

Appendix IV-1

IV. Water Resources in the Clark Fork and Kootenai Basins

1. Physical Setting

HUC Name	HUC Number	Sub-Basin Size (Sq Miles)
Lower Clark Fork	17010213	2334
Lower Flathead River	17010212	2007
Swan River	17010208	728
Stillwater River (Flathead R)	17010208	779
South Fork Flathead River	17010208	1674
Flathead Lake	17010212	1190
Middle Fork Flathead River	17010208	1134
North Fork Flathead River	17010208	957
Bitterroot River	17010204	2855
Middle Clark Fork	17010213	1982
Blackfoot River	17010204	2310
Flint-Rock Creeks	17010204	1818
Upper Clark Fork	17010202	1873
Yaak River	17010104	617
Fisher River	17010101	842
Upper Kootenai River	17010104	2243

Table 1: Sub-basins drainages of the Clark Fork and Kootenai River as delineated by the USGS into 4th Code HUC units.

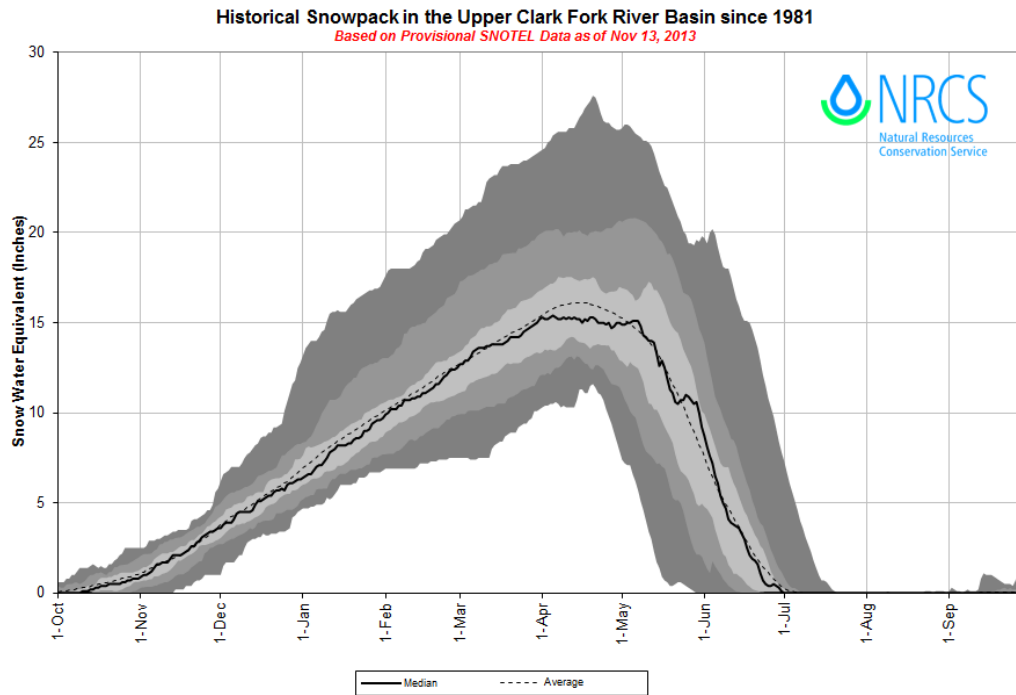
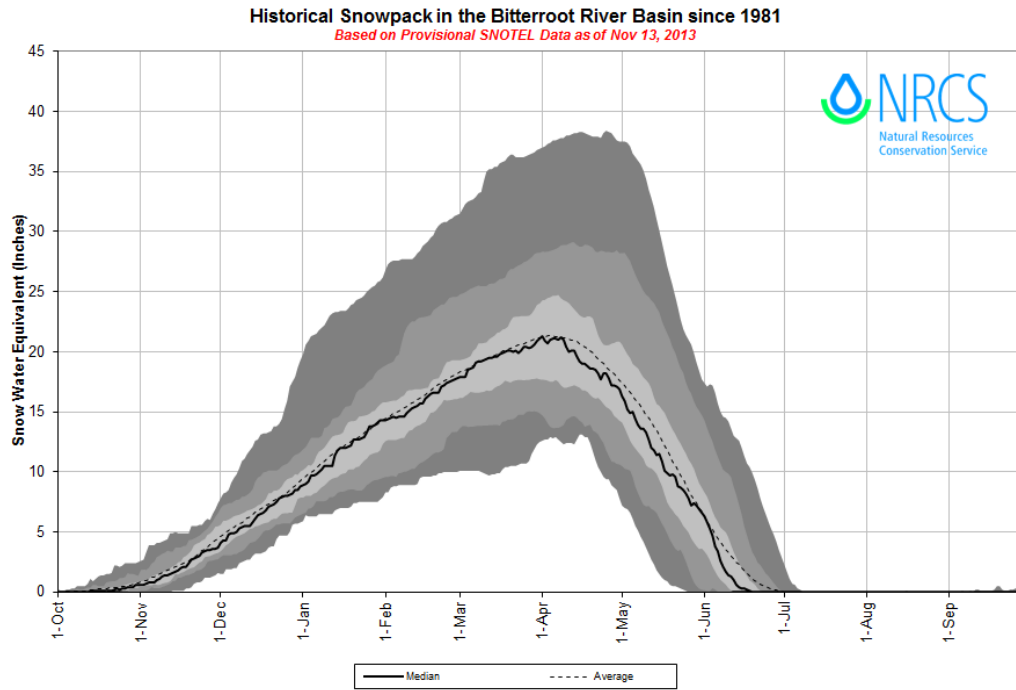
2. CLIMATE

SNOTEL SITES

SNOWTELL Site	SITE ID	State	HUC	Elevation (ft)	Latitude	Longitude	County
BARKER LAKES	313	MT	170102010000	8250	46.097130	-113.130380	DEER LODGE
CALVERT CREEK	381	MT	100200041000	6430	45.883800	-113.325530	DEER LODGE
BADGER PASS	307	MT	100302010000	6900	48.130880	-113.023170	FLATHEAD
BLACKTAIL MTN	1144	MT	170102080000	5650	47.982880	-114.354300	FLATHEAD
EMERY CREEK	469	MT	100402010000	4350	48.434116	-113.937250	FLATHEAD
FLATTOP MTN.	482	MT	170102071000	6300	48.802247	-113.857126	FLATHEAD
GRAVE CREEK	500	MT	170101010000	4300	48.914530	-114.766630	FLATHEAD
HAND CREEK	510	MT	170102100000	5035	48.307536	-114.840749	FLATHEAD
NOISY BASIN	664	MT	170102080000	6040	48.156782	-113.946374	FLATHEAD
LOLO PASS	588	ID	170102051000	5240	46.633330	-114.583330	IDAHO
BISSON CREEK	346	MT	170102121000	4920	47.683893	-113.999012	LAKE
MOSS PEAK	646	MT	170102080000	6780	47.684930	-113.962300	LAKE
MOOSE CREEK	638	ID	170602031000	6200	45.666670	-113.950000	LEMHI
BANFIELD MOUNTAIN	311	MT	170101011000	5600	48.571200	-115.445730	LINCOLN
GARVER CREEK	918	MT	170101030000	4250	48.975230	-115.819150	LINCOLN
HAWKINS LAKE	516	MT	170101050000	6450	48.972298	-115.953371	LINCOLN
POORMAN CREEK	932	MT	170101011000	5100	48.126720	-115.623330	LINCOLN
STAHL PEAK	787	MT	170101010000	6030	48.909016	-114.862979	LINCOLN
HOODOO BASIN	530	MT	170102041000	6050	46.975099	-115.034903	MINERAL
KRAFT CREEK	562	MT	170102110000	4750	47.427490	-113.775145	MISSOULA
LUBRECHT FLUME	604	MT	170102031000	4680	46.882928	-113.322277	MISSOULA
NORTH FORK JOCKO	667	MT	170102121000	6330	47.272600	-113.756170	MISSOULA
STUART MOUNTAIN	901	MT	170102040000	7400	46.995232	-113.926635	MISSOULA
N FK ELK CREEK	657	MT	170102031000	6250	46.871597	-113.277246	POWELL
DALY CREEK	433	MT	170102051000	5780	46.183670	-113.853300	RAVALLI
NEZ PERCE CAMP	662	MT	170102050000	5650	45.731070	-114.480750	RAVALLI
TWELVEMILE CREEK	835	MT	170102051000	5600	46.142866	-114.447545	RAVALLI
TWIN LAKES	836	MT	170102051000	6400	46.143804	-114.505600	RAVALLI
SLEEPING WOMAN	783	MT	170102121000	6150	47.179020	-114.333680	SANDERS
HUMBOLDT GULCH	535	ID	170103020000	4250	47.533330	-115.783330	SHOSHONE
LOOKOUT	594	ID	170103020000	5140	47.450000	-115.700000	SHOSHONE
BASIN CREEK	315	MT	170102010000	7180	45.797370	-112.520470	SILVER BOW

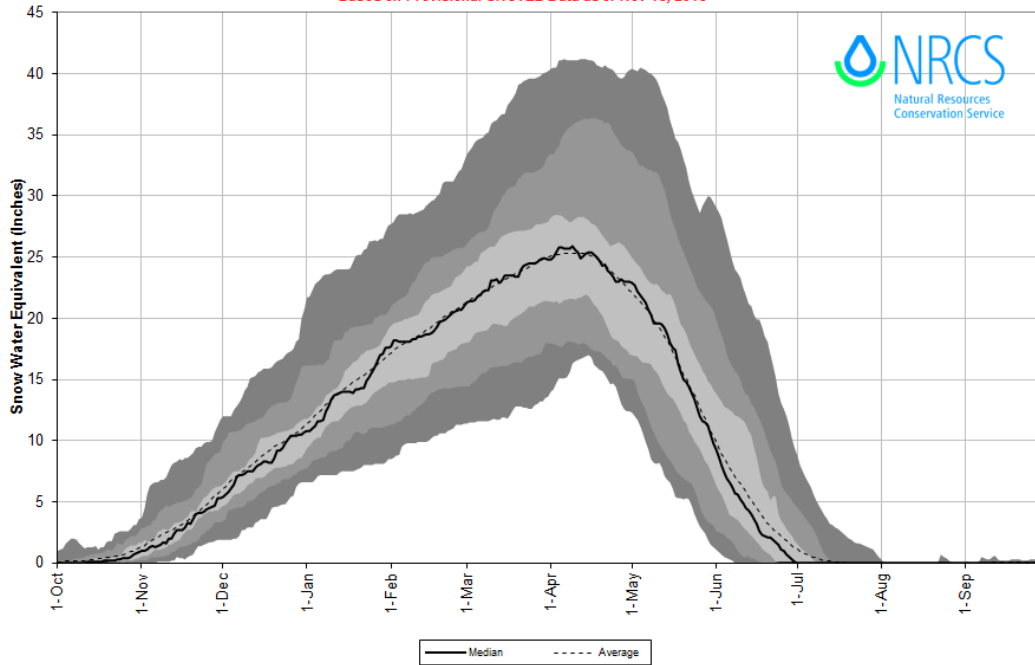
Table 2: List of SNOTEL site in the Clark Fork and Kootenai Basins.

Figure 1,2 and 3: Snowpack accumulation in the Bitterroot, Upper Clark Fork and Kootenai basins.



Historical Snowpack in the Kootenai River Basin in Montana since 1981

Based on Provisional SNOTEL Data as of Nov 13, 2013



HUC	MIN Annual Precip (in)	MAX Annual Precip (in)	MEAN Annual Precip (in)
Lower Kootenai River	25	57	32
Upper Clark Fork	10	45	34
Yaak River	25	61	36
Flint-Rock Creeks	12	50	38
Stillwater River (Flathead R)	16	66	50
Flathead Lake	15	70	55
Blackfoot River	14	76	62
South Fork Flathead River	24	88	63
Lower Flathead River	12	76	65
Swan River	19	85	66
Bitterroot River	11	78	67
Fisher River	16	85	68
Middle Clark Fork	13	93	80
Lower Clark Fork	14	95	81
North Fork Flathead River	21	103	82
Upper Kootenai River	14	99	85
Middle Fork Flathead River	26	114	88

Table 3: Precipitation is presented on an annual basis for each HUC in the basin. The table is ranked from smallest to largest mean annual inflows