

Report Created:
9/23/2014 8:36:18 AM

Streamflow Forecast Summary: May 1, 2013
(averages based on 1981-2010 reference period)

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

KOOTENAI RIVER BASIN in MONTANA	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Tobacco R nr Eureka	MAY-JUL	78	94	105	104%	116	132	101
	MAY-SEP	88	106	119	104%	132	150	114
Libby Reservoir Inflow ¹								
Fisher R nr Libby	MAY-JUL	91	114	130	96%	146	169	136
	MAY-SEP	102	127	144	96%	161	186	150
Yaak R nr Troy	MAY-JUL	235	285	320	103%	355	405	310
	MAY-SEP	250	305	340	103%	375	430	330
Kootenai R at Leona ^{1,2}	MAY-JUL	4449.48687	5371.3365	5790	101%	6208.6635	7130.51313	5730
	MAY-SEP	5653.21962	6517.48757	6910	103%	7302.51244	8166.78038	6730

1) 90% and 10% exceedance probabilities are actually 95% and 5%

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3) Median value used in place of average

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Chance that actual volume will exceed forecast

FLATHEAD RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
NF Flathead R nr Columbia Falls	MAY-JUL	1330	1440	1520	115%	1600	1710	1320
	MAY-SEP	1480	1610	1700	115%	1790	1920	1480
MF Flathead R nr West Glacier	MAY-JUL	1290	1420	1510	116%	1600	1730	1300
	MAY-SEP	1410	1550	1650	115%	1750	1890	1430
Sf Flathead R nr Hungry Horse	MAY-JUL	1030	1120	1180	116%	1240	1330	1020
	MAY-SEP	1100	1200	1260	115%	1320	1420	1100
Hungry Horse Reservoir Inflow ^{1,2}	MAY-JUL	1520	1730	1820	115%	1910	2120	1580
	MAY-SEP	1620	1850	1950	115%	2050	2280	1690
Flathead R at Columbia Falls ²	MAY-JUL	4380	4720	4960	116%	5200	5540	4290
	MAY-SEP	4780	5170	5430	115%	5690	6080	4720
Ashley Ck nr Marion ²	MAY	1.75	2.4	2.8	108%	3.2	3.9	2.6
	MAY-JUL	2.7	3.7	4.3	110%	4.9	5.9	3.9
Swan R nr Bigfork	MAY-JUL	395	435	465	107%	495	535	435
	MAY-SEP	465	515	545	107%	575	625	510
Flathead Lake Inflow ^{1,2}	MAY-JUL	4790	5420	5700	115%	5980	6610	4940
	MAY-SEP	5180	5890	6220	115%	6550	7260	5400
Mill Ck ab Bassoo ck nr Niarada	MAY-JUL	1.3	2.1	2.6	90%	3.1	3.9	2.9
	MAY-SEP	1.56	2.4	2.9	91%	3.4	4.2	3.2
South Crow Ck nr Ronan	MAY-JUL	7.5	8.7	9.5	103%	10.3	11.5	9.2
	MAY-SEP	8.8	10.1	11	104%	11.9	13.2	10.6
Mission Ck nr St. Ignatius	MAY-JUL	21	23	24	100%	25	27	24
	MAY-SEP	25	27	29	100%	31	33	29
SF Jocko R nr Arlee	MAY-JUL	26	29	31	107%	33	36	29

NF Jocko R bl Tabor Feeder Canal	MAY-SEP	29	33	35	106%	37	41	33
	MAY-JUL	26	28	29	104%	30	32	28
	MAY-SEP	27	30	31	103%	32	35	30

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3) Median value used in place of average

Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast

UPPER CLARK FORK RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Little Blackfoot nr Garrison	MAY-JUL	11.6	27	37	66%	47	62	56
	MAY-SEP	14.2	31	42	67%	53	70	63
Flint Ck nr Southern Cross	MAY-JUL	0.51	3.7	5.9	56%	8.1	11.3	10.5
	MAY-SEP	0.08	4.1	6.8	54%	9.5	13.5	12.7
Flint Ck bl Boulder Ck	MAY-JUL	7.7	19.8	28	62%	36	48	45
	MAY-SEP	13.9	28	38	64%	48	62	59
Lower Willow Ck Reservoir Inflow ²	MAY	0.2	0.6	1.64	33%	2.8	4.5	5
	MAY-JUL	0.34	1.02	2.2	26%	3.9	6.5	8.5
MF Rock Ck nr Philipsburg	MAY-JUL	17.9	29	36	68%	43	54	53
	MAY-SEP	22	34	42	70%	50	62	60
Rock Ck nr Clinton	MAY-JUL	51	101	135	61%	169	220	220
	MAY-SEP	72	126	163	65%	200	255	250
Clark Fork R ab Milltown	MAY-JUL	31	167	260	58%	355	490	445
	MAY-SEP	73	225	325	61%	425	575	530
Nevada Ck nr Helmville	MAY	0.02	2.3	3.8	73%	5.3	7.6	5.2
	MAY-JUL	0.55	4.8	7.7	70%	10.6	14.9	11
Blackfoot R nr Bonner	MAY-JUL	390	475	530	90%	585	670	590
	MAY-SEP	455	545	605	90%	665	755	675
Clark Fork R ab Missoula	MAY-JUL	440	650	795	77%	940	1150	1030
	MAY-SEP	560	785	940	78%	1090	1320	1200

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BITTERROOT RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
WF Bitterroot R Nr Conner ²	MAY-JUL	58	79	93	85%	107	128	109
	MAY-SEP	61	86	103	86%	120	145	120
Bitterroot R Nr Darby	MAY-JUL	210	270	310	86%	350	410	360
	MAY-SEP	265	325	370	88%	415	475	420
Como Reservoir Inflow ²	MAY-JUL	51	58	63	95%	68	75	66
	MAY-SEP	53	61	66	96%	71	79	69
Bitterroot R nr Missoula	MAY-JUL	675	800	890	90%	980	1110	990

MAY-SEP	750	895	990	91%	1090	1230	1090
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Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast

LOWER CLARK FORK RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Clark Fork R bl Missoula	MAY-JUL	1170	1490	1710	84%	1930	2250	2030
	MAY-SEP	1360	1710	1950	85%	2190	2540	2300
Clark Fork R at St. Regis ¹	MAY-JUL	1390	1970	2240	85%	2510	3090	2640
	MAY-SEP	1630	2270	2560	86%	2850	3490	2990
Clark Fork R nr Plains ^{1,2}	MAY-JUL	6510	7690	8220	106%	8750	9930	7780
	MAY-SEP	7160	8500	9110	105%	9720	11100	8650
Thompson nr Thompson Falls	MAY-JUL	71	99	118	86%	137	165	138
	MAY-SEP	88	119	140	87%	161	192	161
Prospect Ck at Thompson Falls	MAY-JUL	47	59	67	88%	75	87	76
	MAY-SEP	54	66	74	88%	82	94	84
Clark Fork R at Whitehorse Rapids ^{1,2}	MAY-JUL	7350	8620	9190	105%	9760	11000	8740
	MAY-SEP	8120	9550	10200	105%	10900	12300	9760

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JEFFERSON RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Lima Reservoir Inflow ²	MAY-JUL	21	32	40	70%	48	59	57
	MAY-SEP	23	36	45	70%	54	67	64
Clark Canyon Inflow ²	MAY-JUL	-25	10.3	34	53%	58	93	64
	MAY-SEP	-12.4	25	51	61%	77	114	83
Beaverhead R at Barretts ²	MAY-JUL	-5	13.2	51	60%	89	144	85
	MAY-SEP	4	24	69	62%	114	181	111
Ruby R Reservoir Inflow ²	MAY-JUL	19.9	34	43	64%	52	66	67
	MAY-SEP	28	44	55	67%	66	82	82
Big Hole R at Wisdom	MAY-JUL	8.5	35	53	71%	71	98	75
	MAY-SEP	6.4	35	55	69%	75	104	80
Big Hole R nr Melrose	MAY-JUL	235	295	335	76%	375	435	440
	MAY-SEP	260	330	375	78%	420	490	480
Jefferson R nr Twin Bridges ²	MAY-JUL	71	230	340	66%	450	610	515
	MAY-SEP	62	250	380	68%	510	700	555
Boulder R nr Boulder	MAY-JUL	27	38	45	75%	52	63	60
	MAY-SEP	28	41	49	75%	57	70	65
Willow Ck Reservoir Inflow ²								

	MAY-JUL	0.81	5.5	8.7	60%	11.9	16.6	14.4
	MAY-SEP	1.63	6.7	10.1	60%	13.5	18.6	16.8
Jefferson R nr Three Forks ²								
	MAY-JUL	64	235	355	62%	475	645	575
	MAY-SEP	55	250	385	61%	520	715	635

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MADISON RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Hebgen Reservoir Inflow ²								
	MAY-JUL	230	260	280	92%	300	330	305
	MAY-SEP	315	350	375	93%	400	435	405
Ennis Reservoir Inflow ²								
	MAY-JUL	355	420	465	88%	510	575	530
	MAY-SEP	475	550	605	89%	660	735	680

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Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast

GALLATIN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Gallatin R nr Gateway								
	MAY-JUL	280	325	350	95%	375	420	370
	MAY-SEP	330	380	410	93%	440	490	440
Hyalite Reservoir Inflow ²								
	MAY-JUL	14.8	16.6	17.8	96%	19	21	18.5
	MAY-SEP	16.6	18.6	20	95%	21	23	21
Gallatin R at Logan								
	MAY-JUL	215	295	345	91%	395	475	380
	MAY-SEP	250	340	405	91%	470	560	445

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Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast

SMITH-JUDITH-MUSSELSHELL	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Sheep Ck nr White Sulphur Springs								
	MAY-JUL	8	11	13	97%	15	18	13.4
	MAY-SEP	9.7	13.3	15.8	98%	18.3	22	16.2
Smith R bl Eagle Ck ²								
	MAY-JUL	40	67	86	97%	105	132	89
	MAY-SEP	41	74	97	98%	120	153	99
NF Musselshell R nr Delpine								
	MAY-JUL	0.59	2	3	91%	4	5.4	3.3
	MAY-SEP	0.87	2.6	3.7	90%	4.8	6.5	4.1
SF Musselshell R ab Martinsdale								
	MAY-JUL	7.5	14.2	27	73%	40	59	37
	MAY-SEP	7.5	15.7	29	73%	42	62	40
Musselshell R at Harlowton ²								
	MAY-JUL	-5	12.2	33	69%	54	85	48
	MAY-SEP	-4	10.6	33	66%	55	88	50

Musselshell R nr Roundup²

MAY-JUL	1	12.7	25	46%	37	55	54
MAY-SEP	1	8.2	21	39%	34	52	54

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Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

SUN-TETON-MARIAS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Gibson Reservoir Inflow	MAY-JUL	285	325	350	99%	375	415	355
	MAY-SEP	320	360	390	99%	420	460	395
Two Medicine R nr Browning ²	MAY-JUL	123	143	156	102%	169	189	153
	MAY-SEP	131	152	167	102%	182	205	164
Badger Ck nr Browning	MAY-JUL	56	67	74	96%	81	92	77
	MAY-SEP	65	78	87	95%	96	109	92
Swift Reservoir Inflow ²	MAY-JUL	37	47	53	108%	59	69	49
	MAY-SEP	45	56	64	107%	72	83	60
Dupuyer Ck nr Valier	MAY-JUL	1	5.4	9.8	108%	14.2	21	9.1
	MAY-SEP	1	6.3	11.2	105%	16.1	23	10.7
Cut Bank Ck nr Browning	MAY-JUL	45	56	63	102%	70	81	62
	MAY-SEP	48	60	68	100%	76	88	68
Marias R nr Shelby ²	MAY-JUL	171	255	315	111%	375	460	285
	MAY-SEP	164	260	325	108%	390	485	300
Teton R nr Dutton	MAY-JUL	2.9	20	35	100%	50	72	35
	MAY-SEP	3	24	40	98%	56	80	41

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Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

ST. MARY & MILK BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Lake Sherburne Inflow	MAY-JUL	83	91	97	113%	103	111	86
	MAY-SEP	97	106	113	112%	120	129	101
St. Mary R nr Babb ²	MAY-JUL	325	360	385	113%	410	445	340
	MAY-SEP	380	420	450	114%	480	520	395
St. Mary R at Intl Boundary ²	MAY-JUL	360	410	445	111%	480	530	400
	MAY-SEP	420	475	515	110%	555	610	470
Milk R at Western Crossing of Intl Bndry, AB	MAY-JUL	1.57	17.9	29	132%	40	56	22
	MAY-SEP	2.1	19.9	32	128%	44	62	25
Milk R at Eastern Crossing of Intl Bndry	MAY-JUL	-5	16.8	43	123%	69	108	35
	MAY-SEP	3	21	50	122%	79	123	41

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MISSOURI MAINSTEM BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Missouri R at Toston ²	MAY-JUL	755	1030	1220	82%	1410	1680	1480
	MAY-SEP	875	1220	1450	82%	1680	2020	1760
Dearborn R nr Craig	MAY-JUL	34	60	77	101%	94	120	76
	MAY-SEP	39	66	84	102%	102	129	82
Missouri R at Fort Benton ²	MAY-JUL	1160	1550	1820	83%	2090	2480	2190
	MAY-SEP	1400	1910	2250	84%	2590	3100	2680
Missouri R nr Virgelle ²	MAY-JUL	1400	1850	2150	86%	2450	2900	2510
	MAY-SEP	1590	2180	2580	85%	2980	3570	3030
Missouri R nr Landusky ²	MAY-JUL	1540	1980	2270	86%	2560	3000	2650
	MAY-SEP	1770	2350	2740	86%	3130	3710	3200
Missouri R bl Fort Peck Dam ²	MAY-JUL	1400	1930	2280	84%	2630	3160	2700
	MAY-SEP	1420	2140	2620	83%	3100	3820	3160
Lake Sakakawea Inflow ²	MAY-JUL	4360	5420	6140	85%	6860	7920	7230
	MAY-SEP	4320	5890	6950	84%	8010	9580	8320

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UPPER YELLOWSTONE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Yellowstone R at Yellowstone Lake Outlet	MAY-JUL	375	435	475	87%	515	575	545
	MAY-SEP	510	585	635	86%	685	760	735
Yellowstone R at Corwin Springs	MAY-JUL	1100	1260	1360	92%	1460	1620	1480
	MAY-SEP	1300	1480	1610	91%	1740	1920	1770
Yellowstone R at Livingston	MAY-JUL	1220	1410	1540	92%	1670	1860	1670
	MAY-SEP	1450	1680	1830	91%	1980	2210	2010
Shields R nr Livingston	MAY-JUL	3.2	42	69	64%	96	135	108
	MAY-SEP	2.5	47	77	63%	107	152	123
Boulder R at Big Timber	MAY-JUL	199	230	250	93%	270	300	270
	MAY-SEP	210	245	270	93%	295	330	290
Mystic Lake Inflow ²	MAY-JUL	42	46	49	86%	52	56	57
	MAY-SEP	53	60	64	89%	68	75	72
Stillwater R nr Absarokee ²	MAY-JUL	280	330	365	87%	400	450	420
	MAY-SEP	330	395	435	88%	475	540	495
Clarks Fk Yellowstone R nr Belfry	MAY-JUL	390	430	460	96%	490	530	480
	MAY-SEP	415	465	500	95%	535	585	525
Cooney Reservoir Inflow	MAY-JUL	7.3	17.2	24	73%	31	41	33

Yellowstone R at Billings	MAY-SEP	13.8	25	32	74%	39	50	43
	MAY-JUL	1970	2380	2660	89%	2940	3350	3000
	MAY-SEP	2230	2740	3080	88%	3420	3930	3490

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LOWER YELLOWSTONE RIVER BASIN (Wyoming)	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Bighorn R nr St. Xavier ²								
	MAY-JUL	595	830	990	79%	1150	1380	1260
	MAY-SEP	580	840	1020	76%	1200	1460	1340
Little Bighorn R nr Hardin								
	MAY-JUL	32	50	62	73%	74	92	85
	MAY-SEP	40	59	72	74%	85	104	97
Tongue R nr Dayton ²								
	MAY-JUL	47	63	74	93%	85	101	80
	MAY-SEP	57	74	86	93%	98	115	92
Big Goose Ck nr Sheridan								
	MAY-JUL	22	31	36	82%	41	50	44
	MAY-SEP	30	38	44	85%	50	58	52
Little Goose Ck nr Bighorn								
	MAY-JUL	15.6	21	24	83%	27	32	29
	MAY-SEP	22	27	31	84%	35	40	37
Tongue River Reservoir Inflow ²								
	MAY-JUL	55	109	145	83%	181	235	175
	MAY-SEP	70	127	166	84%	205	260	198
Yellowstone R at Miles City ²								
	MAY-JUL	2780	3350	3730	85%	4110	4680	4370
	MAY-SEP	3010	3750	4260	85%	4770	5510	5030
Powder R at Moorehead								
	MAY-JUL	70	121	156	103%	191	240	151
	MAY-SEP	88	142	178	105%	215	270	170
Powder R nr Locate								
	MAY-JUL	62	127	171	104%	215	280	164
	MAY-SEP	76	147	195	105%	245	315	185
Yellowstone R nr Sidney ²								
	MAY-JUL	2610	3280	3740	85%	4200	4870	4380
	MAY-SEP	2680	3570	4180	84%	4790	5680	4980

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