12424000 HANGMAN CREEK AT SPOKANE, WA

Spokane Basin
Hangman Subbasin

LOCATION.--Lat 47°39′10″, long 117°26′55″ referenced to North American Datum of 1927, in NW ¼ sec.24, T.25 N., R.42 E., Spokane County, WA, Hydrologic Unit 17010306, on left bank 0.3 mi downstream from bridge on Interstate 90 in Spokane, and at mile 0.8.

DRAINAGE AREA.--689 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1948 to September 1977; October 1977 to September 1978 (discharges above 20 ft^3/s only), October 1978 to current year. Prior to October 1958, published as Latah Creek at Spokane.

Suspended sediment October 1997 to September 2001.

REVISED RECORDS.--WSP 1933: Drainage area. WSP 2133: 1965(P).

GAGE.--Water-stage recorder. Datum of gage is 1,717.42 ft above NGVD of 1929 (levels by Corps of Engineers). Prior to Nov. 22, 1948, nonrecording gage at site 0.5 mi upstream at different datum.

REMARKS.--Records fair, except for estimated daily dicharges which are poor. No regulation. Some diversions for irrigation upstream from station. U.S Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--62 years (water years 1949-77, 1979-2011), 232 ft^3/s, 4.58 in/yr, 168,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft^3/s, Jan. 1, 1997 (measured), gage height, 14.31 ft (from outside high-water mark); minimum discharge, 0.72 ft^3/s, Aug. 5, 2004, due to regulation from upstream pipeline construction.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 15	0200	2,670	5.90
Jan 14	0415	4,470	7.45
Jan 16	1615	4,380	7.38
Jan 22	1030	2,640	5.87
Jan 25	1415	2,880	6.10
Mar 10	2200	*6,460	*8.65
Mar 16	0815	4,380	7.23
Mar 22	1000	3,550	6.70
Mar 30	2000	2,980	6.19
Apr 5	1400	3,330	6.51
May 17	0315	3,210	6.40

Minimum discharge, 12 ft^3/s, Oct. 1-3.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 12424000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/12424000.2011.pdf

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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	13	30	27	e250	567	e220	1,590	600	390	65	26	25
2	12	30	29	e200	443	232	1,400	533	359	63	24	24
3	13	28	34	e150	371	281	1,360	497	371	60	24	24
4	13	26	e35	e150	328	677	1,050	534	392	55	23	23
5	13	23	e32	e110	312	833	2,290	457	326	53	23	23
6	13	23	e33	e110	320	1,150	2,080	422	286	49	22	24
7	15	25	e33	e180	317	1,060	1,370	423	268	46	22	23
8	14	24	e36	e200	363	948	1,060	564	256	44	22	22
9	15	22	e36	e220	315	761	855	535	236	41	22	23
10	15	22	e50	e220	276	3,130	697	803	216	41	22	23
11	15	21	322	e200	254	4,450	635	579	202	39	22	22
12	15	21	441	e200	256	2,160	722	481	187	39	22	22
13	15	20	1,070	e350	277	1,750	590	437	173	43	22	22
14	16	21	1,600	3,890	305	2,050	548	411	164	42	21	22
15	17	21	1,610	3,600	323	1,690	545	370	157	43	21	22
16	17	21	684	3,580	503	3,240	838	736	151	43	21	22
17	17	21	396	3,100	652	1,840	818	2,660	144	41	20	22
18	18	25	285	2,260	477	1,220	630	1,390	142	38	20	23
19	18	28	e200	1,350	417	1,010	585	906	147	38	20	23
20	18	31	e180	866	363	1,010	539	671	153	36	20	22
21	18	35	e140	660	338	965	495	538	154	36	20	22
22	18	45	e120	1,880	302	2,740	537	462	136	35	19	23
23	19	e45	e110	1,270	280	1,550	557	418	121	34	19	22
24	22	e40	107	936	e220	1,100	544	382	107	31	19	21
25	22	e35	101	2,020	e190	981	473	352	98	31	19	22
26	23	30	103	1,420	e160	1,040	955	418	91	30	18	22
27	22	29	98	1,040	e160	1,170	1,250	957	86	30	18	22
28	21	25	112	871	e190	1,260	824	662	80	29	18	23
29	22	23	e210	752	---	1,290	718	536	76	29	18	24
30	22	23	e320	1,440	---	2,240	649	441	70	29	17	23
31	23	---	e300	1,010	---	2,180	---	403	---	26	20	---
Total	534	813	8,854	34,485	9,279	46,228	27,204	19,578	5,739	1,259	644	680
Mean	17.2	27.1	286	1,112	331	1,491	907	632	191	40.6	20.8	22.7
Max	23	45	1,610	3,890	652	4,450	2,290	2,660	392	65	26	25
Min	12	20	27	110	160	220	473	352	70	26	17	21
Ac-ft	1,060	1,610	17,560	68,400	18,400	91,690	53,960	38,830	11,380	2,500	1,280	1,350
Cfsm	0.03	0.04	0.41	1.61	0.48	2.16	1.32	0.92	0.28	0.06	0.03	0.03
In.	0.03	0.04	0.48	1.86	0.50	2.50	1.47	1.06	0.31	0.07	0.03	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	17.6	42.4	190	475	691	740	361	198	78.6	22.7	13.2	13.3
Max	48.5	216	1,251	2,097	1,776	1,914	932	1,925	434	77.7	47.3	46.2
(WY)	(1998)	(1997)	(1956)	(1997)	(1996)	(1969)	(2009)	(1948)	(1990)	(1948)	(1997)	(1997)
Min	2.30	10.4	10.9	24.0	39.5	44.1	27.0	15.1	6.21	2.43	1.29	1.01
(WY)	(1993)	(1988)	(1993)	(1979)	(1994)	(1977)	(1977)	(1992)	(1992)	(1973)	(1992)	(1992)

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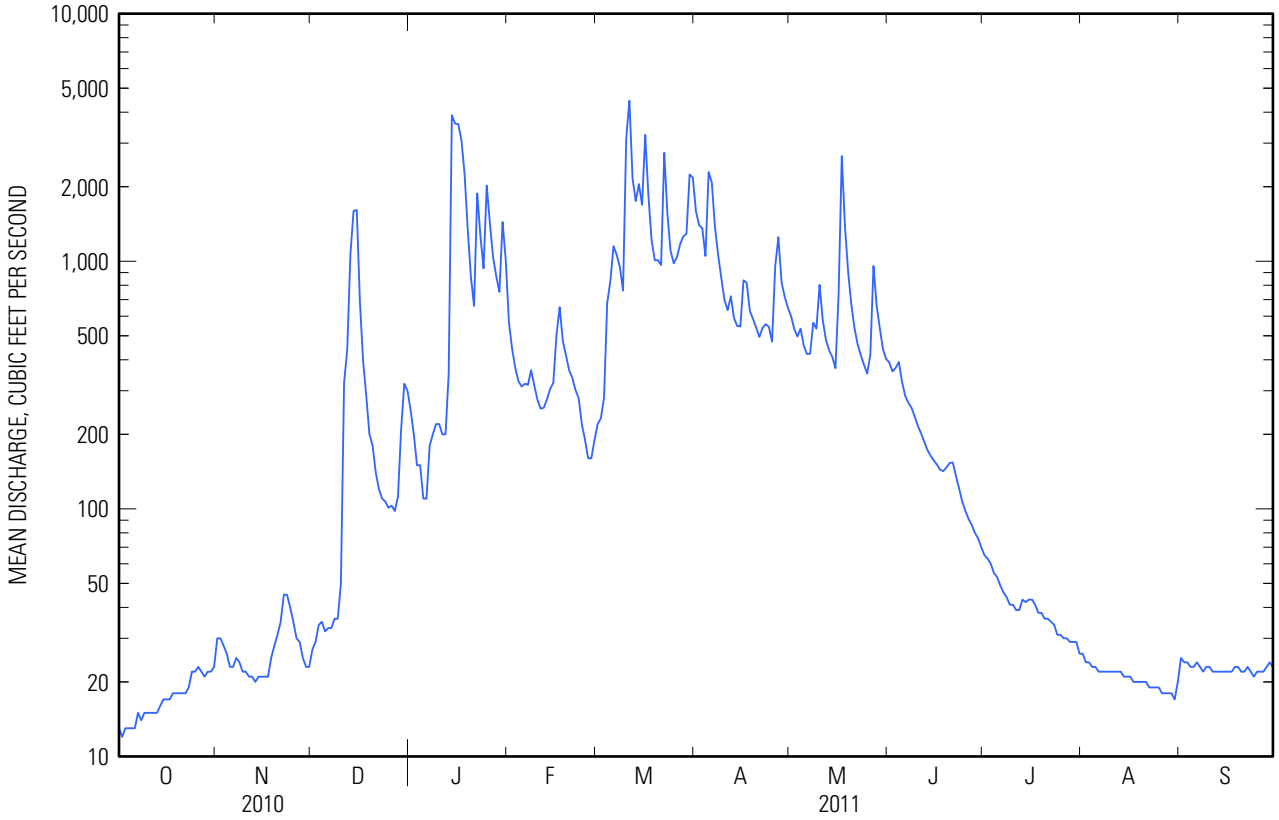
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1948 - 2011	
Annual total	45,274.9		155,297			
Annual mean	124		425		232	
Highest annual mean					629	1997
Lowest annual mean					27.3	1977
Highest daily mean	1,610	Dec 15	4,450	Mar 11	18,000	Jan 1, 1997
Lowest daily mean	9.6	Aug 27	12	Oct 2	0.81	Sep 5, 1992
Annual seven-day minimum	9.8	Aug 25	13	Oct 1	0.92	Sep 14, 1992
Annual runoff (ac-ft)	89,800		308,000		168,100	
Annual runoff (cfsm)	0.180		0.618		0.337	
Annual runoff (inches)	2.44		8.38		4.58	
10 percent exceeds	306		1,230		586	
50 percent exceeds	73		142		43	
90 percent exceeds	12		20		9.0