Water-Data Report 2011

06076560 SMITH RIVER BELOW NEWLAN CREEK, NEAR WHITE SULPHUR SPRINGS, MT

Upper Missouri Basin
Smith Subbasin

LOCATION.--Lat 46°35′27″, long 111°03′26″ referenced to North American Datum of 1927, in NW ¼ NE ¼ NE ¼ sec.35, T.10 N., R.5 E., Meagher County, MT, Hydrologic Unit 10030103, on left bank 40 ft upstream from county road bridge, 0.3 mi downstream from Newlan Creek, 7.3 mi northwest of White Sulphur Springs, and at river mile 112.1.

DRAINAGE AREA.--517 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2004 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,785 ft, referenced to the National Geodetic Vertical Datum of 1929.

REMARKS.--Records are good except for estimated daily discharges, which are poor. Flow is slightly regulated by Smith River Reservoir (station number 06075000) and Newlan Creek Reservoir. Numerous diversions for irrigation occur upstream from station. U.S. Geological Survey satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

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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	91	92	e110	e70	e60	e90	141	155	511	639	74	103
2	90	96	e110	e85	e65	90	142	149	496	583	73	116
3	90	95	e100	e80	e80	95	144	138	529	553	75	104
4	89	95	e90	e80	e95	93	129	127	585	545	75	105
5	90	95	e85	e95	e100	81	117	120	588	511	72	104
6	92	96	e95	109	e90	79	110	127	598	466	76	102
7	90	93	e100	123	e80	73	108	139	958	438	72	94
8	88	107	e110	113	e70	77	107	174	1,160	429	67	91
9	89	113	e120	e90	e65	80	107	249	1,420	417	65	90
10	89	103	e115	e75	e80	108	122	317	1,350	366	68	98
11	91	94	112	e65	e95	322	123	289	1,280	342	74	108
12	93	93	98	e80	e120	159	130	250	1,260	354	77	107
13	93	98	98	e100	e120	126	132	243	1,200	349	72	109
14	93	98	e100	102	120	126	146	250	1,140	338	68	97
15	91	101	e95	101	131	116	145	282	1,070	306	66	87
16	89	e95	e80	99	150	134	138	321	1,030	272	73	86
17	91	e90	e75	e120	124	128	130	313	948	253	78	90
18	91	e100	e80	e125	e115	121	131	314	874	244	75	84
19	92	e90	e80	e110	e95	116	141	309	877	229	73	80
20	93	e85	e80	e100	e90	112	141	313	858	212	74	78
21	93	e75	e70	e105	e95	112	140	345	815	192	75	78
22	93	e80	e75	98	e110	109	148	369	791	175	75	76
23	92	e70	e85	92	e95	100	150	412	796	159	73	74
24	92	e70	e85	e85	e75	103	174	519	851	138	72	73
25	95	e75	e85	87	e65	101	197	689	840	129	75	73
26	94	e90	e90	89	e70	97	183	744	812	125	80	75
27	92	e100	92	90	e90	102	186	722	724	121	81	77
28	91	e110	91	94	e95	101	170	663	684	98	85	76
29	91	e95	87	97	---	99	156	591	691	85	86	77
30	90	e95	e75	e90	---	96	156	586	693	79	85	81
31	91	---	e65	e75	---	111	---	553	---	72	89	---
Total	2,829	2,789	2,833	2,924	2,640	3,457	4,244	10,772	26,429	9,219	2,323	2,693
Mean	91.3	93.0	91.4	94.3	94.3	112	141	347	881	297	74.9	89.8
Max	95	113	120	125	150	322	197	744	1,420	639	89	116
Min	88	70	65	65	60	73	107	120	496	72	65	73
Ac-ft	5,610	5,530	5,620	5,800	5,240	6,860	8,420	21,370	52,420	18,290	4,610	5,340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2005 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	61.5	61.6	53.8	55.2	54.8	81.6	87.5	149	335	128	46.5	61.7
Max	91.3	93.0	91.4	94.3	94.3	114	141	347	881	297	74.9	104
(WY)	(2011)	(2011)	(2011)	(2011)	(2011)	(2007)	(2011)	(2011)	(2011)	(2011)	(2011)	(2010)
Min	36.0	40.5	41.6	34.1	39.5	54.9	58.3	71.5	77.6	24.8	19.7	23.8
(WY)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)	(2007)	(2007)	(2007)	(2007)

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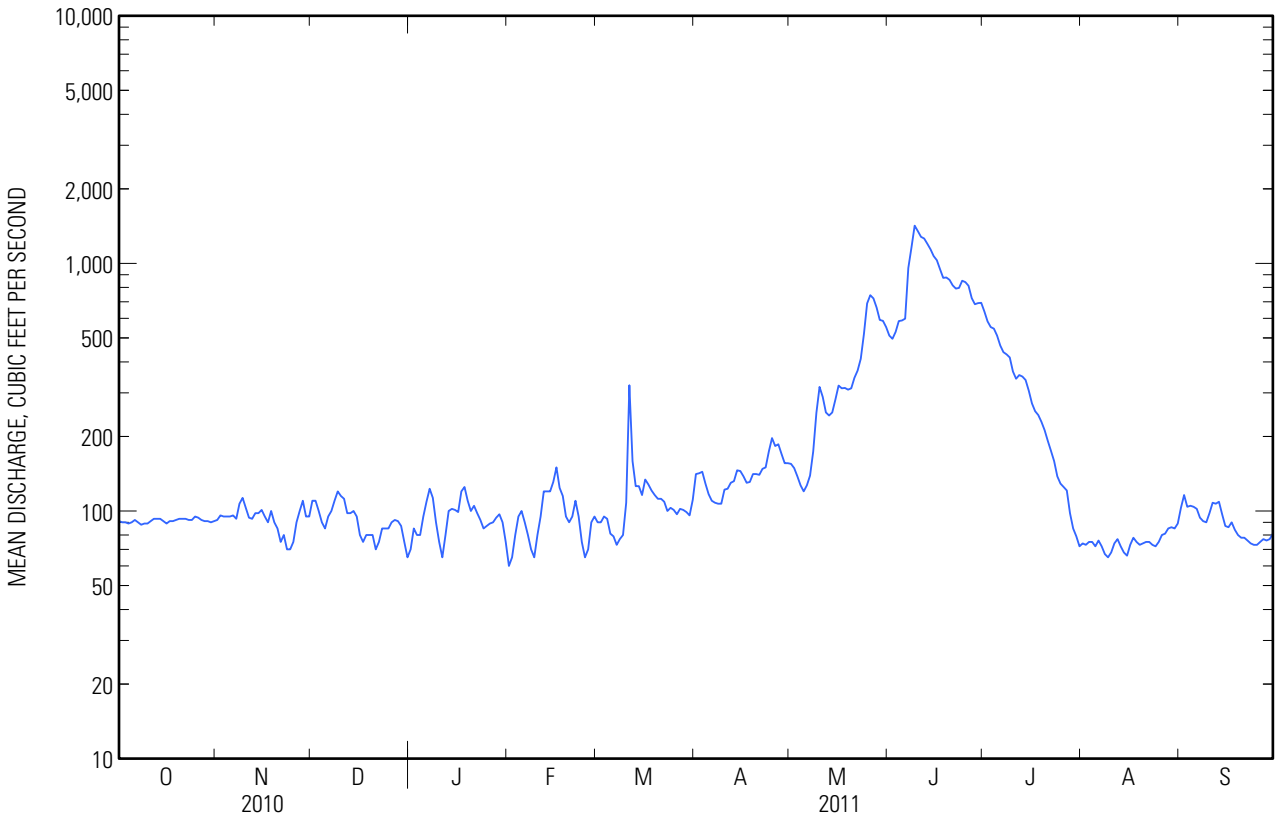
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 2005 - 2011	
Annual total	47,654		73,152			
Annual mean	131		200		98.0	
Highest annual mean					200	2011
Lowest annual mean					54.6	2007
Highest daily mean	656	Jun 11	1,420	Jun 9	1,420	Jun 9, 2011
Lowest daily mean	35	Jan 7	60	Feb 1	17	Sep 3, 2007
Annual seven-day minimum	44	Jan 4	70	Aug 9	18	Aug 28, 2007
Maximum peak flow			1,450	Jun 9	1,450	Jun 9, 2011
Maximum peak stage			5.85	Jun 9	5.85	Jun 9, 2011
Instantaneous low flow					[a]17	Aug 15, 2007
Annual runoff (ac-ft)	94,520		145,100		70,990	
10 percent exceeds	362		553		169	
50 percent exceeds	88		99		64	
90 percent exceeds	60		75		35	

[a]Gage height, 1.65 ft.