

Report Created:
9/30/2014 11:20:19 PM

Streamflow Forecast Summary: May 1, 2012
(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	110	126	137	125%	148	164	110
	MAY-SEP	123	141	154	124%	167	185	124
Libby Reservoir Inflow ¹								
Fisher R nr Libby	MAY-JUL	121	144	160	103%	176	199	155
	MAY-SEP	132	157	174	102%	191	215	170
Yaak R nr Troy	MAY-JUL	380	430	465	133%	500	550	350
	MAY-SEP	400	455	490	132%	525	580	370
Kootenai R at Leonia ^{1,2}	MAY-JUL	5750	6670	7090	115%	7510	8430	6170
	MAY-SEP	7130	7990	8390	116%	8780	9640	7250

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

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

		Forecast Exceedance Probabilities for Risk Assessment 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	1450	1570	1650	116%	1720	1840	1420
	MAY-SEP	1640	1760	1850	116%	1940	2070	1600
MF Flathead R nr West Glacier	MAY-JUL	1240	1380	1460	105%	1550	1690	1390
	MAY-SEP	1390	1530	1630	106%	1730	1870	1540
Sf Flathead R nr Hungry Horse	MAY-JUL	950	1040	1100	100%	1160	1250	1100
	MAY-SEP	1040	1140	1200	100%	1260	1360	1200
Hungry Horse Reservoir Inflow ^{1,2}	MAY-JUL	1230	1430	1530	89%	1620	1830	1710
	MAY-SEP	1320	1550	1650	90%	1760	1980	1840
Flathead R at Columbia Falls ²	MAY-JUL	4190	4540	4780	103%	5010	5360	4630
	MAY-SEP	4690	5080	5340	105%	5600	5990	5110
Ashley Ck nr Marion ²	MAY	2	2.7	3.1	111%	3.5	4.2	2.8
	MAY-JUL	3.1	4.1	4.7	104%	5.3	6.3	4.5
Swan R nr Bigfork	MAY-JUL	430	470	500	106%	530	570	470
	MAY-SEP	505	555	585	106%	615	665	550
Flathead Lake Inflow ^{1,2}	MAY-JUL	4620	5250	5530	104%	5810	6440	5320
	MAY-SEP	5090	5810	6130	105%	6460	7170	5840
Mill Ck ab Bassoo ck nr Niarada	MAY-JUL	2	2.8	3.3	118%	3.8	4.6	2.8
	MAY-SEP	2.3	3.1	3.6	116%	4.1	4.9	3.1
South Crow Ck nr Ronan	MAY-JUL	7.9	9.1	9.9	108%	10.7	11.9	9.2
	MAY-SEP	9.2	10.5	11.4	108%	12.3	13.6	10.6
Mission Ck nr St. Ignatius	MAY-JUL	22	24	25	104%	26	28	24
	MAY-SEP	25	27	29	104%	31	33	28

SF Jocko R nr Arlee

MAY-JUL	31	34	36	124%	38	41	29
MAY-SEP	35	39	41	124%	43	47	33

NF Jocko R bl Tabor Feeder Canal

MAY-JUL	30	32	33	122%	34	36	27
MAY-SEP	31	34	35	121%	36	39	29

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
 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	26	41	51	81%	61	76	63
	MAY-SEP	29	46	57	81%	68	85	70
Flint Ck nr Southern Cross	MAY-JUL	2.8	6	8.2	70%	10.4	13.6	11.7
	MAY-SEP	3.1	7.1	9.8	69%	12.5	16.5	14.2
Flint Ck bl Boulder Ck	MAY-JUL	16.7	29	37	77%	45	57	48
	MAY-SEP	24	38	48	76%	58	72	63
Lower Willow Ck Reservoir Inflow ²	MAY	1.29	3	4.2	71%	5.4	7.1	5.9
	MAY-JUL	2.6	5.2	6.9	68%	8.6	11.2	10.2
MF Rock Ck nr Philipsburg	MAY-JUL	36	47	54	92%	61	72	59
	MAY-SEP	41	53	61	91%	69	81	67
Rock Ck nr Clinton	MAY-JUL	141	191	225	94%	260	310	240
	MAY-SEP	164	220	255	93%	290	345	275
Clark Fork R ab Milltown	MAY-JUL	210	345	440	86%	535	670	510
	MAY-SEP	270	420	520	85%	620	770	610
Nevada Ck nr Helmville	MAY	3.1	5.4	6.9	100%	8.4	10.7	6.9
	MAY-JUL	6.2	10.4	13.3	96%	16.2	20	13.9
Blackfoot R nr Bonner	MAY-JUL	550	635	690	102%	745	830	675
	MAY-SEP	625	715	775	101%	835	925	765
Clark Fork R ab Missoula	MAY-JUL	785	995	1140	96%	1280	1490	1190
	MAY-SEP	930	1160	1310	96%	1460	1690	1370

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
 3) Median value used in place of average

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

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	77	98	112	90%	126	147	125
	MAY-SEP	82	107	124	90%	141	166	138
Bitterroot R Nr Darby	MAY-JUL	265	325	365	90%	405	465	405
	MAY-SEP	310	370	415	90%	460	520	460
Como Reservoir Inflow ²	MAY-JUL	58	65	70	106%	75	82	66

Bitterroot R nr Missoula	MAY-SEP	61	69	74	106%	79	87	70
	MAY-JUL	825	950	1040	95%	1130	1260	1100
	MAY-SEP	910	1050	1150	95%	1250	1390	1210

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
3) Median value used in place of average

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	1640	1960	2180	95%	2400	2720	2290
	MAY-SEP	1860	2210	2450	95%	2690	3040	2580
Clark Fork R at St. Regis ¹	MAY-JUL	2410	2990	3260	109%	3530	4110	2980
	MAY-SEP	2750	3380	3680	109%	3970	4600	3370
Clark Fork R nr Plains ^{1,2}	MAY-JUL	7440	8620	9150	106%	9690	10900	8630
	MAY-SEP	8320	9660	10300	107%	10900	12200	9610
Thompson nr Thompson Falls	MAY-JUL	117	145	164	103%	183	210	159
	MAY-SEP	138	169	190	103%	210	240	185
Prospect Ck at Thompson Falls	MAY-JUL	71	83	91	105%	99	111	87
	MAY-SEP	80	92	100	104%	108	120	96
Clark Fork R at Whitehorse Rapids ^{1,2}	MAY-JUL	8660	9930	10500	109%	11100	12300	9590
	MAY-SEP	9760	11200	11800	110%	12500	13900	10700

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
3) Median value used in place of average

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

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	20	31	39	56%	47	58	70
	MAY-SEP	21	34	43	55%	52	65	78
Clark Canyon Inflow ²	MAY-JUL	-8	14	29	32%	53	88	90
	MAY-SEP	0	25	43	37%	69	106	116
Beaverhead R at Barretts ²	MAY-JUL	-7	24	50	42%	72	108	120
	MAY-SEP	2	41	68	44%	94	134	153
Ruby R Reservoir Inflow ²	MAY-JUL	32	46	55	74%	64	78	74
	MAY-SEP	41	57	68	75%	79	95	91
Big Hole R at Wisdom	MAY-JUL	13.6	21	34	36%	54	83	95
	MAY-SEP	15	23	38	37%	59	91	104
Big Hole R nr Melrose	MAY-JUL	125	220	290	56%	355	455	520
	MAY-SEP	139	250	325	57%	400	510	575
Jefferson R nr Twin Bridges ²	MAY-JUL	61	220	330	52%	440	600	635
	MAY-SEP	48	220	350	49%	480	670	710

Boulder R nr Boulder	MAY-JUL	26	41	51	75%	61	76	68
	MAY-SEP	28	44	55	73%	67	84	75
Willow Ck Reservoir Inflow ²	MAY-JUL	2	6.7	9.9	65%	13.7	19.2	15.2
	MAY-SEP	3.9	9.1	12.5	71%	15.9	22	17.5
Jefferson R nr Three Forks ²	MAY-JUL	54	225	345	58%	465	635	600
	MAY-SEP	60	255	390	57%	525	720	680

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
3) Median value used in place of average

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

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	250	280	300	90%	320	350	335
	MAY-SEP	340	375	400	90%	425	460	445
Ennis Reservoir Inflow ²	MAY-JUL	385	450	495	85%	540	605	580
	MAY-SEP	515	590	645	86%	700	775	750

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
3) Median value used in place of average

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	300	345	370	91%	395	440	405
	MAY-SEP	355	405	435	91%	465	515	480
Hyalite Reservoir Inflow ²	MAY-JUL	15.5	17.3	18.5	93%	19.7	21	20
	MAY-SEP	17.6	19.6	21	91%	22	24	23
Gallatin R at Logan	MAY-JUL	245	325	375	88%	425	505	425
	MAY-SEP	295	385	450	89%	515	605	505

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
3) Median value used in place of average

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	10	13	15	99%	17	20	15.1
	MAY-SEP	11.8	15.4	17.9	99%	20	24	18.1
Smith R bl Eagle Ck ²	MAY-JUL	66	93	112	98%	131	158	114
	MAY-SEP	73	106	129	99%	152	185	130
NF Musselshell R nr Delpine	MAY-JUL	1.59	3	4	108%	5	6.4	3.7
	MAY-SEP	2.1	3.8	4.9	107%	6	7.7	4.6

SF Musselshell R ab Martinsdale								
	MAY-JUL	12.3	31	44	96%	57	76	46
	MAY-SEP	13.1	33	46	92%	59	79	50
Musselshell R at Harlowton ²								
	MAY-JUL	19.5	50	71	109%	92	123	65
	MAY-SEP	18.6	52	74	107%	96	129	69
Musselshell R nr Roundup ²								
	MAY-JUL	61	79	91	114%	103	121	80
	MAY-SEP	60	79	92	112%	105	124	82

		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	315	355	380	92%	405	445	415
	MAY-SEP	355	395	425	91%	455	495	465
Two Medicine R nr Browning ²	MAY-JUL	147	167	180	103%	193	215	174
	MAY-SEP	159	180	195	104%	210	230	187
Badger Ck nr Browning	MAY-JUL	63	74	81	107%	88	99	76
	MAY-SEP	68	81	90	106%	99	112	85
Swift Reservoir Inflow ²	MAY-JUL	44	54	60	105%	66	76	57
	MAY-SEP	53	64	72	104%	80	91	69
Dupuyer Ck nr Valier	MAY-JUL	1.52	7.9	12.3	106%	16.7	23	11.6
	MAY-SEP	1.92	9.1	14	105%	18.9	26	13.3
Cut Bank Ck nr Browning	MAY-JUL	47	58	65	94%	72	83	69
	MAY-SEP	51	63	71	93%	79	91	76
Marias R nr Shelby ²	MAY-JUL	215	300	360	104%	420	505	345
	MAY-SEP	210	305	370	100%	435	530	370
Teton R nr Dutton	MAY-JUL	9.9	32	47	112%	62	84	42
	MAY-SEP	14.5	39	55	110%	71	95	50

		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	90	98	104	111%	110	118	94
	MAY-SEP	105	114	121	108%	128	137	112
St. Mary R nr Babb ²								
	MAY-JUL	335	370	395	111%	420	455	355
	MAY-SEP	395	435	465	109%	495	535	425
St. Mary R at Intl Boundary ²								
	MAY-JUL	385	435	470	118%	505	555	400
	MAY-SEP	450	505	545	115%	585	640	475
Milk R at Western Crossing of Intl Bndry, AB								

Milk R at Eastern Crossing of Intl Bndry	MAY-JUL	19.8	26	30	150%	34	40	20
	MAY-SEP	22	29	34	148%	39	46	23
	MAY-JUL	18.6	43	59	141%	75	99	41.8
	MAY-SEP	28	52	69	141%	86	110	48.9

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

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

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

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	825	1100	1290	76%	1480	1750	1700
	MAY-SEP	995	1340	1570	77%	1800	2140	2040
Dearborn R nr Craig	MAY-JUL	44	70	87	82%	104	130	106
	MAY-SEP	51	78	96	87%	114	141	110
Missouri R at Fort Benton ²	MAY-JUL	1130	1620	1950	78%	2280	2770	2500
	MAY-SEP	1400	1990	2400	78%	2810	3400	3080
Missouri R nr Virgelle ²	MAY-JUL	1330	1900	2280	79%	2660	3230	2890
	MAY-SEP	1600	2290	2750	79%	3210	3900	3500
Missouri R nr Landusky ²	MAY-JUL	1390	1990	2400	78%	2810	3410	3080
	MAY-SEP	1620	2410	2910	78%	3410	4200	3750
Missouri R bl Fort Peck Dam ²	MAY-JUL	1450	2050	2460	80%	2870	3470	3080
	MAY-SEP	1740	2450	2940	80%	3430	4140	3670
Lake Sakakawea Inflow ²	MAY-JUL	3870	5500	6610	79%	7720	9350	8370
	MAY-SEP	5040	6440	7740	79%	9040	10400	9810

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

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

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

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	440	500	540	97%	580	640	555
	MAY-SEP	590	665	715	93%	765	840	770
Yellowstone R at Corwin Springs	MAY-JUL	1240	1400	1500	97%	1600	1760	1550
	MAY-SEP	1460	1650	1780	95%	1900	2090	1870
Yellowstone R at Livingston	MAY-JUL	1380	1570	1700	96%	1830	2020	1770
	MAY-SEP	1650	1880	2030	94%	2180	2410	2150
Shields R nr Livingston	MAY-JUL	54	93	120	99%	147	186	121
	MAY-SEP	59	104	134	97%	164	210	138
Boulder R at Big Timber	MAY-JUL	189	220	240	87%	260	290	275
	MAY-SEP	200	235	260	87%	285	320	300
Mystic Lake Inflow ²	MAY-JUL	48	52	55	95%	58	62	58

Stillwater R nr Absarokee ²	MAY-SEP	60	67	71	95%	75	82	75
	MAY-JUL	330	380	415	88%	450	500	470
Clarks Fk Yellowstone R nr Belfry	MAY-SEP	390	455	495	88%	535	600	560
	MAY-JUL	480	520	550	107%	580	620	515
Cooney Reservoir Inflow	MAY-SEP	520	570	605	106%	640	690	570
Yellowstone R at Billings	MAY-JUL	2240	2750	3090	95%	3430	3940	3250
	MAY-SEP	2640	3240	3650	95%	4060	4660	3850

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

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

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

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	410	645	805	55%	965	1200	1470
	MAY-SEP	410	670	850	52%	1030	1290	1630
Little Bighorn R nr Hardin	MAY-JUL	64	82	94	85%	106	124	110
	MAY-SEP	75	94	107	85%	120	139	126
Tongue R nr Dayton ²	MAY-JUL	38	54	65	72%	76	92	90
	MAY-SEP	47	64	76	74%	88	105	103
Big Goose Ck nr Sheridan	MAY-JUL	23	32	37	76%	42	51	49
	MAY-SEP	30	38	44	76%	50	58	58
Little Goose Ck nr Bighorn	MAY-JUL	15.6	21	24	75%	27	32	32
	MAY-SEP	22	27	31	78%	35	40	40
Tongue River Reservoir Inflow ²	MAY-JUL	43	97	133	67%	169	225	199
	MAY-SEP	56	113	152	68%	191	250	225
Yellowstone R at Miles City ²	MAY-JUL	2730	3490	4010	82%	4530	5290	4890
	MAY-SEP	3180	4070	4680	82%	5290	6180	5740
Powder R at Moorehead	MAY-JUL	25	76	111	62%	146	197	178
	MAY-SEP	42	96	132	66%	168	220	200
Powder R nr Locate	MAY-JUL	10.2	75	119	61%	163	230	195
	MAY-SEP	22	93	141	64%	189	260	220
Yellowstone R nr Sidney ²	MAY-JUL	2710	3490	4010	81%	4530	5310	4950
	MAY-SEP	3140	4040	4650	81%	5260	6160	5760

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

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average