110	3,630	1,490	948	912
2	840	e900	3,500	8,530	9,040	7,060	3,120	3,130	3,280	1,470	938	926
3	854	e950	3,040	5,890	8,260	6,010	2,810	3,150	3,060	1,460	951	946
4	865	e1,000	3,380	4,970	6,930	5,440	2,660	3,160	2,880	1,450	960	963
5	850	e1,050	3,290	4,220	5,960	6,450	2,620	3,040	2,720	1,420	962	956
6	856	e1,100	7,500	4,050	5,420	7,620	2,640	2,860	2,690	1,380	958	949
7	866	e1,100	6,730	6,130	6,420	7,020	2,570	2,670	2,720	1,320	963	941
8	861	e1,050	6,480	8,340	6,230	6,170	2,510	2,660	2,860	1,290	956	936
9	873	e1,000	4,950	10,600	5,390	5,990	2,490	2,640	3,060	1,260	930	935
10	898	e1,000	4,660	10,500	4,740	5,760	2,440	2,520	3,630	1,230	905	925
11	927	e1,000	3,820	8,060	4,310	5,150	2,430	2,830	4,140	1,230	880	930
12	968	e1,050	4,500	7,240	4,080	4,700	2,440	3,290	3,560	1,180	853	934
13	1,000	e1,150	29,600	7,200	3,860	4,400	2,550	2,920	3,100	1,190	831	957
14	968	e1,100	28,500	7,410	3,700	4,120	2,660	2,700	2,810	1,160	830	1,020
15	949	e1,000	11,900	8,890	3,770	3,960	2,840	2,520	2,590	1,120	846	1,060
16	1,020	e1,150	7,530	7,510	4,340	3,770	2,930	2,450	2,410	1,080	869	1,120
17	1,050	e2,800	6,220	6,110	10,200	3,600	2,790	2,460	2,300	1,090	878	1,130
18	988	e2,900	6,460	5,420	13,200	3,580	2,650	2,930	2,210	1,090	880	1,150
19	927	1,730	6,430	5,940	10,600	3,610	2,580	5,610	2,090	1,100	865	1,470
20	893	1,970	6,490	7,730	8,380	3,410	3,030	4,550	2,030	1,090	859	1,320
21	882	1,820	5,950	6,310	6,670	3,240	7,030	3,900	1,950	1,090	845	1,330
22	882	1,520	4,900	5,140	5,700	3,280	8,320	3,540	1,890	1,090	873	1,210
23	892	1,320	4,200	5,420	5,230	3,420	5,810	3,430	1,860	1,090	1,030	1,120
24	903	1,260	4,410	13,300	4,820	3,530	4,770	3,170	1,790	1,060	1,080	1,070
25	892	1,420	6,330	11,400	4,530	3,560	4,130	2,820	1,740	1,030	1,050	1,050
26	894	1,850	5,830	8,600	5,250	3,680	3,790	2,690	1,660	1,010	1,120	1,000
27	877	2,110	4,740	11,800	5,720	3,940	e3,600	2,680	1,610	987	1,390	977
28	857	1,660	4,740	14,500	6,040	4,190	e3,500	4,800	1,570	1,000	1,170	966
29	837	3,740	8,830	15,300	5,650	3,670	e3,430	6,700	1,520	997	1,030	978
30	e850	7,710	8,650	15,600	---	3,650	3,220	5,420	1,520	972	944	991
31	e900	---	6,230	12,600	---	3,770	---	4,230	---	953	911	---
TOTAL	27,958	50,310	224,130	262,960	183,910	144,160	101,810	104,580	74,880	36,379	29,505	31,172
MEAN	902	1,677	7,230	8,483	6,342	4,650	3,394	3,374	2,496	1,174	952	1,039
MAX	1,050	7,710	29,600	15,600	13,200	7,620	8,320	6,700	4,140	1,490	1,390	1,470
MIN	837	900	3,040	4,050	3,700	3,240	2,430	2,450	1,520	953	830	912
AC-FT	55,450	99,790	444,600	521,600	364,800	285,900	201,900	207,400	148,500	72,160	58,520	61,830
CFSM	0.67	1.25	5.38	6.31	4.72	3.46	2.53	2.51	1.86	0.87	0.71	0.77
IN.	0.77	1.39	6.20	7.28	5.09	3.99	2.82	2.89	2.07	1.01	0.82	0.86

UMPQUA RIVER BASIN

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2004, BY WATER YEAR (WY)												
MEAN	1,339	4,015	6,309	6,765	6,212	5,566	4,821	3,839	2,431	1,329	993	981
MAX	2,752	12,550	23,640	15,220	13,250	12,880	8,881	7,147	4,992	2,824	1,578	1,689
(WY)	(1963)	(1974)	(1965)	(1965)	(1986)	(1972)	(1993)	(1963)	(1984)	(1913)	(1976)	(1986)
MIN	683	931	1,005	1,125	1,019	1,681	1,605	1,401	913	717	635	695
(WY)	(1988)	(1994)	(1977)	(1977)	(1977)	(1992)	(1926)	(1926)	(1926)	(1926)	(1992)	(2001)
SUMMARY STATISTICS												
				FOR 2003 CALENDAR YEAR			FOR 2004 WATER YEAR			WATER YEARS 1909 - 2004		
ANNUAL TOTAL				1,267,580			1,271,754					
ANNUAL MEAN				3,473			3,475			3,705		
HIGHEST ANNUAL MEAN										6,116		
LOWEST ANNUAL MEAN										1,639		
HIGHEST DAILY MEAN				29,600			29,600			117,000		
LOWEST DAILY MEAN				708			830			549		
ANNUAL SEVEN-DAY MINIMUM				720			853			600		
ANNUAL RUNOFF (AC-FT)				2,514,000			2,523,000			2,684,000		
ANNUAL RUNOFF (CFSM)				2.58			2.59			2.76		
ANNUAL RUNOFF (INCHES)				35.08			35.20			37.46		
10 PERCENT EXCEEDS				7,640			7,210			7,530		
50 PERCENT EXCEEDS				2,400			2,660			2,420		
90 PERCENT EXCEEDS				821			904			880		



2004 Water Year
UMPQUA RIVER BASIN

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR

Latitude: 43° 16' 20"

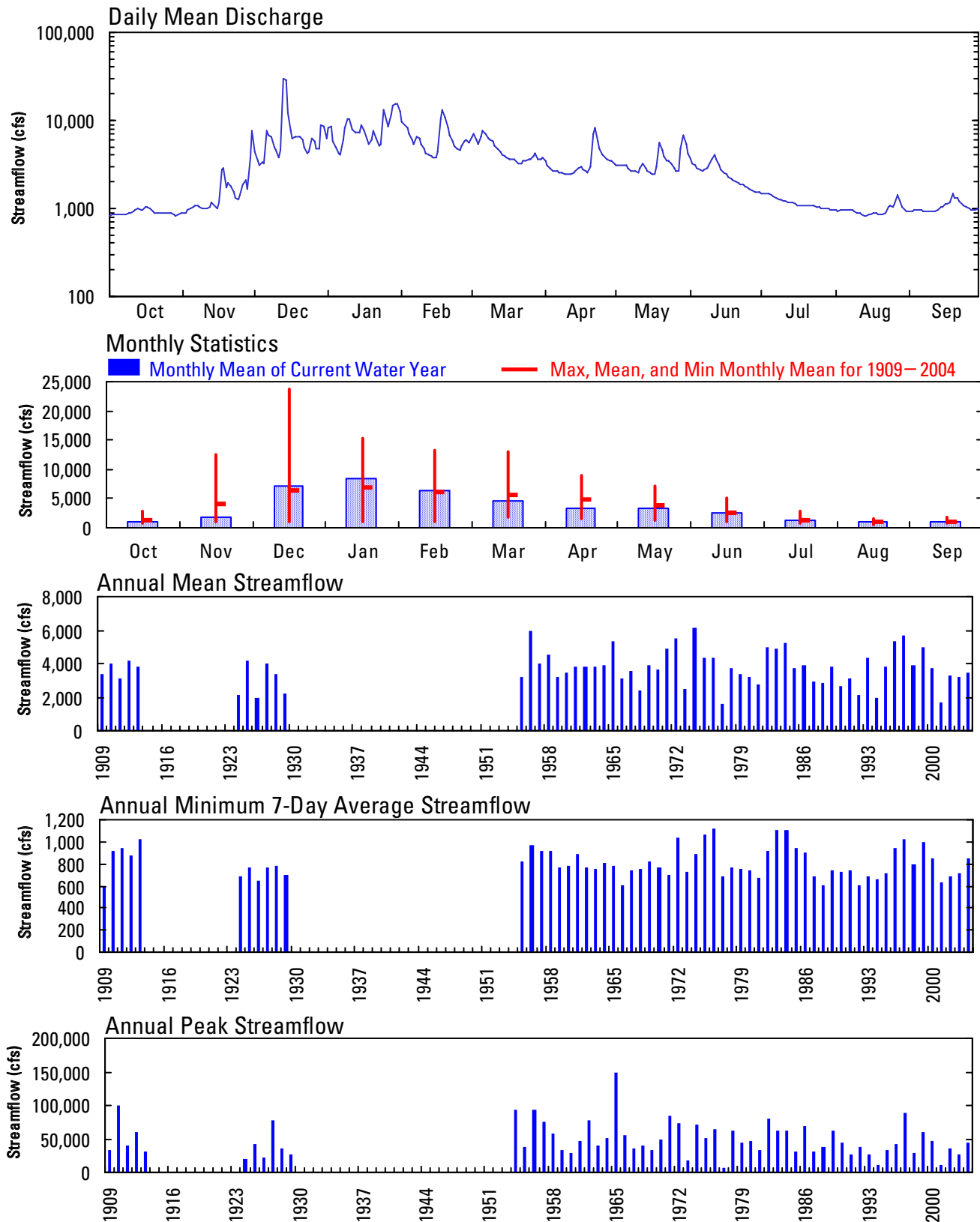
Longitude: 123° 24' 40"

Hydrologic Unit Code: 17100301

Douglas County

Datum: 372.97 feet

Drainage Area: 1,344 square miles



14319830 SOUTH FORK HINKLE CREEK NEAR NONPAREIL, OR

LOCATION.--Lat 43°25'20", long 123°02'17", in NE ¼ NW ¼ sec.10, T.25 S., R.3 W., Douglas County, Hydrologic Unit 17100303, on right bank, 7 mi east of Nonpareil and 700 ft upstream from confluence of North Fork Hinkle Creek.

DRAINAGE AREA.--4.17 mi².

PERIOD OF RECORD.--June 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 1,450 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107 ft³/s Dec. 6, 2003, gage height, 2.03 ft; minimum discharge, 0.54 ft³/s Sept. 3-5, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107 ft³/s Dec. 6, gage height, 2.03 ft; minimum discharge, 0.66 ft³/s Oct. 1, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	1.8	0.90	0.70
2	---	---	---	---	---	---	---	---	---	1.7	0.93	0.69
3	---	---	---	---	---	---	---	---	---	1.7	1.0	0.65
4	---	---	---	---	---	---	---	---	---	1.6	0.96	0.65
5	---	---	---	---	---	---	---	---	---	1.6	0.92	0.65
6	---	---	---	---	---	---	---	---	---	1.6	0.96	0.69
7	---	---	---	---	---	---	---	---	---	e1.5	1.2	1.1
8	---	---	---	---	---	---	---	---	---	e1.4	0.98	1.3
9	---	---	---	---	---	---	---	---	---	e1.4	0.93	2.7
10	---	---	---	---	---	---	---	---	---	e1.3	0.90	1.5
11	---	---	---	---	---	---	---	---	---	e1.3	0.90	1.2
12	---	---	---	---	---	---	---	---	---	e1.3	0.89	1.0
13	---	---	---	---	---	---	---	---	---	e1.3	0.87	0.96
14	---	---	---	---	---	---	---	---	---	e1.3	0.84	0.87
15	---	---	---	---	---	---	---	---	---	e1.2	0.85	0.84
16	---	---	---	---	---	---	---	---	---	e1.2	0.85	1.3
17	---	---	---	---	---	---	---	---	---	e1.2	0.81	1.2
18	---	---	---	---	---	---	---	---	---	e1.1	0.80	0.98
19	---	---	---	---	---	---	---	---	---	e1.1	0.79	0.91
20	---	---	---	---	---	---	---	---	---	e1.1	0.78	0.88
21	---	---	---	---	---	---	---	---	---	e1.1	0.75	0.86
22	---	---	---	---	---	---	---	---	---	e1.1	0.81	0.83
23	---	---	---	---	---	---	---	---	---	e1.0	0.82	0.80
24	---	---	---	---	---	---	---	---	---	e1.0	0.78	0.75
25	---	---	---	---	---	---	---	---	2.0	e0.99	0.74	0.70
26	---	---	---	---	---	---	---	---	1.9	e0.98	0.76	0.70
27	---	---	---	---	---	---	---	---	1.8	e0.98	0.78	0.68
28	---	---	---	---	---	---	---	---	1.8	0.97	0.76	0.67
29	---	---	---	---	---	---	---	---	1.7	0.92	0.74	0.75
30	---	---	---	---	---	---	---	---	1.7	0.91	0.72	0.77
31	---	---	---	---	---	---	---	---	---	0.90	0.70	---
TOTAL	---	---	---	---	---	---	---	---	---	38.55	26.42	28.28
MEAN	---	---	---	---	---	---	---	---	---	1.24	0.85	0.94
MAX	---	---	---	---	---	---	---	---	---	1.8	1.2	2.7
MIN	---	---	---	---	---	---	---	---	---	0.90	0.70	0.65
AC-FT	---	---	---	---	---	---	---	---	---	76	52	56
CFSM	---	---	---	---	---	---	---	---	---	0.30	0.20	0.23
IN.	---	---	---	---	---	---	---	---	---	0.34	0.24	0.25

e Estimated

14319830 SOUTH FORK HINKLE CREEK NEAR NONPAREIL, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.72	1.0	9.7	45	28	38	8.8	5.0	12	3.0	1.2	1.7
2	0.73	1.8	e7.4	30	26	35	7.5	4.7	9.7	3.0	1.2	1.9
3	0.74	1.6	e7.2	21	23	27	6.6	4.3	8.0	2.9	1.2	1.8
4	0.74	1.7	e7.0	16	21	25	6.0	4.0	6.9	2.8	1.2	1.6
5	0.74	2.9	e15	14	19	27	5.6	3.8	6.4	2.6	1.2	1.5
6	0.74	2.2	e60	20	19	26	5.3	3.6	6.4	2.5	1.2	1.4
7	0.83	2.0	29	37	23	23	5.0	3.8	7.0	2.5	1.1	1.3
8	0.81	2.1	26	43	22	20	4.8	3.9	12	2.4	1.1	1.2
9	0.86	1.9	21	46	19	16	4.5	3.4	21	2.3	0.98	1.2
10	0.95	1.7	23	37	17	13	4.3	3.9	54	2.3	0.98	1.2
11	1.2	2.2	13	26	14	12	4.0	5.7	38	2.2	0.97	1.6
12	1.3	2.2	e22	24	11	9.9	3.9	5.1	24	2.1	1.00	1.9
13	0.95	1.9	e90	23	10	8.6	3.9	4.5	17	2.1	1.0	2.4
14	0.85	1.6	e70	24	9.2	7.9	4.0	4.2	12	2.0	0.98	2.2
15	1.1	2.6	e43	24	9.0	7.5	5.2	3.9	9.6	1.9	0.94	2.5
16	1.0	6.3	19	19	15	7.1	5.0	3.7	8.0	1.8	0.92	2.3
17	0.85	16	18	15	26	6.7	4.8	3.7	7.0	1.8	0.88	3.7
18	0.78	6.1	19	13	29	6.4	4.8	28	6.3	1.8	0.88	8.6
19	0.80	9.8	e17	15	26	6.0	5.2	40	5.7	1.8	0.88	5.8
20	0.76	7.8	e15	17	21	5.7	12	23	5.5	1.7	0.88	5.5
21	0.80	5.3	11	14	17	5.4	32	15	5.1	1.6	0.84	3.9
22	1.0	3.8	9.4	11	e15	5.2	28	11	5.2	1.5	3.5	3.1
23	1.4	3.0	8.4	19	e13	5.1	19	9.3	5.1	1.5	2.2	2.6
24	1.0	4.4	12	41	e12	5.9	13	8.0	4.8	1.4	2.3	2.3
25	0.93	6.1	21	36	e12	6.0	9.4	7.2	4.3	1.4	3.4	2.1
26	0.87	8.3	16	33	16	7.4	7.8	6.6	4.0	1.4	5.3	2.2
27	0.83	5.7	13	58	22	9.0	7.0	12	3.8	1.3	3.1	2.1
28	0.81	5.1	19	45	23	7.7	6.3	64	3.6	1.3	2.4	2.0
29	1.3	24	63	33	22	6.6	5.8	41	3.4	1.2	2.2	2.0
30	1.4	20	48	30	---	9.7	5.4	25	3.1	1.2	2.0	1.9
31	1.1	---	28	30	---	12	---	17	---	1.2	1.8	---
TOTAL	28.89	161.1	780.1	859	539.2	407.8	244.9	378.3	318.9	60.5	49.73	75.5
MEAN	0.93	5.37	25.2	27.7	18.6	13.2	8.16	12.2	10.6	1.95	1.60	2.52
MAX	1.4	24	90	58	29	38	32	64	54	3.0	5.3	8.6
MIN	0.72	1.0	7.0	11	9.0	5.1	3.9	3.4	3.1	1.2	0.84	1.2
AC-FT	57	320	1,550	1,700	1,070	809	486	750	633	120	99	150
CFSM	0.22	1.29	6.03	6.65	4.46	3.15	1.96	2.93	2.55	0.47	0.38	0.60
IN.	0.26	1.44	6.96	7.66	4.81	3.64	2.18	3.37	2.84	0.54	0.44	0.67

WTR YR 2004 TOTAL 3,903.92 MEAN 10.7 MAX 90 MIN 0.72 AC-FT 7740 CFSM 2.56 IN. 34.83

e Estimated

14319835 NORTH FORK HINKLE CREEK NEAR NONPAREIL, OR

LOCATION.--Lat 43°25'25", long 123°02'17", in NE ¼ NW ¼ sec.10, T.25 S., R.3 W., Douglas County, Hydrologic Unit 17100303, on left bank, 7 mi east of Nonpareil, and 500 ft upstream from confluence with South Fork Hinkle Creek.

DRAINAGE AREA.--3.15 mi².

PERIOD OF RECORD.--July 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 1,420 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge 60 ft³/s Dec. 13, 2003; minimum discharge, 0.14 ft³/s Sept. 3-6, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 60 ft³/s Dec. 13; minimum discharge, 0.23 ft³/s Oct. 19, 20, 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	0.93	0.33	0.18
2	---	---	---	---	---	---	---	---	---	1.0	0.35	0.17
3	---	---	---	---	---	---	---	---	---	0.93	0.39	0.16
4	---	---	---	---	---	---	---	---	---	0.92	0.39	0.16
5	---	---	---	---	---	---	---	---	---	0.92	0.36	0.16
6	---	---	---	---	---	---	---	---	---	1.0	0.36	0.17
7	---	---	---	---	---	---	---	---	---	0.97	0.47	0.34
8	---	---	---	---	---	---	---	---	---	0.82	0.40	0.42
9	---	---	---	---	---	---	---	---	---	0.80	0.37	1.0
10	---	---	---	---	---	---	---	---	---	0.77	0.35	0.62
11	---	---	---	---	---	---	---	---	---	0.73	0.34	0.40
12	---	---	---	---	---	---	---	---	---	0.66	0.31	0.34
13	---	---	---	---	---	---	---	---	---	0.63	0.31	0.31
14	---	---	---	---	---	---	---	---	---	0.62	0.30	0.30
15	---	---	---	---	---	---	---	---	---	0.61	0.30	0.28
16	---	---	---	---	---	---	---	---	---	0.64	0.29	0.43
17	---	---	---	---	---	---	---	---	---	0.62	0.26	0.49
18	---	---	---	---	---	---	---	---	---	0.56	0.25	0.37
19	---	---	---	---	---	---	---	---	---	0.54	0.25	0.33
20	---	---	---	---	---	---	---	---	---	0.51	0.24	0.31
21	---	---	---	---	---	---	---	---	---	0.50	0.23	0.30
22	---	---	---	---	---	---	---	---	---	0.50	0.25	0.29
23	---	---	---	---	---	---	---	---	---	0.49	0.26	0.28
24	---	---	---	---	---	---	---	---	---	0.45	0.24	0.27
25	---	---	---	---	---	---	---	---	---	0.45	0.22	0.27
26	---	---	---	---	---	---	---	---	---	0.45	0.22	0.26
27	---	---	---	---	---	---	---	---	---	0.43	0.22	0.27
28	---	---	---	---	---	---	---	---	---	0.39	0.22	0.27
29	---	---	---	---	---	---	---	---	---	0.39	0.20	0.32
30	---	---	---	---	---	---	---	---	---	0.34	0.20	0.35
31	---	---	---	---	---	---	---	---	---	0.34	0.18	---
TOTAL	---	---	---	---	---	---	---	---	---	19.91	9.06	9.82
MEAN	---	---	---	---	---	---	---	---	---	0.64	0.29	0.33
MAX	---	---	---	---	---	---	---	---	---	1.0	0.47	1.0
MIN	---	---	---	---	---	---	---	---	---	0.34	0.18	0.16
AC-FT	---	---	---	---	---	---	---	---	---	39	18	19
CFSM	---	---	---	---	---	---	---	---	---	0.20	0.09	0.10
IN.	---	---	---	---	---	---	---	---	---	0.24	0.11	0.12

14319835 NORTH FORK HINKLE CREEK NEAR NONPAREIL, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	0.38	7.2	31	20	20	8.0	2.7	7.6	1.9	0.78	0.54
2	0.32	0.49	e5.6	22	20	20	7.0	2.5	6.4	1.9	0.77	0.61
3	0.33	0.56	e5.4	17	17	17	6.3	2.4	5.6	1.9	0.76	0.57
4	0.34	0.52	e5.2	14	16	18	5.8	2.3	4.9	1.8	0.76	0.52
5	0.34	0.86	e7.2	13	14	21	5.5	2.2	4.6	1.7	0.80	0.49
6	0.32	0.69	e14	18	14	19	5.3	2.2	4.6	1.6	0.75	0.44
7	0.42	0.60	9.5	29	16	17	5.0	2.3	5.3	1.6	0.73	0.41
8	0.37	0.58	11	33	16	15	4.8	2.4	8.2	1.5	0.68	0.39
9	0.42	0.56	12	31	14	13	4.5	2.1	13	1.5	0.63	0.40
10	0.42	0.53	15	25	13	11	4.3	2.5	24	1.4	0.60	0.37
11	0.47	0.76	14	21	12	10	4.2	3.8	21	1.4	0.59	0.45
12	0.56	0.78	e18	19	11	9.3	4.1	3.5	16	1.3	0.59	0.67
13	0.39	0.64	e60	18	9.8	8.5	4.0	2.9	13	1.3	0.57	0.84
14	0.32	0.57	e45	17	9.2	7.8	4.2	2.6	10	1.2	0.52	0.74
15	0.44	0.72	e32	16	8.7	7.2	4.9	2.4	7.9	1.2	0.52	1.3
16	0.47	2.0	20	14	12	6.8	5.0	2.3	6.5	1.2	0.51	0.97
17	0.32	7.8	19	13	20	6.4	4.7	2.3	5.2	1.1	0.49	1.6
18	0.27	4.6	19	12	23	6.2	4.8	13	4.4	1.1	0.49	3.7
19	0.25	5.8	e17	13	23	5.9	5.0	17	4.0	1.1	0.48	2.2
20	0.29	6.0	e15	14	20	5.5	7.6	11	3.6	1.1	0.48	2.0
21	0.34	5.2	13	12	16	5.3	13	8.3	3.3	1.0	0.47	1.5
22	0.42	4.3	11	11	14	5.1	14	6.8	3.2	0.97	1.8	1.1
23	0.63	3.7	9.5	17	13	5.1	10	5.9	3.1	0.93	1.2	0.88
24	0.44	5.1	14	28	12	5.6	7.8	5.2	3.1	0.89	1.2	0.75
25	0.36	6.1	17	25	11	5.6	6.4	4.5	2.9	0.86	1.4	0.73
26	0.32	8.3	15	21	14	6.5	5.2	4.0	2.7	0.85	2.3	0.81
27	0.29	6.3	13	25	17	7.4	4.3	5.7	2.4	0.82	1.3	0.73
28	0.26	5.6	15	25	18	6.3	3.7	19	2.3	0.81	0.91	0.69
29	0.46	11	31	23	17	5.6	3.2	17	2.3	0.80	0.72	0.67
30	0.56	10	22	24	---	8.6	2.9	13	2.0	0.77	0.58	0.70
31	0.42	---	18	22	---	9.7	---	9.7	---	0.78	0.51	---
TOTAL	11.90	101.04	529.6	623	440.7	315.4	175.5	183.5	203.1	38.28	24.89	27.77
MEAN	0.38	3.37	17.1	20.1	15.2	10.2	5.85	5.92	6.77	1.23	0.80	0.93
MAX	0.63	11	60	33	23	21	14	19	24	1.9	2.3	3.7
MIN	0.25	0.38	5.2	11	8.7	5.1	2.9	2.1	2.0	0.77	0.47	0.37
AC-FT	24	200	1,050	1,240	874	626	348	364	403	76	49	55
CFSM	0.12	1.07	5.42	6.38	4.82	3.23	1.86	1.88	2.15	0.39	0.25	0.29
IN.	0.14	1.19	6.25	7.36	5.20	3.72	2.07	2.17	2.40	0.45	0.29	0.33

WTR YR 2004 TOTAL 2,674.68 MEAN 7.31 MAX 60 MIN 0.25 AC-FT 5310 CFSM 2.32 IN. 31.59

e Estimated

14321000 UMPQUA RIVER NEAR ELKTON, OR

LOCATION.--Lat 43°35'10", long 123°33'15", in NW ¼ sec.8, T.23 S., R.7 W., Douglas County, Hydrologic Unit 17100303, on left bank 3.5 mi south of Elkton, 8.3 mi upstream from Elk Creek, and at mile 56.9.

DRAINAGE AREA.--3,683 mi².

PERIOD OF RECORD.--October 1905 to current year.

REVISED RECORDS.--WSP 1184: 1927(M), 1938(M), 1943(M), 1946(M). WSP 1448: 1911-13, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 90.42 ft above NGVD of 1929. Prior to June 29, 1972, at site 2,400 ft downstream at same datum. See WSP 1931 or 2135 for history of changes prior to June 29, 1972.

REMARKS.--No estimated daily discharges. Records fair. Regulation by powerplants on North Umpqua River ordinarily does not affect discharge at this station. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--99 years (water years 1906-2004), 7,372 ft³/s, 27.19 in/yr, 5,340,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 265,000 ft³/s Dec. 23, 1964, gage height, 51.95 ft, from floodmarks; minimum discharge observed, 640 ft³/s July 18, 1926.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least December 1861, 51.95 ft on Dec. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 52,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 14	0630	*104,000	*29.27				
						No other peak greater than base discharge.	

Minimum discharge, 960 ft³/s, Aug. 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,030	1,110	9,200	19,200	24,400	14,700	6,230	4,880	5,340	1,780	1,100	1,140
2	1,040	1,140	6,200	32,600	19,900	17,300	5,610	4,630	4,630	1,750	1,090	1,110
3	1,040	1,170	5,050	20,900	18,000	15,600	5,050	4,580	4,230	1,720	1,080	1,110
4	1,050	1,230	4,670	15,500	15,200	13,300	4,630	4,510	3,950	1,700	1,090	1,120
5	1,070	1,300	4,630	13,100	12,700	12,900	4,380	4,460	3,700	1,680	1,100	1,140
6	1,070	1,350	6,290	11,800	10,900	14,500	4,300	4,240	3,510	1,650	1,110	1,130
7	1,090	1,370	15,100	15,300	11,200	15,000	4,230	4,070	3,450	1,600	1,110	1,140
8	1,110	1,390	12,100	20,200	12,300	12,600	4,090	3,810	3,680	1,540	1,110	1,130
9	1,120	1,360	11,000	24,800	11,300	11,500	3,960	3,840	4,030	1,500	1,110	1,140
10	1,120	1,330	8,540	24,500	9,880	11,000	3,880	3,720	4,330	1,470	1,090	1,140
11	1,140	1,340	7,570	19,600	8,800	9,980	3,780	3,600	5,200	1,450	1,070	1,150
12	1,180	1,330	6,100	15,800	8,050	8,890	3,730	4,070	5,380	1,450	1,050	1,160
13	1,210	1,370	32,100	14,600	7,510	8,160	3,730	4,420	4,710	1,420	1,020	1,190
14	1,240	1,410	86,700	13,900	7,070	7,570	3,880	3,970	4,110	1,400	988	1,220
15	1,240	1,390	38,300	14,900	6,770	7,050	4,080	3,650	3,690	1,360	975	1,270
16	1,240	1,340	20,200	14,500	7,320	6,670	4,310	3,410	3,370	1,310	977	1,330
17	1,270	1,440	14,200	12,000	14,800	6,270	4,370	3,330	3,120	1,260	989	1,400
18	1,290	3,710	12,700	10,200	35,500	6,000	4,200	3,370	2,930	1,260	1,000	1,520
19	1,250	3,770	12,700	9,600	30,900	5,900	4,020	5,050	2,740	1,270	1,010	1,580
20	1,200	2,680	12,200	11,600	21,500	5,790	4,200	7,230	2,570	1,270	991	1,870
21	1,160	2,820	11,900	12,000	16,300	5,450	7,420	6,110	2,450	1,260	986	1,710
22	1,150	2,540	9,990	9,820	13,100	5,210	16,400	5,320	2,330	1,260	997	1,690
23	1,130	2,170	8,300	8,610	11,400	5,280	13,000	4,880	2,250	1,250	1,010	1,580
24	1,120	1,900	7,580	17,100	10,200	5,470	9,600	4,600	2,210	1,250	1,110	1,480
25	1,130	1,830	12,900	23,900	9,500	5,580	7,880	4,160	2,150	1,220	1,240	1,400
26	1,140	2,140	16,100	18,600	10,800	5,730	6,810	3,770	2,090	1,200	1,240	1,350
27	1,140	2,810	12,400	19,700	19,300	6,200	6,180	3,590	1,990	1,170	1,290	1,300
28	1,130	3,030	10,600	26,700	17,800	6,880	5,830	3,770	1,920	1,150	1,570	1,260
29	1,120	2,830	18,100	28,900	15,200	6,560	5,660	7,630	1,860	1,140	1,420	1,240
30	1,090	8,510	27,400	30,800	---	5,930	5,320	7,800	1,800	1,130	1,330	1,230
31	1,100	---	18,200	33,300	---	6,340	---	6,370	---	1,110	1,220	---
TOTAL	35,410	63,110	479,020	564,030	417,600	275,310	170,760	142,840	99,720	42,980	34,473	39,230
MEAN	1,142	2,104	15,450	18,190	14,400	8,881	5,692	4,608	3,324	1,386	1,112	1,308
MAX	1,290	8,510	86,700	33,300	35,500	17,300	16,400	7,800	5,380	1,780	1,570	1,870
MIN	1,030	1,110	4,630	8,610	6,770	5,210	3,730	3,330	1,800	1,110	975	1,110
AC-FT	70,240	125,200	950,100	1,119,000	828,300	546,100	338,700	283,300	197,800	85,250	68,380	77,810
CFSM	0.31	0.57	4.20	4.94	3.91	2.41	1.55	1.25	0.90	0.38	0.30	0.36
IN.	0.36	0.64	4.84	5.70	4.22	2.78	1.72	1.44	1.01	0.43	0.35	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2004, BY WATER YEAR (WY)

MEAN	1,852	6,923	13,420	15,860	14,930	12,110	9,509	6,471	3,711	1,714	1,175	1,196
MAX	14,200	29,500	51,220	34,900	32,800	27,100	20,480	15,800	9,526	5,063	1,867	3,475
(WY)	(1951)	(1974)	(1965)	(1956)	(1907)	(1972)	(1937)	(1921)	(1953)	(1913)	(1976)	(1920)
MIN	857	832	1,238	1,440	1,365	2,909	2,432	1,934	1,053	742	703	740
(WY)	(1930)	(1930)	(1977)	(1977)	(1977)	(1992)	(1926)	(1934)	(1926)	(1926)	(1931)	(1931)

14321000 UMPQUA RIVER NEAR ELKTON, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1906 - 2004	
ANNUAL TOTAL	2,467,856		2,364,483		7,372	
ANNUAL MEAN	6,761		6,460		13,360	
HIGHEST ANNUAL MEAN					2,321	
LOWEST ANNUAL MEAN					1974	
HIGHEST DAILY MEAN	86,700	Dec 14	86,700	Dec 14	260,000	Dec 23, 1964
LOWEST DAILY MEAN	918	Aug 30	975	Aug 15	663	Sep 1, 1931
ANNUAL SEVEN-DAY MINIMUM	930	Aug 27	990	Aug 15	663	Sep 1, 1931
ANNUAL RUNOFF (AC-FT)	4,895,000		4,690,000		5,340,000	
ANNUAL RUNOFF (CFSM)	1.84		1.75		2.00	
ANNUAL RUNOFF (INCHES)	24.93		23.88		27.19	
10 PERCENT EXCEEDS	15,500		15,500		17,100	
50 PERCENT EXCEEDS	3,710		3,780		3,910	
90 PERCENT EXCEEDS	1,040		1,110		1,060	



2004 Water Year
UMPQUA RIVER BASIN

14321000 UMPQUA RIVER NEAR ELKTON, OR

Latitude: 43° 35 ' 10"

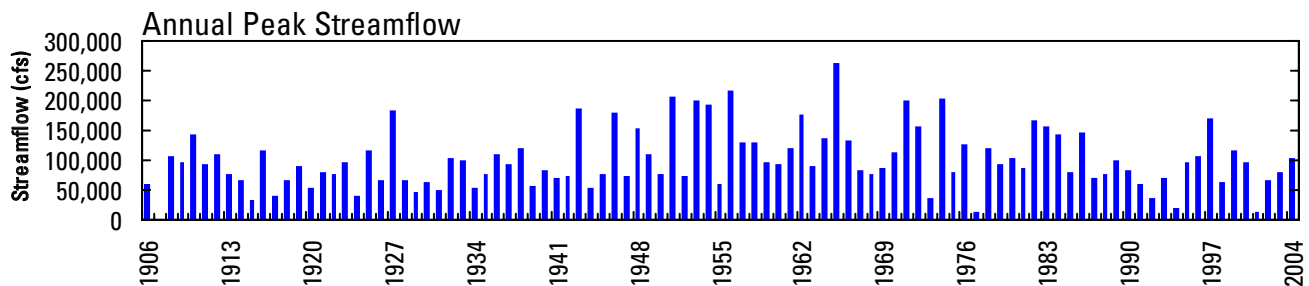
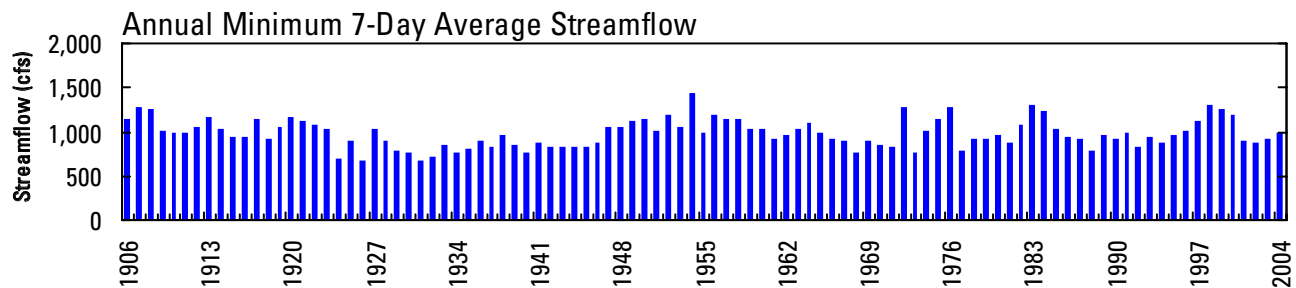
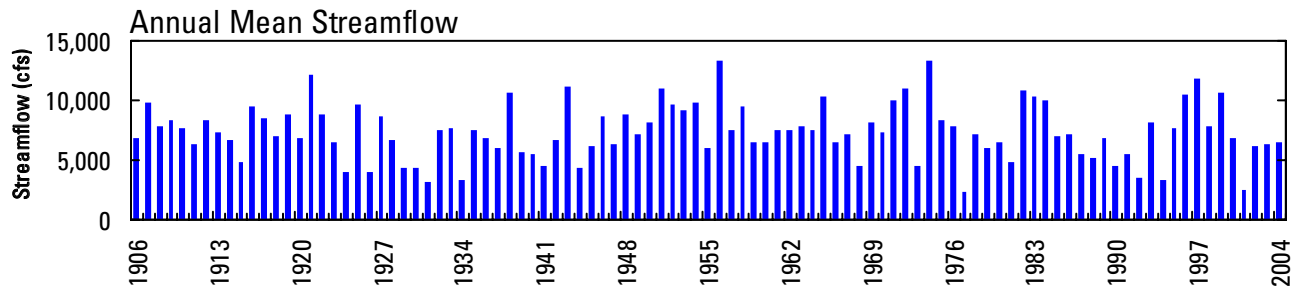
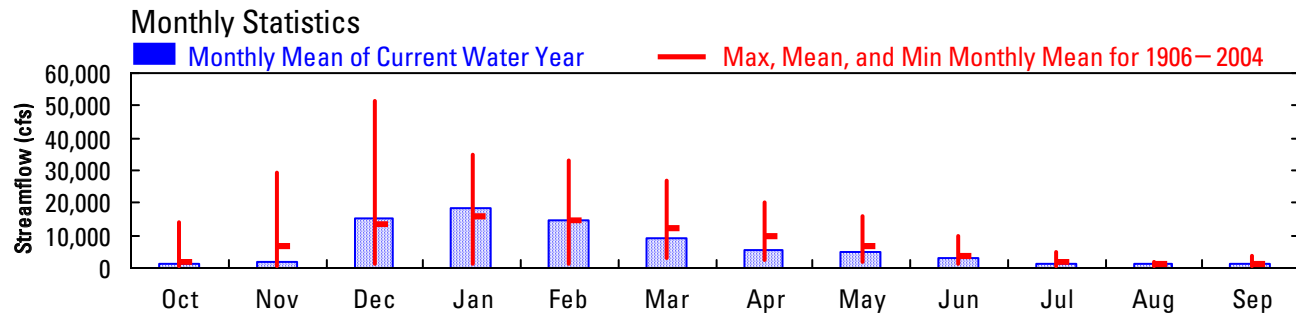
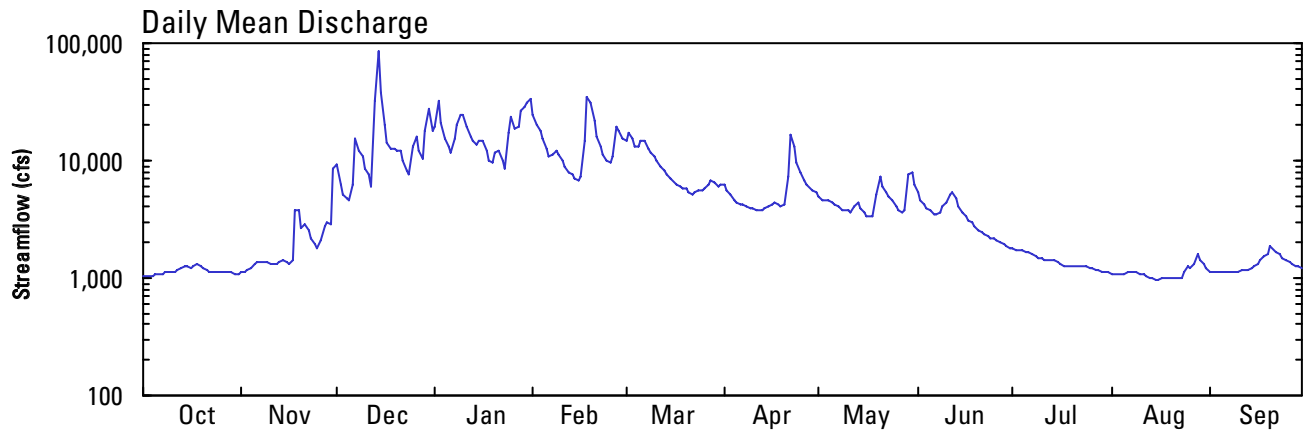
Longitude: 123° 33 ' 15"

Hydrologic Unit Code: 17100303

Douglas County

Datum: 90.42 feet

Drainage Area: 3,683 square miles



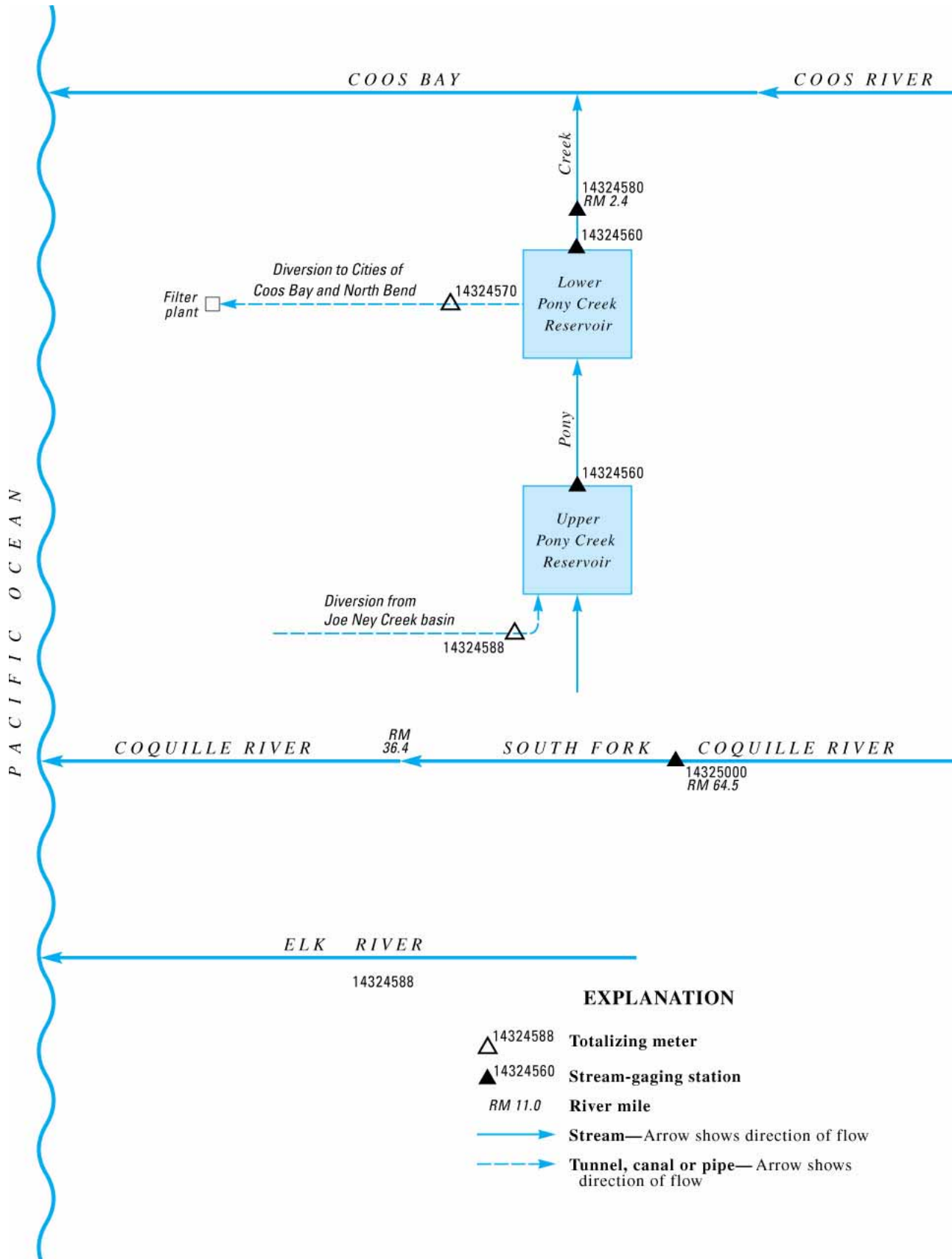


Figure 32. Schematic diagram showing gaging stations and diversions in the Pony Creek Basin.

14324580 PONY CREEK AT COOS BAY, OR

LOCATION.--Lat 43°22'44", long 124°14'29", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.28, T.25 S., R.13 W., Coos County, Hydrologic Unit 17100304, at spillway for Lower Pony Creek Reservoir, in Coos Bay, and at mile 2.3.

DRAINAGE AREA.--3.88 mi².

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR OR-93-1: Drainage Area.

GAGE.--Water-stage recorder. Datum of gage is NAVD of 1988 (Coos Bay-North Bend Water Board bench mark). Oct. 1, 1982 to September 30, 1987, gage at site 500 ft downstream at datum 2.9 ft higher. July 1975 to Sept. 30, 1982 and Oct. 1, 1987 to Sept. 30, 1992, at site 0.1 mi downstream, at datum 15.13 ft above NGVD of 1929. Oct. 1, 1992 to July 19, 2001 at same site at datum 2.9 ft higher.

REMARKS.--Records good. Records prior to 1993 were computed for site at the lower end of culvert under Ocean Boulevard. Flow regulated by Upper and Lower Pony Creek Reservoirs (stations 14324550 and 14324560), diversion upstream from station from Lower Pony Creek Reservoir to municipal water supply of Coos Bay-North Bend (station 14323570) and diversion into the basin from Joe Ney Creek (station 14324590). Approximately 5.5 ft³/s is diverted to the Coos Bay-North Bend water treatment plant, maximum capacity, 10.8 ft³/s.

COOPERATION.--Data for diversion from Joe Ney Creek into Pony Creek (14324590), diversion from Lower Pony Creek Reservoir to City of Coos Bay (14324570) and contents of Upper Pony Creek Reservoir provided by Coos Bay-North Bend Water Board.

AVERAGE DISCHARGE.--29 years (water years 1976-2004), 10.10 ft³/s, 35.17 in/yr, 7,342 acre-ft/yr, adjusted for Joe Ney diversion into Pony Creek, Coos Bay-North Bend diversion, and change in contents in Upper and Lower Pony Creek Reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s Dec. 6, 1981, gage height, 6.19 ft; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft³/s Dec. 13, gage height, 42.02 ft; minimum discharge, no flow many days during year.

MONTHLY DISCHARGE OF PONY CREEK, JOE NEY CREEK DIVERSION, PONY CREEK DIVERSION AND MONTHLY CHANGE IN CONTENTS OF RESERVOIRS NEAR COOS BAY, OR, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

	14324588 Diversion from Joe Ney Creek into Pony Creek (acre-feet)	14324580 Pony Creek at Coos Bay (acre-feet)	14324570 Diversion from Lower Pony Creek Reservoir to City of Coos Bay (acre-feet)	14324560 Lower Pony Creek Reservoir Change in Contents (acre-feet)	143224550 Upper Pony Creek Reservoir Change in Contents (acre-feet)	Pony Creek adjusted for diversion and change in contents (acre-feet) (inches)	
October.....	0	179.3	348.0	-2.7	-630.0	-105.0	-0.51
November.....	0	281.3	292.3	+11.4	-460.0	125.0	0.60
December.....	0	370.0	338.2	+2.7	+583.0	1,294.0	6.22
CAL YR 2003...	-114.8	3,120.0	4,388.0	+46.6	+1,642.0	8,049.0	38.70
January.....	-13.7	330.4	324.4	-1.3	+679.0	1,319.0	6.34
February.....	-165.9	322.7	289.9	-3.1	743+0	1,187.0	5.71
March.....	-135.8	139.6	304.9	-2.2	+724.0	1,031.0	4.96
April.....	-280.0	143.0	320.6	-5.7	+556.0	734.0	3.53
May.....	-15.1	163.0	344.5	-0.5	+69.0	561.0	2.70
June.....	-0.5	59.0	410.0	-6.8	-198.0	264.0	1.27
July.....	0	28.0	549.7	-116.7	-445.0	16.0	0.08
August.....	0	69.0	543.0	+123.5	-393.0	34.2	1.65
September.....	0	118.0	425.6	-26.8	-583.0	66.2	-0.32
WTR YR 2004...	-611.0	2,200.0	4,491.0	-28.2	+645.0	6,700.0	32.20

Note - Negative adjusted runoff for October and September was the result of unmeasured losses from the reservoirs, primarily evaporation exceeding natural flow and possible inaccuracies in the capacity tables at the lower ends.

14324580 PONY CREEK AT COOS BAY, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.7	4.8	19	6.9	5.6	2.7	3.3	0.86	0.00	0.00	1.3
2	1.9	4.3	4.0	18	6.8	3.3	2.2	4.5	0.73	0.95	0.00	1.3
3	1.9	2.9	5.5	7.5	4.8	3.4	2.2	2.2	0.43	3.8	0.00	1.4
4	2.2	3.0	4.4	7.1	4.7	2.7	1.6	3.0	0.49	5.0	0.00	1.3
5	3.9	4.0	3.2	3.7	3.3	2.0	2.1	1.5	0.82	2.4	0.00	1.7
6	1.8	4.0	7.0	2.8	3.8	2.3	2.3	1.4	1.6	1.9	0.00	2.5
7	1.2	3.0	6.6	3.9	5.1	1.6	1.7	2.4	0.92	0.00	0.00	1.8
8	2.3	3.3	4.0	8.4	5.2	1.5	1.2	3.6	0.19	0.00	0.00	0.76
9	2.8	4.5	3.6	6.7	2.8	1.5	1.0	4.2	0.49	0.00	0.00	0.41
10	2.6	2.8	6.1	6.2	2.2	0.97	1.2	1.9	0.91	0.00	0.00	0.19
11	3.1	3.7	6.5	5.3	3.1	0.58	2.1	1.3	0.69	0.00	0.00	0.86
12	4.0	4.4	6.5	2.8	4.6	0.36	1.7	0.18	0.87	0.00	0.00	2.2
13	2.6	4.3	27	2.3	4.1	0.80	2.4	1.6	1.7	0.00	0.01	1.2
14	3.3	3.1	24	2.4	5.7	1.5	2.5	3.3	0.60	0.00	1.5	0.72
15	4.8	3.3	4.7	2.6	6.7	0.70	4.5	5.4	0.23	0.00	4.0	0.48
16	3.9	5.3	0.69	2.5	15	0.48	3.9	6.1	0.47	0.00	5.2	0.98
17	2.8	3.2	0.42	3.8	15	1.3	2.0	3.8	0.34	0.00	4.8	4.0
18	2.9	2.7	1.0	3.7	14	1.9	1.5	3.8	0.25	0.00	1.9	10
19	4.4	5.4	0.98	2.3	8.2	1.8	2.6	4.7	0.30	0.00	1.0	9.9
20	2.8	5.9	0.84	2.2	3.9	2.1	4.4	5.2	0.65	0.00	0.65	3.0
21	2.2	4.8	1.6	2.1	3.3	2.9	7.0	4.2	0.13	0.00	0.03	1.5
22	3.3	4.3	0.81	1.3	3.4	2.3	3.1	2.7	0.00	0.00	0.23	1.8
23	3.7	4.8	1.5	1.4	1.6	1.6	1.7	2.7	0.00	0.00	0.55	2.7
24	3.1	3.4	4.9	3.6	1.7	2.4	2.3	0.86	2.9	0.00	1.9	2.4
25	3.5	6.8	9.5	4.4	3.6	3.2	3.0	0.19	3.8	0.00	2.7	2.1
26	4.3	7.1	5.0	3.0	5.5	4.8	1.6	0.48	3.5	0.00	2.6	3.3
27	2.6	5.0	7.2	5.9	6.6	5.2	1.1	1.2	3.4	0.00	2.1	1.4
28	2.3	7.3	9.1	7.0	5.8	4.4	2.5	2.1	1.8	0.00	1.8	0.31
29	3.6	14	11	6.9	5.3	2.1	2.3	1.4	0.79	0.00	1.4	0.00
30	3.1	8.5	6.2	10	---	2.2	1.8	1.6	0.07	0.00	1.3	0.00
31	2.2	---	7.9	7.8	---	2.9	---	1.5	---	0.00	0.96	---
TOTAL	90.4	141.8	186.54	166.6	162.7	70.39	72.2	82.31	29.93	14.05	34.63	61.51
MEAN	2.92	4.73	6.02	5.37	5.61	2.27	2.41	2.66	1.00	0.45	1.12	2.05
MAX	4.8	14	27	19	15	5.6	7.0	6.1	3.8	5.0	5.2	10
MIN	1.2	2.7	0.42	1.3	1.6	0.36	1.0	0.18	0.00	0.00	0.00	0.00
AC-FT	179	281	370	330	323	140	143	163	59	28	69	122

CAL YR2003 TOTAL 1,574.91 MEAN 4.31 MAX 27 MIN 0.00 AC-FT 3120
WTR YR2004 TOTAL 1,113.06 MEAN 3.04 MAX 27 MIN 0.00 AC-FT 2210

e Estimated



2004 Water Year

COOS RIVER BASIN

14324580 PONY CREEK AT COOS BAY, OR

Latitude: 43° 22 ' 48"

Longitude: 124° 14 ' 25"

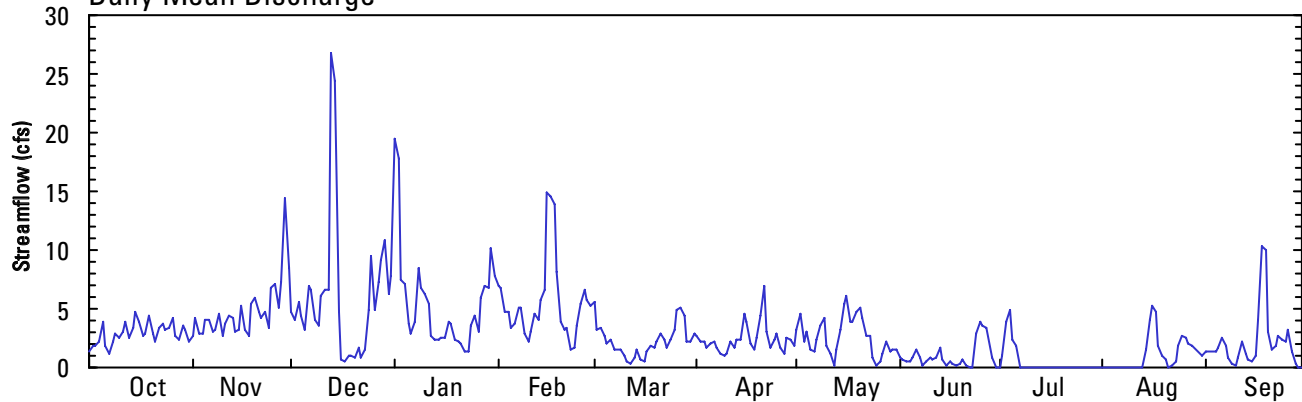
Hydrologic Unit Code: 17100304

Coos County

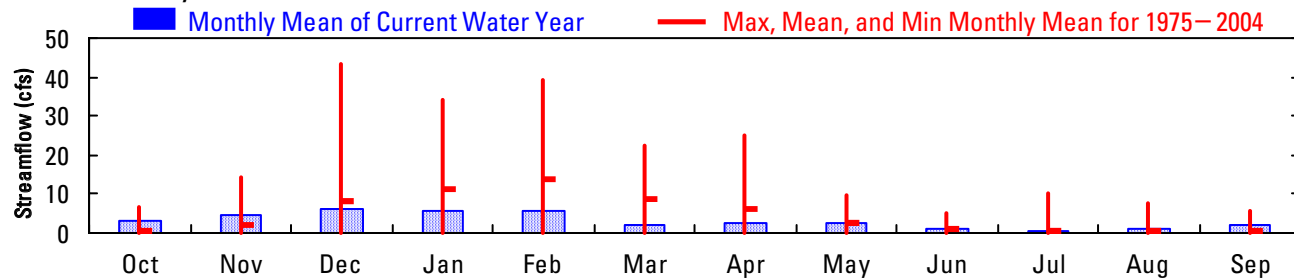
Datum: 0.0 feet

Drainage Area: 3.88 square miles

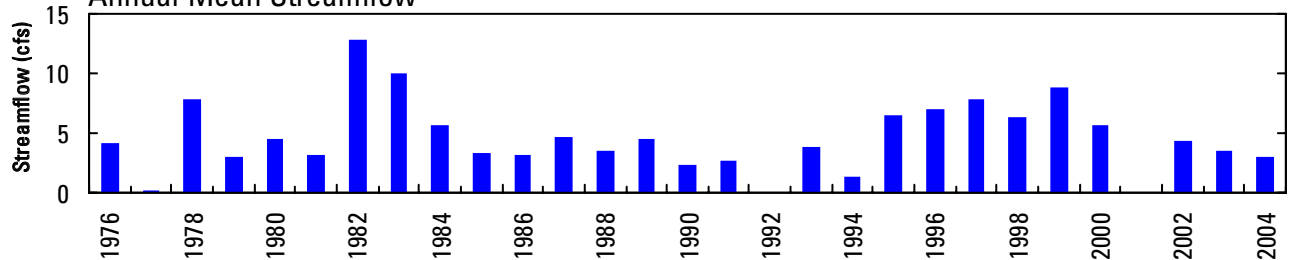
Daily Mean Discharge



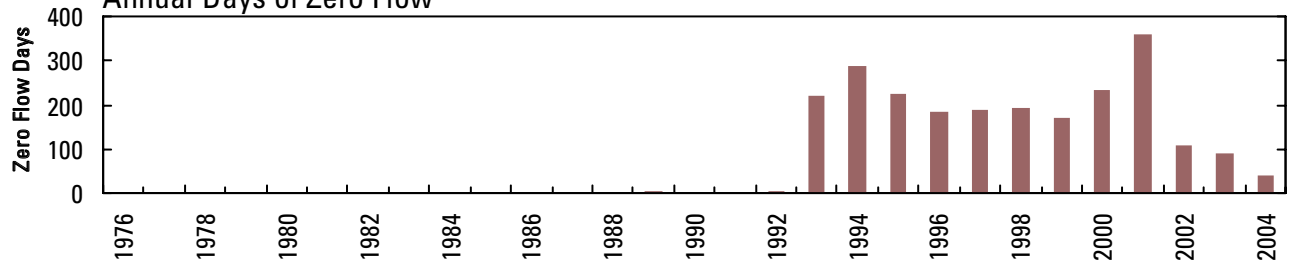
Monthly Statistics



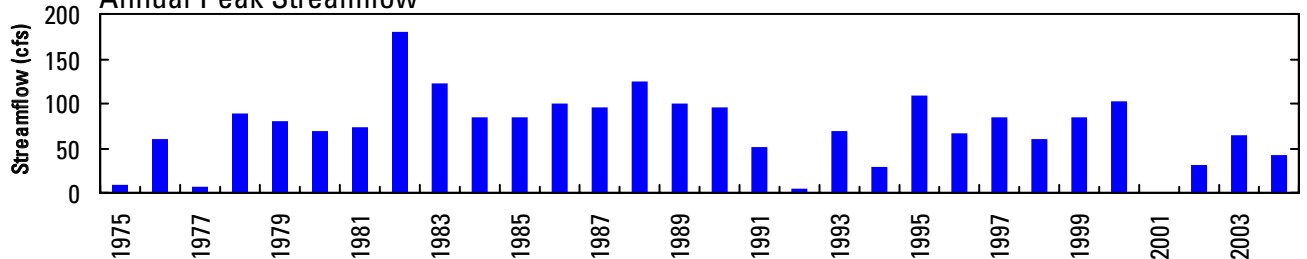
Annual Mean Streamflow



Annual Days of Zero Flow



Annual Peak Streamflow



14325000 SOUTH FORK COQUILLE RIVER AT POWERS, OR

LOCATION.--Lat 42°53'30", long 124°04'10", in SE ¼ sec.12, T.31 S., R.12 W., Coos County, Hydrologic Unit 17100305, on left bank 0.6 mi downstream from highway bridge at Powers, 0.9 mi upstream from Woodward Creek, and at mile 64.5.

DRAINAGE AREA.--169 mi².

PERIOD OF RECORD.--September 1916 to September 1926, December 1928 to current year.

REVISED RECORDS.--WSP 1184: 1946(M). WSP 1448: 1917-18(M), 1919, 1920(M), 1925.

GAGE.--Water-stage recorder. Datum of gage is 197.42 ft above NGVD of 1929. Prior to Nov. 17, 1938, nonrecording gage at various sites within 1 mi of present site at different datums. National weather Service telephone telemeter at station.

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

AVERAGE DISCHARGE.--85 years (water years 1917-26, 1930-2004), 779 ft³/s, 62.67 in/yr, 564,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft³/s Dec. 22, 1964, gage height, 26.51 ft, from floodmarks, from rating curve extended above 19,000 ft³/s on basis of contracted-opening measurement at gage height 18.14 ft and slope-area measurement of peak flow; minimum discharge, 6.4 ft³/s Oct. 10-12, 1995.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 13	2030	*16,400	*12.89				

No other peak greater than base discharge.

Minimum discharge, 14 ft³/s, Oct. 3, 4, 6, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	17	567	3,380	1,710	2,010	664	392	151	77	49	40
2	15	18	400	2,560	1,710	1,790	587	354	140	73	50	40
3	15	26	473	1,680	1,570	1,500	523	325	132	71	50	38
4	15	31	480	1,370	1,290	1,320	464	301	124	71	49	38
5	15	32	699	1,150	1,070	1,300	422	286	118	69	50	36
6	15	30	2,340	1,170	1,110	1,210	387	264	115	67	50	33
7	15	30	1,720	1,580	1,760	1,070	355	242	134	66	50	33
8	15	36	1,680	4,450	1,480	958	328	227	168	65	51	33
9	15	70	1,040	4,170	1,190	880	305	212	243	64	49	31
10	17	52	791	3,140	984	774	281	217	259	62	48	31
11	17	45	680	2,260	832	677	259	261	296	61	47	32
12	18	42	870	1,810	724	602	240	285	260	60	47	32
13	20	36	9,310	1,810	647	541	231	234	222	60	48	34
14	18	31	6,460	1,720	641	482	382	205	193	59	47	35
15	17	30	2,600	1,680	705	441	1,090	187	170	58	48	34
16	17	59	1,530	1,380	1,640	402	1,040	176	154	57	47	34
17	17	202	1,130	1,130	3,800	372	770	166	139	56	47	34
18	16	115	947	986	4,550	348	686	176	127	56	46	42
19	16	151	872	945	2,910	332	855	181	118	56	45	73
20	16	416	943	909	1,900	307	1,780	168	109	54	44	75
21	20	222	855	793	1,400	286	4,250	155	104	54	45	56
22	21	168	722	692	1,100	266	2,730	149	100	54	45	45
23	19	123	626	713	910	252	1,690	146	99	53	47	39
24	19	124	1,450	1,200	977	276	1,200	140	99	52	48	35
25	18	199	2,610	1,400	1,850	361	929	132	95	52	48	33
26	17	621	1,710	1,280	5,260	947	759	124	90	51	56	31
27	16	431	1,240	3,200	5,020	1,960	642	122	87	50	59	31
28	15	267	1,720	2,410	3,220	1,250	561	195	84	50	52	30
29	16	733	5,780	1,790	2,200	907	493	242	82	50	48	28
30	18	931	3,480	2,800	---	828	442	190	80	50	45	28
31	18	---	2,220	2,280	---	771	---	166	---	50	42	---
TOTAL	521	5,288	57,945	57,838	54,160	25,420	25,345	6,620	4,292	1,828	1,497	1,134
MEAN	16.8	176	1,869	1,866	1,868	820	845	214	143	59.0	48.3	37.8
MAX	21	931	9,310	4,450	5,260	2,010	4,250	392	296	77	59	75
MIN	15	17	400	692	641	252	231	122	80	50	42	28
AC-FT	1,030	10,490	114,900	114,700	107,400	50,420	50,270	13,130	8,510	3,630	2,970	2,250
CFSM	0.10	1.04	11.1	11.0	11.1	4.85	5.00	1.26	0.85	0.35	0.29	0.22
IN.	0.11	1.16	12.75	12.73	11.92	5.60	5.58	1.46	0.94	0.40	0.33	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2004, BY WATER YEAR (WY)

MEAN	194	1,005	1,730	1,808	1,649	1,309	918	452	171	60.7	34.6	44.4
MAX	1,945	4,232	5,361	4,244	4,151	3,818	2,451	1,568	699	186	101	384
(WY)	(1951)	(1974)	(1965)	(1970)	(1958)	(1938)	(1963)	(1953)	(1937)	(1947)	(1947)	(1978)
MIN	11.1	15.8	44.1	97.3	209	330	203	78.3	50.8	27.7	17.4	12.1
(WY)	(1988)	(1937)	(1977)	(1977)	(1977)	(1934)	(1990)	(1939)	(1924)	(1926)	(1939)	(1987)

COQUILLE RIVER BASIN

14325000 SOUTH FORK COQUILLE RIVER AT POWERS, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1917 - 2004	
ANNUAL TOTAL	236,456		241,888			
ANNUAL MEAN	648		661		779	
HIGHEST ANNUAL MEAN					1,374	1974
LOWEST ANNUAL MEAN					237	1977
HIGHEST DAILY MEAN	9,310	Dec 13	9,310	Dec 13	34,900	Dec 22, 1964
LOWEST DAILY MEAN	15	Oct 1	15	Oct 1	7.2	Oct 10, 1994
ANNUAL SEVEN-DAY MINIMUM	15	Oct 1	15	Oct 1	7.3	Oct 7, 1994
ANNUAL RUNOFF (AC-FT)	469,000		479,800		564,700	
ANNUAL RUNOFF (CFSM)	3.83		3.91		4.61	
ANNUAL RUNOFF (INCHES)	52.05		53.24		62.67	
10 PERCENT EXCEEDS	1,710		1,770		2,000	
50 PERCENT EXCEEDS	222		192		260	
90 PERCENT EXCEEDS	19		29		26	



2004 Water Year
COQUILLE RIVER BASIN

14325000 SOUTH FORK COQUILLE RIVER AT POWERS, OR

Latitude: 42° 53 ' 30"

Longitude: 124° 04 ' 10"

Hydrologic Unit Code: 17100305

Coos County

Datum: 197.42 feet

Drainage Area: 169 square miles

