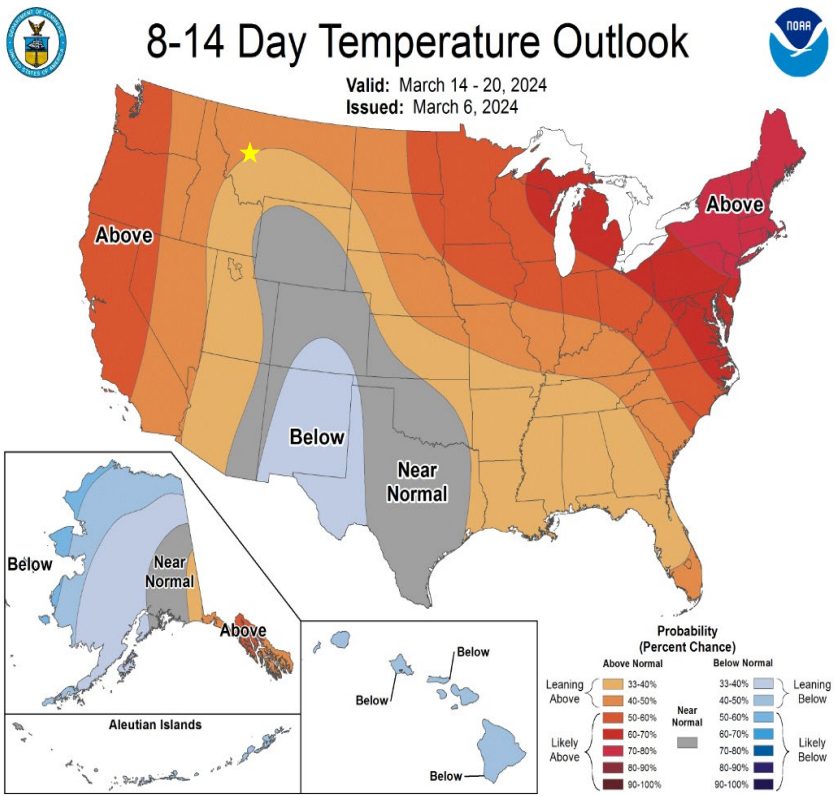
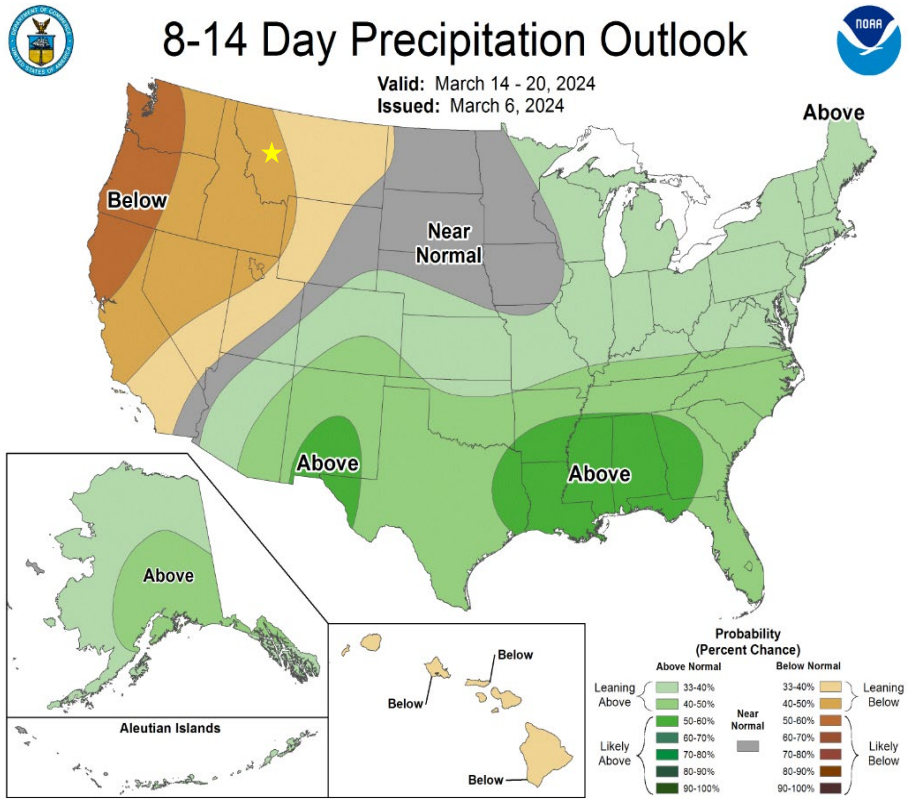
2024 Water Supply Outlook (03/12/24)

Approximate date	Purpose of Meeting
End of January	Review reservoir carryover and initial projection of water supply, tentatively categorize water-year type
End of February	Review reservoir carryover and initial projection of water supply, tentatively categorize water-year type, set March wet and normal year streamflow targets, modify MEF timing (if applicable) to match anticipated snowmelt runoff
End of March	Refine projection of water supply, tentatively categorize water-year type, and set April wet and normal streamflow targets, modify MEF timing (if applicable) to match anticipated snowmelt runoff
Mid-April	Refine projection of water supply, categorize water-year type, update wet and normal streamflow targets for the month, set initial RDAs based on water year type, modify MEF timing (if applicable) to match anticipated snowmelt runoff
Early May	Refine projection of water supply, update water-year type (if applicable), set wet and normal streamflow targets for the month, review initial RDAs based on water year type, taking into account any changes in water year type, modify MEF timing (if applicable) to match anticipated snowmelt runoff
Mid-May	Refine projection of water supply, update water-year type, update wet and normal streamflow targets for the month, update RDAs based on any changes in water year type, modify MEF timing (if applicable) to match anticipated snowmelt runoff
Early June	Refine projection of water supply, update water-year type (if applicable), set wet and normal streamflow targets for month, quantify portion of RDAs used to date, modify MEF timing (if applicable) to match anticipated snowmelt runoff
Mid June	Finalize projection of water supply and water-year type, update wet and normal streamflow targets for month, modify RDAs based on any changes in water year type, modify MEF timing (if applicable) to match anticipated snowmelt runoff
Early July	Set wet and normal streamflow targets for the month, evaluate RDAs, quantify portion of RDAs used to date
Mid July	Update wet and normal streamflow targets for the month
Early August	Set wet and normal streamflow targets for the month, evaluate RDAs, quantify portion of RDAs used to date
Early September	Set wet and normal streamflow targets for the month, quantify portion of RDAs used to date
Early October	Discuss annual reporting and water operations for the completed irrigation season, develop long-range forecast based on climatic indicators
Early December	Finalize annual reporting of water measurement, refine long-range forecast based on climatic indicators

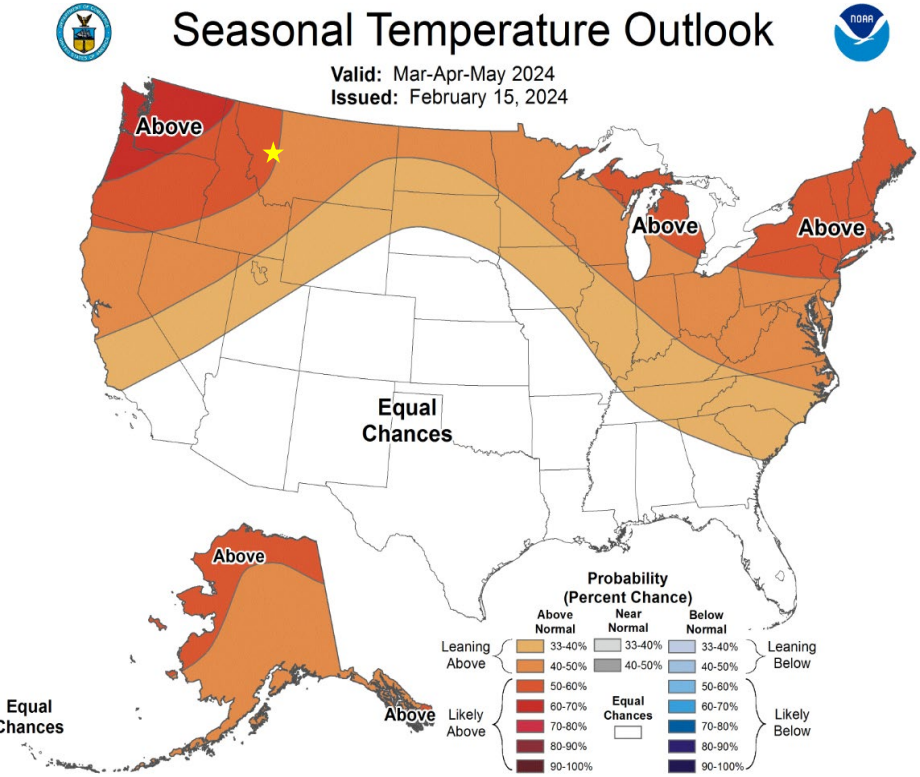
Appendix 3.5 Timeline

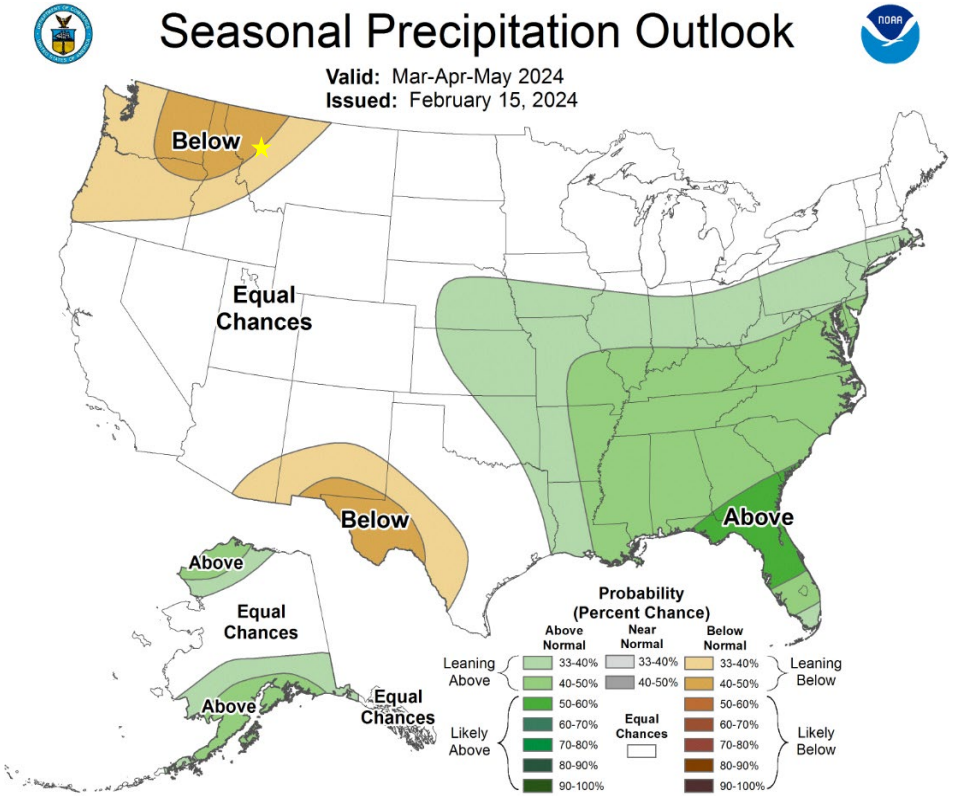
8-14 Day Outlook – Issued March 6, 2024





Three Month Outlook – Mar-April -May 2024

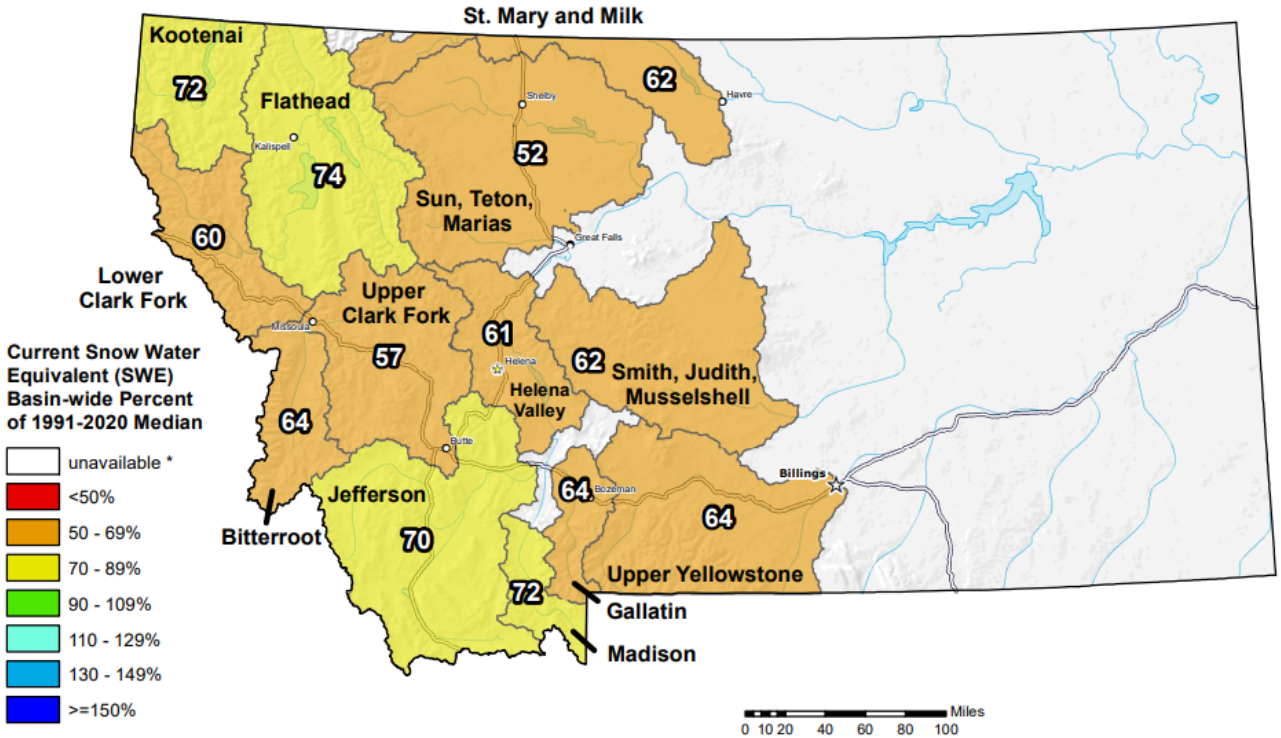




– Not Approved by CITT

Montana SNOTEL Current Snow Water Equivalent (SWE) % of Normal

Feb 26, 2024



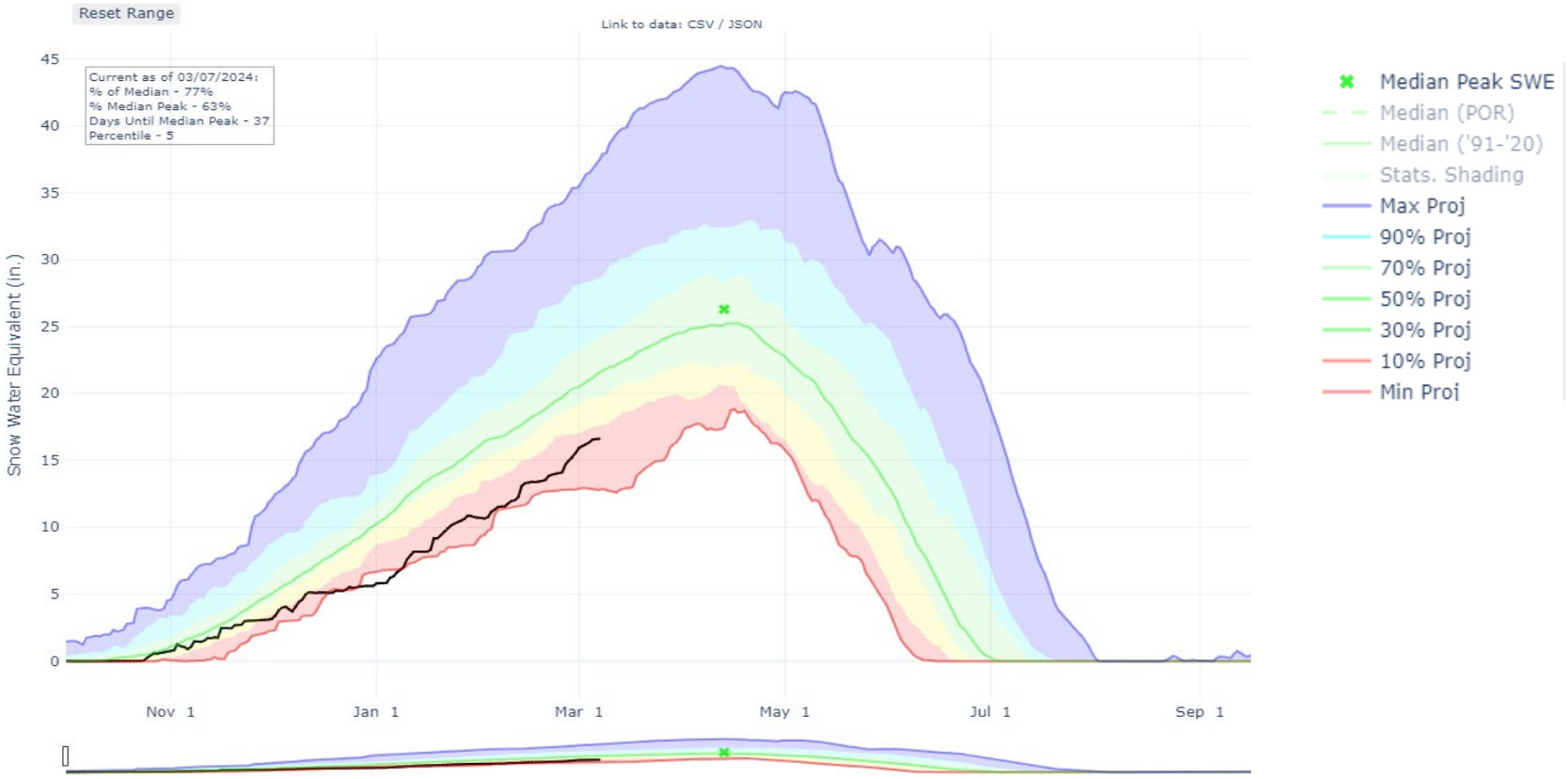
Provisional Data Subject to Revision

The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
https://www.nrcs.usda.gov/wps/portal/wcc/home/

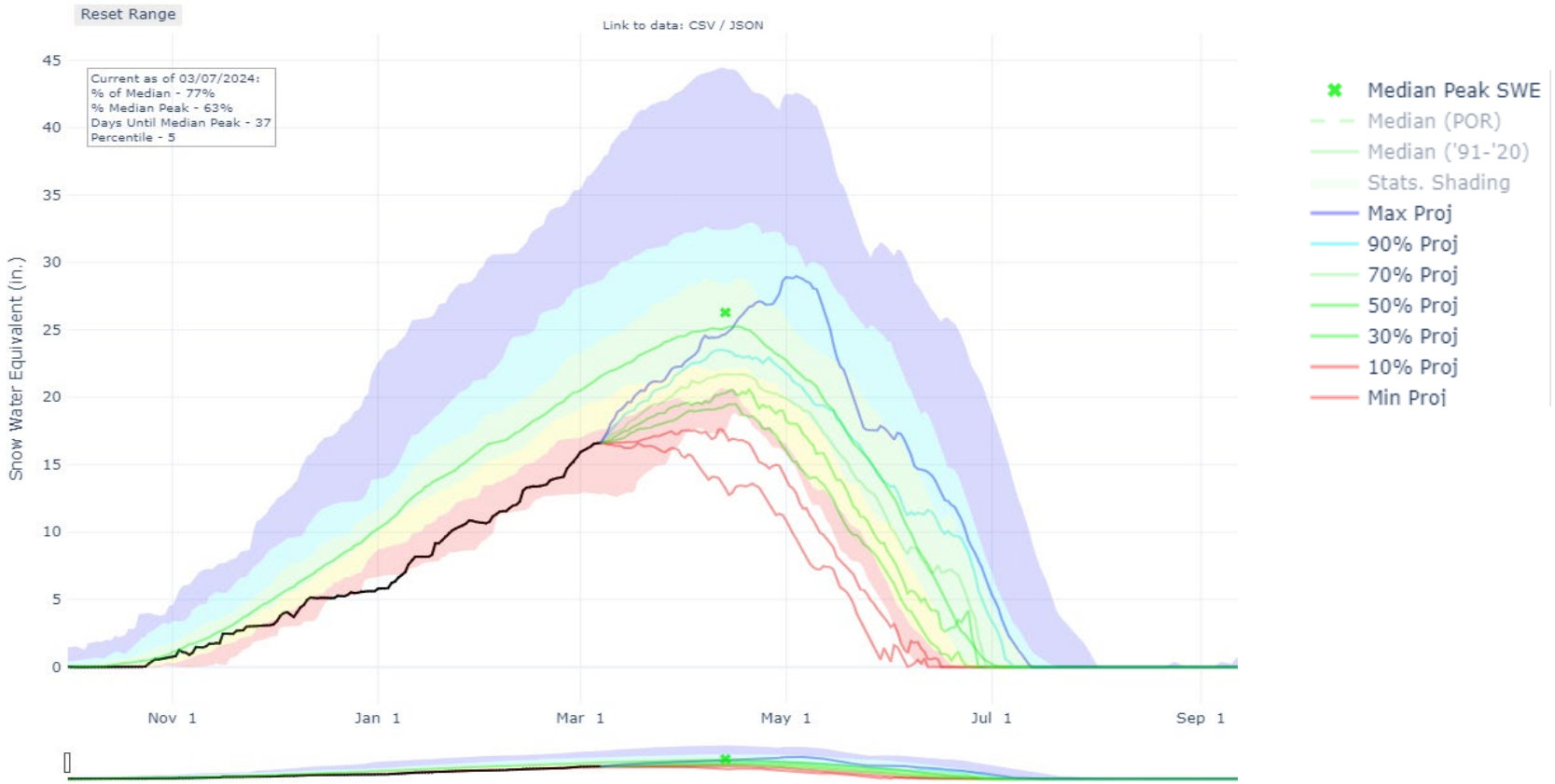
DRAFT – Not Approved by CITT

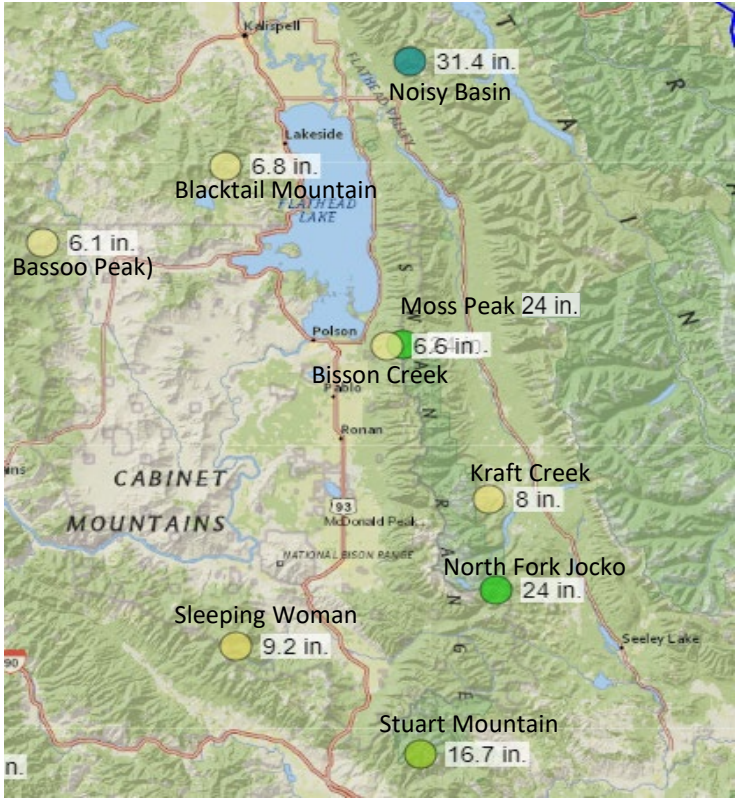
AWS Plot | SNOW WATER EQUIVALENT PROJECTION IN FLATHEAD

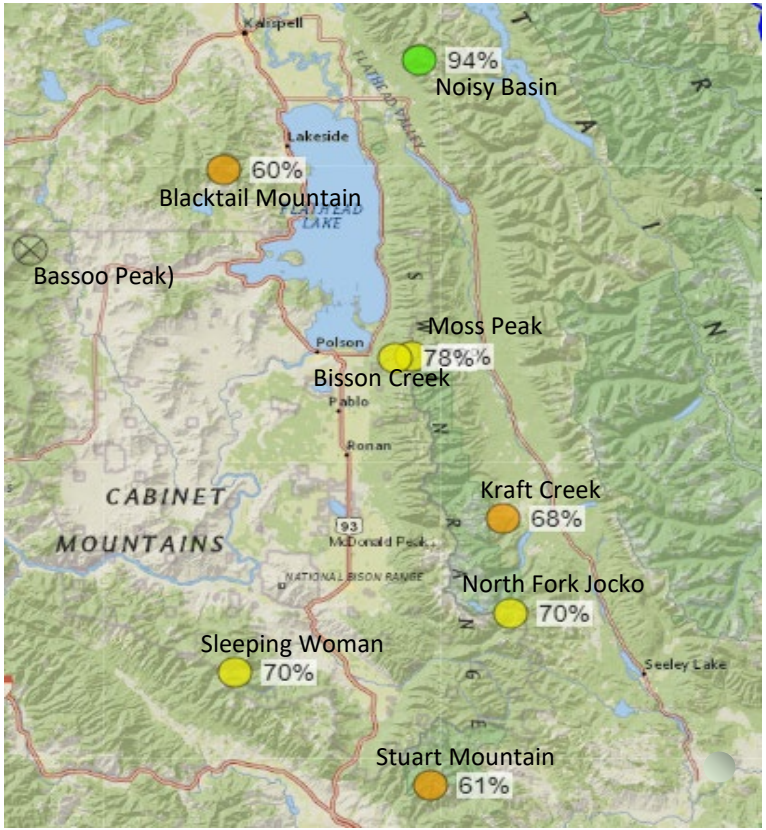


DRAFT – Not Approved by CITT

AWS Plot | SNOW WATER EQUIVALENT PROJECTION IN FLATHEAD







Notes:

- Stuart Mountain and Kraft Creek are in adjacent drainages. They are included for information purposes since they are near drainage divides.
- Percentile indicates the relative position of a value in a dataset. 0th percentile indicates that the observed value is the lowest on record during the period of record for today's date. The corresponding exceedance probability would be 100%.

Forecasting – NRCS Basin Reports

Report Created:
3/6/2024 11:33:58 AM

Streamflow Forecast Summary: March 1, 2024
(Medians based On 1991-2020 reference period)

Flathead	Forecast Period	Forecast Exceedance Probabilities For Risk Assessment: Chance that actual volume will exceed forecast — 90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
NF Flathead R nr Columbia Falls								
	APR-JUL	1030	1230	1370	89%	1500	1690	1540
	APR-SEP	1070	1310	1470	86%	1630	1830	1700
Swan R nr Bigfork								
	APR-JUL	315	370	415	79%	460	515	525
	APR-SEP	375	435	480	82%	525	600	585
Flathead R at Columbia Falls[2]								
	APR-JUL	3460	3940	4250	87%	4600	5120	4870
	APR-SEP	3580	4170	4600	85%	5010	5660	5400
Flathead Lake Inflow[1,2]								
	APR-JUL	3150	4310	4830	85%	5350	6510	5670
	APR-SEP	3370	4640	5220	83%	5800	7070	6310
Mission Ck nr St. Ignatius								
	APR-JUL	15.6	19.4	22	85%	25	31	26
	APR-SEP	18.4	23	26	84%	29	39	31
MF Flathead R nr West Glacier								
	APR-JUL	925	1060	1160	79%	1270	1430	1470
	APR-SEP	980	1140	1270	78%	1410	1610	1620
SF Jocko R nr Arlee								
	APR-JUL	18	23	27	77%	31	40	35
	APR-SEP	22	27	32	82%	36	46	39
Hellroaring Creek ab Reservoir nr Polson								
	APR-JUL	2.8	3.4	3.8	93%	4.3	4.9	4.1
	APR-SEP	3.8	4.3	4.8	92%	5.3	6	5.2
South Crow Ck nr Ronan								
	APR-JUL	7.7	8.5	9.4	92%	10.7	11.9	10.2
	APR-SEP	8	9.5	10.6	92%	12	13.7	11.5
Mill Ck ab Bassoo ck nr Niarada								
	APR-JUL	1.17	2.1	3	64%	4	5.6	4.7
	APR-SEP	1.27	2.3	3.3	67%	4.2	5.7	4.9
Sf Flathead R nr Hungry Horse								
	APR-JUL	780	875	960	78%	1040	1160	1230
	APR-SEP	850	950	1050	81%	1140	1280	1290
Hungry Horse Reservoir Inflow[1,2]								
	APR-JUL	1000	1370	1530	83%	1690	2050	1850
	APR-SEP	1040	1420	1600	82%	1770	2150	1960

Forecasting – NRCS Basin Reports

Report Created:
3/6/2024 11:33:58 AM

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	APR-JUL	1000	1370	1530	83%	1690	2050	1850
	APR-SEP	1040	1420	1600	82%	1770	2150	1960

Table 2: March 2024 Water Year and NRCS Streamflow Forecast

	March NRCS Streamflow Forecast, April- July 2023				Site-Specific Water Year Thresholds		
Gage Site	**70%**	**50%**	**30%**	**% Median**	**Wet Year**	**Normal Year**	**Dry Year**
South Fork Jocko near Arlee	23,000	27,000	31,000	77%	>36,000	24,000 - 36,000	<24,000
Mission Creek near St. Ignatius	19,400	22,000	25,000	85%	>29,000	21,100 - 29,000	<21,100
South Crow Creek near Ronan	8,500	9,400	10,700	92%	>11,800	7,700 - 11,800	<7,700
Hellroaring Creek	3,400	3,800	4,300	93%	>4,750	3,350-4,750	<3,350
Mill Creek above Bassoo Creek near Niarada	2,100	3,000	4,000	64%	>4,900	2,200 - 4,900	<2,200

Wet
Normal
Dry

*all values are in acre feet