

Report Created:
5/5/2016 8:14:07 AM

Streamflow Forecast Summary: May 1, 2016
(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	63	79	90	89%	101	117	101
	MAY-SEP	69	87	100	88%	113	131	114
Libby Reservoir Inflow ¹	MAY-JUL	3560	4160	4430	92%	4700	5300	4820
	MAY-SEP	4300	4930	5220	91%	5510	6140	5733
Fisher R nr Libby	MAY-JUL	73	97	112	82%	128	151	136
	MAY-SEP	83	108	125	83%	142	166	150
Yaak R nr Troy	MAY-JUL	186	235	270	87%	305	355	310
	MAY-SEP	200	255	290	88%	325	375	330
Kootenai R at Leonia ^{1,2}	MAY-JUL	3960	4880	5300	92%	5720	6640	5730
	MAY-SEP	4990	5860	6250	93%	6640	7510	6730

- 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	1030	1150	1220	92%	1300	1420	1320
	MAY-SEP	1160	1290	1380	93%	1470	1600	1480
MF Flathead R nr West Glacier	MAY-JUL	895	1030	1120	86%	1210	1340	1300
	MAY-SEP	1000	1140	1240	87%	1340	1480	1430
Sf Flathead R nr Hungry Horse	MAY-JUL	710	800	860	84%	920	1010	1020
	MAY-SEP	765	860	925	84%	985	1080	1100
Hungry Horse Reservoir Inflow ^{1,2}	MAY-JUL	1050	1250	1340	85%	1440	1640	1580
	MAY-SEP	1120	1350	1450	86%	1550	1780	1690
Flathead R at Columbia Falls ²	MAY-JUL	3190	3540	3770	88%	4010	4350	4290
	MAY-SEP	3530	3920	4180	89%	4440	4820	4720
Ashley Ck nr Marion ²	MAY	0.86	1.48	1.91	73%	2.3	3	2.6
	MAY-JUL	1.47	2.4	3	77%	3.7	4.6	3.9
Swan R nr Bigfork	MAY-JUL	305	345	375	86%	405	445	435
	MAY-SEP	355	405	435	85%	465	515	510
Flathead Lake Inflow ^{1,2}	MAY-JUL	3400	4020	4310	87%	4590	5220	4940
	MAY-SEP	3700	4410	4740	88%	5070	5780	5400
Mill Ck ab Bassoo ck nr Niarada	MAY-JUL	0.83	1.61	2.1	72%	2.7	3.4	2.9
	MAY-SEP	1.1	1.9	2.4	75%	3	3.8	3.2
South Crow Ck nr Ronan	MAY-JUL	7	8.2	9	98%	9.8	10.9	9.2
	MAY-SEP	8.1	9.4	10.3	97%	11.2	12.6	10.6
Mission Ck nr St. Ignatius	MAY-JUL	20	22	23	96%	25	27	24

Bitterroot R nr Missoula	MAY-JUL	44	52	57	86%	61	69	66
	MAY-SEP	47	55	60	87%	65	72	69
	MAY-JUL	605	735	820	83%	910	1040	990
	MAY-SEP	680	825	920	84%	1020	1160	1090

- 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	1110	1430	1650	81%	1870	2190	2030
	MAY-SEP	1290	1640	1880	82%	2120	2470	2300
Clark Fork R at St. Regis ¹	MAY-JUL	1310	1890	2160	82%	2430	3010	2640
	MAY-SEP	1540	2180	2470	83%	2760	3400	2990
Clark Fork R nr Plains ^{1,2}	MAY-JUL	4970	6150	6680	86%	7210	8390	7780
	MAY-SEP	5520	6860	7470	86%	8080	9420	8650
Thompson nr Thompson Falls	MAY-JUL	45	73	92	67%	112	140	138
	MAY-SEP	60	91	112	70%	133	164	161
Prospect Ck at Thompson Falls	MAY-JUL	35	46	54	71%	62	74	76
	MAY-SEP	40	52	61	73%	69	81	84
Clark Fork R at Whitehorse Rapids ^{1,2}	MAY-JUL	5620	6890	7460	85%	8030	9300	8740
	MAY-SEP	6300	7730	8380	86%	9030	10500	9760

- 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	15.1	26	34	60%	42	53	57
	MAY-SEP	14.7	28	37	58%	46	59	64
Clark Canyon Inflow ²	MAY-JUL	-24	11.3	35	55%	59	94	64
	MAY-SEP	-16.4	21	47	57%	73	110	83
Beaverhead R at Barretts ²	MAY-JUL	-7	12.2	50	59%	88	143	85
	MAY-SEP	4	18.6	64	58%	109	176	111
Ruby R Reservoir Inflow ²	MAY-JUL	30	44	53	79%	62	76	67
	MAY-SEP	39	55	66	80%	77	93	82
Big Hole R at Wisdom	MAY-JUL	23	50	68	91%	86	113	75
	MAY-SEP	25	54	74	93%	94	123	80
Big Hole R nr Melrose	MAY-JUL	315	375	415	94%	455	515	440
	MAY-SEP	340	410	455	95%	500	570	480
Jefferson R nr Twin Bridges ²	MAY-JUL	156	315	425	83%	535	695	515

Boulder R nr Boulder	MAY-SEP	147	335	465	84%	595	785	555
	MAY-JUL	41	52	59	98%	66	77	60
Willow Ck Reservoir Inflow ²	MAY-SEP	43	56	64	98%	72	85	65
	MAY-JUL	6.5	11.2	14.4	100%	17.6	22	14.4
Jefferson R nr Three Forks ²	MAY-SEP	8.3	13.4	16.8	100%	20	25	16.8
	MAY-JUL	188	360	480	83%	595	770	575
	MAY-SEP	190	385	520	82%	655	850	635

- 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	173	205	225	74%	245	275	305
	MAY-SEP	245	280	305	75%	330	365	405
Ennis Reservoir Inflow ²	MAY-JUL	300	365	410	77%	455	520	530
	MAY-SEP	410	485	540	79%	595	670	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

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	265	310	335	91%	360	405	370
	MAY-SEP	315	365	395	90%	425	475	440
Hyalite Reservoir Inflow ²	MAY-JUL	14.9	16.7	17.9	97%	19.1	21	18.5
	MAY-SEP	17.2	19.2	21	100%	22	24	21
Gallatin R at Logan	MAY-JUL	205	285	335	88%	385	465	380
	MAY-SEP	235	325	390	88%	455	545	445

- 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	6.9	9.9	11.9	89%	13.9	16.9	13.4
	MAY-SEP	8.6	12.2	14.7	91%	17.2	21	16.2
Smith R bl Eagle Ck ²	MAY-JUL	28	55	74	83%	93	120	89
	MAY-SEP	29	62	85	86%	108	141	99
NF Musselshell R nr Delpine	MAY-JUL	0.5	1.53	2.5	76%	3.5	4.9	3.3

SF Musselshell R ab Martinsdale	MAY-SEP	0.5	2.1	3.2	78%	4.3	6	4.1
	MAY-JUL	1	16.2	29	78%	42	61	37
Musselshell R at Harlowton ²	MAY-SEP	1	18.7	32	80%	45	65	40
	MAY-JUL	-5	16.2	37	77%	58	89	48
Musselshell R nr Roundup ²	MAY-SEP	-5	15.6	38	76%	60	93	50
	MAY-JUL	4.7	23	35	65%	47	65	54
	MAY-SEP	2.5	21	34	63%	47	66	54

- 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

SUN-TETON-MARIAS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Gibson Reservoir Inflow	MAY-JUL	113	151	177	50%	205	240	355
	MAY-SEP	137	179	210	53%	235	280	395
Two Medicine R nr Browning ²	MAY-JUL	65	85	98	64%	111	131	153
	MAY-SEP	71	92	107	65%	122	143	164
Badger Ck nr Browning	MAY-JUL	25	36	43	56%	50	61	77
	MAY-SEP	33	46	55	60%	64	77	92
Swift Reservoir Inflow ²	MAY-JUL	9.1	18.6	25	51%	31	41	49
	MAY-SEP	14.3	25	33	55%	41	52	60
Dupuyer Ck nr Valier	MAY-JUL	0.5	1	2.6	29%	7	13.4	9.1
	MAY-SEP	0.5	1.5	3.5	33%	8.4	15.6	10.7
Cut Bank Ck nr Browning	MAY-JUL	24	35	42	68%	49	60	62
	MAY-SEP	26	38	46	68%	54	66	68
Marias R nr Shelby ²	MAY-JUL	15	52	110	39%	168	255	285
	MAY-SEP	20	51	116	39%	181	275	300
Teton R nr Dutton	MAY-JUL	0.5	2.9	6.3	18%	21	43	35
	MAY-SEP	0.5	3	8.7	21%	25	49	41

- 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

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	55	63	69	80%	75	83	86
	MAY-SEP	67	76	83	82%	90	99	101
St. Mary R nr Babb ²	MAY-JUL	215	250	275	81%	300	335	340
	MAY-SEP	250	290	320	81%	350	390	395
St. Mary R at Intl Boundary ²	MAY-JUL	230	280	315	79%	350	400	400
	MAY-SEP	280	335	375	80%	415	470	470

Milk R at Western Crossing of Intl Bndry, AB

Milk R at Eastern Crossing of Intl Bndry

- 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	775	1050	1240	84%	1420	1700	1480
	MAY-SEP	885	1230	1460	83%	1690	2030	1760
Dearborn R nr Craig	MAY-JUL	1	19.1	36	47%	53	79	76
	MAY-SEP	1	24	42	51%	60	86	82
Missouri R at Fort Benton ²	MAY-JUL	940	1330	1600	73%	1870	2260	2190
	MAY-SEP	1150	1650	2000	75%	2340	2850	2680
Missouri R nr Virgelle ²	MAY-JUL	995	1440	1750	70%	2050	2490	2510
	MAY-SEP	1170	1760	2160	71%	2560	3150	3030
Missouri R nr Landusky ²	MAY-JUL	1100	1530	1830	69%	2120	2550	2650
	MAY-SEP	1300	1880	2270	71%	2660	3240	3200
Missouri R bl Fort Peck Dam ²	MAY-JUL	900	1420	1780	66%	2130	2650	2700
	MAY-SEP	885	1600	2080	66%	2560	3270	3160
Lake Sakakawea Inflow ²	MAY-JUL	3950	5010	5730	79%	6450	7510	7230
	MAY-SEP	3910	5480	6540	79%	7600	9170	8320

- 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	335	395	435	80%	475	535	545
	MAY-SEP	455	530	580	79%	630	705	735
Yellowstone R at Corwin Springs	MAY-JUL	955	1110	1210	82%	1310	1470	1480
	MAY-SEP	1120	1300	1430	81%	1560	1740	1770
Yellowstone R at Livingston	MAY-JUL	1060	1240	1370	82%	1500	1690	1670
	MAY-SEP	1250	1480	1630	81%	1780	2010	2010
Shields R nr Livingston	MAY-JUL	26	65	92	85%	119	158	108
	MAY-SEP	26	71	101	82%	131	176	123
Boulder R at Big Timber	MAY-JUL	169	200	220	81%	240	270	270
	MAY-SEP	175	210	235	81%	260	295	290
Mystic Lake Inflow ²	MAY-JUL	44	48	51	89%	54	58	57
	MAY-SEP	54	61	65	90%	69	76	72

Stillwater R nr Absarokee ²	MAY-JUL	275	325	360	86%	395	445	420
	MAY-SEP	320	385	425	86%	465	530	495
Clarks Fk Yellowstone R nr Belfry	MAY-JUL	345	385	415	86%	440	485	480
	MAY-SEP	360	410	445	85%	480	530	525
Cooney Reservoir Inflow	MAY-JUL	8.3	18.2	25	76%	32	42	33
	MAY-SEP	14.8	26	33	77%	40	51	43
Yellowstone R at Billings	MAY-JUL	1740	2150	2430	81%	2710	3120	3000
	MAY-SEP	1950	2460	2800	80%	3150	3660	3490

- 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	1000	1240	1390	110%	1550	1790	1260
	MAY-SEP	1040	1300	1480	110%	1660	1920	1340
Little Bighorn R nr Hardin	MAY-JUL	31	49	61	72%	73	91	85
	MAY-SEP	40	59	72	74%	85	104	97
Tongue R nr Dayton ²	MAY-JUL	43	59	70	88%	81	97	80
	MAY-SEP	53	70	82	89%	93	111	92
Big Goose Ck nr Sheridan	MAY-JUL	25	34	39	89%	44	53	44
	MAY-SEP	33	41	47	90%	53	61	52
Little Goose Ck nr Bighorn	MAY-JUL	18.7	24	27	93%	30	35	29
	MAY-SEP	25	30	34	92%	38	43	37
Tongue River Reservoir Inflow ²	MAY-JUL	60	114	150	86%	186	240	175
	MAY-SEP	75	132	171	86%	210	265	198
Yellowstone R at Miles City ²	MAY-JUL	2940	3500	3880	89%	4270	4830	4370
	MAY-SEP	3170	3910	4420	88%	4930	5670	5030
Powder R at Moorehead	MAY-JUL	53	104	139	92%	174	225	151
	MAY-SEP	67	121	157	92%	193	245	170
Powder R nr Locate	MAY-JUL	44	109	153	93%	197	260	164
	MAY-SEP	53	124	172	93%	220	290	185
Yellowstone R nr Sidney ²	MAY-JUL	2740	3410	3870	88%	4330	5000	4380
	MAY-SEP	2830	3720	4330	87%	4940	5830	4980

- 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