Rainy River Basin Headwaters Information

Tuesday, May 5, 2026
Concerning the current high water and flooding in the far eastern portions of the Rainy River Watershed

More information available at
weather.gov/dlh/RainyRiverBasin

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Duluth, MN & North Central River Forecast Center

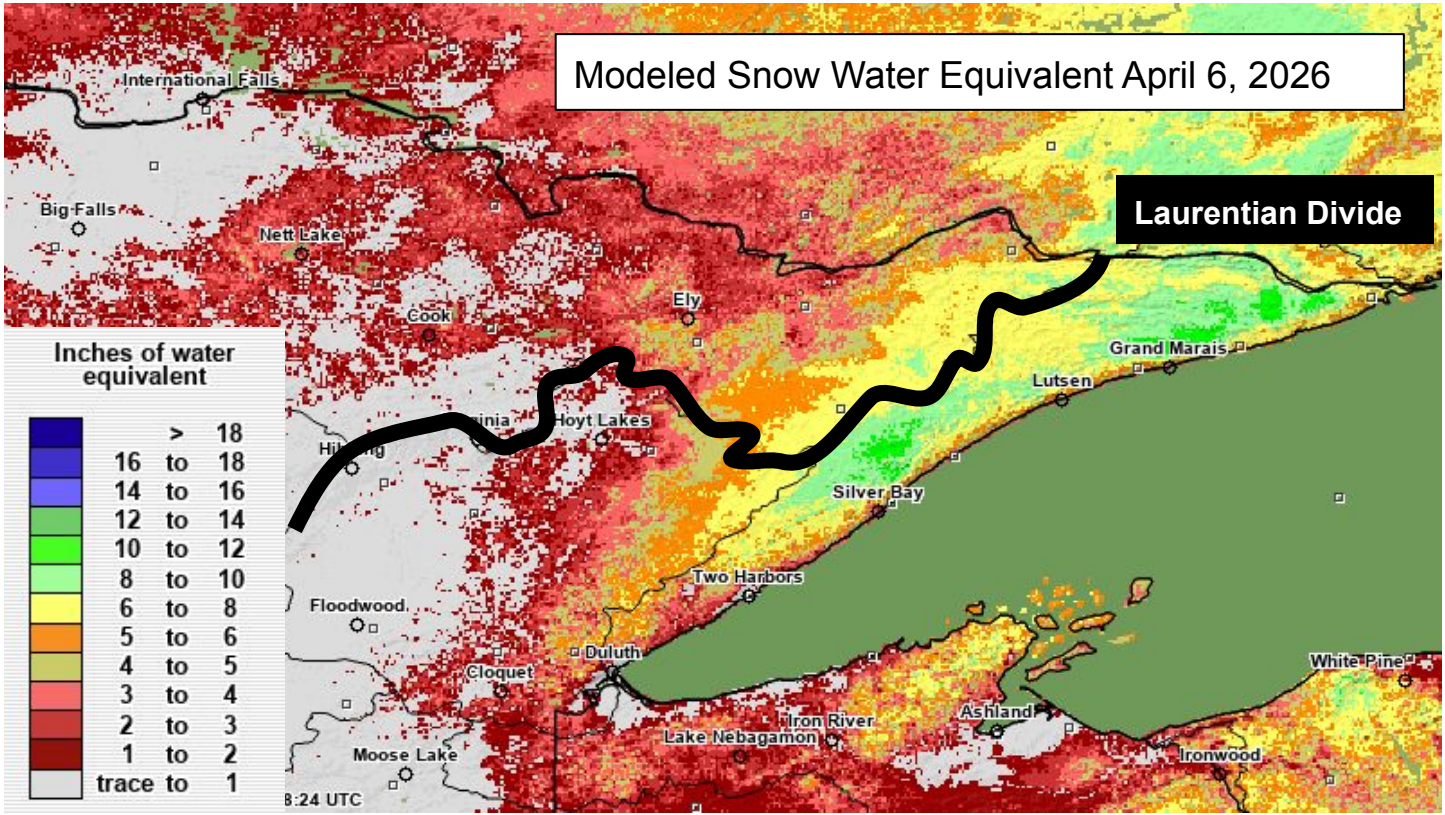
Key Points

- Rapid snowmelt and recent heavy rains in the headwaters of the Rainy River basin caused **significant river and lake rises in eastern portions of the basin.**
- Recent precipitation the headwaters is well above normal from both wintertime snow and recent heavy rains.
- Snow water equivalent was above normal for the headwaters when spring melt began, having increased during multiple winter storms in February and March.
- Heavy rains in late April occurred during the peak of snowmelt runoff, exacerbating water level rises.
- River and water level stage heights and flows are comparable to and in many cases exceed recent flooding in June 2024 and Spring 2022.

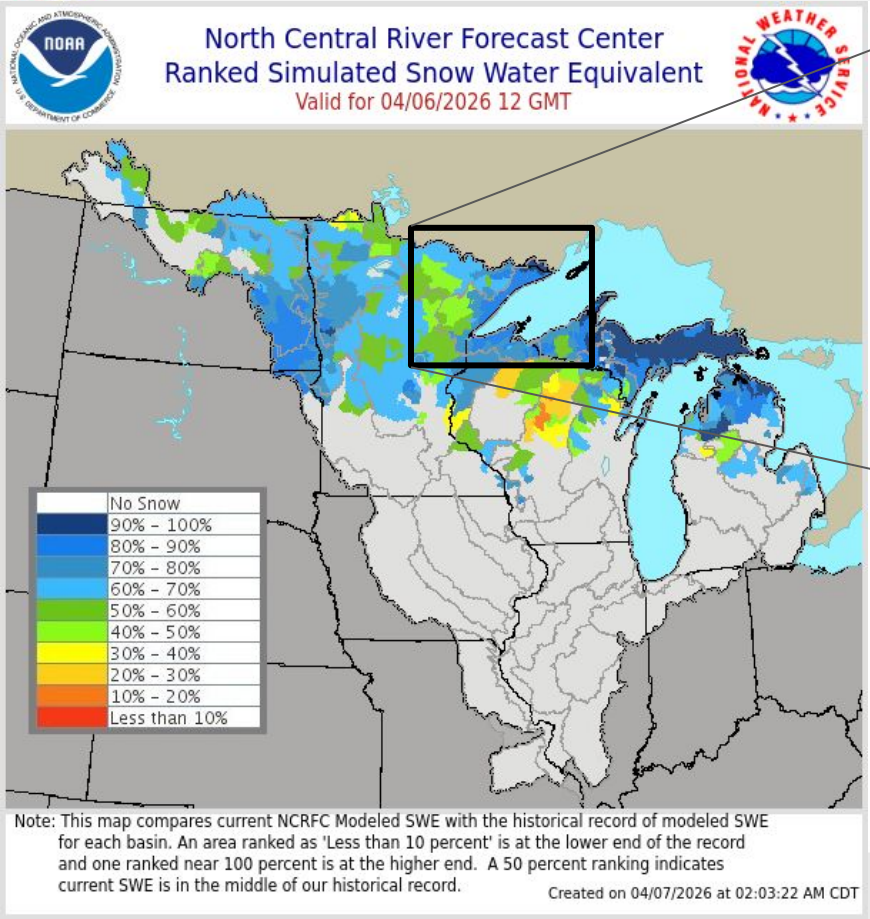
Recent Past Weather

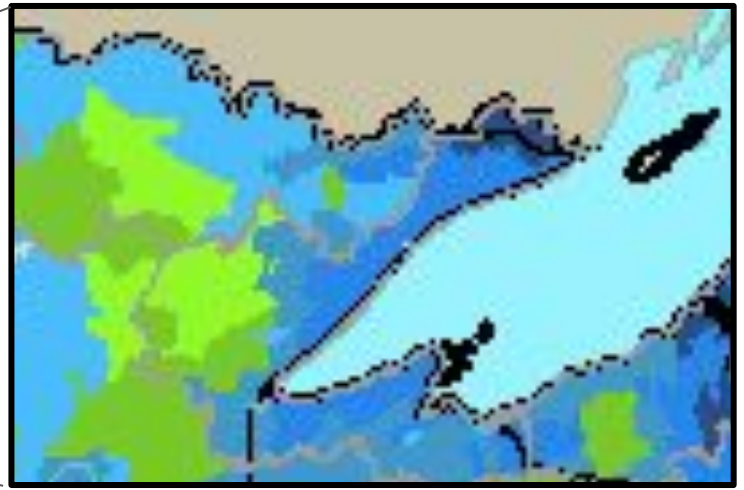
Snow Water Equivalent (SWE) April 6, 2026

- Peak SWE preceding spring snow melt in the MN Arrowhead this year.
- 3-4” in the Ely area.
- 4-7” closer the Laurentian Divide.
- Melted quick over the course of a couple weeks in late April.



2026 Peak Snow Water Comparison to Normal



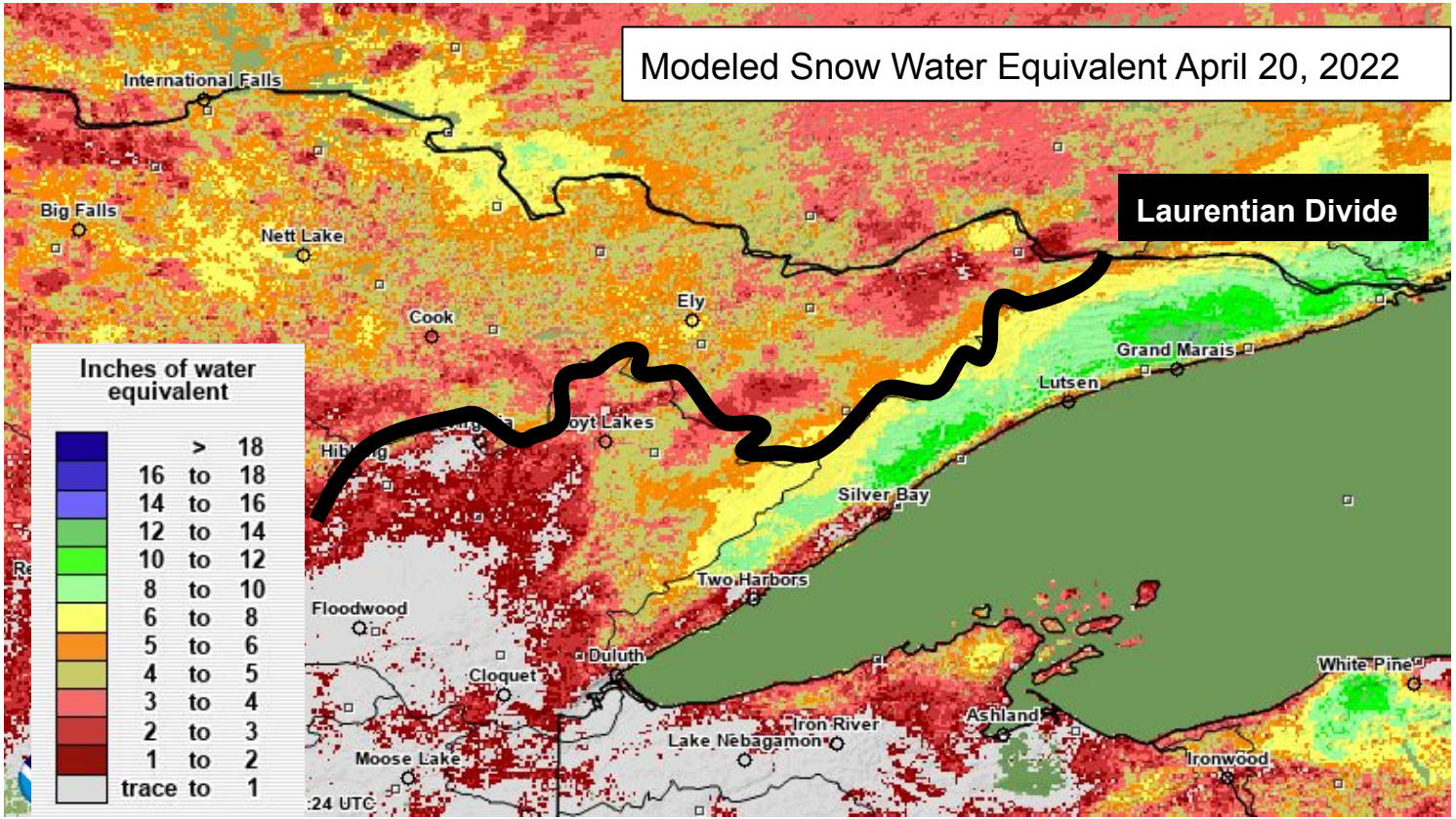


Compared to SWE climatology going back to 1948, April SWE values were in the top 70-90th percentile. Similar to 2022 SWE.

2022 Snow Water Equivalent

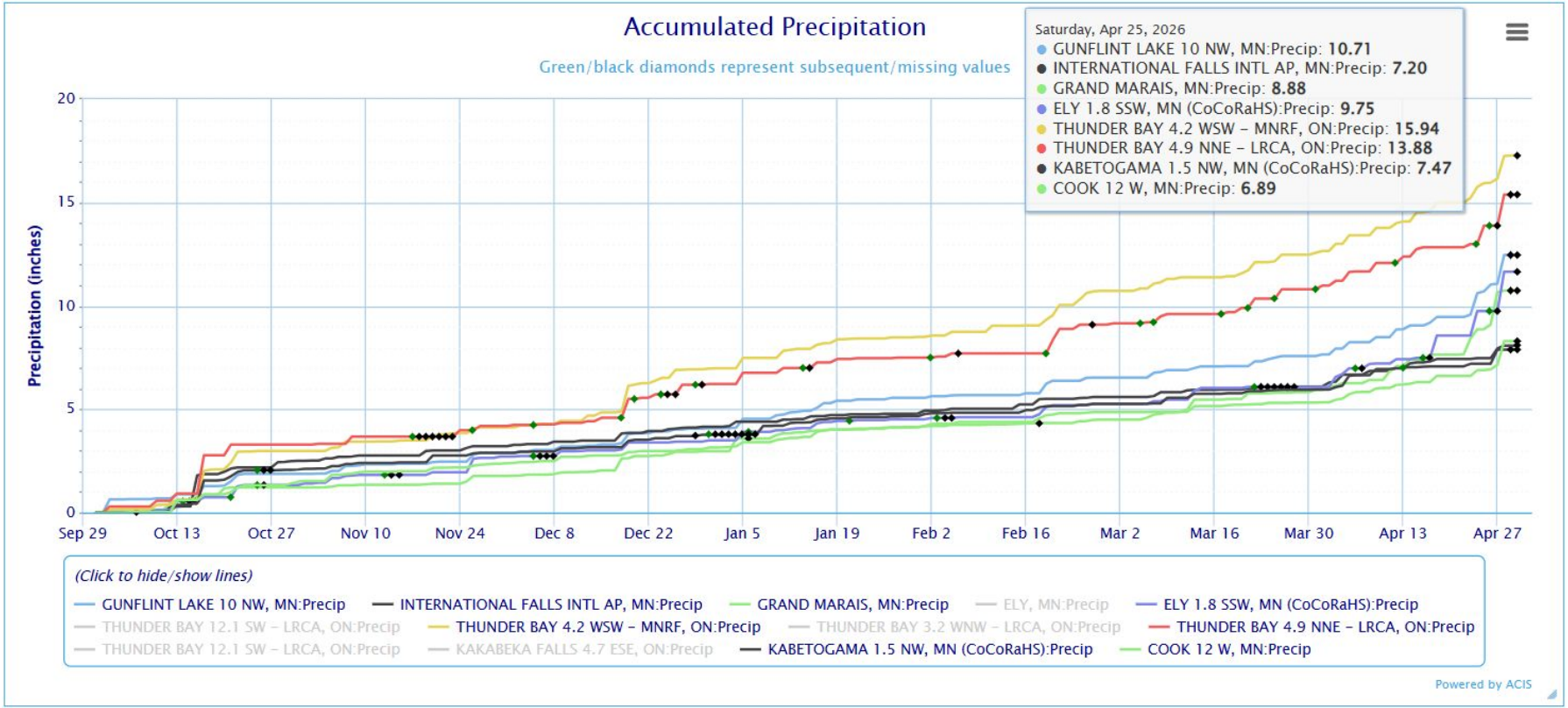
Peak SWE precreding Spring 2022 snow melt flooding

- Peak SWE values in 2022 were similar to 2026, but *much more widespread across the entire Rainy River watershed.*
- When melt began, high water downstream prevented good flow from the headwaters.
- Flooding in 2022 was also exacerbated by very frozen soils and several rounds of heavy rain on top of snowmelt.



Past Weather Water Year 2026

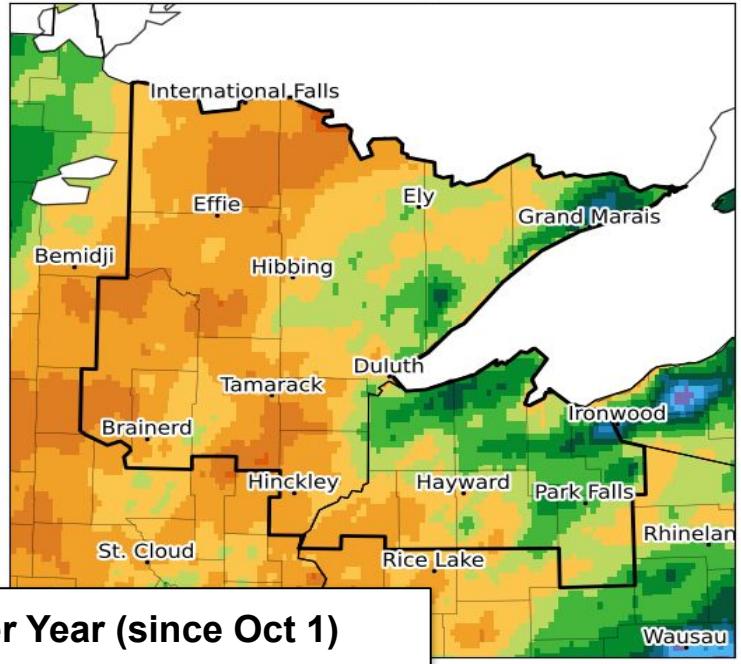
Precipitation Since Oct 1, 2025 **East vs. West - More precipitation in the eastern half of the basin**



Precipitation Departure from 1991-2020 Normals

Inches above or below normal precipitation for the period.

Accumulated Precipitation (in): Departure from 1991-2020 Normals
October 01, 2025 to April 29, 2026

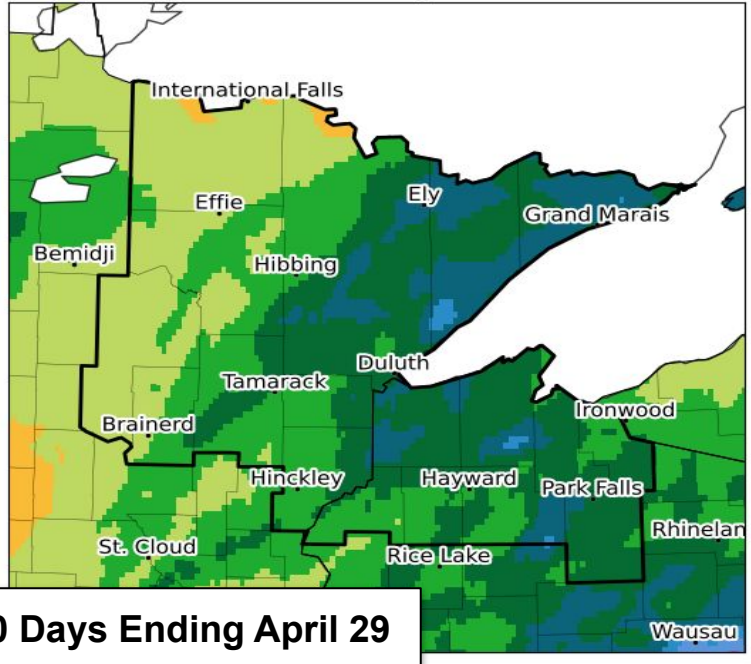


Water Year (since Oct 1)

−5 −4 −3 −2 −1 0 1 2 3 4 5 6 7 8 9

Source: PRISM Weather Data

Accumulated Precipitation (in): Departure from 1991-2020 Normals
March 31, 2026 to April 29, 2026



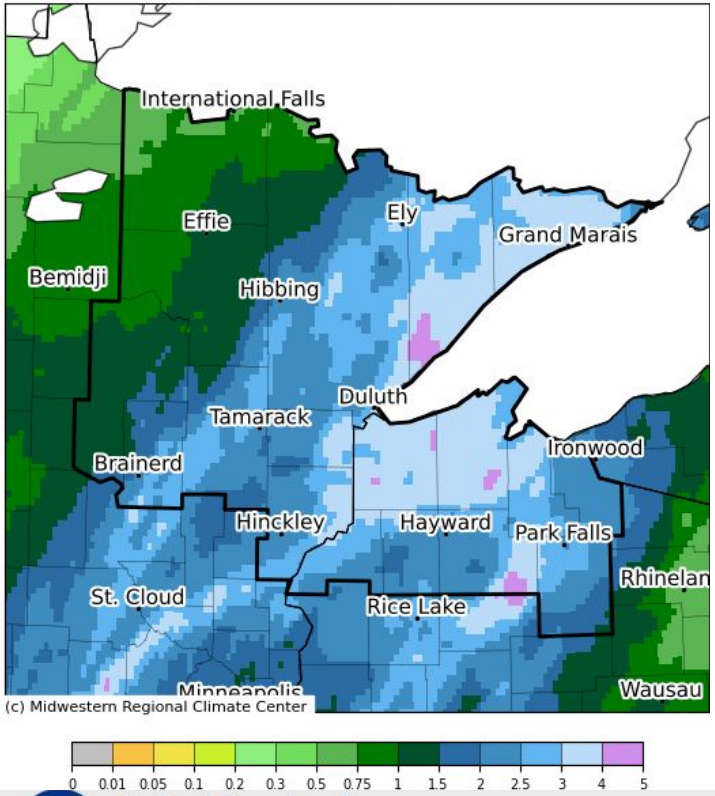
30 Days Ending April 29

−2 −1 0 1 2 3 4 5 6 7

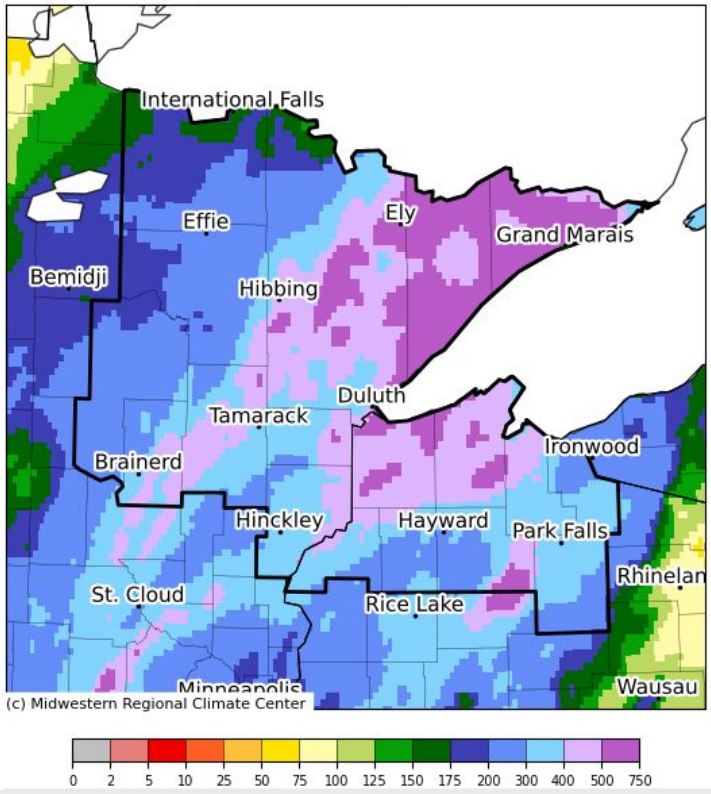
Source: PRISM Weather Data

Recent Past Weather - 7 Day Rainfall 4/23-4/29

Accumulated Precipitation (in)
April 23, 2026 to April 29, 2026



Accumulated Precipitation: Percent of 1991-2020 Normals
April 23, 2026 to April 29, 2026



Heavy rains April 24th & 28th fell on top of peak of spring snowmelt.

<u>In the headwaters:</u>
In addition to **2-4" of rain**, an estimated **3-7" of snow water** was also melting across the region.

April 2026 Rainfall

Gunflint Lake Top 10 April Precipitation Total (data since 1972)

Rank	Year	Total Precipitation
1	1967	5.45
2	2001	5.05
3	2026	4.88
4	2022	4.34
5	2025	4.18
6	2008	4.13
7	1990	4.06
8	2021	3.37
9	2023	3.28
10	1964	2.91

Ely Top 10 April Precipitation Total (data since 2011)

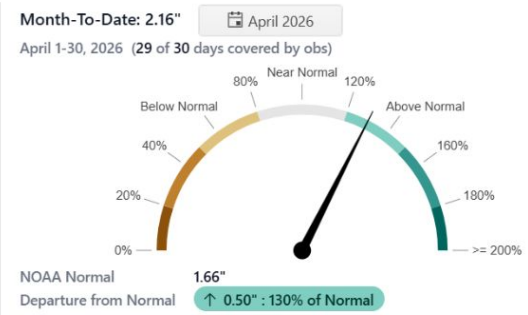
Rank	Year	Total Precipitation
1	2026	4.99
2	2021	4.53
3	2025	3.98
4	2023	3.80
5	2022	3.69
6	2024	2.85
7	2014	2.14
8	2017	2.07
9	2016	2.05
10	2019	1.87

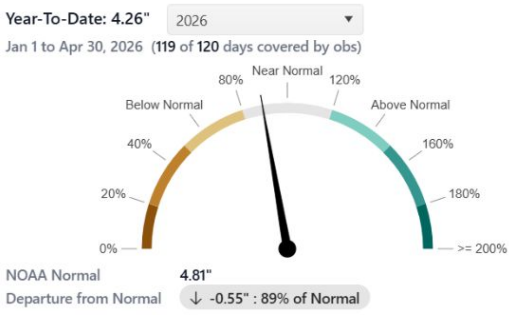
Long-term observing stations recorded near to at record April monthly precipitation, mostly as rain.

Basin Precipitation Climatology ending April 30, 2026

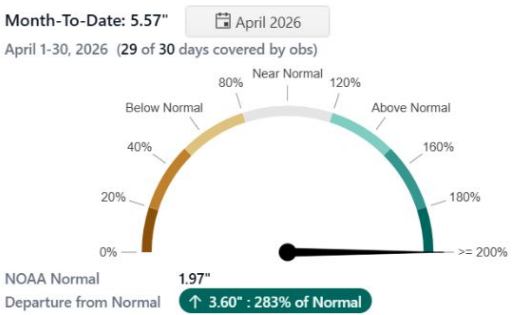
Near Normal to **far above normal** precipitation observed in April in the headwaters

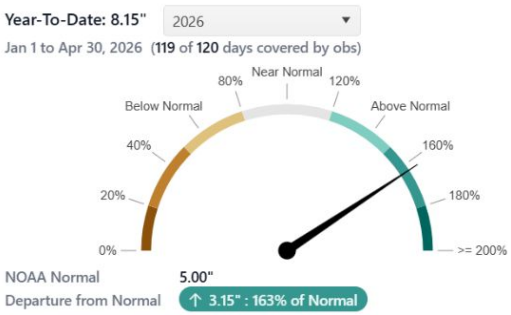
International Falls

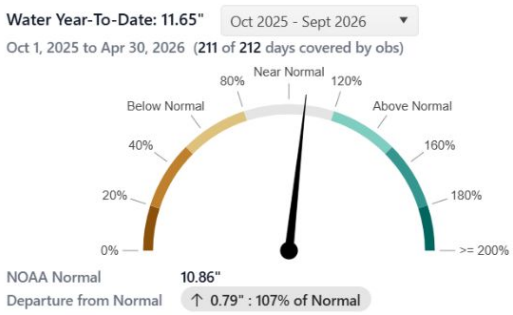




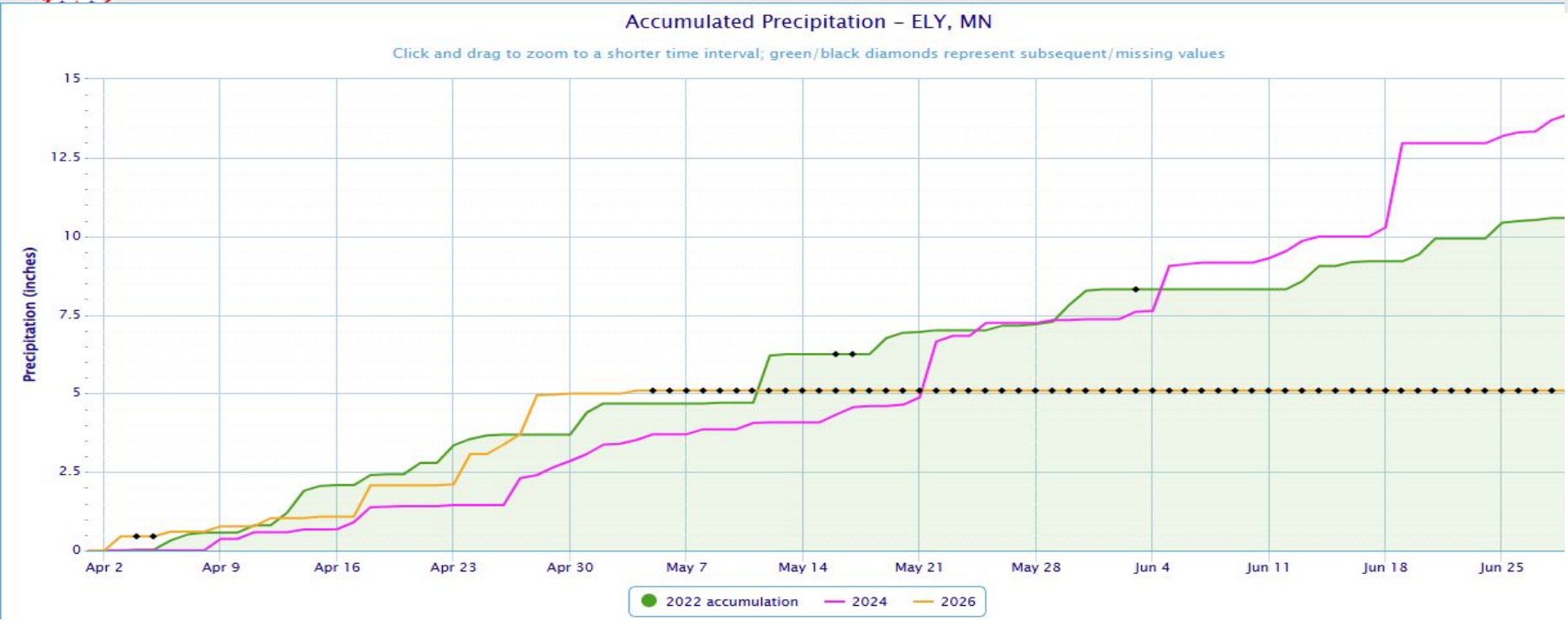
Ely







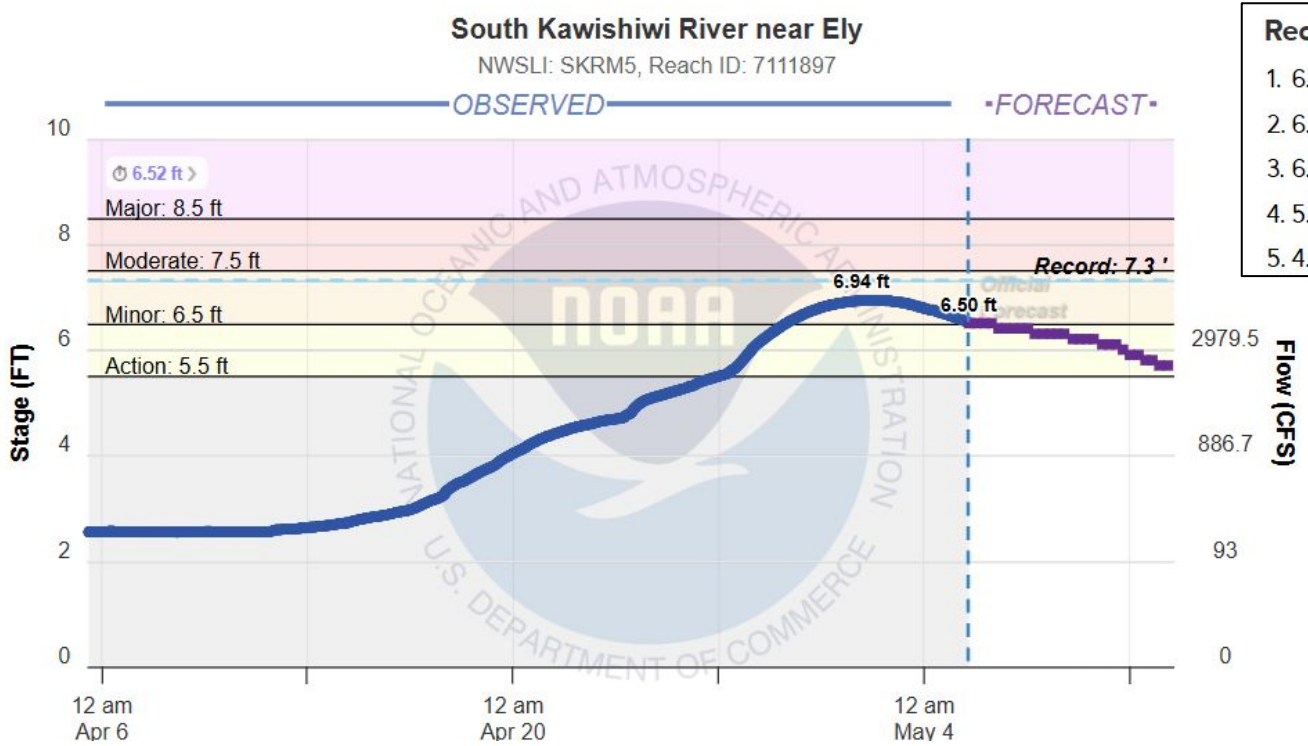
Spring & Early Summer Rainfall 2022 and 2024



- 2022 had large rains on top of snowmelt in April and May.
- 2024 had a wet spring and then very heavy rains on June 18.

Current River Levels And Comparison To Normal/Past Events

South Kawishiwi River near Ely



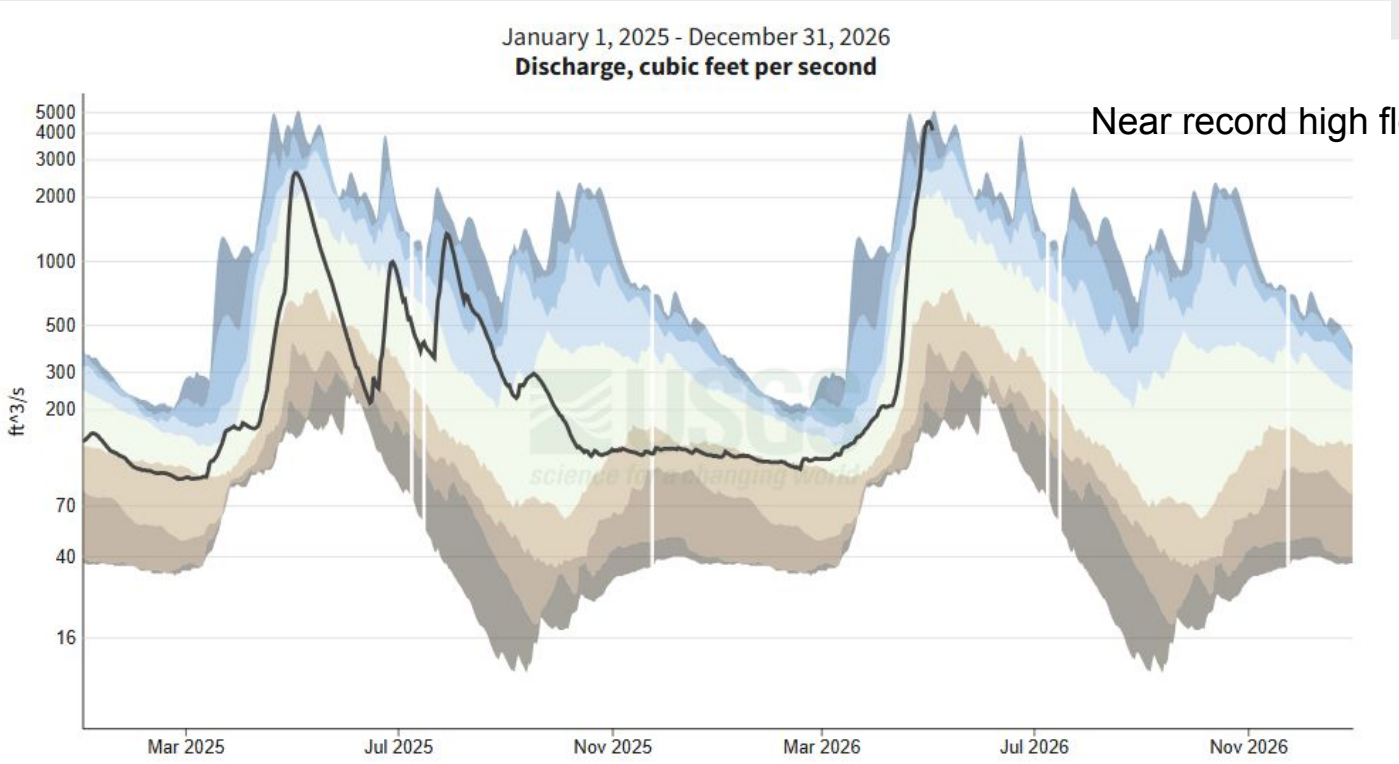
Recent Crests	Historic Crests
1. 6.63 ft on 06-24-2024	1. 7.25 ft on 05-04-1954
2. 6.08 ft on 05-12-2023	2. 7.18 ft on 04-21-1976
3. 6.88 ft on 05-17-2022	3. 6.88 ft on 04-29-1957
4. 5.04 ft on 04-17-2021	4. 6.88 ft on 05-17-2022
5. 4.94 ft on 05-06-2020	5. 6.63 ft on 06-24-2024

2026 preliminary (not yet approved by USGS) crest:

6.94 ft

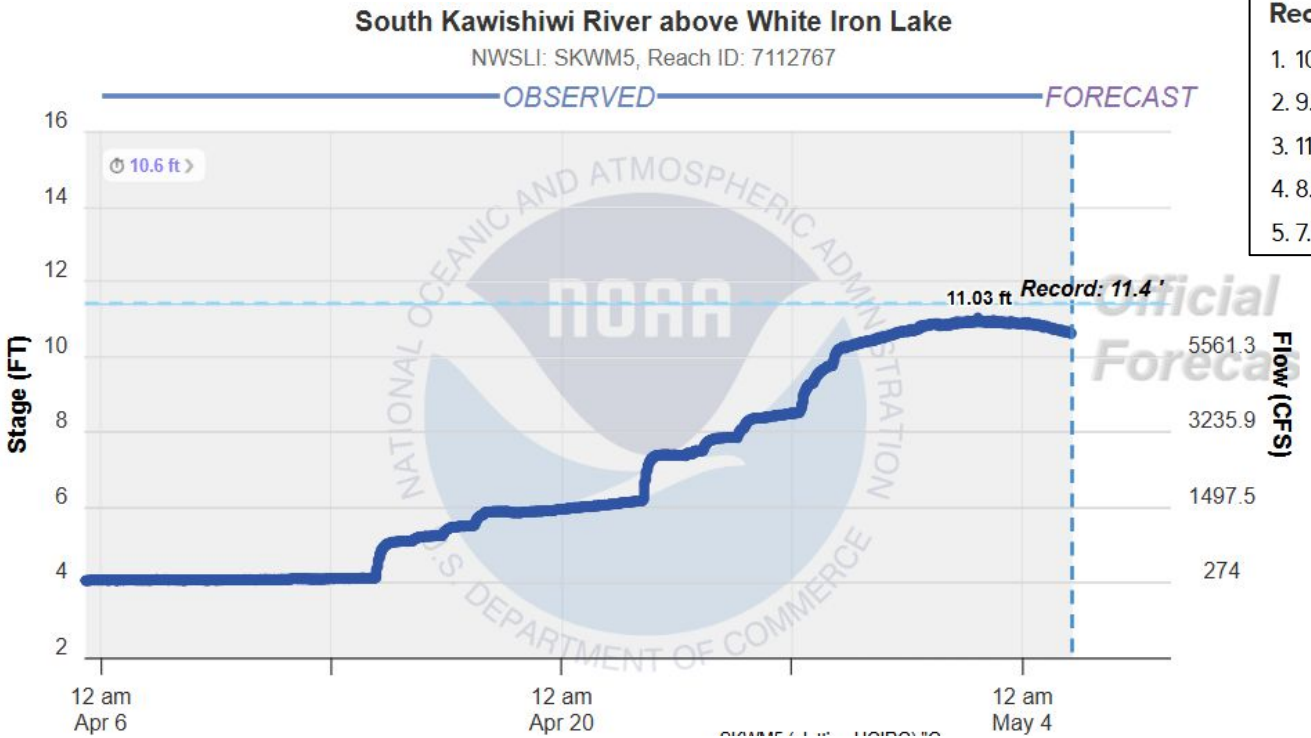
South Kawishiwi River Near Ely

Data courtesy of USGS. This graph available at https://waterdata.usgs.gov/monitoring-location/USGS-05125000/statistical-graphs/



Near record high flows

South Kawishiwi above White Iron Lake



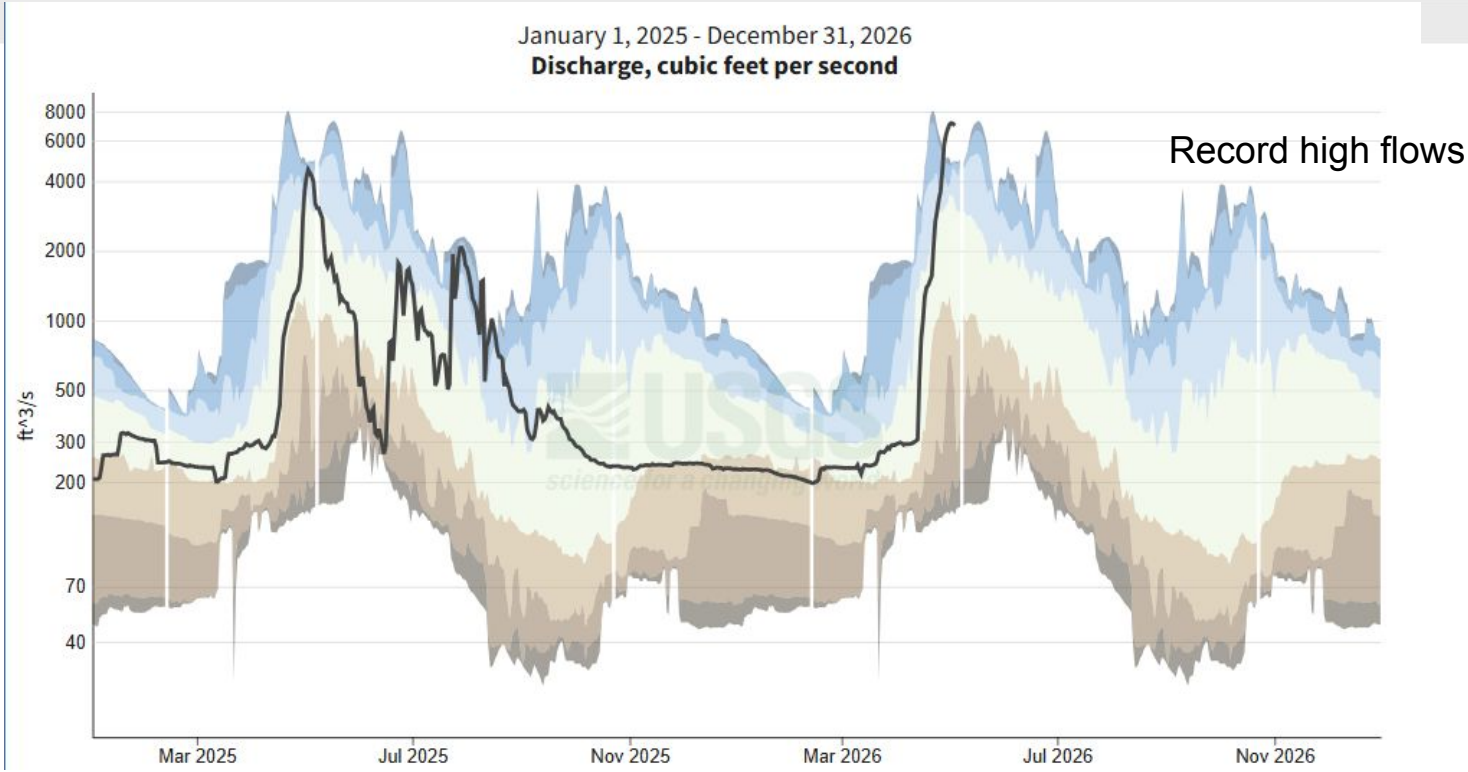
Recent Crests	Historic Crests
1. 10.70 ft on 06-25-2024	1. 11.42 ft on 04-22-1976
2. 9.78 ft on 05-11-2023	2. 11.05 ft on 05-17-2022
3. 11.05 ft on 05-17-2022	3. 10.70 ft on 06-25-2024
4. 8.47 ft on 04-12-2021	4. 10.01 ft on 05-16-2014
5. 7.56 ft on 05-02-2020	5. 9.78 ft on 05-11-2023

2026 preliminary (not yet approved by USGS) crest:

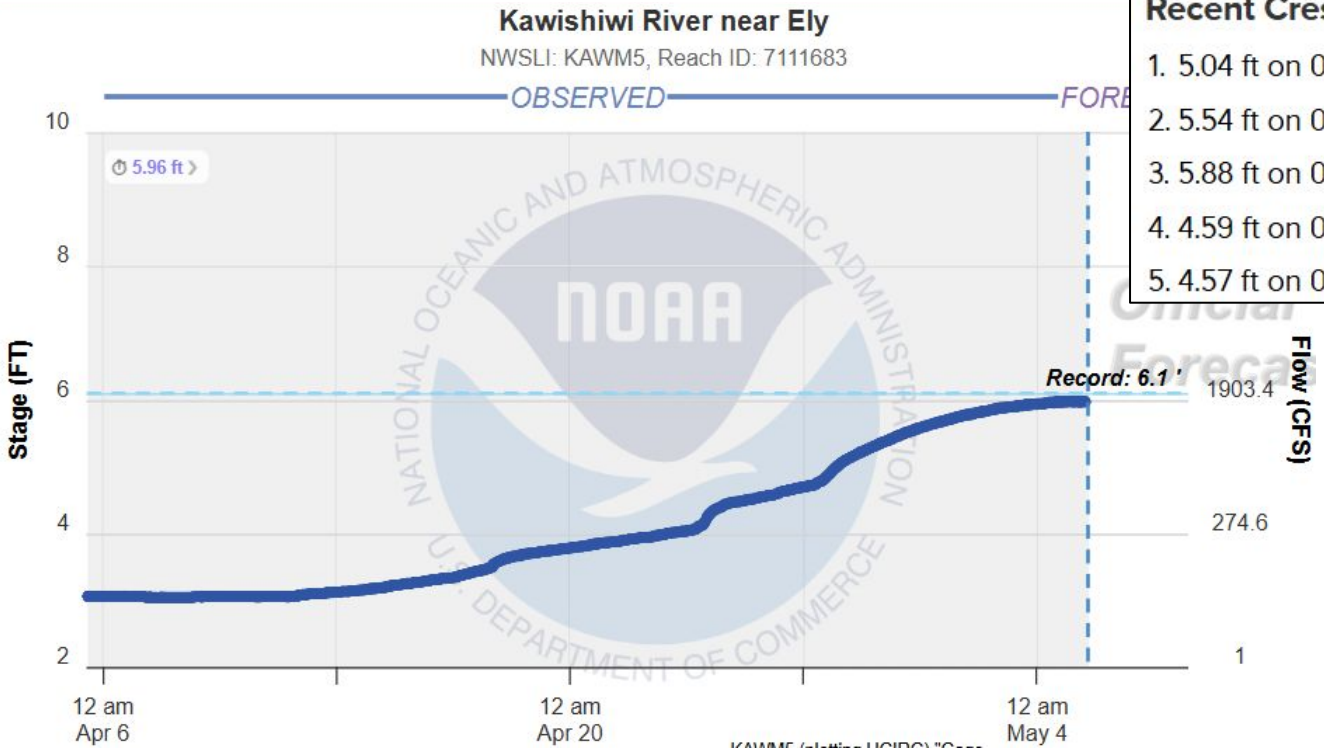
11.03 ft

South Kawishiwi above White Iron Lake

Data courtesy of USGS. This graph available at https://waterdata.usgs.gov/monitoring-location/USGS-05126210/statistical-graphs/



Kawishiwi River near Ely

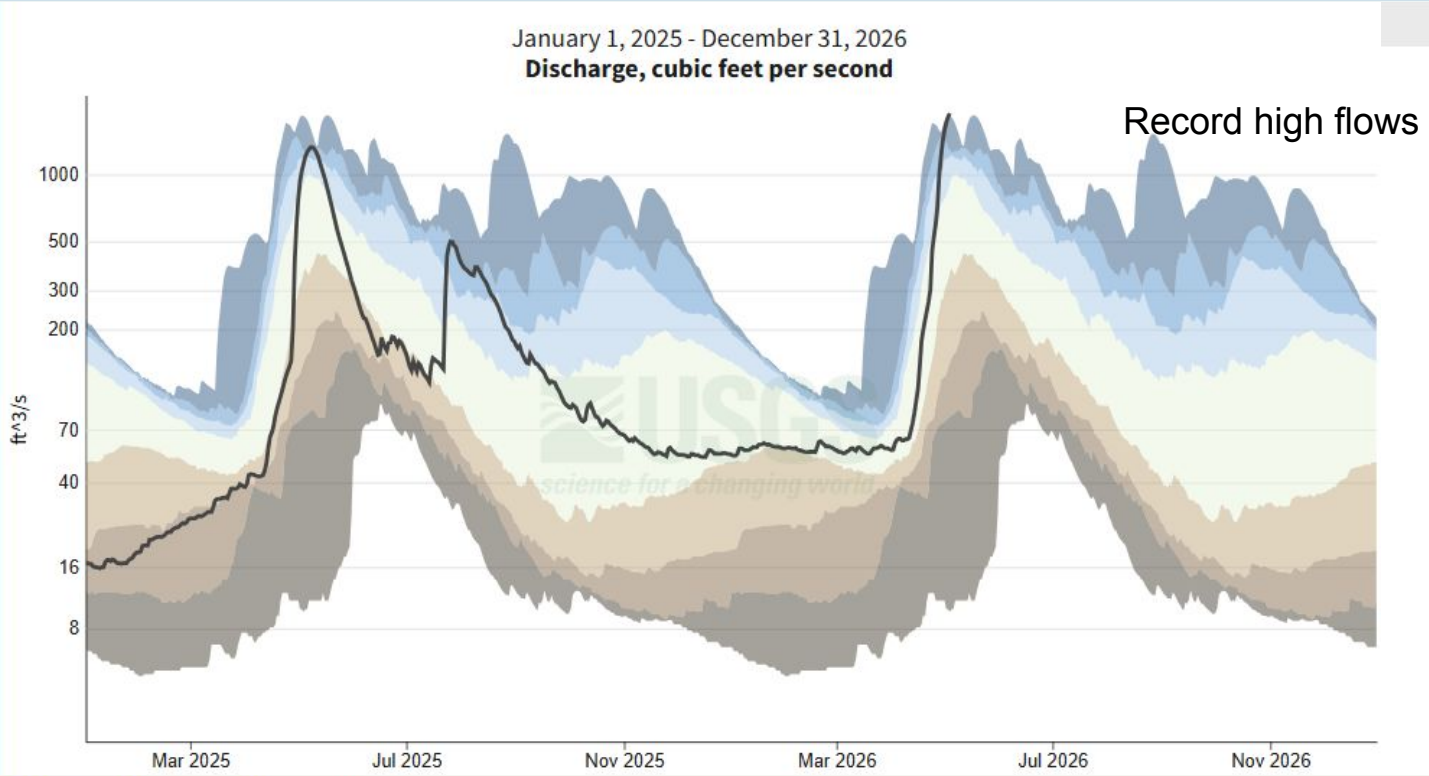


Recent Crests	Historic Crests
1. 5.04 ft on 06-22-2024	1. 6.07 ft on 05-04-2001
2. 5.54 ft on 05-08-2023	2. 5.92 ft on 04-24-1976
3. 5.88 ft on 05-18-2022	3. 5.88 ft on 05-18-2022
4. 4.59 ft on 04-28-2021	4. 5.88 ft on 04-29-1969
5. 4.57 ft on 05-06-2020	5. 5.83 ft on 06-13-1970

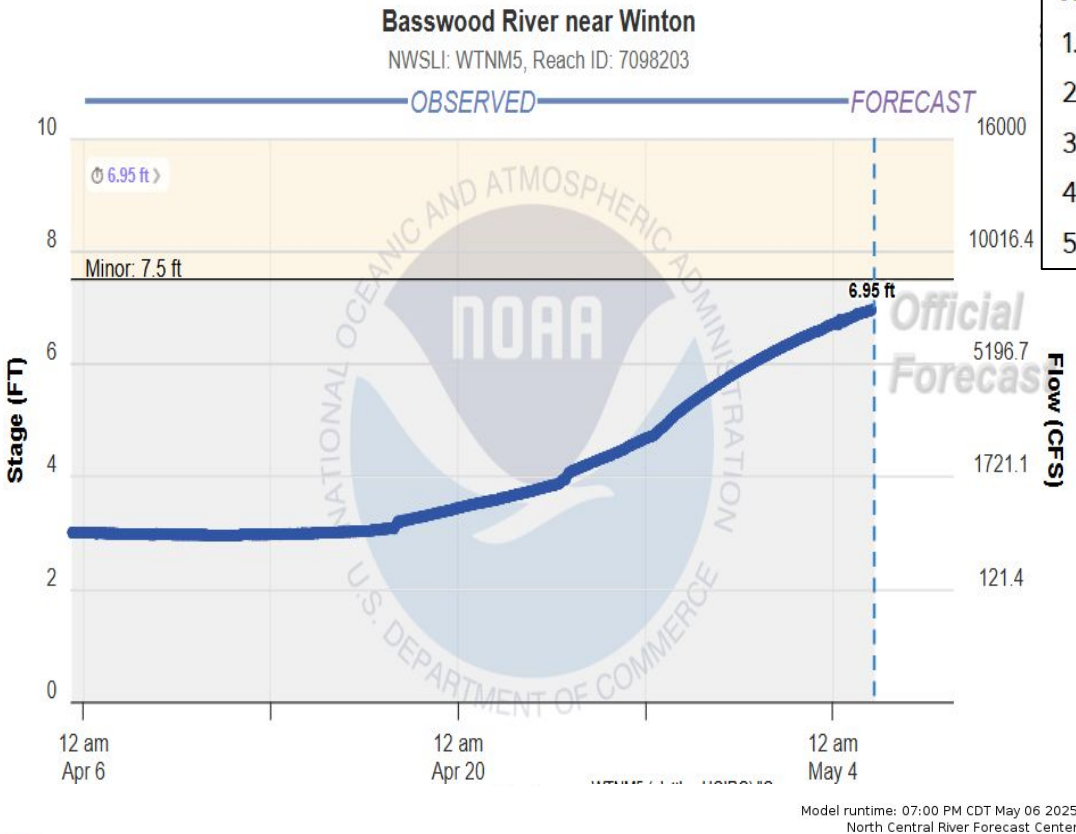
Current stage 5.98 ft - likely cresting but slight fluctuations are possible.

Kawishiwi River near Ely, MN

Data courtesy of USGS. This graph available at https://waterdata.usgs.gov/monitoring-location/USGS-05124480/statistical-graphs/



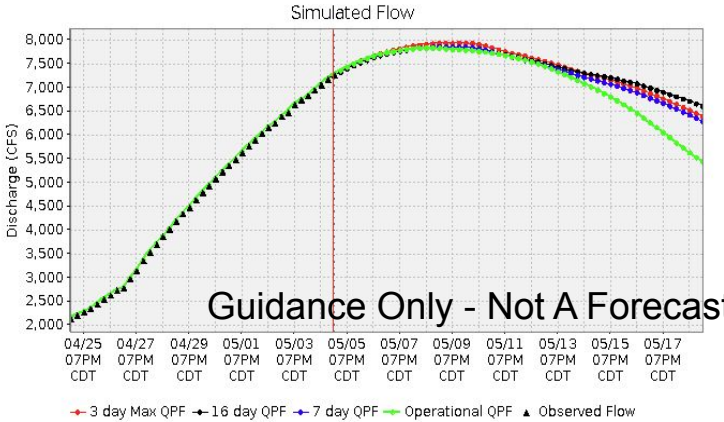
Basswood River near Winton



Model runtime: 07:00 PM CDT May 06 2025
North Central River Forecast Center

Recent Crests	Historic Crests
1. 6.94 ft on 07-03-2024	1. 9.94 ft on 05-24-1950 [1]
2. 6.98 ft on 05-16-2023	2. 8.16 ft on 05-21-2022
3. 8.16 ft on 05-21-2022	3. 7.73 ft on 06-23-1968
4. 5.32 ft on 04-25-2021	4. 7.70 ft on 05-10-2001
5. 5.10 ft on 05-10-2020	5. 7.32 ft on 05-05-1969

NCRFC Guidance
Basswood River near Winton, MN



Disclaimers: Not an offical forecast - Model Guidance Only
The NCRFC Forecast includes 24 hours of forecast precipitation.

Created on 05/05/2026 at 11:08:42 AM CDT

Basswood River near Winton

Data courtesy of USGS. This graph available at https://waterdata.usgs.gov/monitoring-location/USGS-05127500/statistical-graphs/