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Streamflow Forecast Summary: January 1, 2014
(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	APR-JUL	63	86	102	81%	118	141	126
	APR-SEP	71	97	114	81%	131	157	140
Libby Reservoir Inflow ¹	APR-JUL	3480	4320	4700		5080	5920	
	APR-SEP	4270	5110	5500		5890	6730	
Fisher R nr Libby	APR-JUL	97	150	186	91%	220	275	205
	APR-SEP	107	162	199	90%	235	290	220
Yaak R nr Troy	APR-JUL	151	245	305	73%	365	460	420
	APR-SEP	168	260	325	74%	390	480	440
Kootenai R at Leonia ^{1,2}	APR-JUL	4210	5270	5750	87%	6230	7290	6600
	APR-SEP	5040	6110	6600	87%	7090	8160	7590

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	APR-JUL	1080	1300	1440	94%	1580	1800	1540
	APR-SEP	1210	1440	1590	94%	1740	1970	1700
MF Flathead R nr West Glacier	APR-JUL	1140	1360	1510	101%	1660	1880	1500
	APR-SEP	1250	1480	1640	101%	1800	2030	1630
Sf Flathead R nr Hungry Horse	APR-JUL	970	1160	1280	108%	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	3940	4630	5090	101%	5550	6240	5020
	APR-SEP	4320	5030	5510	101%	5990	6700	5450
Ashley Ck nr Marion ²	APR-JUL	3.3	4.9	6	92%	7.1	8.7	6.5
	MAR	0.18	0.67	1	84%	1.33	1.82	1.19
Swan R nr Bigfork	APR-JUL	450	525	580	112%	635	710	520
	APR-SEP	520	605	665	112%	725	810	595
Flathead Lake Inflow ^{1,2}	APR-JUL	4120	5330	5880	101%	6430	7640	5810
	APR-SEP	4470	5750	6330	101%	6910	8190	6270
Mill Ck ab Bassoo ck nr Niarada	APR-JUL	2.1	3.4	4.3	108%	5.2	6.5	4
	APR-SEP	2.3	3.7	4.6	105%	5.5	6.9	4.4
South Crow Ck nr Ronan	APR-JUL	8.1	9.6	10.6	105%	11.6	13.1	10.1
	APR-SEP	9.2	10.9	12	103%	13.1	14.8	11.6
Mission Ck nr St. Ignatius	APR-JUL	22	24	26	104%	28	30	25
	APR-SEP	26	29	31	103%	33	36	30
SF Jocko R nr Arlee								

NF Jocko R bl Tabor Feeder Canal	APR-JUL	24	30	34	103%	38	44	33
	APR-SEP	28	34	38	103%	42	48	37
	APR-JUL	25	29	32	103%	35	39	31
	APR-SEP	27	31	34	103%	37	41	33

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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	APR-JUL	30	54	70	100%	86	110	70
	APR-SEP	35	60	77	100%	94	119	77
Flint Ck nr Southern Cross	APR-JUL	5.9	10	12.8	103%	15.6	19.7	12.4
	APR-SEP	6.4	11.6	15.1	103%	18.6	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	2.2	4.9	6.8	93%	8.7	11.4	7.3
	APR-JUL	2.9	7.5	10.6	100%	13.7	18.3	10.6
MF Rock Ck nr Philipsburg	APR-JUL	39	50	58	100%	66	77	58
	APR-SEP	44	57	65	100%	73	86	65
Rock Ck nr Clinton	APR-JUL	149	210	250	100%	290	350	250
	APR-SEP	176	240	285	102%	330	395	280
Clark Fork R ab Milltown	APR-JUL	250	420	535	101%	650	820	530
	APR-SEP	315	500	625	102%	750	935	615
Nevada Ck nr Helmville	APR-JUL	5.8	11.1	14.7	104%	18.3	24	14.2
	APR-SEP							15.6
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	770	1070	1280	102%	1490	1790	1250
	APR-SEP	920	1240	1460	103%	1680	2000	1420

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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	APR-JUL	68	106	132	103%	158	196	128
	APR-SEP	74	116	144	104%	172	215	139
Bitterroot R Nr Darby	APR-JUL	230	345	420	102%	495	610	410
	APR-SEP	295	410	485	103%	560	675	470
Como Reservoir Inflow ²	APR-JUL	49	60	68	89%	76	87	76
	APR-SEP	51	63	71	90%	79	91	79
Bitterroot R nr Missoula								

APR-JUL	660	940	1130	98%	1320	1600	1150
APR-SEP	745	1040	1240	99%	1440	1730	1250

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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	APR-JUL	1500	2030	2390	100%	2750	3280	2400
	APR-SEP	1750	2300	2680	100%	3060	3610	2670
Clark Fork R at St. Regis ¹	APR-JUL	1750	2720	3160	100%	3600	4570	3160
	APR-SEP	2060	3080	3540	101%	4000	5020	3510
Clark Fork R nr Plains ^{1,2}	APR-JUL	6410	8410	9320	101%	10200	12200	9200
	APR-SEP	7140	9240	10200	101%	11200	13300	10100
Thompson nr Thompson Falls	APR-JUL	70	117	149	82%	181	230	181
	APR-SEP	86	136	170	83%	205	255	205
Prospect Ck at Thompson Falls	APR-JUL	40	64	80	78%	96	120	102
	APR-SEP	46	70	87	79%	104	128	110
Clark Fork R at Whitehorse Rapids ^{1,2}	APR-JUL	7210	9470	10500	100%	11500	13800	10500
	APR-SEP	8140	10500	11600	101%	12700	15100	11500

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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	APR-JUL	15	40	57	70%	74	99	82
	APR-SEP	12.7	41	60	67%	79	107	89
Clark Canyon Inflow ²	APR-JUL	-15	28	68	67%	108	167	101
	APR-SEP	-4	41	85	71%	128	193	120
Beaverhead R at Barretts ²	APR-JUL	29	47	98	76%	149	225	129
	APR-SEP	40	62	122	78%	181	270	156
Ruby R Reservoir Inflow ²	APR-JUL	28	47	61	79%	74	94	77
	APR-SEP	36	58	74	81%	89	112	91
Big Hole R at Wisdom	APR-JUL	10.8	62	97	95%	132	183	102
	APR-SEP	11.4	66	103	95%	140	195	108
Big Hole R nr Melrose	APR-JUL	280	430	535	104%	640	790	515
	APR-SEP	300	465	575	103%	685	850	560
Jefferson R nr Twin Bridges ²	APR-JUL	199	450	620	90%	790	1040	690
	APR-SEP	205	480	670	92%	860	1140	730
Boulder R nr Boulder	APR-JUL	34	52	64	93%	76	94	69
	APR-SEP	36	55	69	93%	82	101	74
Willow Ck Reservoir Inflow ²								

Jefferson R nr Three Forks ²	APR-JUL	12.2	19.2	24	143%	29	36	16.8
	APR-SEP	16.5	24	29	150%	34	42	19.3
	APR-JUL	260	535	720	97%	905	1180	740
	APR-SEP	285	590	795	99%	1000	1310	800

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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	APR-JUL	235	300	345	93%	390	455	370
	APR-SEP	305	385	435	93%	490	570	470
Ennis Reservoir Inflow ²	APR-JUL	420	510	575	92%	640	730	625
	APR-SEP	525	635	710	92%	785	890	775

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GALLATIN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Gallatin R nr Gateway	APR-JUL	295	360	405	101%	450	515	400
	APR-SEP	345	420	470	100%	520	595	470
Hyalite Reservoir Inflow ²	APR-JUL	17.2	19.7	21	105%	23	25	20
	APR-SEP	20	23	24	104%	26	29	23
Gallatin R at Logan	APR-JUL	260	370	445	101%	520	630	440
	APR-SEP	305	425	510	101%	595	715	505

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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	APR-JUL	13.2	16.6	18.9	122%	21	25	15.5
	APR-SEP	15.7	19.6	22	120%	25	29	18.4
Smith R bl Eagle Ck ²	APR-JUL	87	120	142	134%	164	197	106
	APR-SEP	97	135	161	139%	187	225	116
NF Musselshell R nr Delpine	APR-JUL	1.73	3.4	4.5	132%	5.6	7.3	3.4
	APR-SEP	2.1	4	5.3	133%	6.6	8.5	4
SF Musselshell R ab Martinsdale	APR-JUL	11.4	33	48	137%	63	85	35
	APR-SEP	13	36	52	137%	68	91	38
Musselshell R at Harlowton ²	APR-JUL	17.2	55	80	140%	105	143	57
	APR-SEP	17.1	57	84	142%	111	151	59

Musselshell R nr Roundup²

APR-JUL	-20	48	103	154%	159	240	67
APR-SEP	-20	50	106	161%	162	245	66

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SUN-TETON-MARIAS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Gibson Reservoir Inflow								
	APR-JUL	210	280	330	84%	380	450	395
	APR-SEP	240	315	365	83%	415	490	440
Two Medicine R nr Browning ²								
	APR-JUL	89	135	167	91%	200	245	183
	APR-SEP	97	145	177	91%	210	255	194
Badger Ck nr Browning								
	APR-JUL	47	69	83	94%	97	120	88
	APR-SEP	57	82	97	94%	112	136	103
Swift Reservoir Inflow ²								
	APR-JUL	32	44	53	93%	62	74	57
	APR-SEP	41	54	64	96%	73	86	67
Dupuyer Ck nr Valier								
	APR-JUL	1.6	5.4	10.3	93%	15.2	22	11.1
	APR-SEP	1.8	6.4	11.8	93%	17.2	25	12.7
Cut Bank Ck nr Browning								
	APR-JUL	36	52	63	91%	74	90	69
	APR-SEP	39	56	68	91%	80	97	75
Marias R nr Shelby ²								
	APR-JUL	132	250	330	96%	410	530	345
	APR-SEP	135	255	340	94%	425	545	360
Teton R nr Dutton								
	APR-JUL	5	10.8	30	71%	49	77	42
	APR-SEP	5.5	14.2	34	71%	54	84	48

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ST. MARY & MILK BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Lake Sherburne Inflow								
	APR-JUL	74	86	94	97%	102	114	97
	APR-SEP	89	101	109	97%	118	130	112
St. Mary R nr Babb ²								
	APR-JUL	265	315	350	95%	385	430	370
	APR-SEP	320	370	405	95%	440	495	425
St. Mary R at Intl Boundary ²								
	APR-JUL	290	360	405	93%	455	525	435
	APR-SEP	350	420	470	93%	520	590	505
Milk R at Western Crossing of Intl Bndry, AB								
	APR-JUL							25
	APR-SEP							26
Milk R at Eastern Crossing of Intl Bndry								
	APR-JUL							45
	APR-SEP							55

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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	APR-JUL	995	1450	1760	98%	2070	2530	1790
	APR-SEP	1150	1680	2040	99%	2400	2930	2070
Dearborn R nr Craig	APR-JUL	34	60	78	88%	96	122	89
	APR-SEP	38	66	84	88%	103	130	95
Missouri R at Fort Benton ²	APR-JUL	1480	2070	2470	95%	2870	3460	2610
	APR-SEP	1780	2480	2950	95%	3420	4120	3110
Missouri R nr Virgelle ²	APR-JUL	1700	2360	2810	94%	3260	3920	3000
	APR-SEP	1980	2760	3290	93%	3820	4600	3520
Missouri R nr Landusky ²	APR-JUL	1820	2510	2980	94%	3450	4140	3160
	APR-SEP	2140	2950	3500	94%	4050	4860	3720
Missouri R bl Fort Peck Dam ²	APR-JUL	1900	2600	3080	95%	3560	4260	3240
	APR-SEP	1960	2870	3480	94%	4100	5010	3700
Lake Sakakawea Inflow ²	APR-JUL	5790	7410	8500	102%	9600	11200	8310
	APR-SEP							9400

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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	APR-JUL	410	495	550	96%	605	690	575
	APR-SEP	545	650	725	94%	800	905	770
Yellowstone R at Corwin Springs	APR-JUL	1250	1460	1600	101%	1740	1940	1590
	APR-SEP	1460	1700	1870	99%	2030	2270	1880
Yellowstone R at Livingston	APR-JUL	1420	1660	1830	102%	1990	2230	1800
	APR-SEP	1670	1950	2140	100%	2330	2600	2140
Shields R nr Livingston	APR-JUL	65	125	166	129%	205	265	129
	APR-SEP	69	135	180	126%	225	290	143
Boulder R at Big Timber	APR-JUL	215	260	295	105%	325	375	280
	APR-SEP	230	285	320	107%	355	410	300
Mystic Lake Inflow ²	APR-JUL	46	52	56	95%	60	66	59
	APR-SEP	59	67	72	97%	77	84	74
Stillwater R nr Absarokee ²	APR-JUL	330	395	440	99%	480	545	445
	APR-SEP	390	465	515	99%	565	640	520
Clarks Fk Yellowstone R nr Belfry	APR-JUL	420	490	535	105%	580	645	510
	APR-SEP	460	535	585	106%	630	705	550
Cooney Reservoir Inflow	APR-JUL	19.1	32	41	108%	49	62	38
	APR-SEP	27	41	51	106%	60	74	48

Yellowstone R at Billings

APR-JUL	2480	2980	3320	103%	3660	4160	3230
APR-SEP	2790	3380	3790	102%	4190	4780	3730

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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	APR-JUL	980	1320	1550	112%	1790	2130	1380
	APR-SEP	1030	1410	1670	114%	1940	2320	1460
Little Bighorn R nr Hardin	APR-JUL	49	80	101	103%	122	153	98
	APR-SEP	58	91	114	103%	137	171	111
Tongue R nr Dayton ²	APR-JUL	56	76	90	105%	104	124	86
	APR-SEP	67	88	103	105%	118	140	98
Big Goose Ck nr Sheridan	APR-JUL	27	39	47	102%	55	67	46
	APR-SEP	34	47	55	102%	63	75	54
Little Goose Ck nr Bighorn	APR-JUL	18.7	26	32	103%	37	45	31
	APR-SEP	26	34	40	103%	45	54	39
Tongue River Reservoir Inflow ²	APR-JUL	89	156	200	104%	245	315	193
	APR-SEP	108	178	225	105%	275	345	215
Yellowstone R at Miles City ²	APR-JUL	3630	4480	5060	106%	5640	6490	4780
	APR-SEP	4060	5060	5740	105%	6420	7410	5450
Powder R at Moorehead	APR-JUL	110	179	225	127%	270	340	177
	APR-SEP	129	200	250	128%	300	370	196
Powder R nr Locate	APR-JUL	115	199	255	128%	315	395	199
	APR-SEP	133	225	285	130%	345	435	220
Yellowstone R nr Sidney ²	APR-JUL	3570	4540	5200	108%	5860	6830	4830
	APR-SEP	3890	5040	5820	107%	6590	7740	5430

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