

Report Created:
9/30/2014 5:24:45 PM

Streamflow Forecast Summary: May 1, 2003
(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			95	86%			110
	MAY-SEP			108	87%			124
Libby Reservoir Inflow ¹	MAY-JUL			4230	85%			4990
	MAY-SEP			5050	84%			5990
Fisher R nr Libby	MAY-JUL			116	75%			155
	MAY-SEP			130	76%			170
Yaak R nr Troy	MAY-JUL			295	91%			325
	MAY-SEP			315	91%			345
Kootenai R at Leonia ^{1,2}	MAY-JUL			5070	85%			6000
	MAY-SEP			5970	84%			7090

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			1130	80%			1420
	MAY-SEP			1280	80%			1600
MF Flathead R nr West Glacier	MAY-JUL			1080	78%			1390
	MAY-SEP			1200	78%			1540
Sf Flathead R nr Hungry Horse								
Hungry Horse Reservoir Inflow ^{1,2}	MAY-JUL			1330	78%			1710
	MAY-SEP			1440	79%			1830
Flathead R at Columbia Falls ²	MAY-JUL			3700	80%			4630
	MAY-SEP			4110	80%			5110
Ashley Ck nr Marion ²								
Swan R nr Bigfork	MAY-JUL			355	76%			470
	MAY-SEP			420	76%			550
Flathead Lake Inflow ^{1,2}	MAY-JUL			4270	80%			5330
	MAY-SEP			4720	81%			5850
Mill Ck ab Bassoo ck nr Niarada								
South Crow Ck nr Ronan								
Mission Ck nr St. Ignatius								
SF Jocko R nr Arlee								
NF Jocko R bl Tabor Feeder Canal								

- 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			60	95%			63
	MAY-SEP			66	94%			70
Flint Ck nr Southern Cross	MAY-JUL			12.4	103%			12
	MAY-SEP			15.1	108%			14
Flint Ck bl Boulder Ck	MAY-JUL			42	88%			48
	MAY-SEP			56	89%			63
Lower Willow Ck Reservoir Inflow ²	MAY-JUL			10.1	101%			10
	MAY-SEP			11.4	103%			11.1
MF Rock Ck nr Philipsburg	MAY-JUL			59	100%			59
	MAY-SEP			66	99%			67
Rock Ck nr Clinton	MAY-JUL			225	94%			240
	MAY-SEP			260	95%			275
Clark Fork R ab Milltown	MAY-JUL			520	102%			510
	MAY-SEP			620	102%			610
Nevada Ck nr Helmville	MAY-JUL			10.2	73%			13.9
	MAY-SEP			11.6	75%			15.5
Blackfoot R nr Bonner	MAY-JUL			570	84%			675
	MAY-SEP			645	84%			765
Clark Fork R ab Missoula	MAY-JUL			1090	92%			1190
	MAY-SEP			1270	93%			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			136	109%			125
	MAY-SEP			150	109%			138
Bitterroot R Nr Darby	MAY-JUL			420	104%			405
	MAY-SEP			480	104%			460
Como Reservoir Inflow ²	MAY-JUL			62	94%			66
	MAY-SEP			64	91%			70
Bitterroot R nr Missoula	MAY-JUL			1050	95%			1100
	MAY-SEP			1170	97%			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			2140	93%			2290
	MAY-SEP			2440	95%			2580
Clark Fork R at St. Regis ¹	MAY-JUL			2720	91%			2980
	MAY-SEP			3110	92%			3370
Clark Fork R nr Plains ^{1,2}	MAY-JUL			7270	84%			8620
	MAY-SEP			8150	85%			9600
Thompson nr Thompson Falls	MAY-JUL			119	75%			159
	MAY-SEP			140	76%			185
Prospect Ck at Thompson Falls	MAY-JUL			38	44%			87
	MAY-SEP			44	46%			96
Clark Fork R at Whitehorse Rapids ^{1,2}	MAY-JUL			7960	83%			9586
	MAY-SEP			8960	84%			10710

- 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			40	57%			70
	MAY-SEP			44	56%			78
Clark Canyon Inflow ²	MAY-JUL			48	53%			90
	MAY-SEP			63	54%			116
Beaverhead R at Barretts ²	MAY-JUL			72	60%			120
	MAY-SEP			94	61%			153
Ruby R Reservoir Inflow ²	MAY-JUL			42	57%			74
	MAY-SEP			53	58%			91
Big Hole R at Wisdom	MAY-JUL			67	72%			93
	MAY-SEP			77	77%			100
Big Hole R nr Melrose	MAY-JUL			445	86%			520
	MAY-SEP			490	85%			575
Jefferson R nr Twin Bridges ²								
Boulder R nr Boulder	MAY-JUL			62	91%			68
	MAY-SEP			68	91%			75
Willow Ck Reservoir Inflow ²	MAY-JUL			10	67%			15
	MAY-SEP			11.7	67%			17.5
Jefferson R nr Three Forks ²								

MAY-JUL	450	75%	600
MAY-SEP	490	72%	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			260	79%			330
	MAY-SEP			350	80%			440
Ennis Reservoir Inflow ²	MAY-JUL			470	81%			580
	MAY-SEP			620	83%			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			335	83%			405
	MAY-SEP			395	82%			480
Hyalite Reservoir Inflow ²	MAY-JUL			16.5	83%			20
	MAY-SEP			19	83%			23
Gallatin R at Logan	MAY-JUL			325	76%			425
	MAY-SEP			385	76%			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			10.5	70%			15
	MAY-SEP			12.8	71%			18
Smith R bl Eagle Ck ²	MAY-JUL			120	80%			150
	MAY-SEP			145	78%			185
NF Musselshell R nr Delpine	MAY-JUL			2.1	57%			3.7
	MAY-SEP			2.7	59%			4.6
SF Musselshell R ab Martinsdale	MAY-JUL			28	61%			46
	MAY-SEP			31	62%			50
Musselshell R at Harlowton ²	MAY-JUL			27	42%			65
	MAY-SEP			29	42%			69
Musselshell R nr Roundup ²								

- 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			275	66%			415
	MAY-SEP			315	68%			465
Two Medicine R nr Browning ²	MAY-JUL			135	78%			174
	MAY-SEP			145	78%			187
Badger Ck nr Browning	MAY-JUL			68	77%			88
	MAY-SEP			80	77%			104
Swift Reservoir Inflow ²	MAY-JUL			32	56%			57
	MAY-SEP			42	61%			69
Dupuyer Ck nr Valier	MAY-JUL			7	60%			11.6
	MAY-SEP			8.3	62%			13.3
Cut Bank Ck nr Browning								
Marias R nr Shelby ²	MAY-JUL			190	55%			345
	MAY-SEP			200	54%			370
Teton R nr Dutton	MAY-JUL			22	52%			42
	MAY-SEP			25	50%			50

- 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								
St. Mary R nr Babb ²	MAY-JUL			295	83%			355
	MAY-SEP			355	84%			425
St. Mary R at Intl Boundary ²	MAY-JUL			340	85%			400
	MAY-SEP			415	87%			475
Milk R at Western Crossing of Intl Bndry, AB	MAY-JUL			14.7	74%			20
	MAY-SEP			17.4	76%			23
Milk R at Eastern Crossing of Intl Bndry	MAY-JUL			26	62%			42
	MAY-SEP			31	63%			49

- 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			1310	77%			1700
	MAY-SEP			1580	77%			2040
Dearborn R nr Craig	MAY-JUL			82	77%			106
	MAY-SEP			89	81%			110
Missouri R at Fort Benton ²	MAY-JUL			2000	80%			2500
	MAY-SEP			2510	81%			3080
Missouri R nr Virgelle ²	MAY-JUL			2400	83%			2890
	MAY-SEP			2940	84%			3500
Missouri R nr Landusky ²	MAY-JUL			2380	77%			3080
	MAY-SEP			2950	79%			3750
Missouri R bl Fort Peck Dam ²	MAY-JUL			2550	83%			3080
	MAY-SEP			3020	82%			3670
Lake Sakakawea Inflow ²	MAY-JUL			5250	63%			8370
	MAY-SEP			6010	61%			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			480	86%			555
	MAY-SEP			645	84%			770
Yellowstone R at Corwin Springs	MAY-JUL			1360	88%			1550
	MAY-SEP			1640	88%			1870
Yellowstone R at Livingston	MAY-JUL			1550	88%			1770
	MAY-SEP			1880	87%			2150
Shields R nr Livingston	MAY-JUL			80	66%			121
	MAY-SEP			90	65%			138
Boulder R at Big Timber	MAY-JUL			240	87%			275
	MAY-SEP			265	88%			300
Mystic Lake Inflow ²	MAY-JUL			50	88%			57
	MAY-SEP			65	88%			74
Stillwater R nr Absarokee ²	MAY-JUL			375	80%			470
	MAY-SEP			450	80%			560
Clarks Fk Yellowstone R nr Belfry	MAY-JUL			415	81%			515
	MAY-SEP			450	79%			570
Cooney Reservoir Inflow	MAY-JUL			40	105%			38
	MAY-SEP			52	106%			49

Yellowstone R at Billings

MAY-JUL	2750	85%	3250
MAY-SEP	3190	83%	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			675	46%			1470
	MAY-SEP			850	52%			1630
Little Bighorn R nr Hardin	MAY-JUL			80	73%			110
	MAY-SEP			90	71%			126
Tongue R nr Dayton ²	MAY-JUL			66	73%			90
	MAY-SEP			76	74%			103
Big Goose Ck nr Sheridan								
Little Goose Ck nr Bighorn								
Tongue River Reservoir Inflow ²	MAY-JUL			120	60%			199
	MAY-SEP			140	62%			225
Yellowstone R at Miles City ²	MAY-JUL			3600	74%			4890
	MAY-SEP			4200	73%			5740
Powder R at Moorehead	MAY-JUL			98	55%			178
	MAY-SEP			115	58%			200
Powder R nr Locate	MAY-JUL			97	50%			195
	MAY-SEP			112	51%			220
Yellowstone R nr Sidney ²	MAY-JUL			3500	71%			4950
	MAY-SEP			4020	70%			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