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Streamflow Forecast Summary: March 1, 2019
(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	65	88	104	83%	120	143	126
	APR-SEP	73	99	116	83%	133	159	140
Libby Reservoir Inflow ¹	APR-JUL	3160	4150	4600	86%	5050	6040	5340
	APR-SEP	3930	4940	5400	86%	5860	6870	6250
Fisher R nr Libby								
Yaak R nr Troy	APR-JUL	200	280	340	81%	395	475	420
	APR-SEP	215	300	355	81%	410	495	440
Kootenai R at Leonia ^{1,2}	APR-JUL	3770	5060	5650	86%	6240	7530	6600
	APR-SEP	4610	5930	6530	86%	7130	8450	7590

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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	1070	1250	1370	89%	1500	1680	1540
	APR-SEP	1190	1390	1520	89%	1650	1840	1700
MF Flathead R nr West Glacier	APR-JUL	1070	1270	1400	93%	1540	1740	1500
	APR-SEP	1170	1380	1520	93%	1660	1870	1630
Sf Flathead R nr Hungry Horse	APR-JUL	815	965	1070	88%	1170	1320	1210
	APR-SEP	865	1020	1130	88%	1240	1400	1290
Hungry Horse Reservoir Inflow ^{1,2}	APR-JUL	1180	1530	1680	90%	1840	2180	1860
	APR-SEP	1260	1620	1780	90%	1940	2300	1980
Flathead R at Columbia Falls ²	APR-JUL	3580	4150	4540	90%	4930	5500	5020
	APR-SEP	3910	4520	4930	90%	5340	5950	5450
Ashley Ck nr Marion ²								
Swan R nr Bigfork	APR-JUL	325	400	450	87%	500	575	520
	APR-SEP	370	455	510	86%	565	650	595
Flathead Lake Inflow ^{1,2}	APR-JUL	3640	4700	5180	89%	5660	6720	5810
	APR-SEP	3880	5040	5570	89%	6100	7270	6270
Mill Ck ab Bassoo ck nr Niarada	APR-JUL	1.85	2.9	3.7	93%	4.7	6.2	4
	APR-SEP	2.1	3.2	4.1	93%	5	6.6	4.4
South Crow Ck nr Ronan	APR-JUL	7	8.7	9.9	98%	11.1	12.8	10.1
	APR-SEP	7.7	9.8	11.2	97%	12.6	14.7	11.6
Mission Ck nr St. Ignatius	APR-JUL	20	24	26	104%	28	32	25
	APR-SEP	23	27	30	100%	33	37	30
SF Jocko R nr Arlee	APR-JUL	21	28	33	100%	38	45	33
	APR-SEP	25	32	37	100%	42	49	37

NF Jocko R bl Tabor Feeder Canal

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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								
Flint Ck nr Southern Cross								
	APR-JUL	7.3	11.2	13.9	112%	16.6	20	12.4
	APR-SEP	8.3	13.1	16.4	112%	19.6	24	14.6
Flint Ck bl Boulder Ck								
	APR-JUL	33	48	58	112%	68	83	52
	APR-SEP	42	60	72	109%	84	102	66
Lower Willow Ck Reservoir Inflow ²								
	APR-JUL	7.8	11.5	14	133%	16.5	20	10.5
	APR-SEP	8.4	12.3	14.9	132%	17.5	21	11.3
MF Rock Ck nr Philipsburg								
	APR-JUL	39	50	57	98%	64	75	58
	APR-SEP	45	56	64	98%	72	83	65
Rock Ck nr Clinton								
	APR-JUL	185	240	280	112%	315	370	250
	APR-SEP	210	270	310	111%	350	410	280
Clark Fork R ab Milltown								
	APR-JUL	350	505	610	115%	715	870	530
	APR-SEP	405	580	695	113%	810	980	615
Nevada Ck nr Helmville								
	APR-JUL	3.1	9.3	13.5	95%	17.7	24	14.2
	APR-SEP	4	10.5	14.9	96%	19.3	26	15.6
Blackfoot R nr Bonner								
	APR-JUL	530	680	780	108%	880	1030	720
	APR-SEP	605	765	870	109%	975	1140	800
Clark Fork R ab Missoula								
	APR-JUL	890	1190	1390	111%	1590	1890	1250
	APR-SEP	1020	1350	1560	110%	1780	2110	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	72	100	118	92%	136	164	128
	APR-SEP	81	110	129	93%	148	177	139
Bitterroot R Nr Darby								
	APR-JUL	275	360	415	94%	475	555	440
	APR-SEP	300	385	445	94%	505	590	475
Como Reservoir Inflow ²								
	APR-JUL	62	69	74	97%	79	86	76
	APR-SEP	64	72	77	97%	82	90	79
Bitterroot R nr Missoula								
	APR-JUL	775	955	1080	94%	1210	1390	1150
	APR-SEP	855	1050	1180	94%	1310	1510	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	1700	2160	2470	103%	2780	3240	2400
	APR-SEP	1910	2400	2740	103%	3080	3570	2670
Clark Fork R at St. Regis ¹	APR-JUL	2020	2860	3240	103%	3630	4470	3160
	APR-SEP	2280	3180	3600	103%	4010	4910	3510
Clark Fork R nr Plains ^{1,2}	APR-JUL	5690	7680	8590	93%	9500	11500	9200
	APR-SEP	6230	8410	9400	93%	10400	12600	10100
Thompson nr Thompson Falls								
Prospect Ck at Thompson Falls	APR-JUL	54	74	87	85%	101	120	102
	APR-SEP	61	81	95	86%	108	129	110
Clark Fork R at Whitehorse Rapids ^{1,2}								

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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	65	85	99	132%	113	133	75
	APR-SEP	70	93	108	135%	123	146	80
Clark Canyon Inflow ²	APR-JUL	40	74	97	96%	120	154	101
	APR-SEP	51	91	118	98%	145	185	120
Beaverhead R at Barretts ²	APR-JUL	58	99	127	98%	154	195	129
	APR-SEP	76	122	153	98%	185	230	156
Ruby R Reservoir Inflow ²	APR-JUL	68	83	94	122%	104	120	77
	APR-SEP	81	99	111	122%	122	140	91
Big Hole R at Wisdom	APR-JUL	22	68	99	97%	130	176	102
	APR-SEP	23	72	105	97%	138	187	108
Big Hole R nr Melrose	APR-JUL	330	455	545	106%	635	760	515
	APR-SEP	355	495	590	105%	685	820	560
Jefferson R nr Twin Bridges ²	APR-JUL	320	550	710	103%	865	1090	690
	APR-SEP	350	595	760	104%	925	1170	730
Boulder R nr Boulder	APR-JUL	53	72	86	125%	100	119	69
	APR-SEP	56	77	92	124%	107	128	74
Willow Ck Reservoir Inflow ²	APR-JUL	10.2	16.8	21	125%	26	32	16.8
Jefferson R nr Three Forks ²	APR-JUL	445	670	820	111%	975	1200	740
	APR-SEP	460	710	880	110%	1050	1300	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	340	385	415	112%	450	495	370
	APR-SEP	435	490	525	112%	560	615	470
Ennis Reservoir Inflow ²	APR-JUL	565	655	715	114%	775	860	625
	APR-SEP	705	810	880	114%	950	1050	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	370	430	470	118%	510	570	400
	APR-SEP	430	500	545	116%	590	660	470
Hyalite Reservoir Inflow ²	APR-JUL	18.3	20	22	110%	24	26	20
	APR-SEP	22	25	26	113%	28	30	23
Gallatin R at Logan	APR-JUL	340	445	520	118%	595	700	440
	APR-SEP	390	510	590	117%	670	790	505

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SMITH-JUDITH-MUSSEL SHELL	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Sheep Ck nr White Sulphur Springs	APR-JUL	11.5	14.9	17.3	112%	19.6	23	15.5
	APR-SEP	13.6	17.6	20	109%	23	27	18.4
Smith R bl Eagle Ck ²	APR-JUL	63	96	119	112%	142	175	106
	APR-SEP	64	103	130	112%	157	196	116
NF Musselshell R nr Delpine	APR-JUL	25	41	51	146%	61	77	35
	APR-SEP	27	44	55	145%	66	83	38
Musselshell R at Harlowton ²	APR-JUL	28	49	63	111%	77	98	57
	APR-SEP	25	49	65	110%	81	105	59
Musselshell R nr Roundup ²	APR-JUL	-23	29	74	110%	119	185	67
	APR-SEP	-26	29	74	112%	119	185	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	245	305	345	87%	385	445	395
	APR-SEP	275	340	385	88%	425	490	440
Two Medicine R nr Browning ²	APR-JUL	104	132	151	83%	170	199	183
	APR-SEP	111	141	161	83%	182	210	194
Badger Ck nr Browning	APR-JUL	46	62	73	83%	84	100	88
	APR-SEP	56	74	86	83%	99	117	103
Swift Reservoir Inflow ²	APR-JUL	29	41	49	86%	57	69	57
	APR-SEP	35	49	58	87%	67	81	67
Dupuyer Ck nr Valier	APR-JUL	1.7	5.3	7.8	70%	10.3	13.9	11.1
	APR-SEP	2.3	6.3	9	71%	11.7	15.7	12.7
Cut Bank Ck nr Browning	APR-JUL	37	51	61	88%	70	84	69
	APR-SEP	40	55	66	88%	76	91	75
Marias R nr Shelby ²	APR-JUL	147	240	300	83%	360	455	360
	APR-SEP	153	250	315	84%	380	475	375
Teton R nr Dutton	APR-JUL	1	10.9	30	71%	49	77	42
	APR-SEP	1	14.3	35	73%	56	86	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	69	82	90	93%	98	111	97
	APR-SEP	81	95	104	93%	113	127	112
St. Mary R nr Babb ²	APR-JUL	260	305	340	92%	375	420	370
	APR-SEP	300	355	390	92%	430	485	425
St. Mary R at Intl Boundary ²	APR-JUL	285	350	395	91%	440	510	435
	APR-SEP	335	410	460	91%	510	585	505
Milk R at Western Crossing of Intl Bndry, AB								
Milk R at Eastern Crossing of Intl Bndry								

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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	1410	1790	2050	115%	2310	2680	1790
	APR-SEP	1610	2050	2350	114%	2650	3090	2070

Dearborn R nr Craig

Missouri R at Fort Benton²

APR-JUL	1860	2460	2860	110%	3260	3860	2610
APR-SEP	2210	2910	3380	109%	3860	4560	3110

Missouri R nr Virgelle²

APR-JUL	2060	2730	3190	106%	3640	4310	3000
APR-SEP	2410	3190	3720	106%	4260	5040	3520

Missouri R nr Landusky²

APR-JUL	2210	2920	3410	108%	3890	4610	3160
APR-SEP	2580	3410	3980	107%	4550	5380	3720

Missouri R bl Fort Peck Dam²

APR-JUL	2340	3050	3530	109%	4020	4730	3240
APR-SEP	2470	3390	4010	108%	4630	5550	3700

Lake Sakakawea Inflow²

APR-JUL	6230	8000	9200	111%	10400	12200	8310
APR-SEP	6700	8900	10400	111%	11900	14100	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	550	625	675	117%	725	800	575
	APR-SEP	725	830	900	117%	970	1080	770
Yellowstone R at Corwin Springs	APR-JUL	1540	1730	1850	116%	1980	2160	1590
	APR-SEP	1820	2040	2190	116%	2340	2560	1880
Yellowstone R at Livingston	APR-JUL	1720	1960	2120	118%	2280	2510	1800
	APR-SEP	2040	2320	2510	117%	2700	2980	2140
Shields R nr Livingston	APR-JUL	133	173	200	155%	225	265	129
	APR-SEP	149	192	220	154%	250	290	143
Boulder R at Big Timber	APR-JUL	240	285	320	114%	355	405	280
	APR-SEP	255	310	345	115%	385	440	300
Mystic Lake Inflow ²	APR-JUL	52	58	62	105%	66	72	59
	APR-SEP	66	73	78	105%	83	90	74
Stillwater R nr Absarokee ²	APR-JUL	345	420	470	106%	520	595	445
	APR-SEP	405	490	550	106%	610	695	520
Clarks Fk Yellowstone R nr Belfry	APR-JUL	435	510	560	110%	610	680	510
	APR-SEP	470	550	605	110%	660	745	550
Cooney Reservoir Inflow	APR-JUL	27	39	48	126%	57	69	38
	APR-SEP	35	49	59	123%	68	82	48
Yellowstone R at Billings	APR-JUL	2690	3280	3670	114%	4070	4660	3230
	APR-SEP	3070	3760	4220	113%	4680	5370	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	770	1170	1450	105%	1720	2120	1380
	APR-SEP	775	1220	1520	104%	1830	2270	1460
Little Bighorn R nr Hardin	APR-JUL	19.4	54	77	79%	100	135	98
	APR-SEP	23	61	87	78%	113	151	111
Tongue R nr Dayton ²	APR-JUL	36	55	67	78%	80	98	86
	APR-SEP	44	64	78	80%	91	111	98
Big Goose Ck nr Sheridan	APR-JUL	15.8	28	37	80%	46	58	46
	APR-SEP	22	35	44	81%	52	65	54
Little Goose Ck nr Bighorn	APR-JUL	13.4	21	27	87%	32	40	31
	APR-SEP	19.9	29	34	87%	40	49	39
Tongue River Reservoir Inflow ²	APR-JUL	32	97	142	74%	185	250	193
	APR-SEP	45	113	160	74%	205	275	215
Yellowstone R at Miles City ²	APR-JUL	3570	4550	5220	109%	5890	6870	4780
	APR-SEP	3990	5150	5940	109%	6720	7880	5450
Powder R at Moorehead	APR-JUL	7.6	94	153	86%	210	300	177
	APR-SEP	20	109	169	86%	230	320	196
Powder R nr Locate	APR-JUL	14.3	109	174	87%	240	335	199
	APR-SEP	22	122	190	86%	260	360	220
Yellowstone R nr Sidney ²	APR-JUL	3450	4530	5270	109%	6010	7100	4830
	APR-SEP	3750	5040	5920	109%	6790	8080	5430

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3) Median value used in place of average