USDA United States Department of Agriculture

Natural Resources Conservation Service

Montana Water Supply Outlook Report January 1, 2013

Picture: Madison Plateau SNOTEL Site near West Yellowstone

Water Supply Outlook Report
and
Federal - State - Private
Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

Montana Water Supply Outlook Report as of January 1, 2013

Generally January 1, 2013 left the gate quite well with respect to mountain snowpack and precipitation. Temperatures remained above seasonal averages through the beginning of December hindering snowpack totals through December 1. Statewide mountain precipitation was 114 percent of average on January, down slightly from a season high of 126 percent of average on December 18. Snowpack followed much the same path through the end of December slightly below average at 103 percent of average. With snowpack near normal and year-to-date mountain precipitation slightly above average, streamflow forecasts are poised for near normal runoff in most watersheds provided future precipitation and temperatures are near normal.

Snowpack

After a slow start to the mountain snowpack during October and November, December saw a more active weather pattern with 115 percent of average monthly snow accumulation. On January 1 statewide snowpack was at 103 percent of average, a large improvement from the 81 percent of average according to SNOTEL stations on December 1. The majority of the snowfall occurred from December 1 through December 25 with high pressure dominating to the end of the month. During this eight day dry spell automated SNOTEL stations across the state registered an average 0.2 inches of snowfall. SNOTEL data reported this dry spell made a significant impact on statewide snowpack reducing the statewide average from 106 percent of average on the December 25 to 97 percent of average on January 1. Regardless, December snowfall boosted snowpack totals across all watersheds in our data collection area. Be sure to view individual reports online at http://www.mt.nrcs.usda.gov/snow/

RIVER BASIN	% OF MEDIAN	LAST YEAR % OF AVERAGE
COLUMBIA	99	78
KOOTENAI	115	88
FLATHEAD	97	68
UPPER CLARK FORK	93	82
BITTERROOT	90	90
LOWER CLARK FORK	96	90
MISSOURI	103	80
MISSOURI HEADWATERS	110	77
JEFFERSON	109	78
MADISON	107	74
GALLATIN	115	77
MISSOURI MAINSTEM	109	93
HEADWATERS MAINSTEM	94	105
SMITH-JUDITH-MUSSELSHELL	96	89
SUN-TETON-MARIAS	78	81
MILK (Bearpaw Mtns)	60	50
ST. MARY	113	78
ST. MARY & MILK	109	76
YELLOWSTONE	99	97
UPPER YELLOWSTONE	106	90
LOWER YELLOWSTONE	93	103
STATE-WIDE	103	82

Precipitation

Each month since the beginning of the water year on October 1 has received above average precipitation statewide where November saw the lowest monthly precipitation at 103 percent of average. December precipitation west of the divide was 124 percent of average while east of the divide was 114 percent of average. The Milk River Basin boasts the strongest year-to-date precipitation total at 156 percent of average. The Lower Yellowstone basins in Wyoming have the lowest year-to-date precipitation totals at 92 percent of average. At the time of this report the typical basin precipitation summaries based on National Weather Service COOP station and SNOTEL data were not available. Only automated SNOTEL station data in the mountainous areas of Montana and Wyoming were available to basin summaries. Be sure to view individual reports online at http://www.mt.nrcs.usda.gov/snow/

Reservoirs

State-wide reservoir storage was 105 percent of average and 92 percent of last year. Reservoir storage west of the divide was 112 percent of average and 100 percent of last year. East of the Divide, reservoir storage was 102 percent of average and 88 percent of last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	112	100
KOOTENAI	109	98
FLATHEAD	116	102
UPPER CLARK FORK	121	83
BITTERROOT	103	120
LOWER CLARK FORK	102	103
MISSOURI	102	88
JEFFERSON	102	70
MADISON	112	98
GALLATIN	106	96
MISSOURI MAINSTEM	102	88
SMITH-JUDITH-MUSSELSHELL	122	73
SUN-TETON-MARIAS	101	94
MILK	124	83
ST. MARY	202	223
YELLOWSTONE	105	94
UPPER YELLOWSTONE	118	94
LOWER YELLOWSTONE	105	94
STATEWIDE	105	92

Streamflow

State-wide, streamflows are forecast to be 98 percent of average. West of the divide streamflows are forecast to be 103 percent of average and east of the divide are forecast to be 95 percent of average.

Following are streamflow forecasts for the period April 1 through July 31. THE FIGURES IN THE TABLE BELOW ARE AN AVERAGE OF ALL FORECASTS WITHIN THE PARTICULAR BASIN AT THE 50 PERCENT EXCEEDANCE ONLY. FOR FORECASTS ABOVE AND BELOW THE 50 PERCENT EXCEEDANCE, LOOK TO THE SPECIFIC BASIN REPORTS.

RIVER BASIN	APRIL-JULY THIS YEAR % OF AVERAGE	APRIL-JULY LAST YEAR % OF AVERAGE
COLUMBIA	103	84
KOOTENAI	117	79
FLATHEAD	100	83
UPPER CLARK FORK	103	88
BITTERROOT	100	91
LOWER CLARK FORK	103	82
MISSOURI	98	81
JEFFERSON	95	71
MADISON	105	83
GALLATIN	96	89
MISSOURI MAINSTEM	97	80
SMITH-JUDITH-MUSSELSHELL	102	77
SUN-TETON-MARIAS	103	93
MILK	---	79
ST. MARY	103	97
YELLOWSTONE	89	99
UPPER YELLOWSTONE	99	90
LOWER YELLOWSTONE	80	107
STATEWIDE	98	86

NOTE: The APRIL-JULY LAST YEAR % OF AVERAGE column above is what was forecast last year at this same time, NOT what actually occurred.

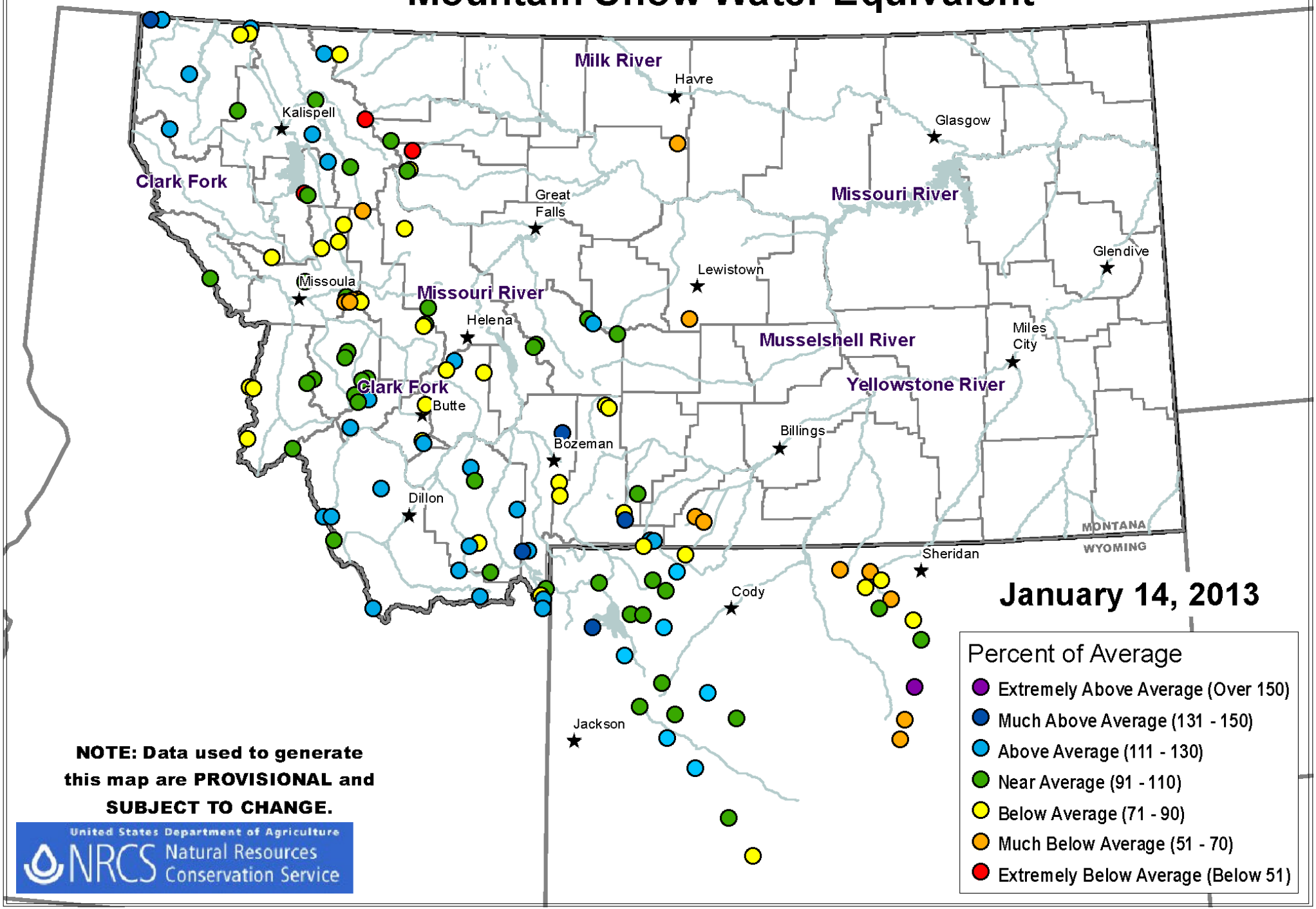
Surface Water Supply Index

The Surface Water Supply Index (SWSI) is a measure of available surface water availability for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

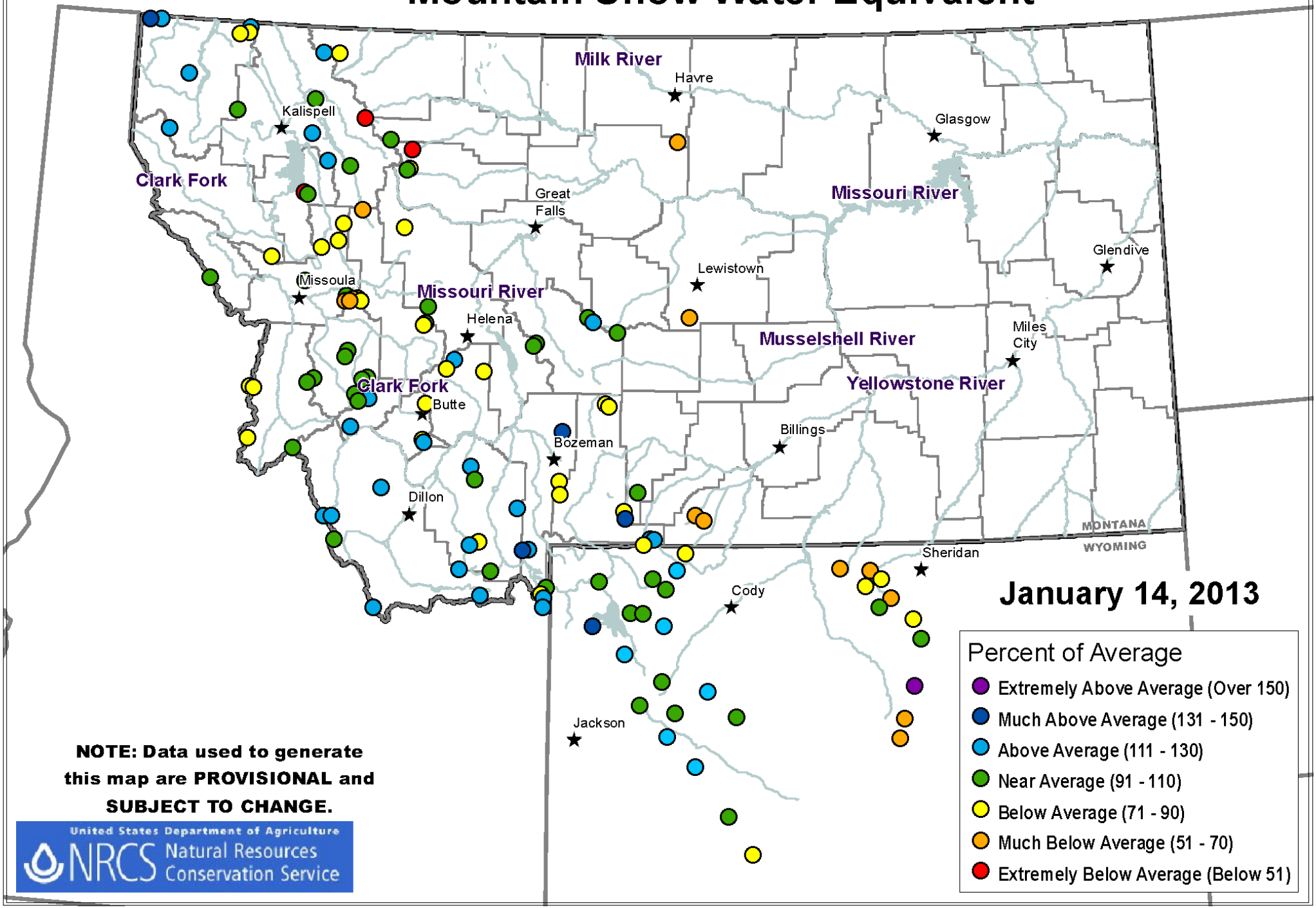
SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

This Year SWSI	Last Year SWSI	Basin
+0.8	-2.4	Tobacco River
+0.6	----	Kootenai Ft. Steele to Libby Dam
+1.3	----	Kootenai River below Libby Dam
+1.0	-1.2	Fisher River
+2.7	-0.6	Yaak River
+1.3	-2.0	North Fork Flathead River
+1.6	-0.9	Middle Fork Flathead River
+3.1	----	South Fork Flathead River
+1.7	----	Flathead River at Columbia Falls
-0.4	-1.7	Swan River
+1.2	----	Flathead River at Polson
-1.6	-2.8	Mission Valley
+1.7	+1.6	Little Bitterroot River
0.0	-0.3	Clark Fork River above Milltown
+0.2	----	Clark Fork above Missoula
0.0	-0.6	Blackfoot River
+0.1	0.0	Bitterroot River
+0.2	-1.1	Clark Fork River below Bitterroot River
+0.8	----	Clark Fork River below Flathead River
-0.3	+0.4	Beaverhead River
-0.7	----	Ruby River
-0.9	-1.0	Big Hole River
-1.2	+0.2	Boulder River (Jefferson)
+0.5	----	Jefferson River
+0.2	-0.5	Madison River
-0.8	-0.8	Gallatin River
+0.2	+0.1	Missouri River above Canyon Ferry
+0.1	-0.1	Missouri River below Canyon Ferry
+1.3	+2.7	Smith River
-0.4	0.0	Sun River
+0.4	+1.2	Teton River
-2.4	+1.2	Birch/Dupuyer Creeks
+1.5	+1.7	Upper Judith River
-1.3	+0.1	Marias River above Tiber
+1.3	----	Marias River below Tiber
+0.7	+0.6	Musselshell River
+0.6	+0.6	Missouri River above Ft. Peck
-1.1	-0.2	Missouri River below Ft. Peck
+1.8	+1.3	St. Mary River
----	+1.6	Milk River
-1.0	-0.3	Dearborn River near Craig
+0.4	+0.1	Yellowstone River above Livingston
-1.1	-2.3	Shields River
+0.1	-1.1	Boulder River (Yellowstone)
-0.9	-0.8	Stillwater River
----	----	Rock/Red Lodge Creeks
-0.2	+0.5	Clarks Fork River
+0.1	-0.1	Yellowstone River above Bighorn River
-0.3	+0.2	Bighorn River below Bighorn Lake
-3.1	+2.0	Little Bighorn River
-0.1	0.0	Yellowstone River below Bighorn River
-2.0	+2.8	Tongue River
-0.5	+1.7	Powder River

Mountain Snow Water Equivalent



Mountain Snow Water Equivalent



NOTE: Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.

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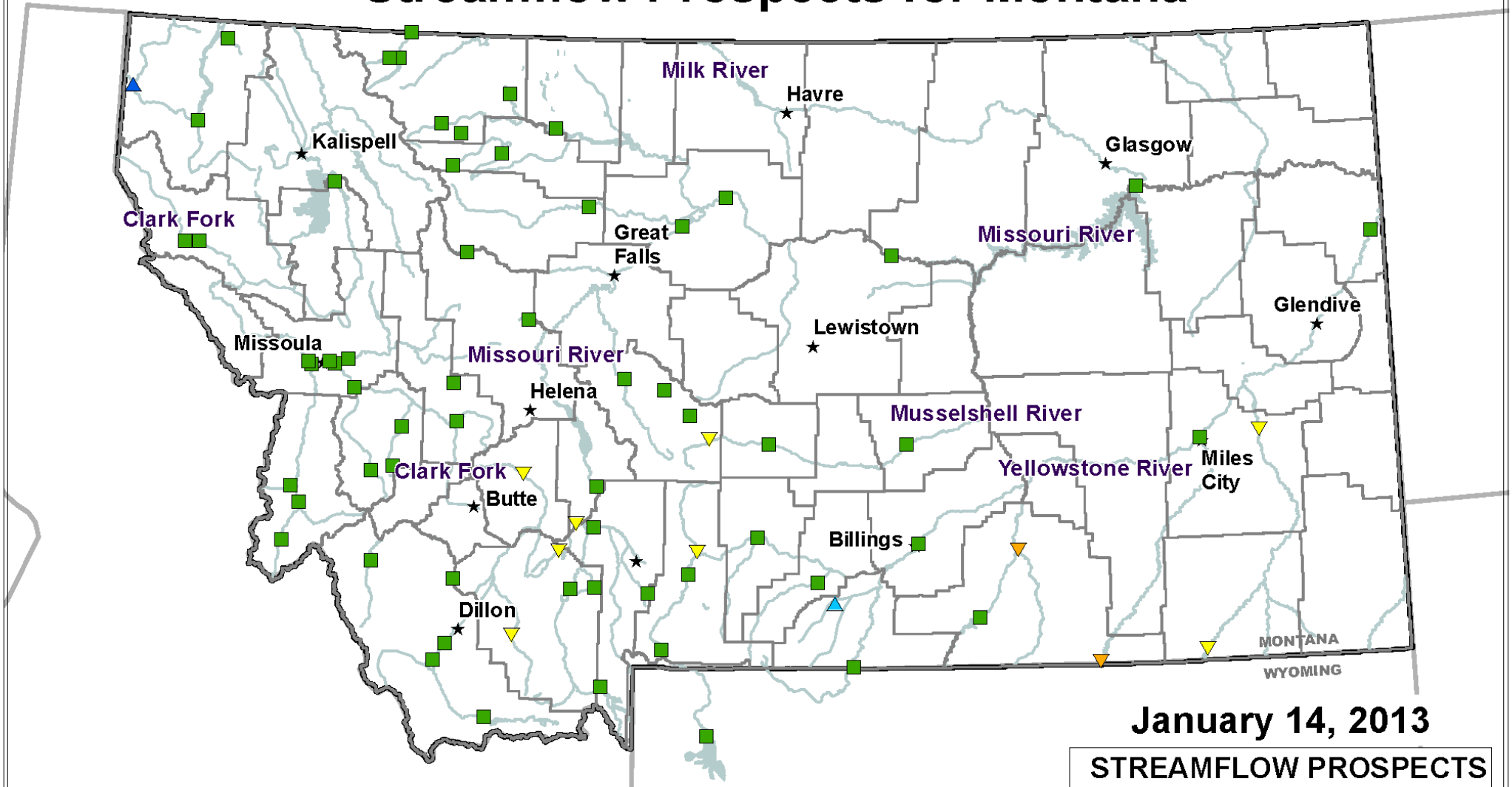
Streamflow Prospects for Montana



January 14, 2013

STREAMFLOW PROSPECTS

- Extremely Above Average (Over 150)
- Much Above Average (131 - 150
- Above Average (111 - 130)
- Near Average (91 - 110)
- Below Average (71 - 90)
- Much Below Average (51 - 70)
- Extremely Below Average (Below 51)

NOTE: Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.

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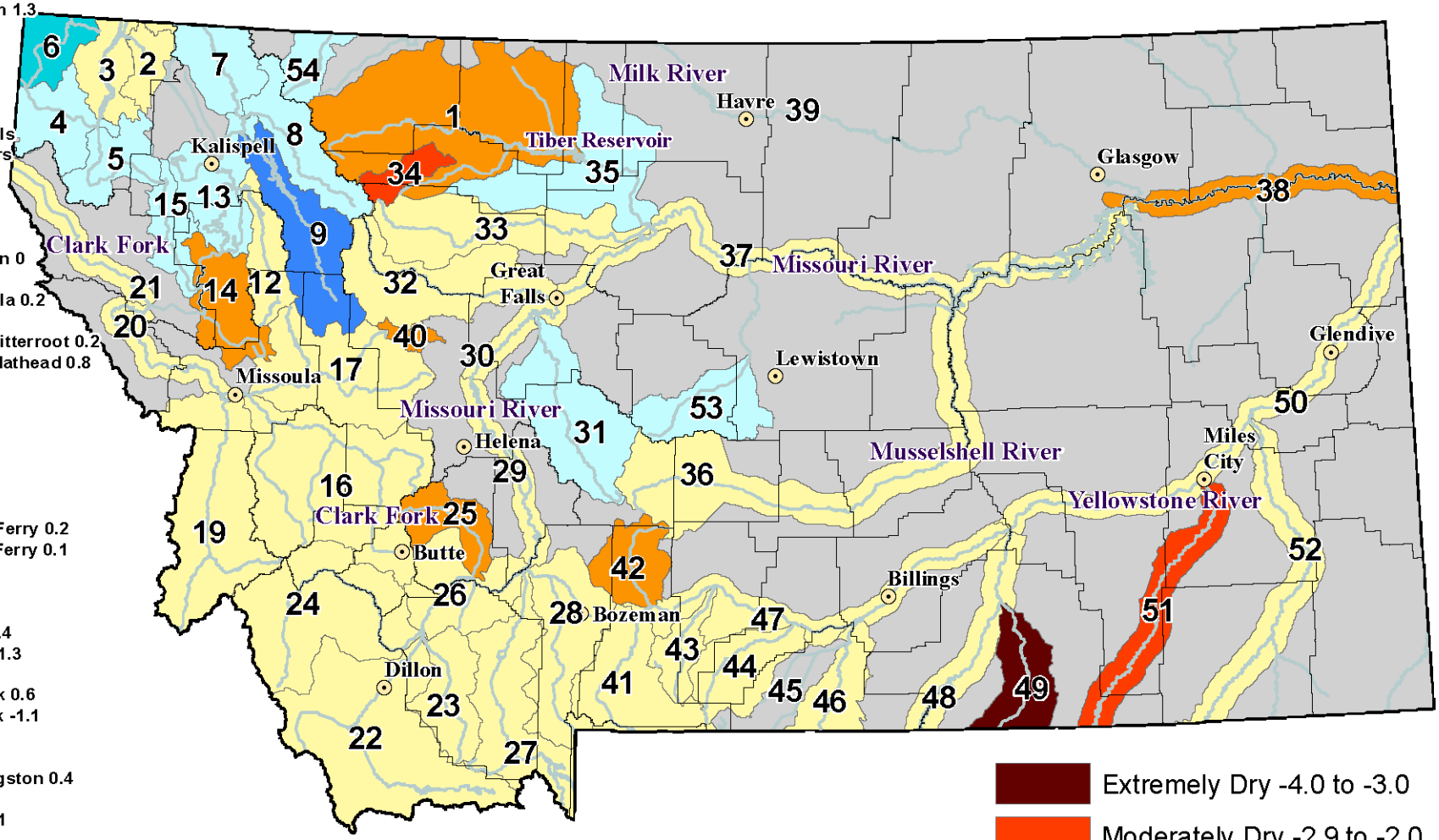
Surface Water Supply Index (SWSI) Values



RIVER INDEX & SWSI VALUES

1 Marias above Tiber Reservoir -1.3
2 Tobacco 0.8
3 Kootenai Ft. Steele to Libby Dam 0.6
4 Kootenai below Libby Dam 1.3
5 Fisher 1
6 Yaak 2.7
7 North FK. Flathead 1.3
8 Middle FK. Flathead 1.6
9 South FK. Flathead 3.1
10 Flathead at Columbia Falls
11 Stillwater/Whitefish Rivers
12 Swan -0.4
13 Flathead at Polson 1.2
14 Mission Valley -1.6
15 Little Bitterroot 1.7
16 Clark Fork above Milltown 0
17 Blackfoot 0
18 Clark Fork above Missoula 0.2
19 Bitterroot 0.1
20 Clark Fork River below Bitterroot 0.2
21 Clark Fork River below Flathead 0.8
22 Beaverhead -0.3
23 Ruby -0.7
24 Big Hole -0.9
25 Boulder (Jefferson) -1.2
26 Jefferson 0.5
27 Madison 0.2
28 Gallatin -0.8
29 Missouri above Canyon Ferry 0.2
30 Missouri below Canyon Ferry 0.1
31 Smith 1.3
32 Sun -0.4
33 Teton 0.4
34 Birch/Dupuyer Creeks -2.4
35 Marias below Tiber Res. 1.3
36 Musselshell 0.7
37 Missouri above Fort Peck 0.6
38 Missouri below Fort Peck -1.1
39 Milk
40 Dearborn near Craig -1
41 Yellowstone above Livingston 0.4
42 Shields -1.1
43 Boulder (Yellowstone) 0.1
44 Stillwater -0.9
45 Rock/Red Lodge Creeks
46 Clarks Fork Yellowstone -0.2
47 Yellowstone above Bighorn River 0.1
48 Bighorn below Bighorn Lake -0.3
49 Little Bighorn -3.1
50 Yellowstone below Bighorn -0.1
51 Tongue -2
52 Powder -0..5
53 Upper Judith 1.5
54 Saint Mary 1.8
55 Kootenay at Ft. Steele

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NRCS Natural Resources Conservation Service

January 8, 2013

NOTE: Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.

- Extremely Dry -4.0 to -3.0
- Moderately Dry -2.9 to -2.0
- Slightly Dry -1.9 to -1.0
- Near Average -0.9 to 0.9
- Slightly Wet 1.0 to 1.9
- Moderately Wet 2.0 to 2.9
- Extremely Wet 3.0 to 4.0
- SWSI Not Applicable

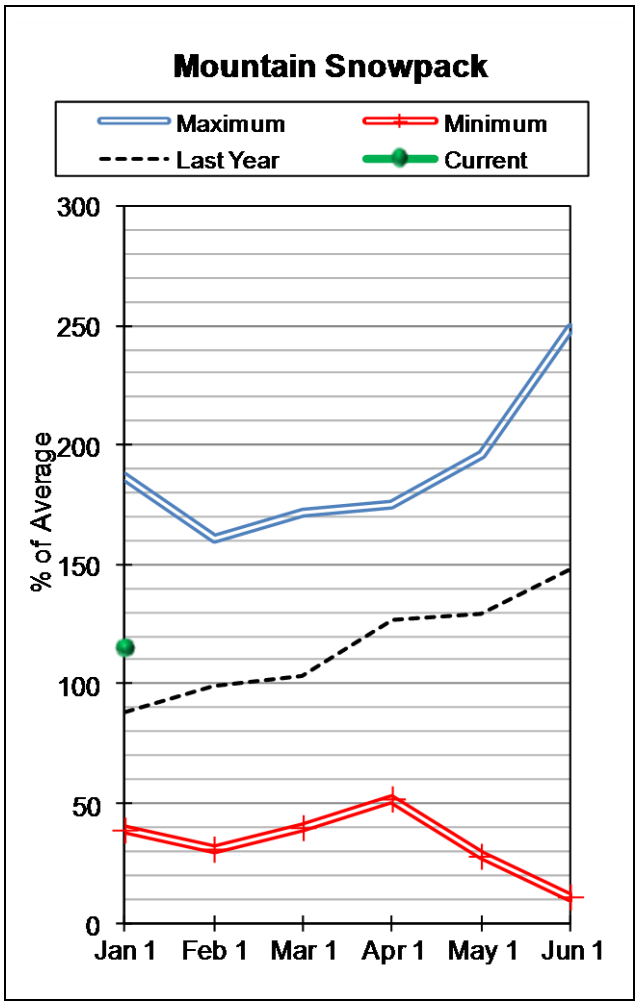
B A S I N S U M M A R Y O F
S N O W C O U R S E D A T A

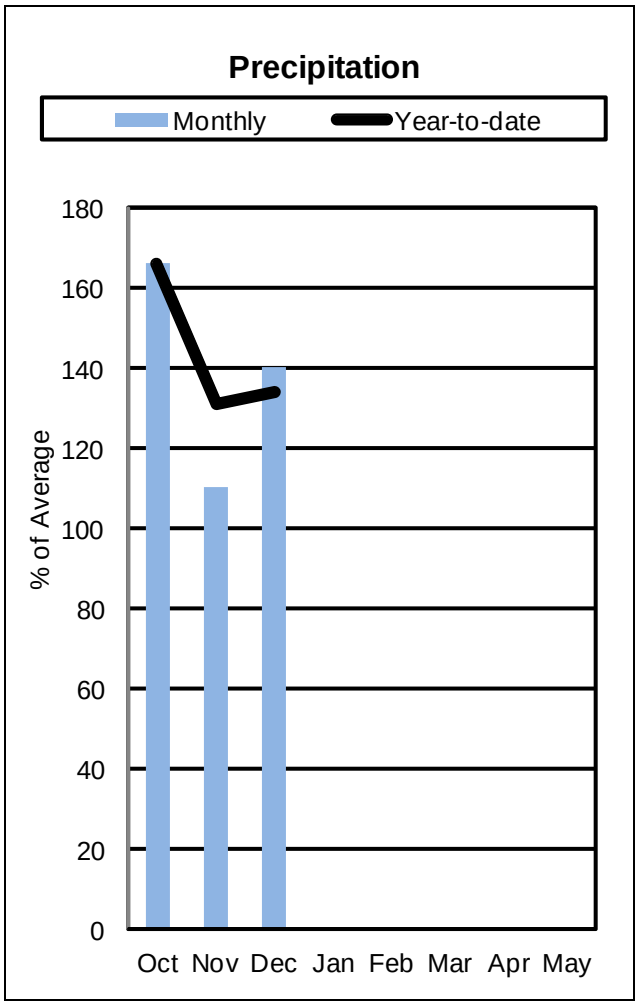
JANUARY 2013

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
ALBRO LAKE SNOTEL	8300	1/01/13	33	8.8	5.8	7.8
BADGER PASS SNOTEL	6900	1/01/13	52	13.0	15.4	12.5
BANFIELD MTN SNOTEL	5600	1/01/13	39	10.0	8.0	7.8
BARKER LAKES SNOTEL	8250	1/01/13	27	6.8	5.3	5.9
BASIN CREEK SNOTEL	7180	1/01/13	14	2.7	2.6	3.6
BEAGLE SPGS SNOTEL	8850	1/01/13	21	4.2	3.1	3.8
BEAVER CREEK SNOTEL	7850	1/01/13	40	10.6	5.5	7.8
BISSON CREEK SNOTEL	4920	1/01/13	10	2.0	3.5	3.9
BLACK BEAR SNOTEL	7950	1/01/13	72	20.5	13.2	17.8
BLACK PINE SNOTEL	7100	1/01/13	19	4.1	4.7	4.2
BLACKTAIL MTN SNOTEL	5650	1/01/13	21	4.8	5.5	--
BLOODY DICK SNOTEL	7550	1/01/13	26	6.3	4.2	5.0
BOULDER MTN SNOTEL	7950	1/01/13	35	8.9	8.1	9.3
BOX CANYON SNOTEL	6700	1/01/13	13	3.3	3.9	3.7
BRACKETT CR SNOTEL	7320	1/01/13	33	9.3	4.7	7.0
BURNT MTN SNOTEL	5880	1/01/13	7	1.1	4.4	1.8
CALVERT CR SNOTEL	6430	1/01/13	19	4.2	4.2	3.4
CARROT BASIN SNOTEL	9000	1/01/13	53	14.7	9.8	12.3
CLOVER MDW SNOTEL	8800	1/01/13	27	6.1	6.8	7.8
COLE CREEK SNOTEL	7850	1/01/13	13	3.5	9.5	6.3
COMBINATION SNOTEL	5600	1/01/13	9	1.9	2.1	2.0
COPPER BOTTOM SNOTEL	5200	1/01/13	11	2.4	3.3	--
COPPER CAMP SNOTEL	6950	1/01/13	61	22.0	23.0	--
COYOTE HILL	4200	12/31/12	12	2.3	2.4	3.2
CRYSTAL LAKE SNOTEL	6050	1/01/13	14	3.2	5.0	5.1
DAISY PEAK SNOTEL	7600	1/01/13	19	4.1	4.0	4.1
DALY CREEK SNOTEL	5780	1/01/13	19	4.6	5.0	4.5
DARKHORSE LK. SNOTEL	8700	1/01/13	52	15.4	9.4	12.9
DEADMAN CR SNOTEL	6450	1/01/13	18	4.3	4.3	4.0
DISCOVERY BASIN	7050	12/26/12	20	3.9	3.3	3.8
DIVIDE SNOTEL	7800	1/01/13	24	5.4	3.2	4.4
DIX HILL	6400	1/01/13	15	3.4	4.6	3.9
DUPUYER CREEK SNOTEL	5750	1/01/13	7	1.2	2.7	3.4
EMERY CREEK SNOTEL	4350	1/01/13	---	6.3	4.3	5.9
FISH CREEK	8000	12/27/12	20	4.0	--	3.6
FISHER CREEK SNOTEL	9100	1/01/13	61	19.1	15.7	14.7
FLATTOP MTN SNOTEL	6300	1/01/13	85	22.6	16.8	18.5
FROHNER MDWS SNOTEL	6480	1/01/13	14	3.5	4.5	3.1
GARVER CREEK SNOTEL	4250	1/01/13	25	5.7	6.2	4.7
GRAVE CRK SNOTEL	4300	1/01/13	21	5.2	4.9	6.6
HAND CREEK SNOTEL	5030	1/01/13	17	4.1	3.9	4.2
HAWKINS LAKE SNOTEL	6450	1/01/13	53	14.3	13.8	10.5
HEBGEN DAM	6550	12/31/12	16	3.0	2.3	4.0
HOLBROOK	4530	1/01/13	12	2.1	1.9	3.2
HOODOO BASIN SNOTEL	6050	1/01/13	61	17.2	16.4	16.6
KRAFT CREEK SNOTEL	4750	1/01/13	16	3.3	4.9	--
LAKEVIEW RDG. SNOTEL	7400	1/01/13	23	6.3	2.6	4.9
LEMHI RIDGE SNOTEL	8100	1/01/13	18	4.2	3.6	4.5
LICK CREEK SNOTEL	6860	1/01/13	15	3.6	6.1	4.4
LONE MOUNTAIN SNOTEL	8880	1/01/13	32	8.7	6.5	7.7
LOWER TWIN SNOTEL	7900	1/01/13	30	8.3	5.9	8.2
LUBRECHT SNOTEL	4680	1/01/13	7	1.6	2.9	2.4
LUBRECHT FOREST NO 3	5450	12/27/12	8	1.3	1.3	2.2
LUBRECHT FOREST NO 4	4650	12/27/12	6	.8	.8	1.2
LUBRECHT FOREST NO 6	4040	12/27/12	8	1.2	1.7	1.3
LUBRECHT HYDROPLOT	4200	12/27/12	9	1.2	1.9	2.0
MADISON PLT SNOTEL	7750	1/01/13	47	12.5	8.8	10.3

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
MANY GLACIER SNOTEL	4900	1/01/13	18	4.2	5.3	5.2
MONUMENT PK SNOTEL	8850	1/01/13	42	11.6	7.0	8.8
MOSS PEAK SNOTEL	6780	1/01/13	57	15.5	13.8	14.3
MOULTON RESERVOIR	6850	12/27/12	12	2.4	--	2.8
MT LOCKHART SNOTEL	6400	1/01/13	26	7.3	9.9	8.0
MULE CREEK SNOTEL	8300	1/01/13	31	7.7	4.7	6.3
N.E. ENTRANCE SNOTEL	7350	1/01/13	12	3.2	3.6	4.1
NEVADA RIDGE SNOTEL	7020	1/01/13	24	5.9	6.7	5.6
NEZ PERCE CMP SNOTEL	5650	1/01/13	21	5.0	5.5	5.8
N.F. ELK CR SNOTEL	6250	1/01/13	17	4.0	4.7	4.5
NF JOCKO SNOTEL	6330	1/01/13	54	14.7	11.2	17.6
NOISY BASIN SNOTEL	6040	1/01/13	64	18.0	9.0	16.1
OPHIR PARK	7150	1/01/13	23	5.3	5.1	5.7
PETERSON MDW SNOTEL	7200	1/01/13	19	4.1	4.2	4.0
PICKFOOT CRK SNOTEL	6650	1/01/13	22	4.9	5.1	4.7
PIKE CREEK SNOTEL	5930	1/01/13	23	4.6	5.3	9.7
PLACER BASIN SNOTEL	8830	1/01/13	31	7.8	7.9	8.2
POORMAN CR SNOTEL	5100	1/01/13	55	15.2	15.2	12.6
PORCUPINE SNOTEL	6500	1/01/13	7	1.6	2.4	2.2
ROCKER PEAK SNOTEL	8000	1/01/13	23	4.7	6.5	6.0
ROCKY BOY SNOTEL	4700	1/01/13	5	1.2	1.1	2.0
SACAJAWEA SNOTEL	6550	1/01/13	21	5.8	3.9	5.5
SADDLE MTN SNOTEL	7900	1/01/13	38	10.6	9.3	10.5
S.F. SHIELDS SNOTEL	8100	1/01/13	21	4.7	3.7	6.5
SHORT CREEK SNOTEL	7000	1/01/13	12	2.9	2.9	2.5
SHOWER FALLS SNOTEL	8100	1/01/13	32	7.7	10.0	9.0
SKALKAHO SNOTEL	7260	1/01/13	35	9.3	9.3	8.7
SLEEPING WOMAN SNTL	6150	1/01/13	23	5.2	7.1	6.1
SPOTTED BEAR MTN.	7000	1/01/13	---	5.1	--	5.3
SPUR PARK SNOTEL	8100	1/01/13	38	10.0	9.1	9.0
STAHL PEAK SNOTEL	6030	1/01/13	51	13.6	11.1	15.1
STORM LAKE	7780	12/26/12	25	5.4	5.7	5.1
STUART MOUNTAIN SNTL	7400	1/01/13	50	14.0	11.8	13.4
TEPEE CREEK SNOTEL	8000	1/01/13	28	6.8	4.1	6.2
TIZER BASIN SNOTEL	6840	1/01/13	16	4.0	5.2	4.7
TRINKUS LAKE	6100	1/01/13	---	19.1	--	16.9
TWENTY-ONE MILE	7150	12/31/12	33	8.0	4.2	5.9
TWIN LAKES SNOTEL	6400	1/01/13	47	13.0	15.6	16.1
UPPER HOLLAND LAKE	6200	1/01/13	---	11.2	--	13.0
WALDRON SNOTEL	5600	1/01/13	15	3.6	6.0	4.1
WARM SPRINGS SNOTEL	7800	1/01/13	32	7.9	8.5	8.6
WEASEL DIVIDE	5450	12/27/12	52	14.2	11.7	12.6
WEST YELL'ST SNOTEL	6700	1/01/13	18	4.4	4.7	4.7
WHISKEY CREEK SNOTEL	6800	1/01/13	25	5.3	6.1	6.7
WHITE MILL SNOTEL	8700	1/01/13	41	11.7	9.1	9.9
WOOD CREEK SNOTEL	5960	1/01/13	13	2.4	3.5	3.3

Kootenai River Basin in Montana





Snowpack conditions in the Kootenai River Basin as of January 1 were above normal. Snow water content was 115 percent of median and 114 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 140 percent of average and 221 percent of last year. Water year precipitation, beginning October 1, 2011, was 134 percent of average and 139 percent of last year.

Lake Koocanusa storage at the end of December was 109 percent of average and 98 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 117 percent.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Tobacco R nr Eureka	APR-JUL	98	121	137	109	153	176	126
	APR-SEP	108	134	151	108	168	194	140
Libby Reservoir Inflow (1,2)	APR-JUL	4230	5070	5450	102	5830	6670	5340
	APR-SEP	5170	6010	6400	102	6790	7630	6250
Fisher River nr Libby	APR-JUL	136	189	225	110	260	315	205
	APR-SEP	148	205	240	109	275	330	220
Yaak River nr Troy	APR-JUL	400	495	555	132	615	710	420
	APR-SEP	425	515	580	132	645	735	440
Kootenai R at Leonia (1,2)	APR-JUL	5190	6250	6730	102	7210	8270	6600
	APR-SEP	6210	7280	7770	102	8260	9330	7590

KOOTENAI RIVER BASIN in Montana
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
LAKE KOOCANUSA	5748.0	3724.5	3802.0	3417.0

KOOTENAI RIVER BASIN in Montana
Watershed Snowpack Analysis - January 1, 2013

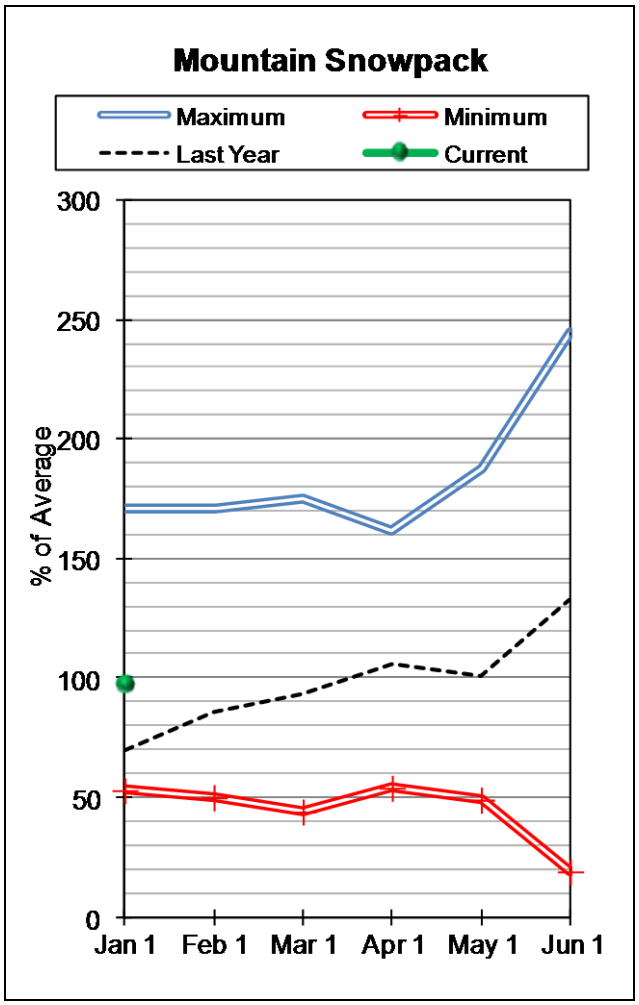
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
KOOTENAY in CANADA	0	112	0
KOOTENAI MAINTSTEM	3	117	127
TOBACCO	3	119	96
FISHER	1	105	98
YAAK	2	100	132
KOOTENAI in MONTANA	9	114	115
KOOTENAI ab BONNERS FERRY	9	113	115

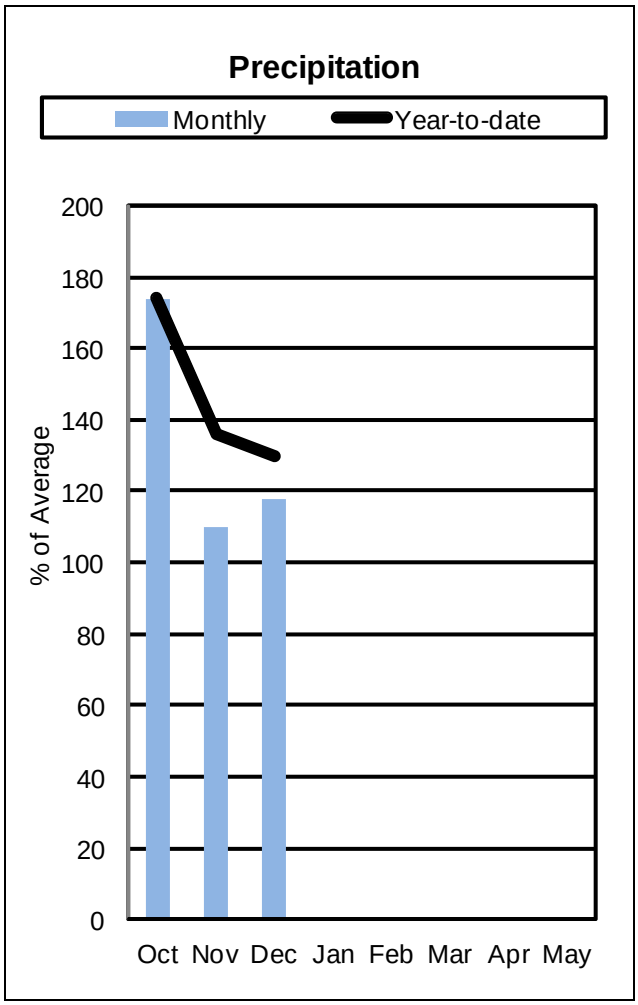
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Flathead River Basin





Snowpack conditions in the Flathead River Basin were near normal on January 1. Snow water content was 97 percent of median and 116 percent of last year.

Mountain precipitation during December was 118 percent of average and 181 percent of last year. Water year precipitation, beginning October 1, 2011, was 130 percent of average and 138 percent of last year.

Hungry Horse Reservoir storage at the end of December was 125 percent of average and 105 percent of last year. Flathead Lake storage at the end of December was 98 percent of average and 96 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 100 percent.

FLATHEAD RIVER BASIN
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
NF Flathead R nr Columbia Falls	APR-JUL	1370	1590	1730	112	1870	2090	1540
	APR-SEP	1530	1760	1910	112	2060	2290	1700
MF Flathead R nr West Glacier	APR-JUL	1380	1600	1750	117	1900	2120	1500
	APR-SEP	1510	1740	1900	117	2060	2290	1630
SF Flathead R nr Hungry Horse	APR-JUL	970	1160	1280	109	1400	1590	1180
	APR-SEP	1040	1230	1360	108	1490	1680	1260
Hungry Horse Reservoir Inflow (1,2)	APR-JUL	1470	1870	2050	110	2230	2630	1860
	APR-SEP	1570	1980	2170	110	2360	2770	1980
Flathead R at Columbia Falls (2)	APR-JUL	4530	5220	5680	113	6140	6830	5020
	APR-SEP	4960	5670	6150	113	6630	7340	5450
Ashley Ck nr Marion (2)	APR-JUL	4.1	5.7	6.8	105	7.9	9.5	6.5
	MARCH	0.5	1.0	1.4	113	1.7	2.2	1.2
Swan R nr Bigfork	APR-JUL	395	470	525	101	580	655	520
	APR-SEP	450	535	595	100	655	740	595
Flathead Lake Inflow (1,2)	APR-JUL	4820	6030	6580	113	7130	8340	5810
	APR-SEP	5240	6520	7100	113	7680	8960	6270
Mill Ck ab Bassoo Ck nr Niarada	APR-JUL	1.8	3.1	4.0	100	4.9	6.2	4.0
	APR-SEP	2.1	3.5	4.4	100	5.3	6.7	4.4
South Crow Ck nr Ronan	APR-JUL	7.5	9.0	10.0	99	11.0	12.5	10.1
	APR-SEP	8.6	10.3	11.4	98	12.5	14.2	11.6
Mission Ck nr St. Ignatius	APR-JUL	21	23	25	100	27	29	25
	APR-SEP	25	28	30	100	32	35	30
Sf Jocko R nr Arlee	APR-JUL	22	28	32	97	36	42	33
	APR-SEP	26	32	36	97	40	46	37
NF Jocko R bl Tabor Feeder Canal	APR-JUL	23	27	30	97	33	37	31
	APR-SEP	25	29	32	97	35	39	33

FLATHEAD RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CAMAS (4)	45.2	26.6	25.3	17.4
LOWER JOCKO LAKE	6.4	0.0	0.0	0.0
MISSION VALLEY (8)	100.0	23.2	32.4	30.0
HUNGRY HORSE	3451.0	3162.9	3003.0	2537.0
FLATHEAD LAKE	1791.0	1135.7	1187.0	1158.0

FLATHEAD RIVER BASIN
Watershed Snowpack Analysis - January 1, 2013

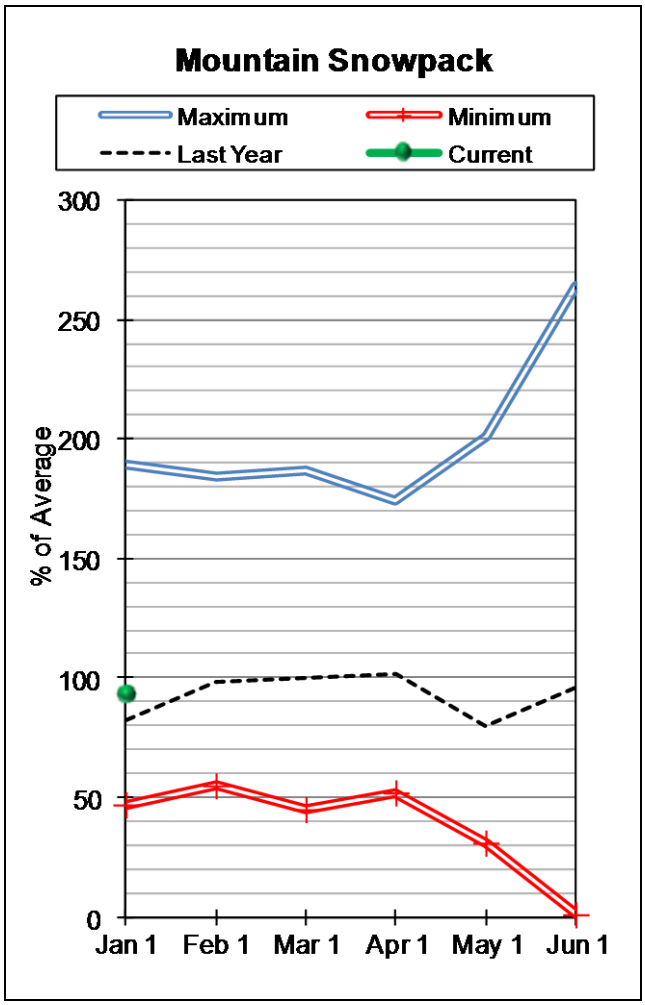
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
NF FLATHEAD in CANADA	0	88	0
NF FLATHEAD in MONTANA	5	120	103
MIDDLE FORK FLATHEAD	4	111	100
SOUTH FORK FLATHEAD	6	174	102
STILLWATER-WHITEFISH	1	105	98
SWAN	5	132	101
MISSION VALLEY	2	101	96
LITTLE BITTERROOT-ASHLEY	0	0	0
JOCKO	3	113	91
FLATHEAD in MONTANA	19	115	97
FLATHEAD RIVER BASIN	19	112	97

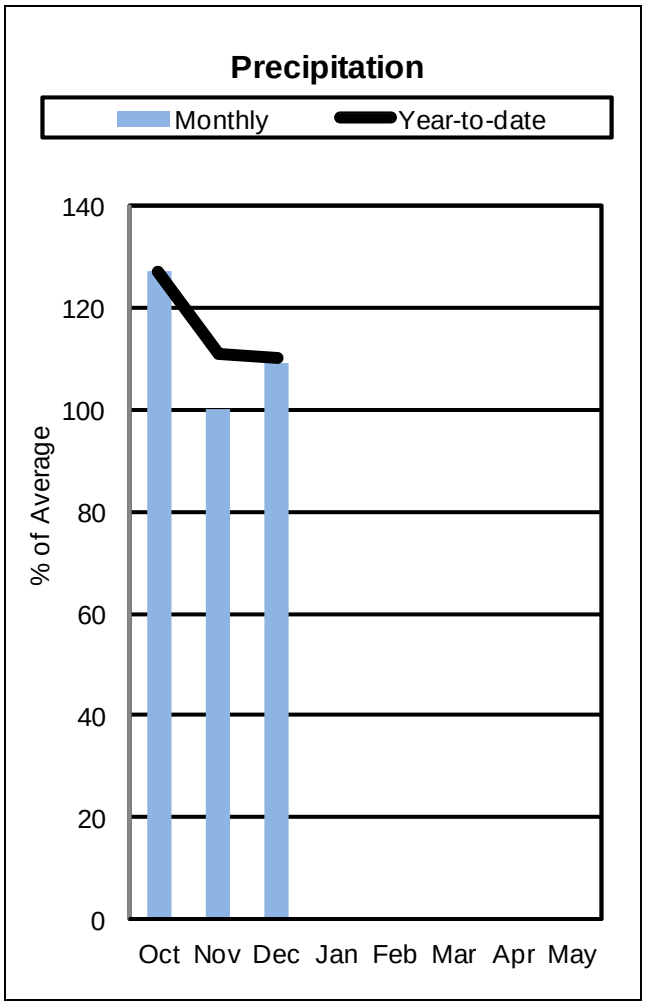
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Clark Fork River Basin





Snowpack conditions in the Upper Clark Fork River Basin were near normal on January 1. Snow water content was 93 percent of median and 99 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 109 percent of average and 130 percent of last year. Water year precipitation, beginning October 1, 2011, was 110 percent of average and 108 percent of last year.

East Fork Rock Creek storage was 121 percent of average and 83 percent of last year; and Nevada Creek storage was unreported at the time of this report.

Assuming average precipitation, April through July streamflows are forecast to average 103 percent.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Little Blackfoot R nr Garrison	APR-JUL	31	55	71	101	87	111	70
	APR-SEP	36	61	78	101	95	120	77
Flint Ck nr Southern Cross	APR-JUL	6.0	10.1	12.9	104	15.7	19.8	12.4
	APR-SEP	6.5	11.7	15.2	104	18.7	24	14.6
Flint Ck bl Boulder Ck	APR-JUL	27	43	54	104	65	81	52
	APR-SEP	36	55	68	103	81	100	66
Lower Willow Ck Reservoir Inflow (2)	APR-MAY	3.7	6.4	8.3	114	10.2	12.9	7.3
	APR-JUL	4.4	9.0	12.1	114	15.2	19.8	10.6
MF Rock Ck nr Philipsburg	APR-JUL	40	51	59	102	67	78	58
	APR-SEP	45	58	66	102	74	87	65
Rock Ck nr Clinton	APR-JUL	154	215	255	102	295	355	250
	APR-SEP	181	245	290	104	335	400	280
Clark Fork R ab Milltown	APR-JUL	260	430	545	103	660	830	530
	APR-SEP	330	515	640	104	765	950	615
Nevada Ck nr Helmville	APR-MAY	2.7	6.0	8.2	98	10.4	13.7	8.4
	APR-JUL	4.8	10.1	13.7	97	17.3	23	14.2
Blackfoot R nr Bonner	APR-JUL	440	615	735	102	855	1030	720
	APR-SEP	505	690	820	103	950	1140	800
Clark Fork R ab Missoula	APR-JUL	780	1080	1290	103	1500	1800	1250
	APR-SEP	930	1250	1470	104	1690	2010	1420

UPPER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
EAST FORK ROCK CREEK	15.6	8.5	10.3	7.0
GEORGETOWN LAKE		NO REPORT		
LOWER WILLOW CREEK		NO REPORT		
NEVADA CREEK		NO REPORT		

UPPER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - January 1, 2013

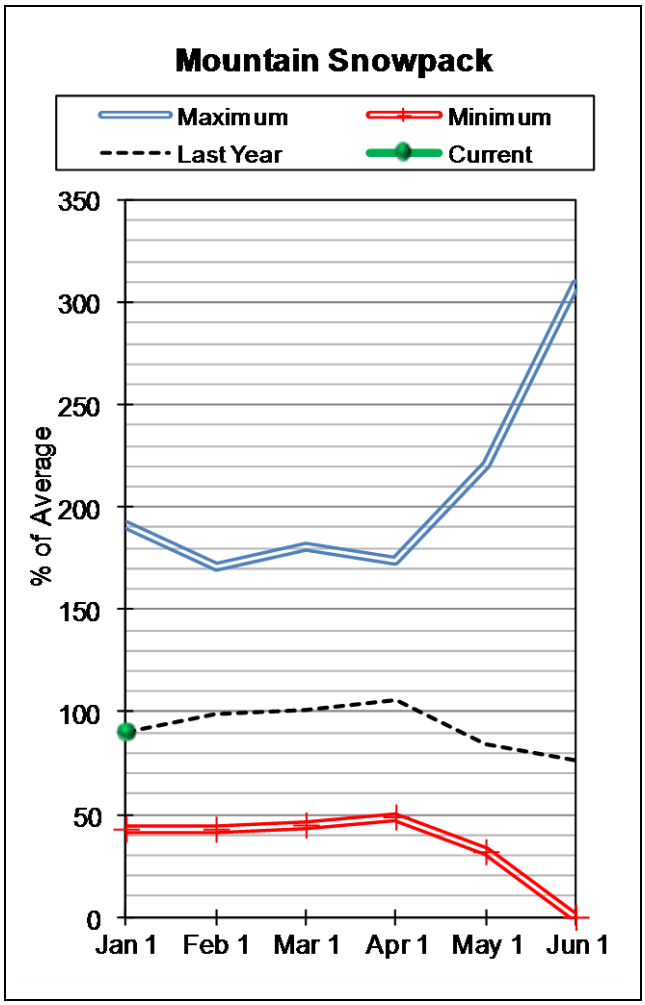
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CLARK FORK ab FLINT CREEK	8	93	93
FLINT CREEK	5	97	102
ROCK CREEK	3	98	106
CLARK FORK ab BLACKFOOT	13	98	99
BLACKFOOT	12	98	88
UPPER CLARK FORK BASIN	23	98	93

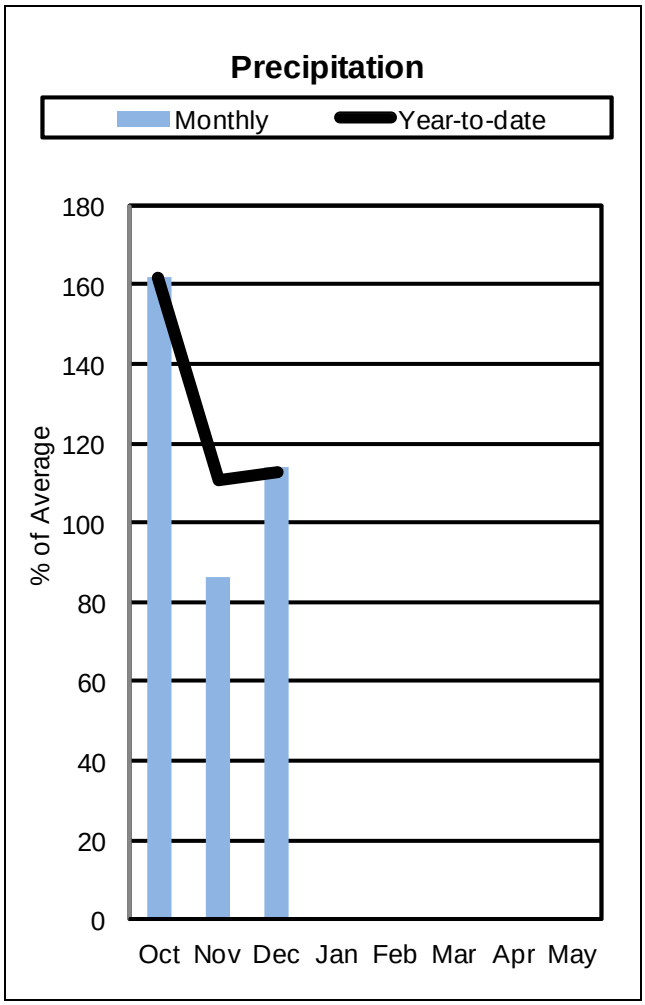
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Bitterroot River Basin





Snowpack conditions in the Bitterroot River Basin were near normal on January 1. Snow water content was 90 percent of median and 89 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 114 percent of average and 135 percent of last year. Water year precipitation, beginning October 1, 2011, was 113 percent of average and 107 percent of last year.

Painted Rocks Lake storage was unavailable at the time of report and Como storage was 103 percent of average and 120 percent of last year.

Assuming near average precipitation, April through July streamflows are forecast to average 100 percent.

BITTERROOT RIVER BASIN

Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WF Bitterroot R nr Conner (2)	APR-JUL	64	102	128	100	154	192	128
	APR-SEP	70	112	140	101	168	210	139
Bitterroot R nr Darby	APR-JUL	220	335	410	100	485	600	410
	APR-SEP	280	395	470	100	545	660	470
Como Reservoir Inflow (2)	APR-JUL	56	67	75	99	83	94	76
	APR-SEP	58	70	78	99	86	98	79
Bitterroot R nr Missoula	APR-JUL	690	970	1160	101	1350	1630	1150
	APR-SEP	765	1060	1260	101	1460	1750	1250

BITTERROOT RIVER BASIN

Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
PAINTED ROCKS LAKE		NO REPORT		
COMO	34.9	9.7	8.1	9.4

BITTERROOT RIVER BASIN

Watershed Snowpack Analysis - January 1, 2013

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
WEST FORK BITTERROOT	2	105	96
EAST SIDE BITTERROOT	3	104	103
WEST SIDE BITTERROOT	3	79	81
BITTERROOT RIVER BASIN	7	89	90

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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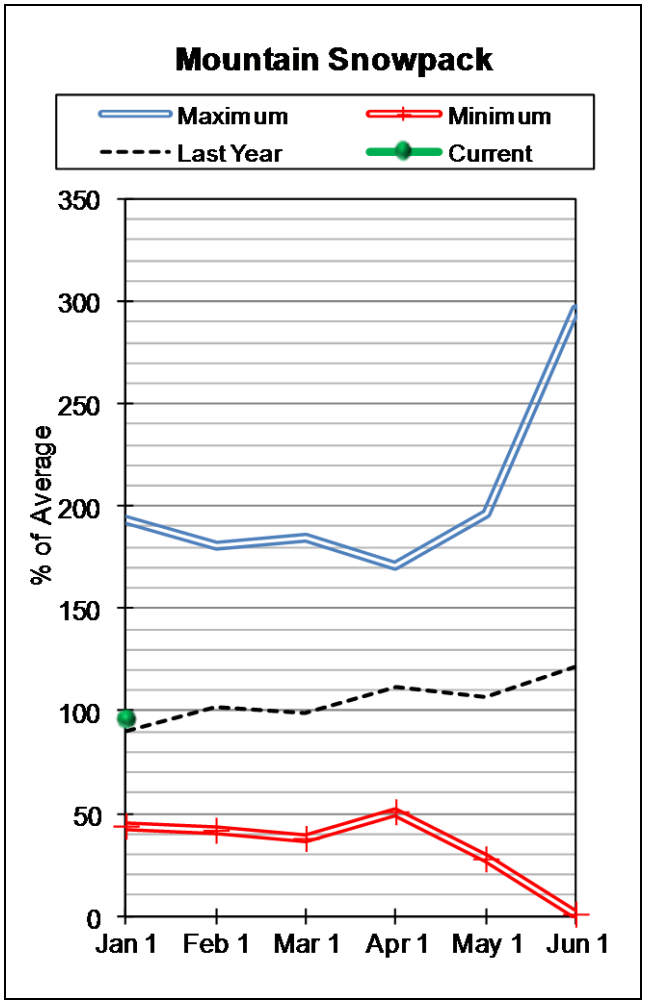
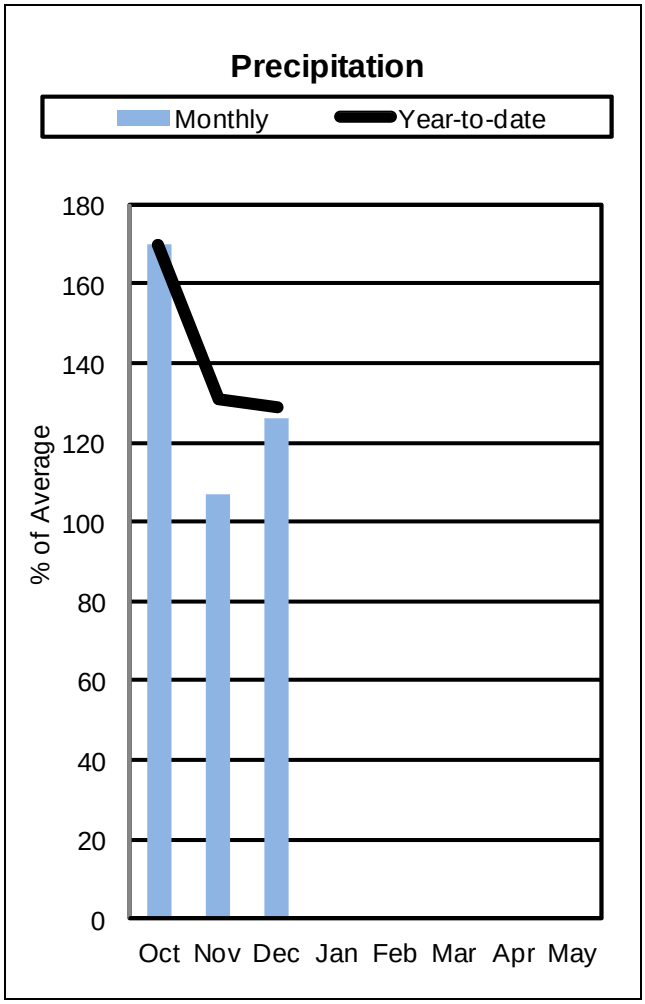
Lower Clark Fork River Basin





Snowpack conditions in the Lower Clark Fork River Basin were well above normal on January 1. Snow water content was 96 percent of median and 95 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 126 percent of average and 189 percent of last year. Water year precipitation, beginning October 1, 2011, was 129 percent of average and 135 percent of last year.

Storage at the end of December in Noxon Rapids was 102 percent of average and 103 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 103 percent.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Clark Fork R bl Missoula	APR-JUL	1550	2080	2440	102	2800	3330	2400
	APR-SEP	1780	2330	2710	102	3090	3640	2670
Clark Fork R at St. Regis (1)	APR-JUL	1820	2790	3230	102	3670	4640	3160
	APR-SEP	2100	3120	3580	102	4040	5060	3510
Clark Fork R nr Plains (1,2)	APR-JUL	7190	9190	10100	110	11000	13000	9200
	APR-SEP	8040	10100	11100	110	12100	14200	10100
Thompson R nr Thompson Falls	APR-JUL	103	150	182	101	214	261	181
Thompson R Nr Thompson Falls	APR-SEP	121	171	205	100	239	289	205
Prospect Ck at Thompson Falls	APR-JUL	69	93	109	107	125	149	102
	APR-SEP	77	101	118	107	135	159	110
Clark Fork at Whitehorse Rpds (1,2)	APR-JUL	8110	10400	11400	109	12400	14700	10500
	APR-SEP	9140	11500	12600	110	13700	16100	11500

LOWER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
NOXON RAPIDS	335.0	322.7	314.2	317.9

LOWER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - January 1, 2013

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
LOWER CLARK FORK BASIN	7	95	96

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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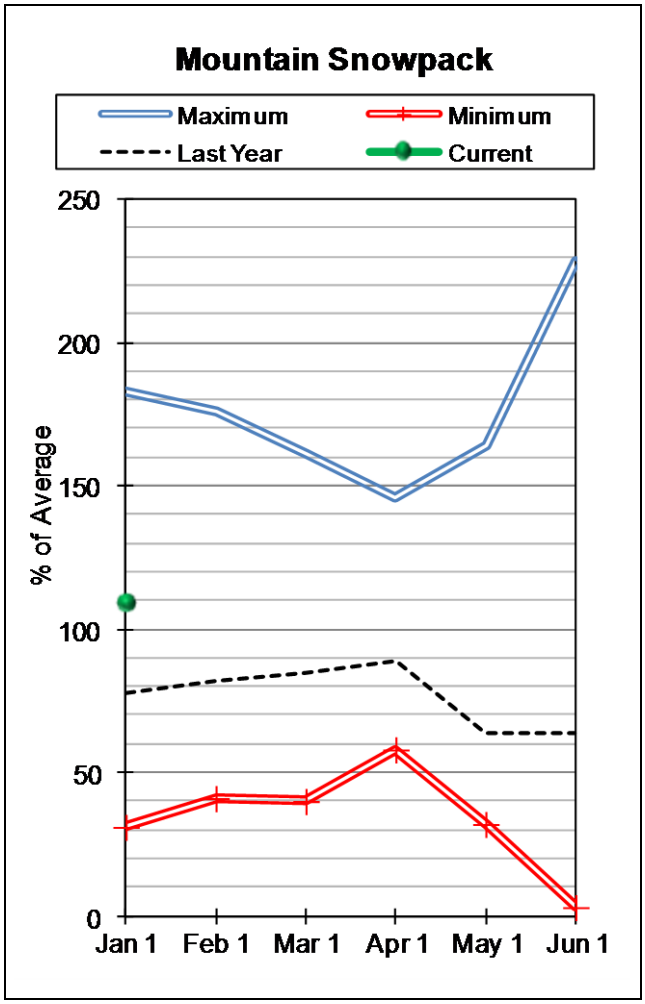
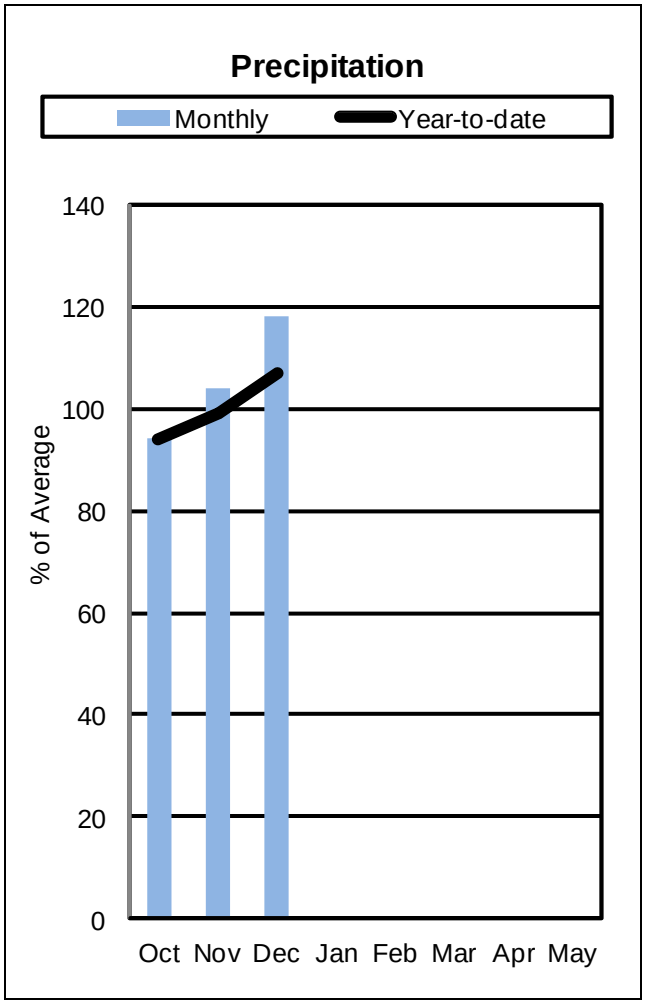
Jefferson River Basin





Snowpack conditions in the Jefferson River Basin were near normal on January 1. Snow water content was 109 percent of median and 130 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 118 percent of average and 150 percent of last year. Water year precipitation, beginning October 1, 2011, was 107 percent of average and 114 percent of last year.

Lima storage was 136 percent of average and 77 percent of last year; Clark Canyon storage was 94 percent of average and 67 percent of last year; Ruby River storage was 101 percent of average and 80 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 95 percent.

JEFFERSON RIVER BASIN
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Lima Reservoir Inflow (2)	APR-JUL	51	72	87	106	102	123	82
	APR-SEP	55	79	96	108	113	137	89
Clark Canyon Reservoir Inflow (2)	APR-JUL	10.0	68	108	107	148	205	101
	APR-SEP	19.0	83	127	106	171	235	120
Beaverhead R at Barretts (2)	APR-JUL	13.0	89	140	109	191	265	129
	APR-SEP	21	109	168	108	225	315	156
Ruby R Reservoir Inflow (2)	APR-JUL	33	53	66	86	79	99	77
	APR-SEP	40	63	78	86	93	116	91
Big Hole R at Wisdom	APR-JUL	19.0	70	105	103	140	191	102
	APR-SEP	19.0	74	111	103	148	205	108
Big Hole R nr Melrose	APR-JUL	220	370	475	92	580	730	515
	APR-SEP	235	400	510	91	620	785	560
Jefferson R nr Twin Bridges (2)	APR-JUL	184	435	605	88	775	1030	690
	APR-SEP	184	460	650	89	840	1120	730
Boulder R nr Boulder	APR-JUL	28	46	58	84	70	88	69
	APR-SEP	30	49	62	84	75	94	74
Willow Ck Reservoir Inflow (2)	APR-JUL	2.3	9.3	14.1	84	18.9	26	16.8
	APR-SEP	3.3	10.8	16.0	83	21	29	19.3
Jefferson R nr Three Forks (2)	APR-JUL	180	455	640	87	825	1100	740
	APR-SEP	180	485	690	86	895	1200	800

JEFFERSON RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
LIMA	84.0	37.2	48.3	27.4
CLARK CANYON	255.6	109.3	163.2	116.7
RUBY RIVER	38.8	20.3	25.3	20.1

JEFFERSON RIVER BASIN
Watershed Snowpack Analysis - January 1, 2013

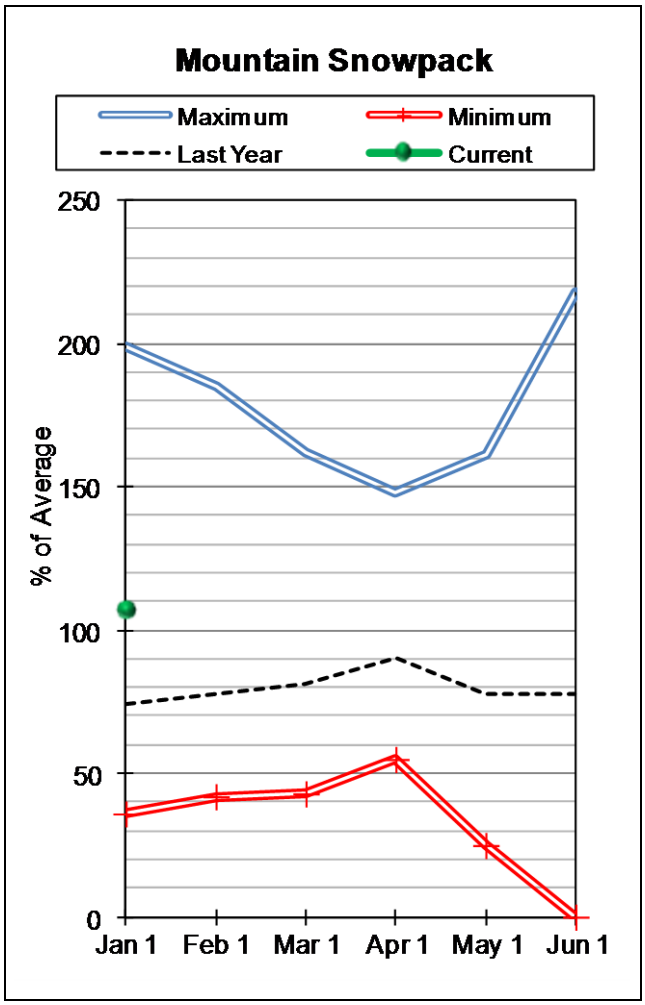
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
BEAVERHEAD	8	169	125
RUBY	5	128	103
BIGHOLE	10	126	108
BOULDER	4	80	86
JEFFERSON RIVER BASIN	22	130	109

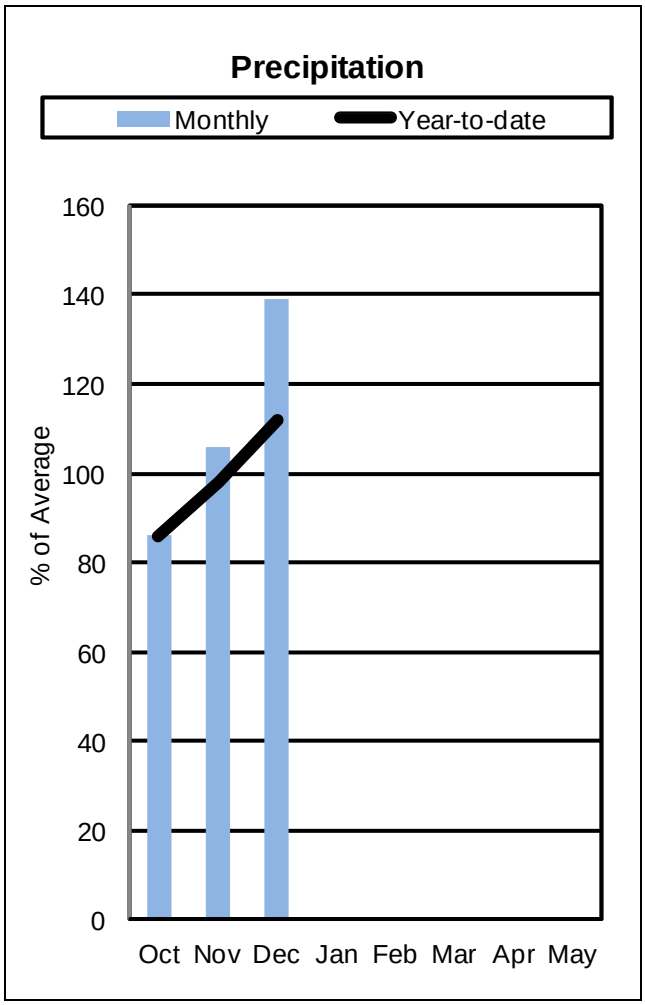
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Madison River Basin





Snowpack conditions in the Madison River Basin were near normal on January 1. Snow water content was 107 percent of median and 134 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 139 percent of average and 189 percent of last year. Water year precipitation, beginning October 1, 2011, was 112 percent of average and 119 percent of last year.

Ennis Lake storage at the end of December was 101 percent of average and 101 percent of last year and Hebgen Lake storage was 113 percent of average and 98 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 105 percent.

MADISON RIVER BASIN

Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Hebgen Reservoir Inflow (2)	APR-JUL	310	360	395	107	430	480	370
	APR-SEP	395	460	500	106	540	605	470
Ennis Reservoir Inflow (2)	APR-JUL	485	575	640	102	705	795	625
	APR-SEP	610	720	795	103	870	980	775

MADISON RIVER BASIN

Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ENNIS LAKE	41.0	30.3	29.9	30.0
HEBGEN LAKE	377.5	319.3	325.1	283.2

MADISON RIVER BASIN

Watershed Snowpack Analysis - January 1, 2013

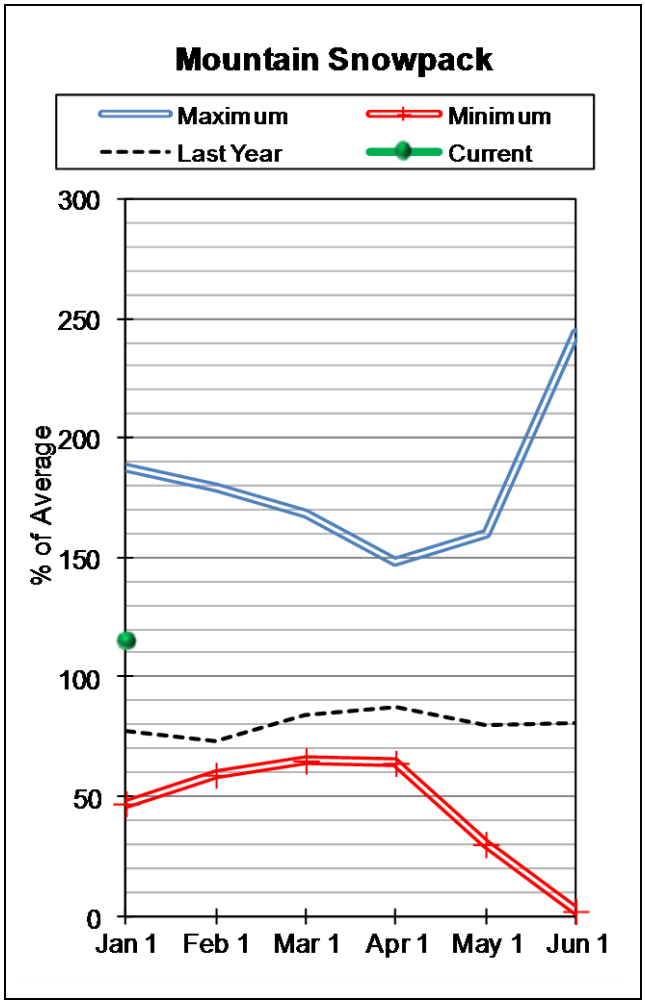
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
MADISON abv HEBGEN LAKE	6	124	106
MADISON blw HEBGEN LAKE	8	143	108
MADISON RIVER BASIN	14	134	107

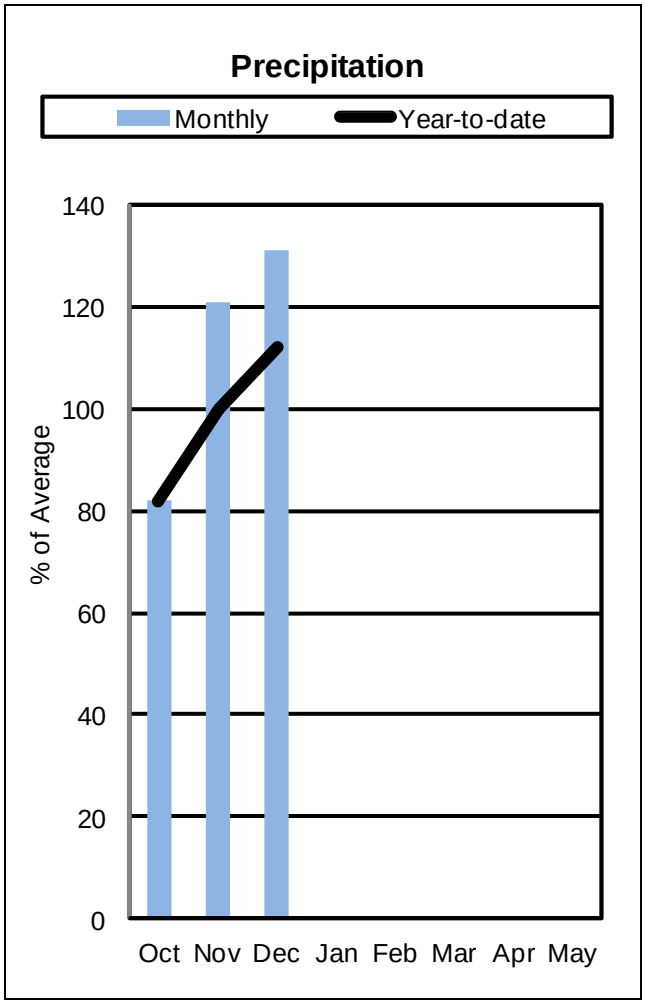
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Gallatin River Basin





Snowpack conditions in the Gallatin River Basin were above normal on January 1. Snow water content was 115 percent of median and 135 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 131 percent of average and 152 percent of last year. Water year precipitation, beginning October 1, 2011, was 112 percent of average and 115 percent of last year.

Middle Creek storage was 106 percent of average and 96 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 96 percent.

GALLATIN RIVER BASIN
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Gallatin R nr Gateway	APR-JUL	280	345	390	98	435	500	400
	APR-SEP	330	405	455	97	505	580	470
Hyalite Reservoir Inflow (2)	APR-JUL	14.5	16.9	18.6	93	20	23	20
	APR-SEP	16.7	19.2	21	91	23	25	23
Gallatin R at Logan	APR-JUL	235	345	420	96	495	605	440
	APR-SEP	280	400	485	96	570	690	505

GALLATIN RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MIDDLE CREEK	10.2	5.4	5.6	5.1

GALLATIN RIVER BASIN
Watershed Snowpack Analysis - January 1, 2013

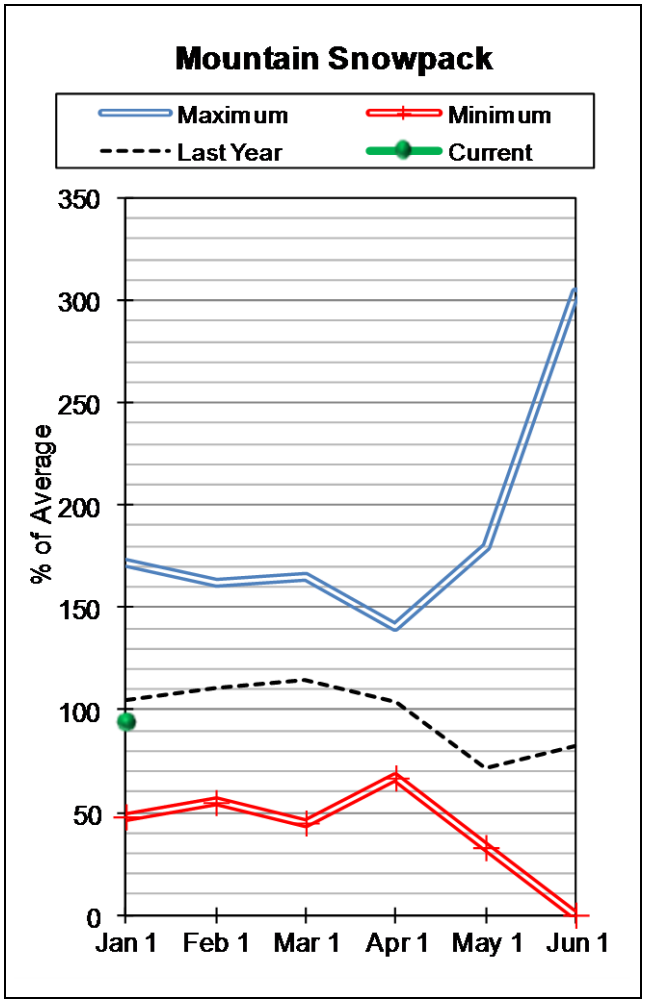
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER GALLATIN	4	162	125
HYALITE	2	70	84
BRIDGER	2	176	121
GALLATIN RIVER BASIN	8	135	115

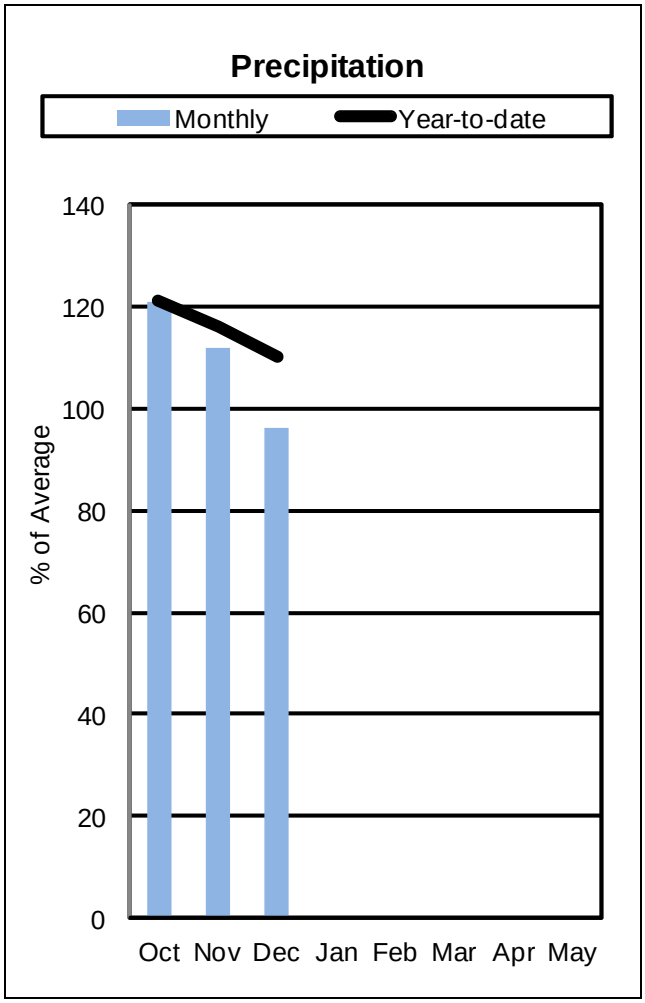
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Missouri Mainstem River Basin





Snowpack conditions in the Headwaters Missouri Mainstem River Basin were near normal on January 1. Snow water content was 94 percent of median and 87 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 96 percent of average and 96 percent of last year. Water year precipitation, beginning October 1, 2011, was 110 percent of average and 97 percent of last year.

Canyon Ferry Lake storage was 99 percent of average and 96 percent of last year; Helena Valley storage was 120 percent of average and 98 percent of last year; Lake Helena storage was not available at the time of this report; Hauser & Helena storage was 95 percent of average and 101 percent of last year; Holter Lake storage was 101 percent of average and 100 percent of last year; and Fort Peck Lake storage was 102 percent of average and 87 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 97 percent.

MISSOURI MAINSTEM RIVER BASIN

Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Missouri R at Toston (2)	APR-JUL	965	1420	1730	97	2040	2500	1790
	APR-SEP	1110	1640	2000	97	2360	2890	2070
Dearborn R nr Craig	APR-JUL	41	67	85	96	103	129	89
	APR-SEP	46	73	92	97	111	138	95
Missouri R at Fort Benton (2)	APR-JUL	1530	2120	2520	97	2920	3510	2610
	APR-SEP	1830	2530	3000	97	3470	4170	3110
Missouri R nr Virgelle (2)	APR-JUL	1790	2450	2900	97	3350	4010	3000
	APR-SEP	2070	2850	3380	96	3910	4690	3520
Missouri R nr Landusky (2)	APR-JUL	1920	2610	3080	98	3550	4240	3160
	APR-SEP	2240	3050	3600	97	4150	4960	3720
Missouri R bl Ft Peck Dam (2)	APR-JUL	1980	2680	3160	98	3640	4340	3240
	APR-SEP	2040	2950	3570	97	4190	5100	3700
Lake Sakakawea Inflow (2)	APR-JUL	5470	7080	8180	98	9280	10900	8310
	APR-SEP	5810	7820	9190	98	10600	12600	9400

MISSOURI MAINSTEM RIVER BASIN

Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CANYON FERRY LAKE	2043.0	1583.0	1642.0	1598.0
HELENA VALLEY	9.2	6.1	6.2	5.1
LAKE HELENA		NO REPORT		
HAUSER & HELENA	74.6	70.0	69.6	73.8
HOLTER LAKE	81.9	81.0	80.7	80.5
FORT PECK LAKE	18910.0	13398.0	15470.0	13143.0

MISSOURI MAINSTEM RIVER BASIN

Watershed Snowpack Analysis - January 1, 2013

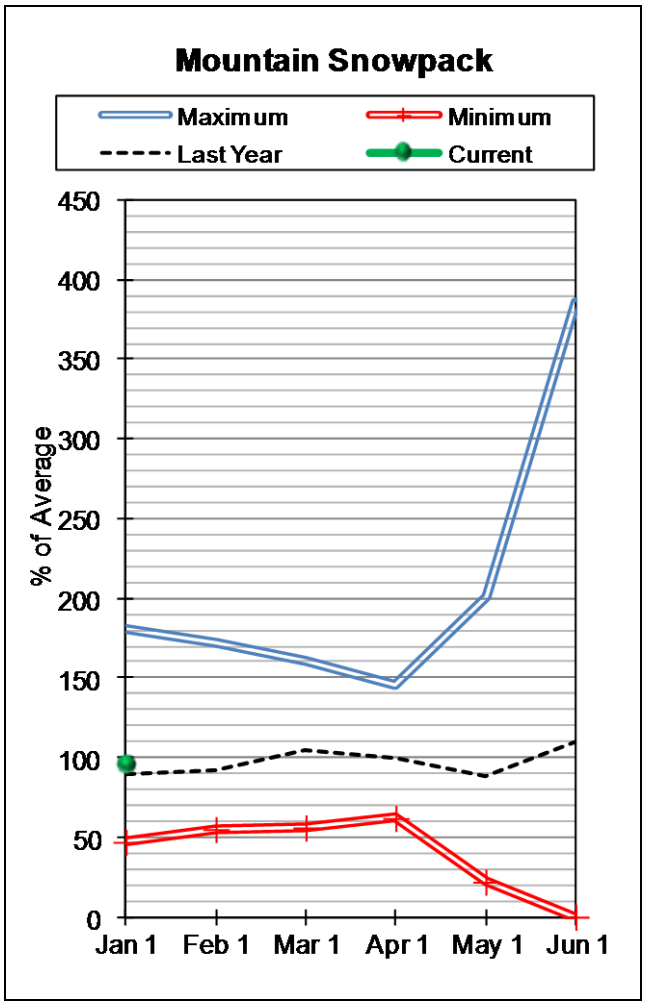
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
HEADWATERS MAINSTEM	5	87	94
SMITH-JUDITH-MUSSELSHELL	9	110	96
SUN-TETON-MARIAS	6	75	78
MAINSTEM ab FT PECK RES	19	91	89
MILK RIVER BASIN	1	109	60
MISSOURI MAINSTEM BASIN	19	92	92

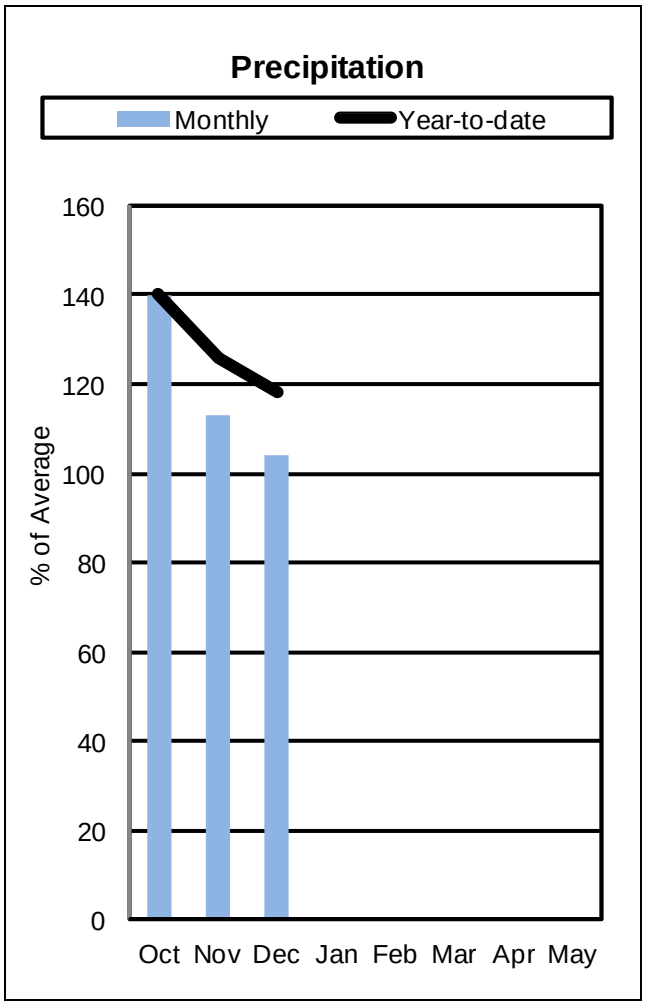
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Smith-Judith-Musselshell River Basins





Snowpack conditions in the Smith-Judith-Musselshell River Basins were near normal January 1. Snow water content was 96 percent of median and 98 percent of last year. Snow water content in the Smith River Basin was 102 percent of median and 104 percent of last year; the Judith River Basin was 97 percent of median and 96 percent of last year; and the Musselshell Basin River was 90 percent of median and 89 percent of last year.

Mountain precipitation according to SNOTEL stations during December in the Smith-Belts was 61 percent of average and 85 percent of last year; in the Judith was 96 percent of average and 135 percent of last year; and in the Musselshell was 94 percent of average and 189 percent of last year. Water year precipitation for the greater basin, beginning October 1, 2011, was 118 percent of average and 108 percent of last year.

Smith River storage was 130 percent of average and 90 percent of last year; Ackley storage was unavailable at the time of this report; Bair storage was 152 percent of average and 75 percent of last year; Martinsdale storage was 88 percent of average and 78 percent of last year; and Deadman's Basin was 126 percent of average and 70 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 102 percent.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Sheep Ck nr White Sulphur Springs	APR-JUL	10.6	14.0	16.3	105	18.6	22	15.5
	APR-SEP	12.7	16.6	19.3	105	22	26	18.4
Smith R bl Eagle Ck (2)	APR-JUL	55	88	110	104	132	165	106
	APR-SEP	58	96	122	105	148	186	116
NF Musselshell R nr Delpine	APR-JUL	0.9	2.6	3.7	109	4.8	6.5	3.4
	APR-SEP	1.2	3.1	4.4	110	5.7	7.6	4.0
SF Musselshell R ab Martinsdale	APR-JUL	5.0	14.2	29	83	44	66	35
	APR-SEP	5.0	16.2	32	84	48	71	38
Musselshell R at Harlowton (2)	APR-JUL	0.0	35	60	105	85	123	57
	APR-SEP	0.0	36	63	107	90	130	59
Musselshell R nr Roundup (2)	APR-JUL	-20.0	13.6	69	103	124	205	67
	APR-SEP	-20.0	14.1	70	106	126	210	66

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
SMITH RIVER	10.6	6.5	7.2	5.0
BAIR	7.0	4.1	5.5	2.7
MARTINSDALE	23.1	6.8	8.7	7.7
DEADMAN'S BASIN	72.2	46.6	66.7	37.0

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - January 1, 2013

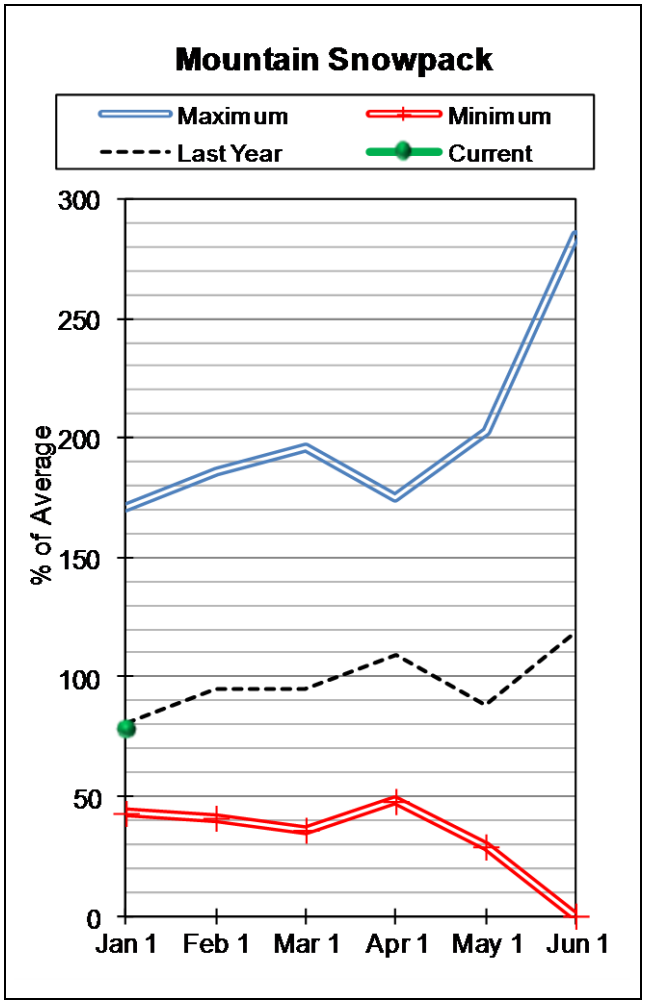
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SMITH	6	118	102
HIGHWOOD	0	0	0
JUDITH	4	96	97
MUSSELSHELL	2	144	90
SMITH-JUDITH-MUSSELSHELL	9	110	96

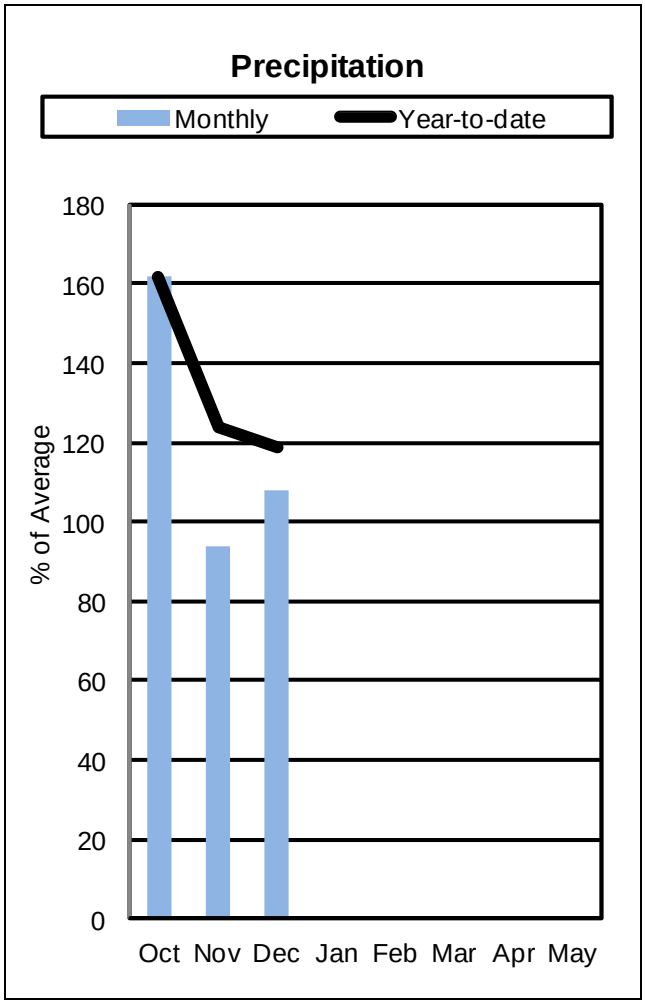
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Sun-Teton-Marias River Basins





Snowpack conditions in the Sun-Teton-Marias River Basins were below normal on January 1. Snow water content was 78 percent of median and 75 percent of last year. Snow water content in the Sun River Basin was 86 percent of median and 72 percent of last year; the Teton River Basin was 78 percent of median and 65 percent of last year; and the Marias River Basin was 73 percent of median and 80 percent of last year.

Mountain precipitation according to SNOTEL stations during December in the Sun was 111 percent of average and 133 percent of last year; in the Teton was 106 percent of average and 122 percent of last year; and in the Marias was 111 percent of average and 131 percent of last year. Mountain water year precipitation for the greater basin according to SNOTEL stations, beginning October 1, 2011, was 119 percent of average and 115 percent of last year.

Gibson storage was 40 percent of average and 77 percent of last year; Pishkun storage was 10 percent of average and 9 percent of last year; Willow Creek storage was 122 percent of average and 97 percent of last year; Lower Two Medicine Lake data was unavailable; Swift storage was 87 percent of average and 110 percent of last year; Lake Frances storage was 70 percent of average and 49 percent of last year; and Lake Elwell (Tiber) storage was 108 percent of average and 102 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 103 percent.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Gibson Reservoir Inflow (2)	APR-JUL	270	340	390	99	440	510	395
	APR-SEP	305	380	430	98	480	555	440
Two Medicine R nr Browning (2)	APR-JUL	132	162	182	100	200	230	183
	APR-SEP	144	174	194	100	215	245	194
Badger Ck nr Browning	APR-JUL	55	75	89	101	103	123	88
	APR-SEP	67	88	103	100	118	139	103
Swift Reservoir Inflow (2)	APR-JUL	32	44	53	93	62	74	57
	APR-SEP	40	54	63	94	72	86	67
Dupuyer Ck nr Valier	APR-JUL	1.6	5.4	10.3	93	15.2	22	11.1
	APR-SEP	1.8	6.1	11.5	91	16.9	25	12.7
Cut Bank Ck nr Browning	APR-JUL	44	60	71	103	82	98	69
	APR-SEP	47	64	76	101	88	105	75
Marias R nr Shelby (2)	APR-JUL	167	285	365	106	445	565	345
	APR-SEP	170	290	375	104	460	580	360
Teton R nr Dutton	APR-JUL	5.0	19.0	38	91	57	85	42
	APR-SEP	5.0	24	44	92	64	94	48

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
GIBSON	99.1	14.7	19.2	36.4
PISHKUN	32.0	1.8	20.0	17.7
WILLOW CREEK	32.2	27.4	28.3	22.5
LOWER TWO MEDICINE LAKE		NO REPORT		
FOUR HORNS LAKE		NO REPORT		
SWIFT	30.0	12.0	10.9	13.8
LAKE FRANCES	112.0	40.3	82.2	57.6
LAKE ELWELL (TIBER)	1347.0	772.6	760.1	715.9

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - January 1, 2013

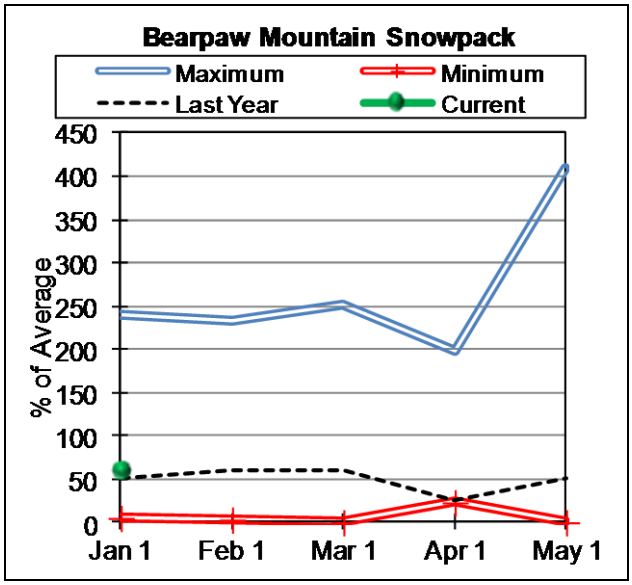
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SUN	2	72	86
TETON	3	65	78
MARIAS	3	80	73
SUN-TETON-MARIAS	6	75	78

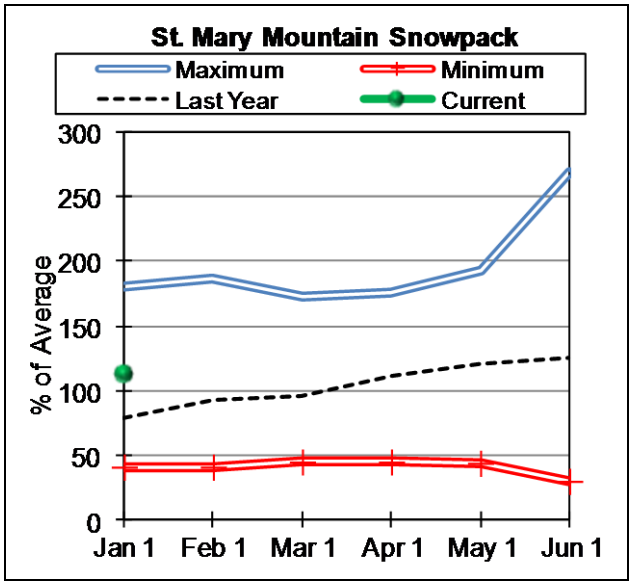
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

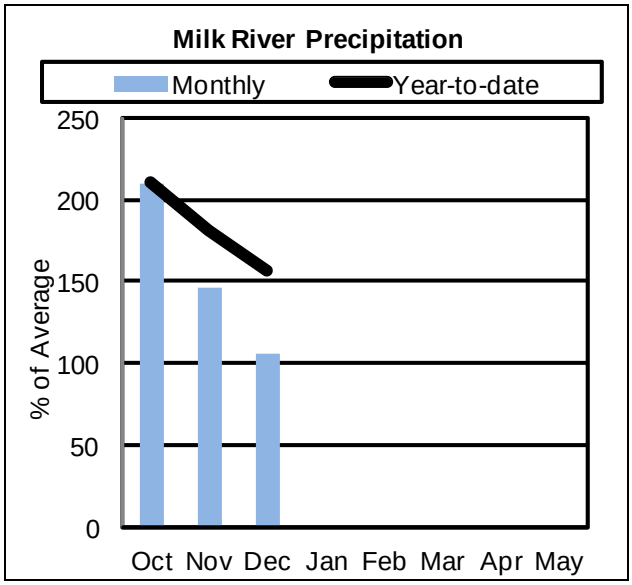
The average is computed for the 1981-2010 base period.

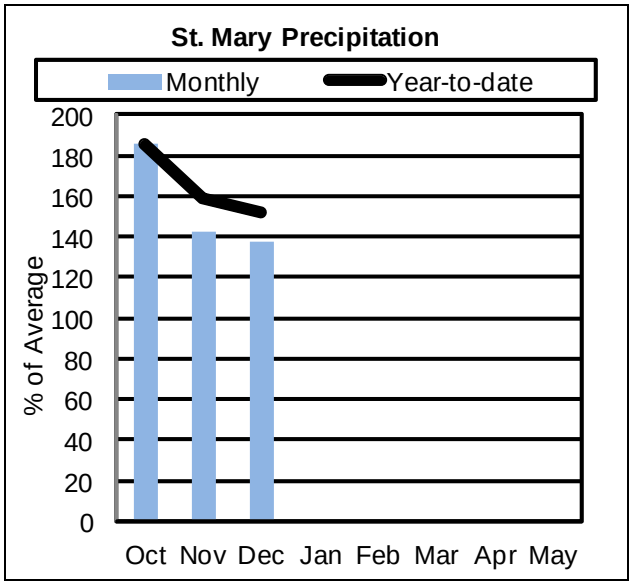
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

St. Mary and Milk River Basins









Snowpack in the Saint Mary River Basin was near normal on January 1. Snow water content was 109 percent of median and 121 percent of last year.

Mountain precipitation, according to SNOTEL stations, in the St. Mary River Basin during December was 138 percent of average and 204 percent of last year; and in the Milk River Basin during December was 106 percent of average and 300 percent of last year. Water year precipitation for both basins, beginning October 1, 2011, was 152 percent of average and 161 percent of last year.

Lake Sherburne storage was 202 percent of average and 223 percent of last year; Fresno storage was 114 percent of average and 81 percent of last year; and Nelson storage was 136 percent of average and 100 percent of last year.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Lake Sherburne Inflow	APR-JUL	77	89	97	100	105	117	97
	APR-SEP	94	106	114	102	122	134	112
St. Mary R nr Babb (2)	APR-JUL	305	350	385	104	420	465	370
	APR-SEP	365	415	450	106	485	535	425
St. Mary R at Int'l Boundary (2)	APR-JUL	335	405	455	105	505	575	435
	APR-SEP	410	480	530	105	580	650	505

ST. MARY and MILK RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
LAKE SHERBURNE	64.3	51.4	23.0	25.5
FRESNO	127.0	49.4	60.8	43.2
BEAVER CREEK		NO REPORT		
NELSON	66.8	45.0	53.3	33.0

ST. MARY and MILK RIVER BASINS
Watershed Snowpack Analysis - January 1, 2013

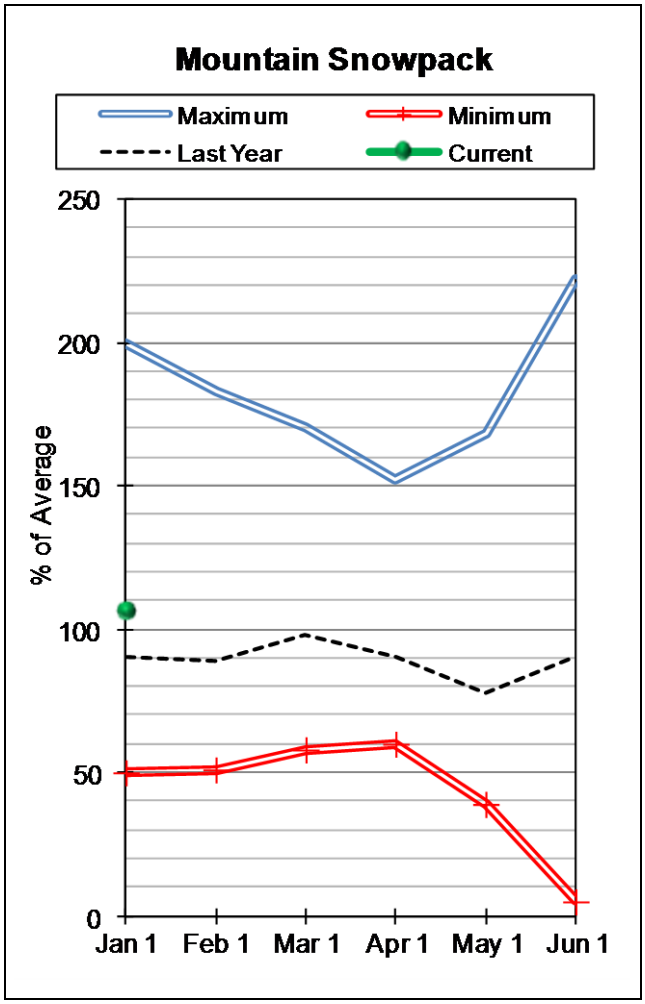
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
ST. MARY	2	121	113
BEARPAW MOUNTAINS	1	109	60
CYPRESS HILLS, CANADA	0	0	0
MILK RIVER BASIN	1	109	60
ST. MARY & MILK BASINS	3	121	109

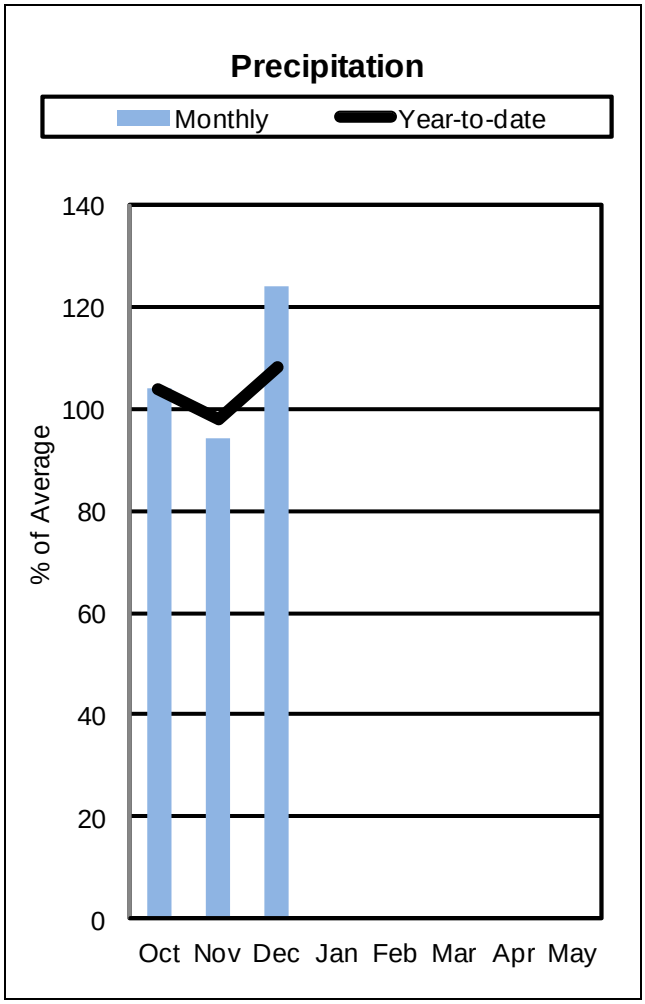
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Yellowstone River Basin





Snowpack conditions in the Upper Yellowstone River Basin were near normal on January 1. Snow water content was 106 percent of median and 103 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 124 percent of average and 146 percent of last year. Water year precipitation, beginning October 1, 2011, was 108 percent of average and 103 percent of last year.
97

Mystic Lake storage was 154 percent of average and 90 percent of last year and Cooney storage was 101 percent of average and 72 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 99 percent.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Yellowstone R at Yellowstone Lake	APR-JUL	460	545	600	104	655	740	575
	APR-SEP	605	710	785	102	860	965	770
Yellowstone R at Corwin Springs	APR-JUL	1340	1540	1680	106	1820	2020	1590
	APR-SEP	1570	1810	1970	105	2130	2370	1880
Yellowstone R at Livingston	APR-JUL	1520	1760	1920	107	2080	2320	1800
	APR-SEP	1780	2060	2250	105	2440	2720	2140
Shields R nr Livingston	APR-JUL	4.0	64	105	81	146	205	129
	APR-SEP	5.0	71	116	81	161	225	143
Boulder R at Big Timber	APR-JUL	200	250	280	100	310	360	280
	APR-SEP	215	270	305	102	340	395	300
West Rosebud Ck nr Roscoe (2)	APR-JUL	46	52	56	95	60	66	59
	APR-SEP	59	67	72	97	77	85	74
Stillwater R nr Absarokee (2)	APR-JUL	325	385	430	97	475	535	445
	APR-SEP	380	455	505	97	555	630	520
Clarks Fk Yellowstone R nr Belfry	APR-JUL	405	470	515	101	560	625	510
	APR-SEP	440	510	560	102	610	680	550
Yellowstone R at Billings	APR-JUL	2560	3040	3370	104	3700	4180	3230
	APR-SEP	2900	3470	3860	104	4250	4820	3730

UPPER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MYSTIC LAKE	21.0	12.2	13.6	7.9
COONEY	27.4	16.7	17.3	16.6

UPPER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - January 1, 2013

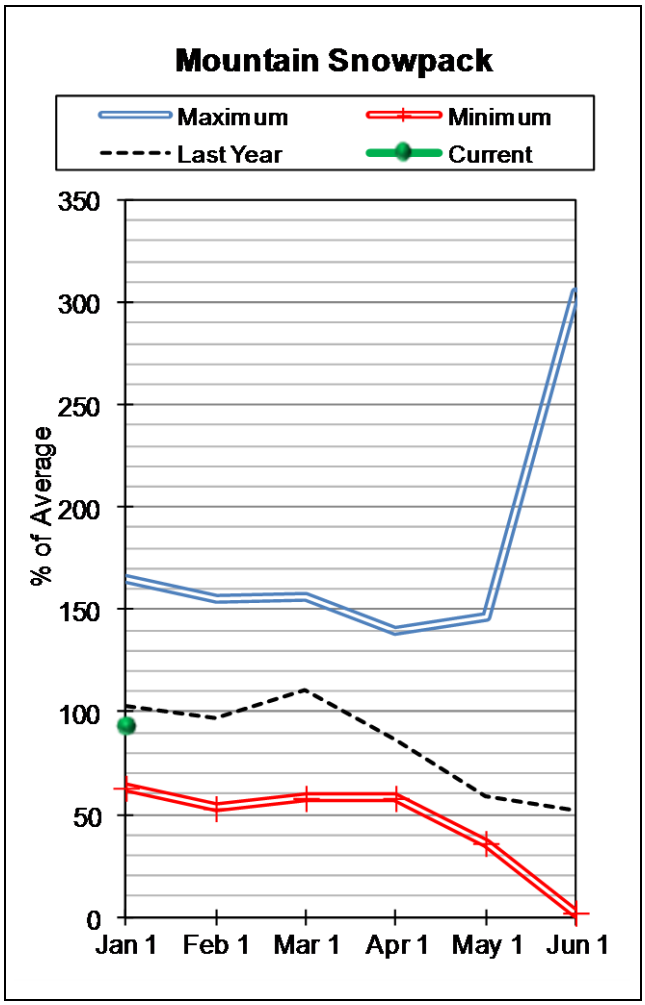
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
YELLOWSTONE ab LIVINGSTON	13	108	112
SHIELDS	4	146	101
BOULDER-STILLWATER	3	108	110
RED LODGE-ROCK CREEK	2	33	57
CLARK'S FORK	7	102	109
UPPER YELLOWSTONE BASIN	25	102	106

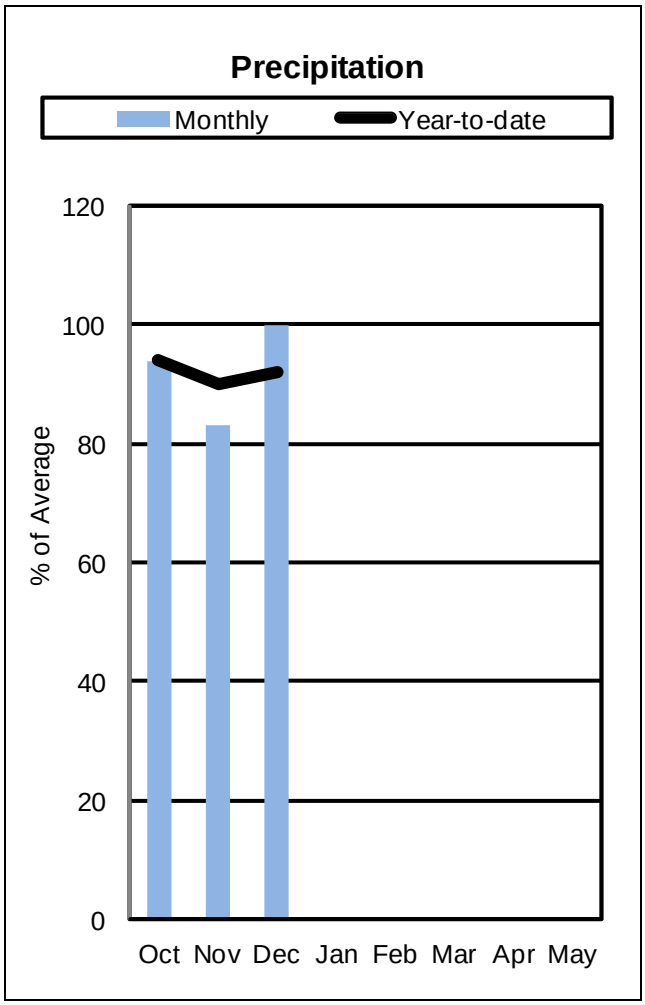
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Yellowstone River Basin





Snowpack conditions in the Lower Yellowstone River Basin were near normal on January 1. Snow water content was 93 percent of median and 80 percent of last year.

Mountain precipitation according to SNOTEL stations during December was 100 percent of average and 105 percent of last year. Water year precipitation, beginning October 1, 2011, was 92 percent of average and 76 percent of last year.

Bighorn Lake storage was 103 percent of average and 94 percent of last year and Tongue River storage was 169 percent of average and 84 percent of last year.

Assuming average precipitation, April through July streamflows are forecast to average 80 percent.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - January 1, 2013

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bighorn R nr St. Xavier (2)	APR-JUL	755	1100	1330	96	1560	1900	1380
	APR-SEP	760	1150	1410	97	1670	2060	1460
Little Bighorn R nr Hardin	APR-JUL	1.8	33	54	55	75	106	98
	APR-SEP	8.0	42	65	59	88	122	111
Tongue R nr Dayton (2)	APR-JUL	31	51	65	76	79	99	86
	APR-SEP	37	59	74	76	89	111	98
Big Goose Ck nr Sheridan	APR-JUL	10.9	23	31	67	39	51	46
	APR-SEP	17.5	30	38	70	46	59	54
Little Goose Ck nr Bighorn	APR-JUL	10.0	17.8	23	74	28	36	31
	APR-SEP	16.1	24	30	77	36	44	39
Tongue River Reservoir Inflow (2)	APR-JUL	12.0	79	124	64	169	235	193
	APR-SEP	22	92	140	65	188	260	215
Yellowstone R at Miles City (2)	APR-JUL	3310	4160	4740	99	5320	6170	4780
	APR-SEP	3700	4700	5380	99	6060	7060	5450
Powder R at Moorhead	APR-JUL	32	101	148	84	195	265	177
	APR-SEP	50	121	170	87	220	290	196
Powder R nr Locate	APR-JUL	26	110	167	84	225	310	199
	APR-SEP	38	129	190	86	250	340	220
Yellowstone R nr Sidney (2)	APR-JUL	3140	4110	4770	99	5430	6400	4830
	APR-SEP	3410	4550	5330	98	6110	7250	5430

LOWER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BIGHORN LAKE	1356.0	893.9	947.1	871.2
TONGUE RIVER	79.1	44.6	53.3	26.4

LOWER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - January 1, 2013

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
WIND RIVER (Wyoming)	11	98	100
SHOSHONE RIVER (Wyoming)	5	95	110
BIGHORN RIVER (Wyoming)	15	83	98
LITTLE BIGHORN (Wyoming)	2	48	61
TONGUE RIVER (Wyoming)	7	51	75
POWDER RIVER (Wyoming)	6	80	91
LOWER YELLOWSTONE BASIN (	29	80	94

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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(2) - The value is natural volume - actual volume may be affected by upstream water management.

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Montana
Water Supply Outlook Report

Natural Resources Conservation Service