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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	59	76	87	114%	98	115	76
	APR-SEP	67	85	97	115%	109	127	84
Flint Ck nr Southern Cross	APR-JUL	12	15	17	124%	19	22	13.7
	APR-SEP	11.9	16.7	20	123%	23	28	16.2
Flint Ck bl Boulder Ck	APR-JUL	52	63	70	125%	77	88	56
	APR-SEP	67	80	89	125%	98	111	71
Lower Willow Ck Reservoir Inflow ²	APR-MAY	6.6	8.5	9.8	120%	11.1	13	8.2
	APR-JUL	9.3	12.7	15	120%	17.3	21	12.5
MF Rock Ck nr Philipsburg	APR-JUL	48	59	67	105%	75	86	64
	APR-SEP	56	68	76	106%	84	96	72
Rock Ck nr Clinton	APR-JUL	250	275	295	109%	315	340	270
	APR-SEP	280	310	330	108%	350	380	305
Clark Fork R ab Milltown	APR-JUL	500	590	655	108%	720	810	605
	APR-SEP	590	690	760	108%	830	930	705
Nevada Ck nr Helmville	APR-MAY	8	10	11.3	110%	12.6	14.6	10.3
	APR-JUL	13.4	16.7	19	110%	21	25	17.3
Blackfoot R nr Bonner	APR-JUL	770	840	885	110%	930	1000	805
	APR-SEP	850	925	980	110%	1030	1110	890
Clark Fork R ab Missoula	APR-JUL	1380	1480	1540	109%	1600	1700	1410
	APR-SEP	1570	1680	1750	109%	1820	1930	1600

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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	123	141	153	107%	165	183	143
	APR-SEP	134	154	168	107%	182	200	157
Bitterroot R Nr Darby	APR-JUL	385	440	475	103%	510	565	460
	APR-SEP	445	495	530	103%	565	615	515
Como Reservoir Inflow ²	APR-JUL	72	79	83	106%	87	94	78
	APR-SEP	75	82	87	106%	92	99	82
Bitterroot R nr Missoula	APR-JUL	1160	1240	1300	104%	1360	1440	1250
	APR-SEP	1260	1360	1420	104%	1480	1580	1370

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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	2670	2780	2860	108%	2940	3050	2660
	APR-SEP	2980	3100	3180	107%	3260	3380	2960
Clark Fork R at St. Regis ¹	APR-JUL	3500	3600	3650	104%	3700	3800	3520
	APR-SEP	3900	4000	4050	104%	4100	4200	3910
Clark Fork R nr Plains ^{1,2}	APR-JUL	9250	9520	9650	96%	9780	10100	10100
	APR-SEP	10100	10500	10600	95%	10700	11100	11100
Thompson nr Tompson Falls	APR-JUL	161	187	205	100%	225	250	205
	APR-SEP	184	210	230	100%	250	275	230
Prospect Ck at Thompson Falls	APR-JUL	98	109	116	100%	123	134	116
	APR-SEP	105	116	124	100%	132	143	124
Clark Fork R at Whitehorse Rapids ^{1,2}	APR-JUL	10500	10900	11000	97%	11100	11500	11300
	APR-SEP	11500	11900	12100	97%	12300	12700	12500

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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	APR-JUL	71	81	88	92%	95	105	96
	APR-SEP	76	88	96	92%	104	116	104
Clark Canyon Inflow ²	APR-JUL	58	98	125	95%	152	192	131
	APR-SEP	75	117	146	94%	175	215	156
Beaverhead R at Barretts ²	APR-JUL	57	120	162	96%	205	265	168
	APR-SEP	65	139	189	95%	240	315	200
Ruby R Reservoir Inflow ²	APR-JUL	60	74	83	99%	92	106	84
	APR-SEP	74	89	100	99%	111	126	101
Big Hole R at Wisdom	APR-JUL	77	116	142	117%	168	205	121
	APR-SEP	79	121	150	115%	179	220	130
Big Hole R nr Melrose	APR-JUL	575	665	730	120%	795	885	610
	APR-SEP	620	720	790	120%	860	960	660
Jefferson R nr Twin Bridges ²	APR-JUL	555	750	885	113%	1020	1210	785
	APR-SEP	615	840	990	113%	1140	1360	880
Boulder R nr Boulder	APR-JUL	65	79	89	114%	99	113	78
	APR-SEP	67	83	94	111%	105	121	85
Willow Ck Reservoir Inflow ²	APR-JUL	9.9	14.5	17.6	98%	21	25	17.9

	APR-SEP	11	16.1	19.6	98%	23	28	20
Jefferson R nr Three Forks ²	APR-JUL	565	765	905	116%	1040	1250	780
	APR-SEP	620	845	1000	116%	1150	1380	860

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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	315	345	365	92%	385	415	395
	APR-SEP	410	445	470	93%	495	530	505
Ennis Reservoir Inflow ²	APR-JUL	500	570	620	91%	670	740	680
	APR-SEP	640	720	775	91%	830	910	850

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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	APR-JUL	375	430	465	106%	500	555	440
	APR-SEP	435	500	540	105%	580	645	515
Hyalite Reservoir Inflow ²	APR-JUL	19.6	22	23	105%	24	26	22
	APR-SEP	23	25	26	104%	27	29	25
Gallatin R at Logan	APR-JUL	370	465	530	107%	595	690	495
	APR-SEP	425	535	610	107%	685	795	570

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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	APR-JUL	14.1	17.3	19.5	114%	22	25	17.1
	APR-SEP	16.4	20	23	115%	26	30	20
Smith R bl Eagle Ck ²	APR-JUL	95	126	147	111%	168	199	133
	APR-SEP	101	138	164	110%	190	225	149
NF Musselshell R nr Delpine	APR-JUL	3.2	4.3	5.1	111%	5.9	7	4.6
	APR-SEP	3.8	5.1	6	111%	6.9	8.2	5.4
SF Musselshell R ab Martinsdale	APR-JUL	23	39	50	96%	61	77	52
	APR-SEP	24	42	54	96%	66	84	56
Musselshell R at Harlowton ²	APR-JUL	33	64	84	109%	104	135	77

Musselshell R nr Roundup ²	APR-SEP	31	64	86	106%	108	141	81
	APR-JUL	43	65	107	108%	149	210	99
	APR-SEP	44	68	110	108%	152	215	102

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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	APR-JUL	325	370	405	88%	440	485	460
	APR-SEP	355	410	445	88%	480	535	505
Two Medicine R nr Browning ²	APR-JUL	132	155	171	83%	187	210	205
	APR-SEP	141	166	182	85%	198	225	215
Badger Ck nr Browning	APR-JUL	48	61	70	81%	79	92	86
	APR-SEP	52	67	77	81%	87	102	95
Swift Reservoir Inflow ²	APR-JUL	37	48	55	86%	62	73	64
	APR-SEP	45	57	66	86%	75	87	77
Dupuyer Ck nr Valier	APR-JUL	4.4	6.2	11	79%	15.8	23	14
	APR-SEP	5	7.2	12.5	80%	17.8	26	15.7
Cut Bank Ck nr Browning	APR-JUL	46	58	66	86%	74	86	77
	APR-SEP	49	62	71	85%	80	93	84
Marias R nr Shelby ²	APR-JUL	156	255	320	77%	385	485	415
	APR-SEP	150	255	330	75%	405	510	440
Teton R nr Dutton	APR-JUL	16	22	40	78%	58	84	51
	APR-SEP	18.4	27	46	78%	65	93	59

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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	APR-JUL	80	88	94	90%	100	108	105
	APR-SEP	93	102	109	89%	116	125	122
St. Mary R nr Babb ²	APR-JUL	280	320	345	90%	370	410	385
	APR-SEP	330	375	405	90%	435	480	450
St. Mary R at Intl Boundary ²	APR-JUL	305	360	400	92%	440	495	435
	APR-SEP	370	430	470	91%	510	570	515
Milk R at Western Crossing of Intl Bndry, AB	APR-JUL	8.9	26	30	91%	34	47	33
	APR-SEP	9.7	28	33	92%	38	53	36
Milk R at Eastern Crossing of Intl Bndry	APR-JUL	14.6	39	56	92%	73	91	61
	APR-SEP	16.2	44	62	90%	80	101	69

	APR-JUL	475	525	560	104%	595	645	540
	APR-SEP	515	570	610	103%	650	705	595
Cooney Reservoir Inflow								
Yellowstone R at Billings								
	APR-JUL	2930	3340	3620	103%	3900	4310	3510
	APR-SEP	3180	3920	4260	103%	4600	5330	4120

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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	990	1350	1600	99%	1850	2210	1610
	APR-SEP	1020	1440	1720	98%	2000	2420	1760
Little Bighorn R nr Hardin								
	APR-JUL	82	107	124	97%	141	166	128
	APR-SEP	94	121	140	97%	159	186	144
Tongue R nr Dayton ²								
	APR-JUL	73	89	100	104%	111	127	96
	APR-SEP	83	101	113	104%	125	143	109
Big Goose Ck nr Sheridan								
	APR-JUL	39	49	55	106%	61	71	52
	APR-SEP	47	56	63	105%	70	79	60
Little Goose Ck nr Bighorn								
	APR-JUL	27	33	37	109%	41	47	34
	APR-SEP	34	41	45	107%	49	56	42
Tongue River Reservoir Inflow ²								
	APR-JUL	136	195	235	107%	275	335	220
	APR-SEP	155	220	260	104%	300	365	250
Yellowstone R at Miles City ²								
	APR-JUL	4200	4890	5360	100%	5830	6520	5360
	APR-SEP	4600	5640	6220	100%	6800	7840	6210
Powder R at Moorehead								
	APR-JUL	110	178	225	110%	270	340	205
	APR-SEP	131	200	250	109%	300	370	230
Powder R nr Locate								
	APR-JUL	117	199	255	109%	310	395	235
	APR-SEP	137	225	285	110%	345	435	260
Yellowstone R nr Sidney ²								
	APR-JUL	4140	5000	5590	102%	6180	7040	5480
	APR-SEP	4780	5690	6430	102%	7170	8070	6280

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