Approved by CITT

2025 June Water Year Type Categorization – Presented for Informational Purposes

To: Parties to the CSKT-MT Compact

From: CSKT-MT Compact Implementation Technical Team

Date: June 11, 2025

Re: 2025 June Water Year Type Categorization

Background

The Compact Implementation Technical Team (CITT) is tasked with developing water management planning tools to support Flathead Indian Irrigation Project (FIIP) Water Management and Adaptive Management per Appendix 3.5, 3.e of the CSKT-MT Compact. This document provides a categorization of water year type pursuant to both Appendix 3.5 and Appendix 3.7 for determination of wet, normal, and dry years.

When water allocations including minimum enforceable instream flows (MEFs), target instream flows (TIFs), river diversion allowances (RDAs) become enforceable, CITT shall categorize water year type from April through June, annually. Because MEFs, TIFs, and RDAs are not enforceable at this time, this document was prepared for informational purposes and to meet the CITT's responsibility to provide water management planning.

Water Year Type
Referred to as Hydrological Condition in Appendix 3.7, this is the CITT determination of wet, normal, and dry year for the Jocko, Mission, and Little Bitterroot Areas based on indicator gage data.

Water Year Type Projection

In both April and May 2025, CITT categorized the Jocko Area as a Normal Year, the Mission Area as a Normal Year, and the Little Bitterroot Area as a Normal Year.

The June 2025 water year type categorization was made using data from the National Resources Conservation Service's (NRCS) streamflow forecast for June 1, 2025, USGS and CSKT stream gage data for April and May 2025, and the exceedance probability tables in Appendix 3.7. A summary of the data used to make the water year type determination can be found in the June 2025 Water Supply Outlook which is posted on the CITT website. The water year categorization below includes the seven gages listed in Appendix 3.7 that have an associated NRCS forecast. North Crow Creek near Ronan and Agency Creek near Arlee are gages that were added to the NRCS forecast in 2025.

The reference period of 1983-2002 was used to define volumetric wet, normal, and dry year determinations, as outlined in Appendix 3.7. Data from this reference period was used for the seven gaging sites to determine the threshold of wet (<20% exceedance level), normal (20%- 80% exceedance) and dry (>80% exceedance) years as shown on the right side of Table 1. The left side of Table 1 shows the forecast for the 70th, 50th, and 30th percentile exceedance values of the gages listed in Appendix 3.7. In April, the NRCS volumetric forecast is used to determine April – July projections. In May and June, observed flows for previous months are added to the NRCS volumetric forecast. The % Median column shows a comparison of the forecast to the 30-year median. In this report, the 50th percentile exceedance value is used to determine water year type.

Table 1: June 2025 Water Year NRCS Streamflow Forecast								
	April - July Projections (April/May Flows + June/July NRCS Forecast)					Site-Specific Water Year Thresholds		
Geographic Area	Gage Site	70%	50%	30%	% Median	Dry Year	Normal Year	Wet Year
Jocko	South Fork Jocko near Arlee	30,350	32,450	34,550	92%	<24,000	24,000 - 36,000	>36,000
	Agency Creek	5,656	5,956	6,356	98%	<4,640	4,640-6,880	>6,880
Mission	Hellroaring Creek	4,260	4,480	4,680	109%	<3,350	3,350-4,750	>4,750
	North Crow Creek near Ronan	20,228	21,528	22,528	122%	<14,400	14,400-22,700	>22,700
	South Crow Creek near Ronan	9,921	10,621	11,321	104%	<7,700	7,700 - 11,800	>11,800
	Mission Creek	24,550	26,050	27,750	100%	<21,100	21,100 - 29,000	>29,000
Little Bitterroot	Mill Creek above Bassoo Creek near Niarada	2,067	2,307	2,567	49%	<2,200	2,200 - 4,900	>4,900
		Dry	Normal	Wet			*all values are in acre feet	

Jocko Area

The 50% exceedance level of both forecast points in the Jocko Area forecast are within the range defined as a Normal Year. These projections represent 92% (South Fork Jocko River) and 98% (Agency Creek) of the 30-year median. CITT categorized the Jocko Area as a Normal Year for June 2025.

Mission Area

The 50% exceedance level for all four forecast points in the Mission Area are within the range defined as a Normal Year. These projections represent 109% (Hellroaring), 122% (North Crow Creek), 104% (South Crow Creek), and 100% (Mission Creek) of the 30-year median. CITT categorized the Mission Area as a Normal Year for June 2025.

Little Bitterroot Area

The 50% exceedance level of the forecast point in the Little Bitterroot Area forecast is on the low end of the range defined as a Normal Year and as a Dry Year at the 70% exceedance level. Because the NRCS model does not factor in conditions such as temperature, NRCS recommends considering the 70% exceedance level for management purposes. This projection represents 49% (Mill Creek) of the 30-year median, which is notably lower than the April or May projections. CITT categorized the Little Bitterroot Area as a Dry Year for June 2025.

Considerations and Limitations

- NRCS Forecasts for the April-July time period were selected in favor of forecasts for the April-September forecasts as longer-term streamflow forecasts tend to have lower predictive accuracy. This approach is also consistent with the hydrologic condition procedures outlined in Appendix 3.7.
- CITT uses 3rd party data and analyses to inform and support Water Year Type categorizations. CITT does not independently vet the accuracy of 3rd party information.

- Water supply is highly dynamic and is susceptible to sudden changes triggered by fluctuations in snowpack, temperature, and precipitation. The FIIP Project Operator and other interested parties should continually monitor snowpack, weather, and appropriate forecasts to inform real-time water management activities.
- At this time, this categorization is presented for informational purposes. Specific management decisions should be based on additional information, the most current forecast data, experience, and professional judgement.
- The CITT intends to continue these water year type categorizations as full implementation of the MEFs, RDAs, and other enforceable flow rates approaches.