Report Created:
9/23/2014 9:12:58 AM

Streamflow Forecast Summary: April 1, 2014
(averages based on 1981-2010 reference period)

KOOTENAI RIVER BASIN in MONTANA	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment: Chance that actual volume will exceed forecast — 90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Tobacco R nr Eureka								
	APR-JUL	102	121	133	106%	145	164	126
	APR-SEP	111	133	147	105%	161	183	140
Libby Reservoir Inflow[1]								
	APR-JUL	4820	5430	5700	107%	5970	6580	5340
	APR-SEP	5720	6340	6620	106%	6900	7520	6250
Fisher R nr Libby								
	APR-JUL	215	240	260	127%	280	305	205
	APR-SEP	225	255	275	125%	295	325	220
Yaak R nr Troy								
	APR-JUL	320	375	415	99%	455	510	420
	APR-SEP	335	395	435	99%	475	535	440
Kootenai R at Leonia[1,2]								
	APR-JUL	5990	6720	7060	107%	7400	8130	6600
	APR-SEP	6970	7720	8060	106%	8400	9150	7590

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

FLATHEAD RIVER BASIN	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment: Chance that actual volume will exceed forecast — 90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
NF Flathead R nr Columbia Falls								
	APR-JUL	1570	1690	1770	115%	1850	1970	1540
	APR-SEP	1720	1860	1950	115%	2040	2180	1700
MF Flathead R nr West Glacier								
	APR-JUL	1620	1750	1840	123%	1930	2060	1500
	APR-SEP	1760	1900	2000	123%	2100	2240	1630
Sf Flathead R nr Hungry Horse								
	APR-JUL	1360	1450	1520	129%	1590	1680	1180
	APR-SEP	1430	1540	1610	128%	1680	1790	1260
Hungry Horse Reservoir Inflow[1,2]								
	APR-JUL	2030	2280	2400	129%	2520	2770	1860
	APR-SEP	2140	2420	2540	128%	2660	2940	1980
Flathead R at Columbia Falls[2]								
	APR-JUL	5490	5880	6140	122%	6400	6790	5020
	APR-SEP	5910	6350	6650	122%	6950	7390	5450
Ashley Ck nr Marion[2]								
	APR	1.38	2.2	2.8	108%	3.4	4.2	2.6
	APR-JUL	5.4	6.8	7.7	118%	8.6	10	6.5
Swan R nr Bigfork								
	APR-JUL	615	670	705	136%	740	795	520
	APR-SEP	695	760	800	134%	840	905	595
Flathead Lake Inflow[1,2]								
	APR-JUL	6080	6800	7130	123%	7460	8180	5810
	APR-SEP	6500	7320	7700	123%	8080	8900	6270
Mill Ck ab Bassoo ck nr Niarada								
	APR-JUL	5.9	6.7	7.2	180%	7.7	8.5	4
	APR-SEP	6.3	7.1	7.6	173%	8.1	8.9	4.4
South Crow Ck nr Ronan								
	APR-JUL	9.4	10.8	11.8	117%	12.8	14.2	10.1
	APR-SEP	10.8	12.4	13.5	116%	14.6	16.2	11.6
Mission Ck nr St. Ignatius								
	APR-JUL	24	26	28	112%	30	32	25

	APR-SEP	28	31	33	110%	35	38	30
SF Jocko R nr Arlee								
	APR-JUL	41	45	48	145%	51	55	33
	APR-SEP	45	50	53	143%	56	61	37
NF Jocko R bl Tabor Feeder Canal								
	APR-JUL	38	40	42	135%	44	46	31
	APR-SEP	40	42	44	133%	46	48	33

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								
	APR-JUL	98	114	125	179%	136	152	70
	APR-SEP	104	122	134	174%	146	164	77
Flint Ck nr Southern Cross								
	APR-JUL	13.8	17.5	20	161%	23	26	12.4
	APR-SEP	16.2	21	24	164%	27	32	14.6
Flint Ck bl Boulder Ck								
	APR-JUL	58	72	82	158%	92	106	52
	APR-SEP	72	89	101	153%	113	130	66
Lower Willow Ck Reservoir Inflow[2]								
	APR-MAY	10.3	12.4	13.8	189%	15.2	17.3	7.3
	APR-JUL	15.4	18.7	21	198%	23	27	10.6
MF Rock Ck nr Philipsburg								
	APR-JUL	73	83	89	153%	95	105	58
	APR-SEP	80	91	98	151%	105	116	65
Rock Ck nr Clinton								
	APR-JUL	335	380	410	164%	440	485	250
	APR-SEP	365	415	450	161%	485	535	280
Clark Fork R ab Milltown								
	APR-JUL	715	850	940	177%	1030	1170	530
	APR-SEP	810	960	1060	172%	1160	1310	615
Nevada Ck nr Helmville								
	APR-MAY	14.4	17.5	19.6	233%	22	25	8.4
	APR-JUL	23	29	32	225%	35	41	14.2
Blackfoot R nr Bonner								
	APR-JUL	915	1020	1090	151%	1160	1270	720
	APR-SEP	1010	1120	1200	150%	1280	1390	800
Clark Fork R ab Missoula								
	APR-JUL	1690	1910	2060	165%	2210	2430	1250
	APR-SEP	1880	2120	2280	161%	2440	2680	1420

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]								
	APR-JUL	163	188	205	160%	220	245	128
	APR-SEP	176	200	220	158%	240	265	139
Bitterroot R Nr Darby								
	APR-JUL	515	585	635	155%	685	755	410
	APR-SEP	570	640	690	147%	740	810	470
Como Reservoir Inflow[2]								

	APR-JUL	84	91	96	126%	101	108	76
	APR-SEP	87	95	100	127%	105	113	79
Bitterroot R nr Missoula								
	APR-JUL	1460	1620	1720	150%	1820	1980	1150
	APR-SEP	1550	1720	1830	146%	1940	2110	1250

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								
	APR-JUL	3130	3490	3730	155%	3970	4330	2400
	APR-SEP	3410	3800	4060	152%	4320	4710	2670
Clark Fork R at St. Regis[1]								
	APR-JUL	3990	4620	4910	155%	5200	5830	3160
	APR-SEP	4330	5020	5330	152%	5640	6330	3510
Clark Fork R nr Plains[1,2]								
	APR-JUL	10400	11800	12400	135%	13000	14400	9200
	APR-SEP	11300	12800	13500	134%	14200	15700	10100
Thompson nr Tompson Falls								
	APR-JUL	175	210	230	127%	250	285	181
	APR-SEP	196	230	255	124%	280	315	205
Prospect Ck at Thompson Falls								
	APR-JUL	102	113	121	119%	129	140	102
	APR-SEP	110	122	130	118%	138	150	110
Clark Fork R at Whitehorse Rapids[1,2]								
	APR-JUL	11900	13400	14000	133%	14600	16100	10500
	APR-SEP	13000	14600	15300	133%	16000	17600	11500

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]								
	APR-JUL	49	59	66	80%	73	83	82
	APR-SEP	50	62	70	79%	78	90	89
Clark Canyon Inflow[2]								
	APR-JUL	31	71	98	97%	125	165	101
	APR-SEP	48	90	119	99%	148	190	120
Beaverhead R at Barretts[2]								
	APR-JUL	27	89	131	102%	174	235	129
	APR-SEP	35	109	159	102%	210	285	156
Ruby R Reservoir Inflow[2]								
	APR-JUL	54	67	77	100%	86	99	77
	APR-SEP	65	80	91	100%	102	117	91
Big Hole R at Wisdom								
	APR-JUL	103	142	168	165%	194	235	102
	APR-SEP	106	149	178	165%	205	250	108
Big Hole R nr Melrose								
	APR-JUL	670	760	825	160%	890	980	515
	APR-SEP	715	820	890	159%	955	1060	560
Jefferson R nr Twin Bridges[2]								
	APR-JUL	645	840	975	141%	1110	1300	690

	APR-SEP	685	910	1060	145%	1210	1430	730
Boulder R nr Boulder								
	APR-JUL	88	102	112	162%	122	136	69
	APR-SEP	92	108	118	159%	129	145	74
Willow Ck Reservoir Inflow[2]								
	APR-JUL	26	30	34	202%	37	41	16.8
	APR-SEP	30	35	39	202%	42	47	19.3
Jefferson R nr Three Forks[2]								
	APR-JUL	860	1070	1200	162%	1340	1550	740
	APR-SEP	915	1140	1300	163%	1450	1680	800

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]								
	APR-JUL	360	390	410	111%	430	460	370
	APR-SEP	455	490	515	110%	540	575	470
Ennis Reservoir Inflow[2]								
	APR-JUL	545	615	665	106%	710	780	625
	APR-SEP	675	755	810	105%	865	950	775

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								
	APR-JUL	405	455	495	124%	530	580	400
	APR-SEP	470	530	570	121%	615	675	470
Hyalite Reservoir Inflow[2]								
	APR-JUL	24	26	27	135%	28	30	20
	APR-SEP	28	30	31	135%	32	34	23
Gallatin R at Logan								
	APR-JUL	430	525	590	134%	650	745	440
	APR-SEP	485	595	665	132%	740	850	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								
	APR-JUL	16	19.2	21	135%	24	27	15.5
	APR-SEP	18.1	22	25	136%	27	31	18.4
Smith R bl Eagle Ck[2]								
	APR-JUL	119	150	171	161%	192	225	106
	APR-SEP	127	165	191	165%	215	255	116
NF Musselshell R nr Delpine								
	APR-JUL	4.2	5.3	6.1	179%	6.9	8	3.4

	APR-SEP	5	6.3	7.2	180%	8.1	9.4	4
SF Musselshell R ab Martinsdale								
	APR-JUL	33	49	60	171%	71	87	35
	APR-SEP	35	53	65	171%	77	95	38
Musselshell R at Harlowton[2]								
	APR-JUL	91	121	142	249%	162	193	57
	APR-SEP	91	124	146	247%	169	200	59
Musselshell R nr Roundup[2]								
	APR-JUL	106	169	210	313%	255	315	67
	APR-SEP	108	170	215	326%	255	315	66

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								
	APR-JUL	450	500	530	134%	565	615	395
	APR-SEP	490	545	580	132%	615	670	440
Two Medicine R nr Browning[2]								
	APR-JUL	195	220	235	128%	250	275	183
	APR-SEP	205	230	250	129%	265	290	194
Badger Ck nr Browning								
	APR-JUL	88	101	110	125%	119	132	88
	APR-SEP	101	116	126	122%	136	151	103
Swift Reservoir Inflow[2]								
	APR-JUL	52	63	71	125%	78	89	57
	APR-SEP	62	74	83	124%	91	104	67
Dupuyer Ck nr Valier								
	APR-JUL	3.3	10.4	15.2	137%	20	27	11.1
	APR-SEP	3.9	11.7	17	134%	22	30	12.7
Cut Bank Ck nr Browning								
	APR-JUL	63	75	83	120%	91	103	69
	APR-SEP	68	81	90	120%	99	112	75
Marias R nr Shelby[2]								
	APR-JUL	340	435	500	145%	570	665	345
	APR-SEP	340	445	520	144%	595	700	360
Teton R nr Dutton								
	APR-JUL	27	53	71	169%	89	115	42
	APR-SEP	32	60	79	165%	98	127	48

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								
	APR-JUL	97	105	111	114%	117	125	97
	APR-SEP	112	121	128	114%	135	144	112
St. Mary R nr Babb[2]								
	APR-JUL	345	385	410	111%	435	475	370
	APR-SEP	400	445	475	112%	505	550	425
St. Mary R at Intl Boundary[2]								
	APR-JUL	390	445	485	111%	525	580	435
	APR-SEP	465	525	565	112%	605	665	505

Milk R at Western Crossing of Intl Bndry, AB								
	APR-SEP	17.6	24	31	119%	45	56	26
Milk R at Eastern Crossing of Intl Bndry								
	APR-SEP	36	47	60	109%	73	124	55

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]								
	APR-JUL	1900	2240	2470	138%	2700	3040	1790
	APR-SEP	2120	2530	2810	136%	3080	3490	2070
Dearborn R nr Craig								
	APR-JUL	68	97	116	130%	136	165	89
	APR-SEP	75	105	126	133%	146	176	95
Missouri R at Fort Benton[2]								
	APR-JUL	2810	3320	3670	141%	4020	4530	2610
	APR-SEP	3210	3840	4260	137%	4690	5320	3110
Missouri R nr Virgelle[2]								
	APR-JUL	3200	3790	4190	140%	4600	5190	3000
	APR-SEP	3580	4300	4800	136%	5290	6010	3520
Missouri R nr Landusky[2]								
	APR-JUL	3540	4140	4540	144%	4950	5550	3160
	APR-SEP	3950	4690	5190	140%	5700	6440	3720
Missouri R bl Fort Peck Dam[2]								
	APR-JUL	3720	4400	4860	150%	5320	6000	3240
	APR-SEP	3960	4830	5430	147%	6020	6890	3700
Lake Sakakawea Inflow[2]								
	APR-JUL	10200	11900	13000	156%	14100	15800	8310
	APR-SEP	11100	13200	14600	155%	16000	18200	9400

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								
	APR-JUL	620	675	715	124%	750	810	575
	APR-SEP	820	895	945	123%	995	1070	770
Yellowstone R at Corwin Springs								
	APR-JUL	1850	2010	2130	134%	2240	2410	1590
	APR-SEP	2150	2360	2500	133%	2640	2850	1880
Yellowstone R at Livingston								
	APR-JUL	2070	2290	2430	135%	2580	2790	1800
	APR-SEP	2420	2680	2850	133%	3030	3280	2140
Shields R nr Livingston								
	APR-JUL	154	194	220	171%	250	290	129
	APR-SEP	164	210	240	168%	270	315	143
Boulder R at Big Timber								
	APR-JUL	320	360	390	139%	415	455	280
	APR-SEP	350	395	425	142%	460	505	300
Mystic Lake Inflow[2]								

	APR-JUL	60	64	67	114%	70	74	59
	APR-SEP	75	82	86	116%	90	97	74
Stillwater R nr Absarokee[2]								
	APR-JUL	495	550	590	133%	630	685	445
	APR-SEP	580	650	695	134%	740	810	520
Clarks Fk Yellowstone R nr Belfry								
	APR-JUL	645	695	725	142%	760	810	510
	APR-SEP	710	765	805	146%	840	900	550
Cooney Reservoir Inflow								
	APR-JUL	41	52	60	158%	68	79	38
	APR-SEP	51	63	72	150%	80	93	48
Yellowstone R at Billings								
	APR-JUL	3830	4330	4670	145%	5010	5510	3230
	APR-SEP	4340	4940	5360	144%	5770	6370	3730

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]								
	APR-JUL	1700	2060	2310	167%	2550	2920	1380
	APR-SEP	1810	2230	2510	172%	2790	3210	1460
Little Bighorn R nr Hardin								
	APR-JUL	110	135	152	155%	169	193	98
	APR-SEP	122	149	168	151%	186	215	111
Tongue R nr Dayton[2]								
	APR-JUL	92	109	120	140%	131	147	86
	APR-SEP	104	122	134	137%	146	164	98
Big Goose Ck nr Sheridan								
	APR-JUL	49	59	65	141%	71	81	46
	APR-SEP	61	70	77	143%	84	93	54
Little Goose Ck nr Bighorn								
	APR-JUL	34	40	44	142%	48	54	31
	APR-SEP	44	51	55	141%	59	66	39
Tongue River Reservoir Inflow[2]								
	APR-JUL	197	255	295	153%	335	395	193
	APR-SEP	225	290	330	153%	375	435	215
Yellowstone R at Miles City[2]								
	APR-JUL	5890	6740	7320	153%	7900	8760	4780
	APR-SEP	6520	7600	8340	153%	9070	10200	5450
Powder R at Moorehead								
	APR-JUL	230	300	345	195%	390	460	177
	APR-SEP	260	330	380	194%	430	500	196
Powder R nr Locate								
	APR-JUL	255	340	395	198%	450	535	199
	APR-SEP	290	380	440	200%	500	585	220
Yellowstone R nr Sidney[2]								
	APR-JUL	6030	7030	7710	160%	8390	9390	4830
	APR-SEP	6590	7860	8720	161%	9590	10900	5430

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