Water-Data Report 2011

12145500 RAGING RIVER NEAR FALL CITY, WA

Puget Sound Basin
Snoqualmie Subbasin

LOCATION.--Lat 47°32′24″, long 121°54′28″ referenced to North American Datum of 1927, in sec.27, T.24 N., R.7 E., King County, WA, Hydrologic Unit 17110010, on right bank at highway bridge 2.0 mi southwest of Fall City, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--30.6 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1945 to September 1950, water years 1951, and 1953-63 (annual maximum), December 1963 to June 1973, October 1973 to April 1974, October 1974 to current year.

REVISED RECORDS.--WSP 1316: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 260 ft above NGVD of 1929, from topographic map. Prior to Oct. 2009, elevation 250 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1950, water-stage recorder on left bank at present site and datum. August 1951 and January 1953 to February 1963, crest-stage gage only on left bank at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Some small diversions for irrigation and domestic use upstream from station. No regulation. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--50 years (water years 1946-50, 1965-72, 1975-2011), 132 ft^3/s, 58.48 in/yr, 95,410 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,220 ft^3/s, Nov. 24, 1990, gage height, 6.56 ft, datum then in use; maximum gage height, 6.75 ft, Feb. 9, 1951, datum then in use; minimum daily discharge, 4.4 ft^3/s, Aug. 21, 1967, datum then in use.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 12	1445	*2,150	*14.73
Jan 13	1900	1,420	14.02
Jan 16	1545	1,720	14.34
Jan 21	1400	1,470	14.08
Mar 10	0715	1,620	14.23
Mar 30	2300	1,780	14.40
Apr 2	0400	1,330	13.92

Minimum discharge, 9.2 ft^3/s, Sept. 12, gage height, 10.37 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	33	452	547	115	208	149	769	156	107	56	21	12
2	30	506	325	101	169	202	1,130	162	126	e50	19	12
3	29	279	235	91	141	226	740	158	113	e45	18	12
4	28	188	181	82	189	242	773	132	93	e41	17	11
5	25	144	145	106	201	293	763	121	82	e39	17	11
6	24	153	122	233	237	226	609	134	73	e37	17	10
7	22	334	111	731	373	179	409	213	70	e35	17	10
8	22	227	186	620	283	174	303	213	96	e33	17	10
9	27	178	349	380	216	371	234	177	81	32	17	10
10	282	143	499	264	174	1,080	220	150	70	30	17	10
11	147	118	381	196	145	576	243	151	65	28	17	9.9
12	89	107	1,780	516	151	381	190	177	59	28	16	9.7
13	65	104	1,450	1,150	188	415	170	136	63	43	15	10
14	53	169	1,060	1,110	202	459	204	129	57	39	15	10
15	58	301	684	807	234	472	238	490	80	37	15	10
16	48	343	465	1,450	204	548	239	440	71	35	14	10
17	42	330	321	1,190	172	376	201	307	59	33	13	10
18	38	395	239	672	144	285	173	221	87	30	13	19
19	35	315	188	425	121	260	151	170	109	28	13	26
20	33	230	153	305	106	204	129	138	91	27	13	16
21	30	176	128	935	99	174	119	119	76	32	12	13
22	31	146	110	855	102	158	112	111	66	32	13	12
23	30	119	104	465	93	134	99	96	61	27	25	12
24	101	99	109	382	83	122	98	87	142	25	18	11
25	364	96	184	515	71	123	173	87	112	24	15	13
26	484	150	155	351	66	117	172	108	88	28	13	23
27	457	185	160	257	86	134	172	120	75	25	13	42
28	254	168	294	224	198	156	230	113	67	23	12	28
29	180	145	216	390	---	186	212	96	67	21	12	18
30	142	451	164	384	---	1,050	184	90	67	20	12	16
31	162	---	135	275	---	1,230	---	86	---	20	12	---
Total	3,365	6,751	11,180	15,577	4,656	10,702	9,459	5,088	2,473	1,003	478	426.6
Mean	109	225	361	502	166	345	315	164	82.4	32.4	15.4	14.2
Max	484	506	1,780	1,450	373	1,230	1,130	490	142	56	25	42
Min	22	96	104	82	66	117	98	86	57	20	12	9.7
Ac-ft	6,670	13,390	22,180	30,900	9,240	21,230	18,760	10,090	4,910	1,990	948	846
Cfsm	3.55	7.35	11.8	16.4	5.43	11.3	10.3	5.36	2.69	1.06	0.50	0.46
In.	4.09	8.21	13.59	18.94	5.66	13.01	11.50	6.19	3.01	1.22	0.58	0.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	71.0	220	251	275	212	184	151	90.0	66.1	30.4	18.8	30.1
Max	266	602	472	576	476	389	315	174	194	106	51.2	96.7
(WY)	(1948)	(1991)	(1976)	(2006)	(1972)	(1950)	(2011)	(2010)	(2010)	(1997)	(1976)	(1964)
Min	7.77	23.7	90.1	94.7	53.7	58.4	42.5	38.0	19.0	11.8	7.04	9.71
(WY)	(1988)	(1988)	(2003)	(1985)	(1977)	(1992)	(2004)	(1947)	(1992)	(2003)	(1967)	(1987)

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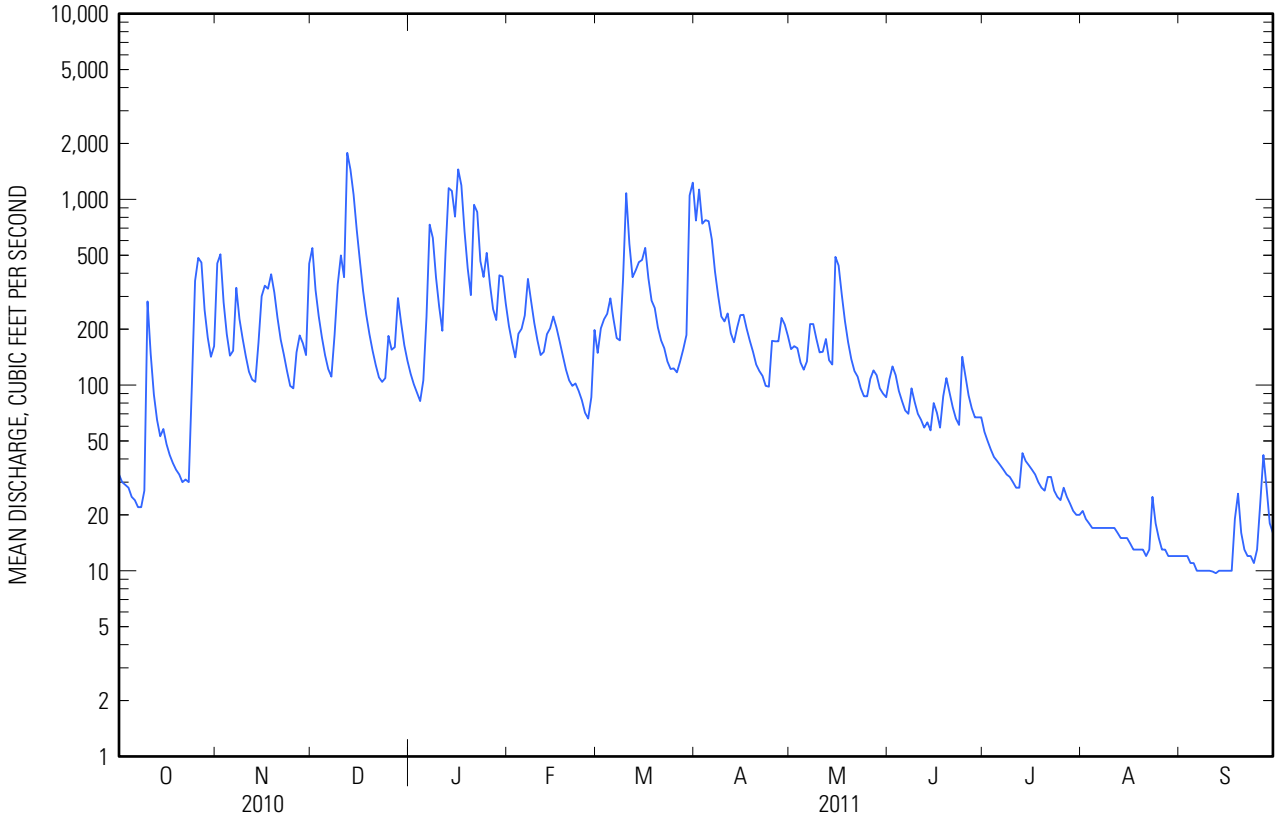
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1945 - 2011	
Annual total	53,276		71,158.6			
Annual mean	146		195		132	
Highest annual mean					206	1972
Lowest annual mean					77.8	1977
Highest daily mean	1,780	Dec 12	1,780	Dec 12	3,340	Nov 24, 1990
Lowest daily mean	11	Aug 17	9.7	Sep 12	4.4	Aug 21, 1967
Annual seven-day minimum	11	Aug 24	9.9	Sep 6	4.9	Aug 15, 1967
Annual runoff (ac-ft)	105,700		141,100		95,410	
Annual runoff (cfsm)	4.77		6.37		4.30	
Annual runoff (inches)	64.77		86.51		58.48	
10 percent exceeds	332		458		298	
50 percent exceeds	92		121		76	
90 percent exceeds	16		15		14