



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





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



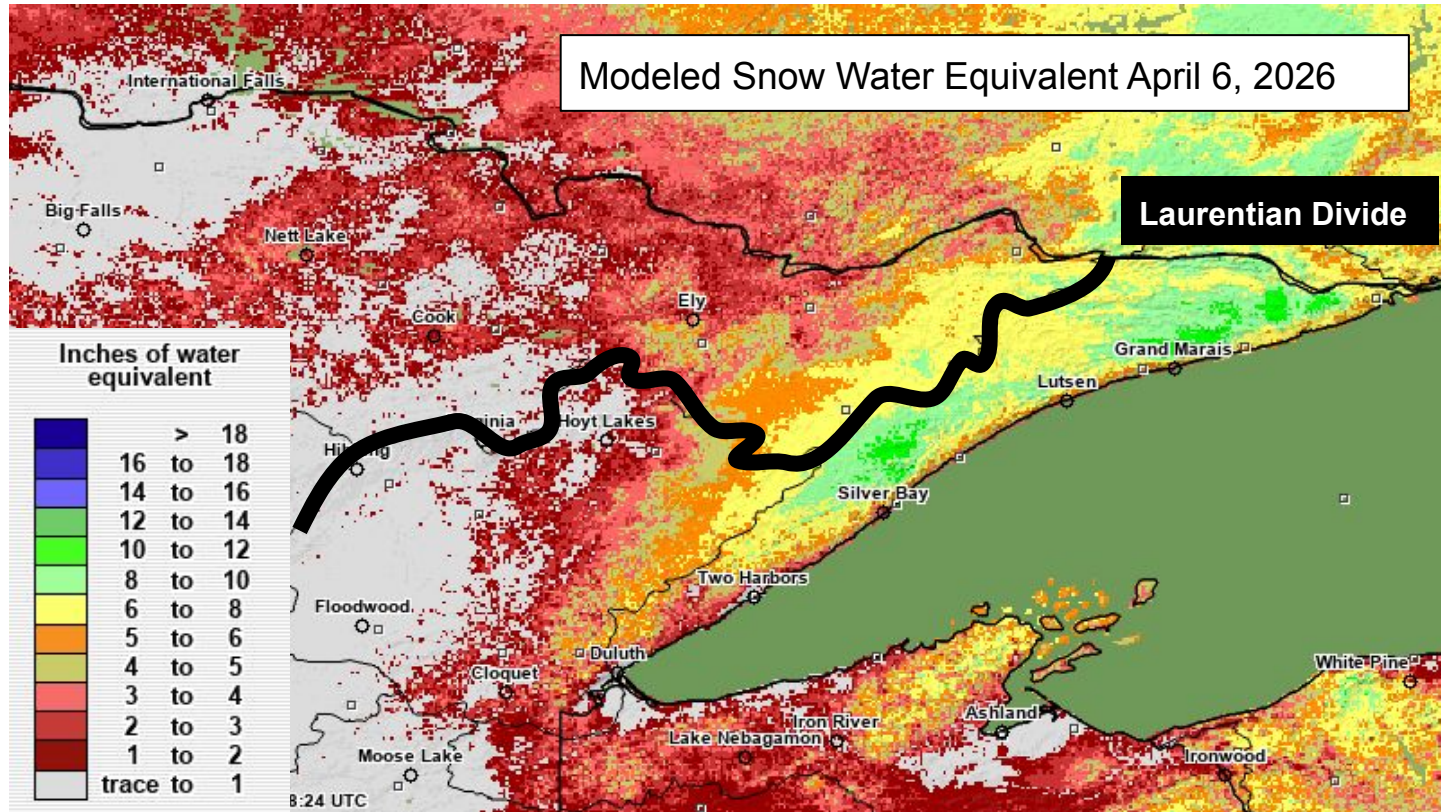
National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

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



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.

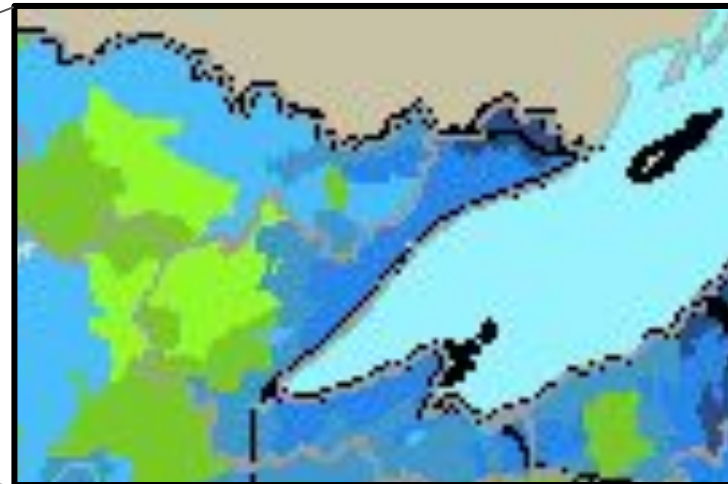
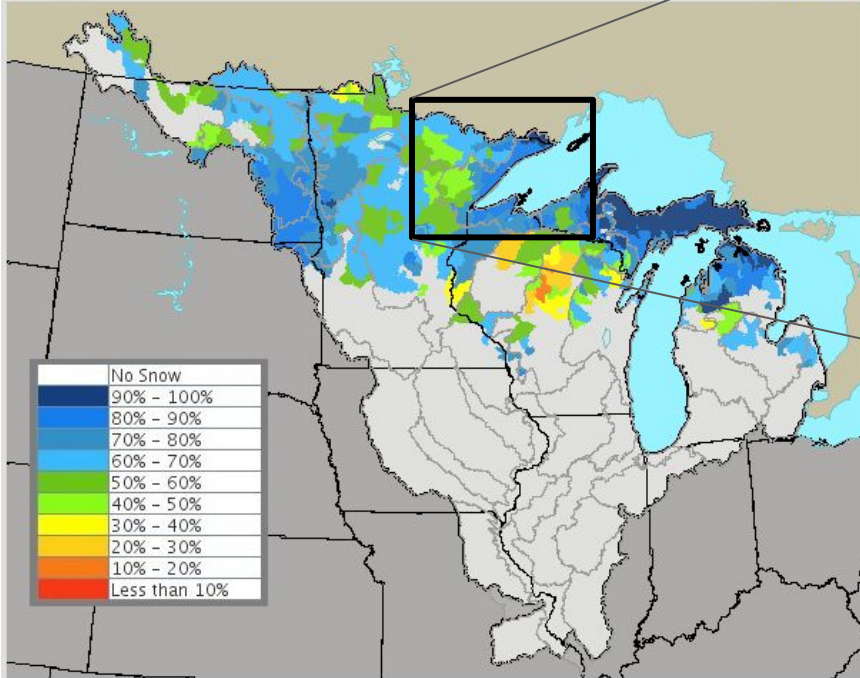




2026 Peak Snow Water Comparison to Normal



North Central River Forecast Center
Ranked Simulated Snow Water Equivalent
Valid for 04/06/2026 12 GMT



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

Note: This map compares current NCRFC Modeled SWE with the historical record of modeled SWE for each basin. An area ranked as 'Less than 10 percent' is at the lower end of the record and one ranked near 100 percent is at the higher end. A 50 percent ranking indicates current SWE is in the middle of our historical record.

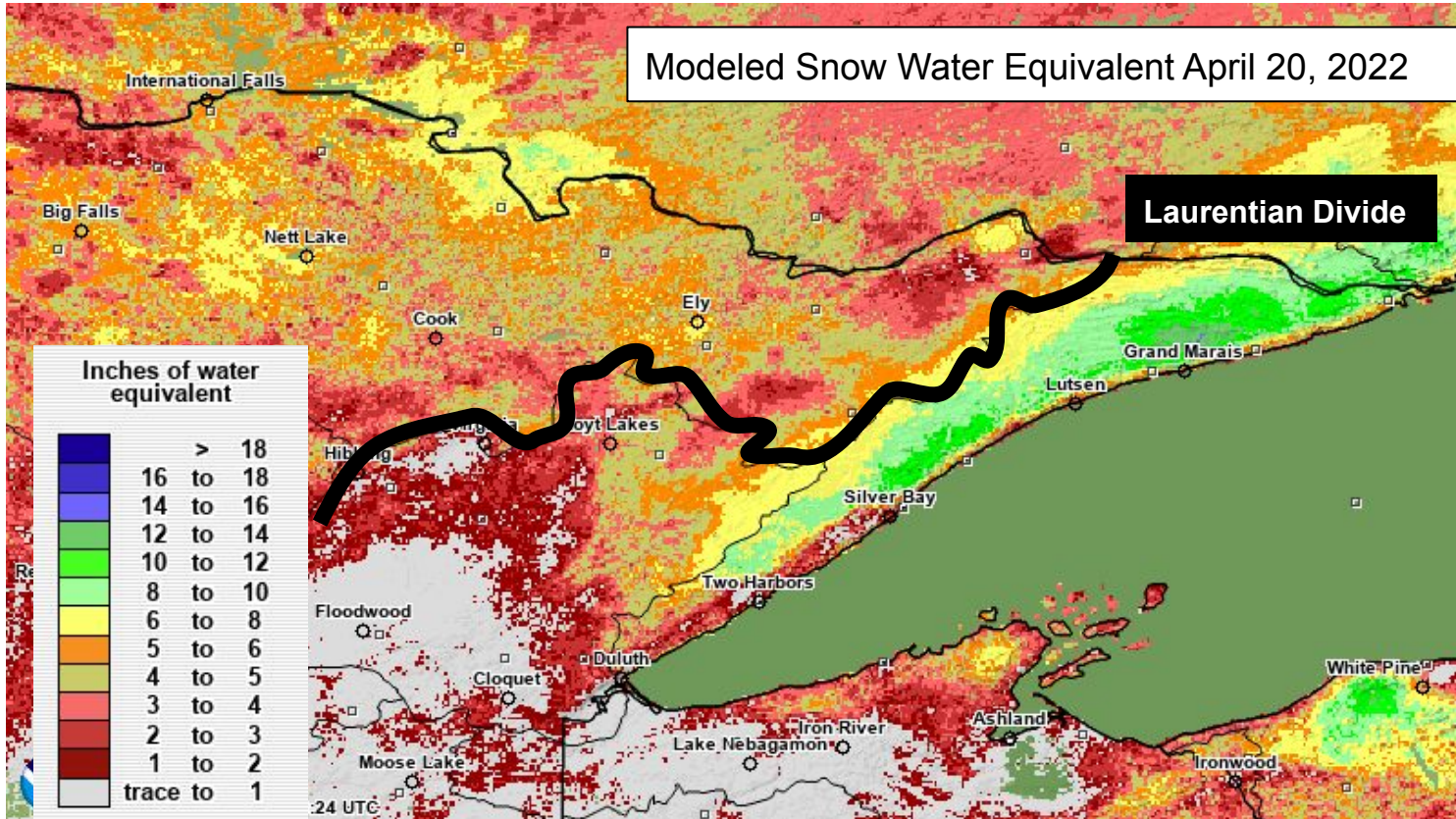
Created on 04/07/2026 at 02:03:22 AM CDT



2022 Snow Water Equivalent

Peak SWE preceding 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

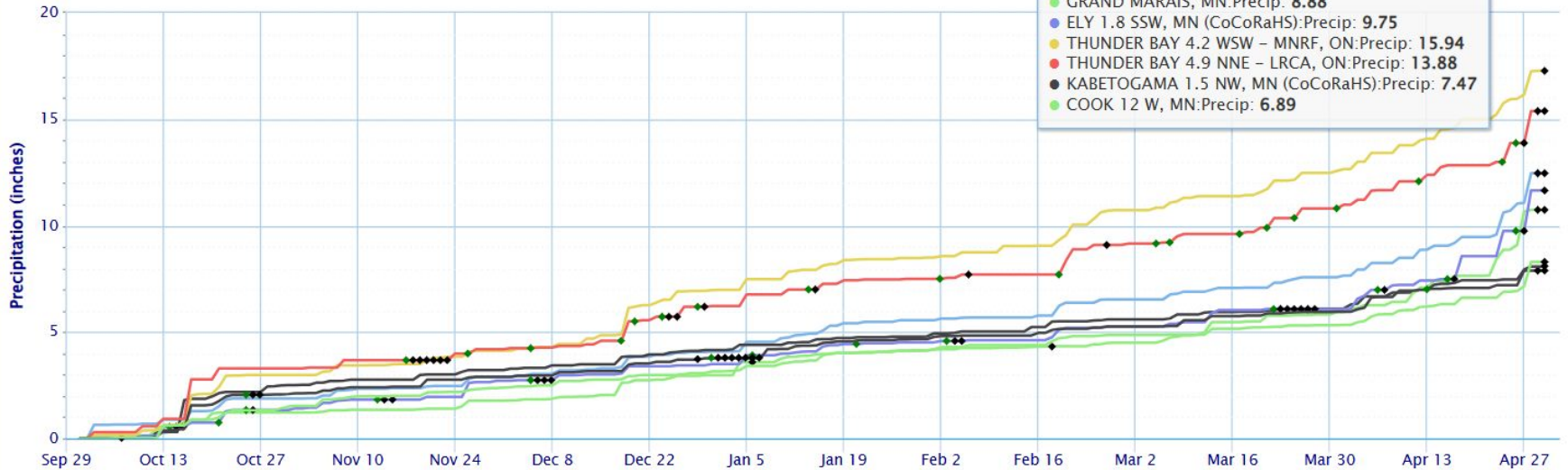
Precipitation Since Oct 1, 2025 East vs. West - More precipitation in the eastern half of the basin

Accumulated Precipitation

Green/black diamonds represent subsequent/missing values

Saturday, Apr 25, 2026

- GUNFLINT LAKE 10 NW, MN:Precip: 10.71
- INTERNATIONAL FALLS INTL AP, MN:Precip: 7.20
- GRAND MARAIS, MN:Precip: 8.88
- ELY 1.8 SSW, MN (CoCoRaHS):Precip: 9.75
- THUNDER BAY 4.2 WSW - MNRF, ON:Precip: 15.94
- THUNDER BAY 4.9 NNE - LRCA, ON:Precip: 13.88
- KABETOGAMA 1.5 NW, MN (CoCoRaHS):Precip: 7.47
- COOK 12 W, MN:Precip: 6.89



(Click to hide/show lines)

- GUNFLINT LAKE 10 NW, MN:Precip
- INTERNATIONAL FALLS INTL AP, MN:Precip
- GRAND MARAIS, MN:Precip
- ELY, MN:Precip
- ELY 1.8 SSW, MN (CoCoRaHS):Precip
- THUNDER BAY 12.1 SW - LRCA, ON:Precip
- THUNDER BAY 4.2 WSW - MNRF, ON:Precip
- THUNDER BAY 3.2 WNW - LRCA, ON:Precip
- THUNDER BAY 4.9 NNE - LRCA, ON:Precip
- THUNDER BAY 12.1 SW - LRCA, ON:Precip
- KAKABEKA FALLS 4.7 ESE, ON:Precip
- KABETOGAMA 1.5 NW, MN (CoCoRaHS):Precip
- COOK 12 W, MN:Precip

Powered by ACIS

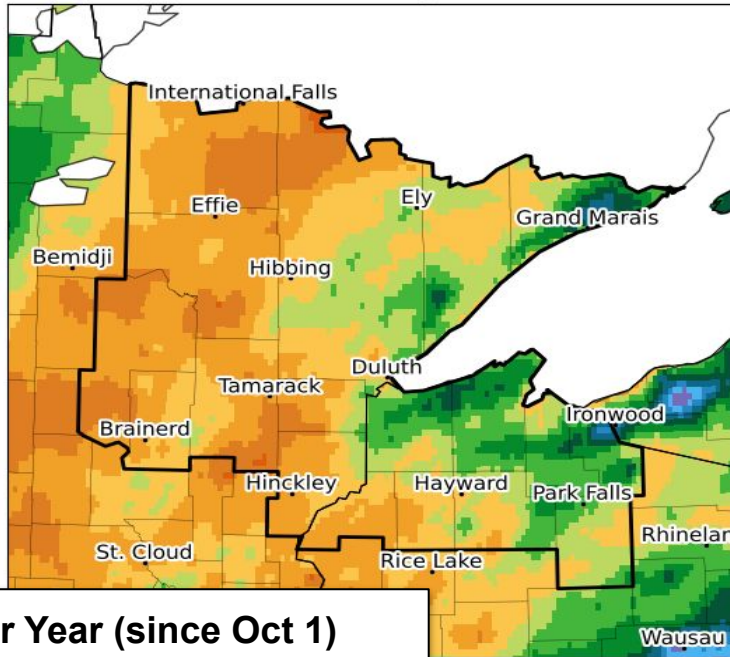




Precipitation Departure from 1991-2020 Normals

Inches above or below normal precipitation for the period.

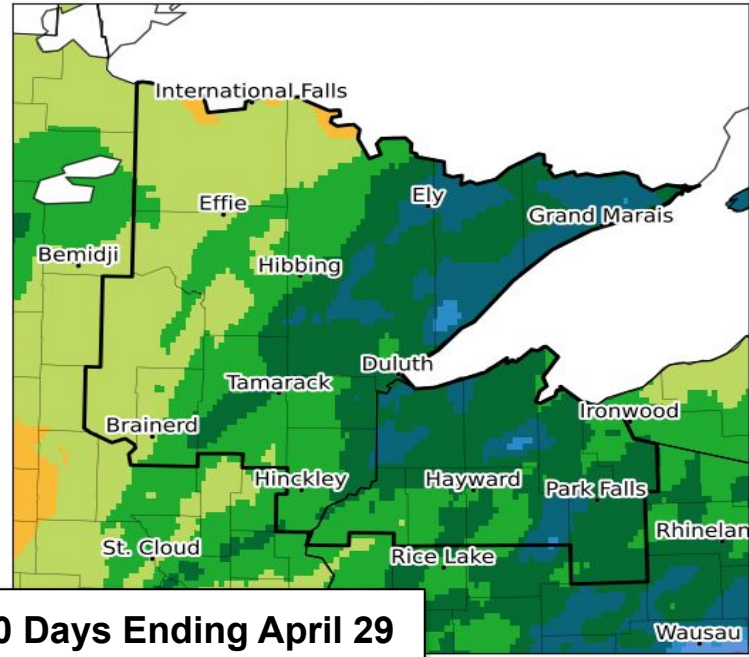
Accumulated Precipitation (in): Departure from 1991-2020 Normals
October 01, 2025 to April 29, 2026



Source: PRISM Weather Data

Water Year (since Oct 1)

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



Source: PRISM Weather Data

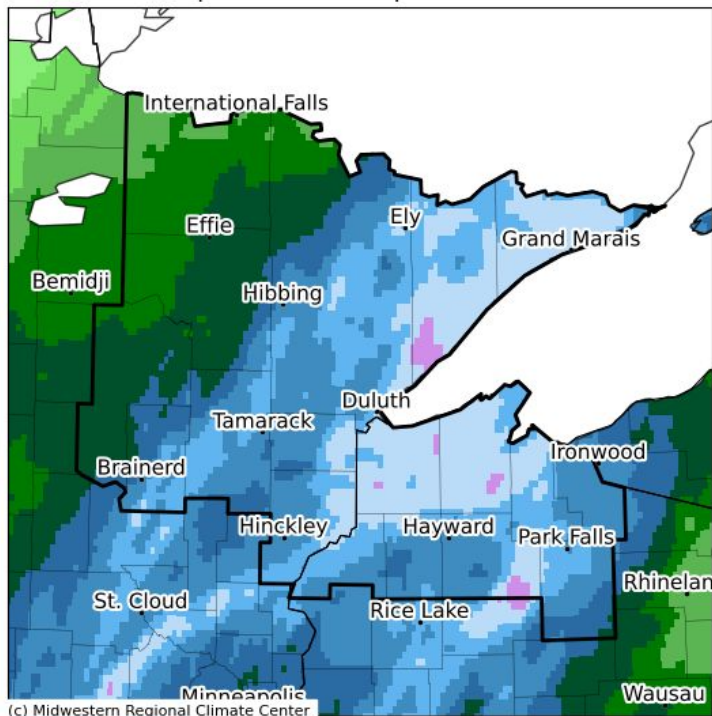
30 Days Ending April 29

Gene



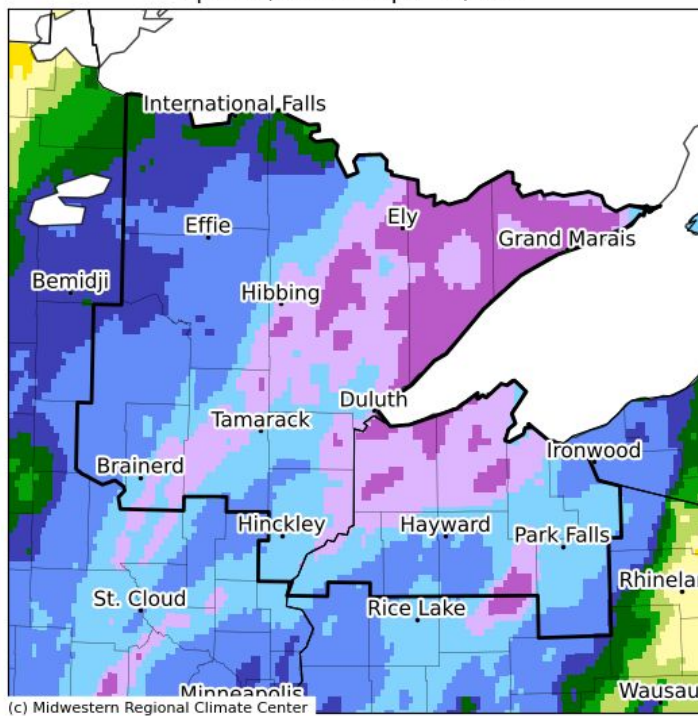
Recent Past Weather - 7 Day Rainfall 4/23-4/29

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

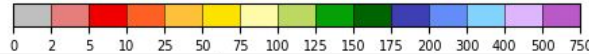
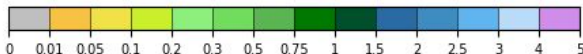


(c) Midwestern Regional Climate Center

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



(c) Midwestern Regional Climate Center



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

In the headwaters:
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

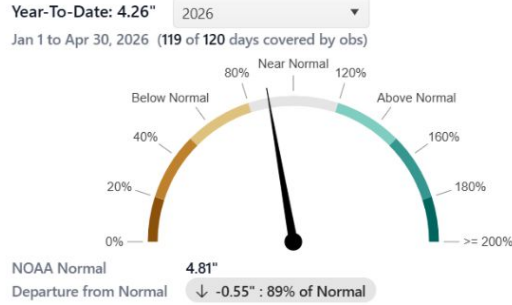
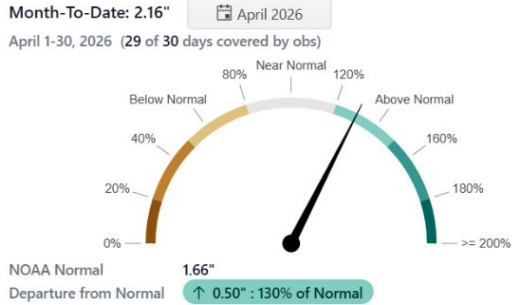
Long-term observing stations recorded near to at record April monthly precipitation, mostly as rain.



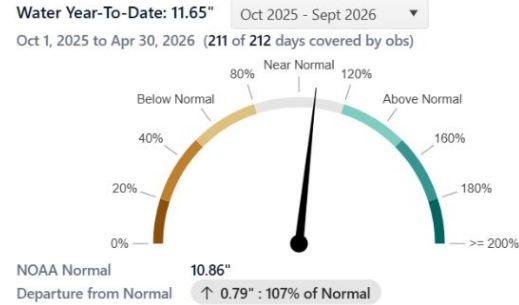
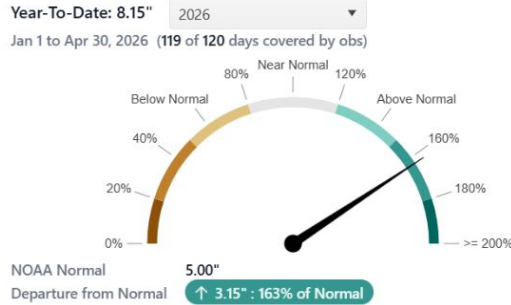
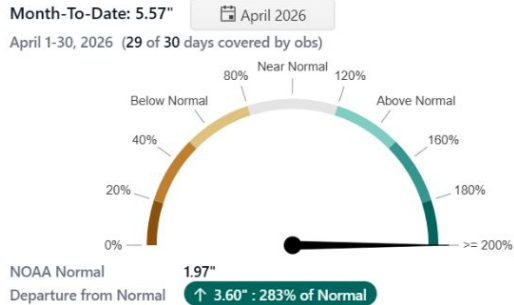
Basin Precipitation Climatology ending April 30, 2026

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

International Falls



Ely

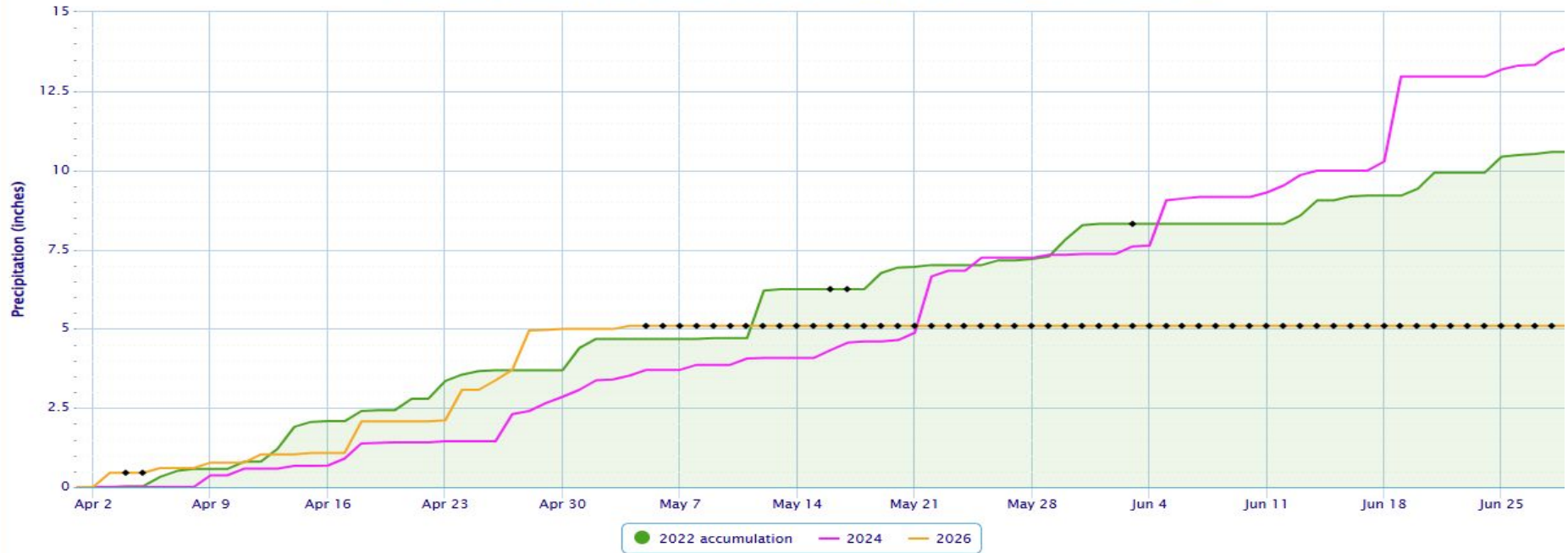




Spring & Early Summer Rainfall 2022 and 2024

Accumulated Precipitation – ELY, MN

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



- 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

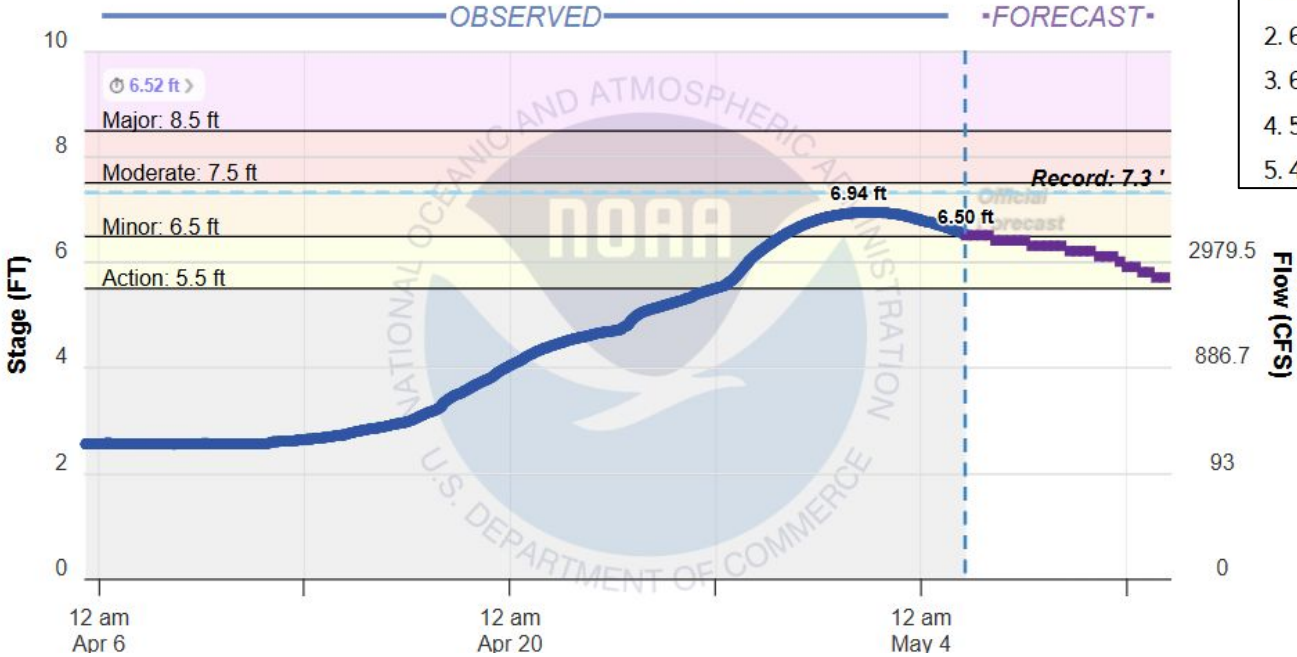




South Kawishiwi River near Ely

South Kawishiwi River near Ely

NWSLI: SKRM5, Reach ID: 7111897



Recent Crests

- 6.63 ft on 06-24-2024
- 6.08 ft on 05-12-2023
- 6.88 ft on 05-17-2022
- 5.04 ft on 04-17-2021
- 4.94 ft on 05-06-2020

Historic Crests

- 7.25 ft on 05-04-1954
- 7.18 ft on 04-21-1976
- 6.88 ft on 04-29-1957
- 6.88 ft on 05-17-2022
- 6.63 ft on 06-24-2024

2026 preliminary (not yet approved by USGS) crest:

6.94 ft





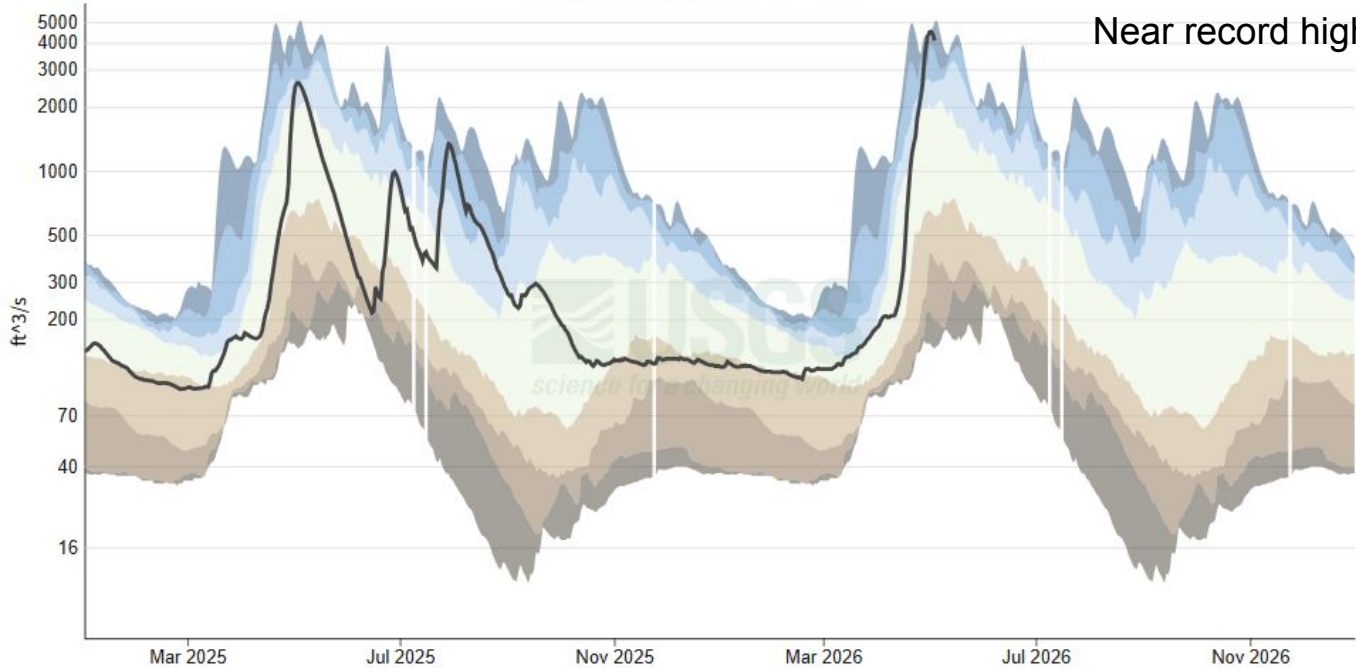
South Kawishiwi River Near Ely

January 1, 2025 - December 31, 2026

Discharge, cubic feet per second

Near record high flows

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



— Daily average (mean) for Discharge, cubic feet per second

Percentile ranges for daily averages (means) for each day of a year (with comparison to normal)

0-5

Extremely below

5-10

Much below

10-25

Below normal

25-75

Normal

75-90

Above normal

90-95

Much above

95-100

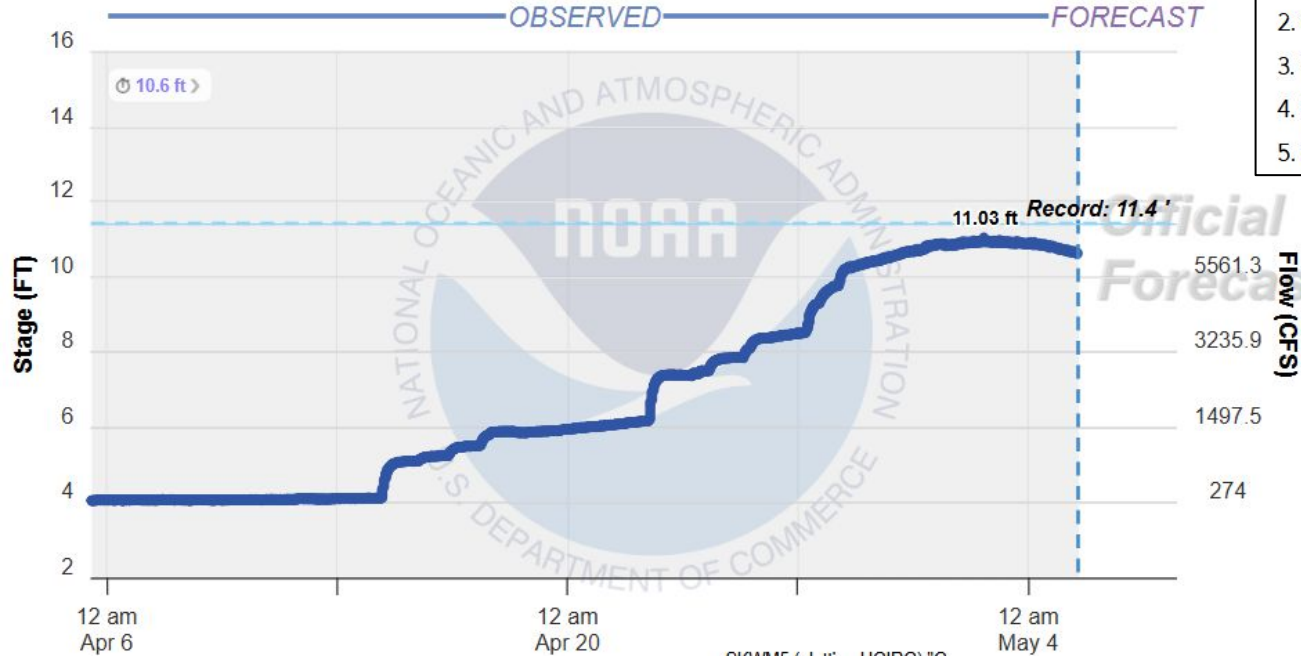
Extremely above



South Kawishiwi above White Iron Lake

South Kawishiwi River above White Iron Lake

NWSLI: SKWM5, Reach ID: 7112767



Recent Crests

1. 10.70 ft on 06-25-2024
2. 9.78 ft on 05-11-2023
3. 11.05 ft on 05-17-2022
4. 8.47 ft on 04-12-2021
5. 7.56 ft on 05-02-2020

Historic Crests

1. 11.42 ft on 04-22-1976
2. 11.05 ft on 05-17-2022
3. 10.70 ft on 06-25-2024
4. 10.01 ft on 05-16-2014
5. 9.78 ft on 05-11-2023

2026 preliminary (not yet approved by USGS) crest:

11.03 ft

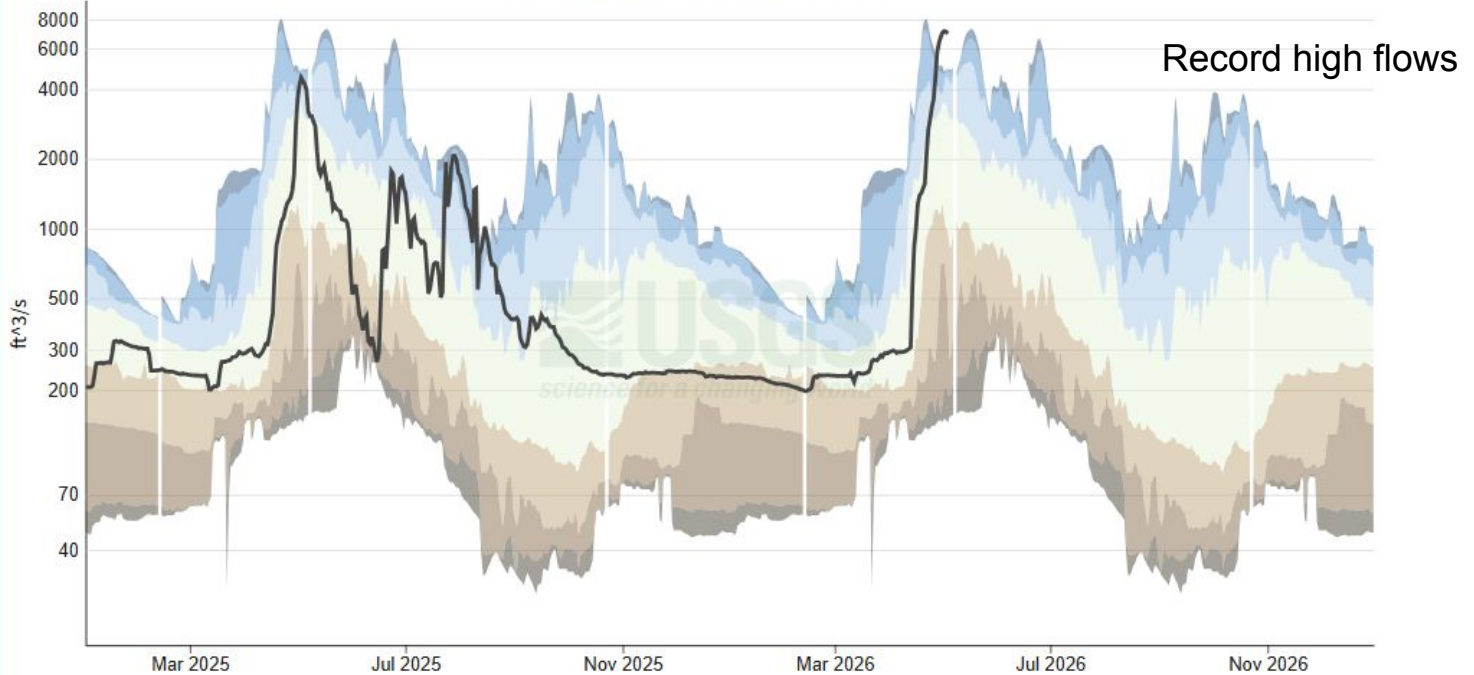




South Kawishiwi above White Iron Lake

January 1, 2025 - December 31, 2026

Discharge, cubic feet per second



— Daily average (mean) for Discharge, cubic feet per second

Percentile ranges for daily averages (means) for each day of a year (with comparison to normal)

0-5

Extremely below

5-10

Much below

10-25

Below normal

25-75

Normal

75-90

Above normal

90-95

Much above

95-100

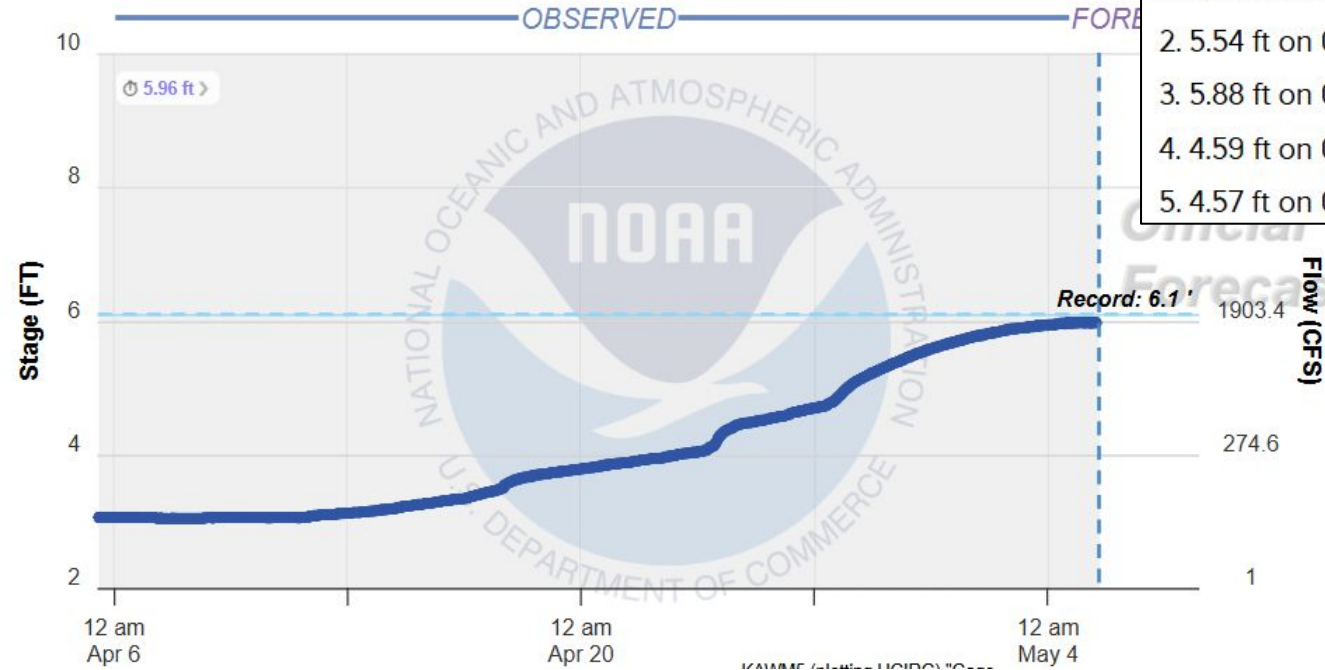
Extremely above



Kawishiwi River near Ely

Kawishiwi River near Ely

NWSLI: KAWM5, Reach ID: 7111683



Recent Crests

1. 5.04 ft on 06-22-2024
2. 5.54 ft on 05-08-2023
3. 5.88 ft on 05-18-2022
4. 4.59 ft on 04-28-2021
5. 4.57 ft on 05-06-2020

Historic Crests

1. 6.07 ft on 05-04-2001
2. 5.92 ft on 04-24-1976
3. 5.88 ft on 05-18-2022
4. 5.88 ft on 04-29-1969
5. 5.83 ft on 06-13-1970

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

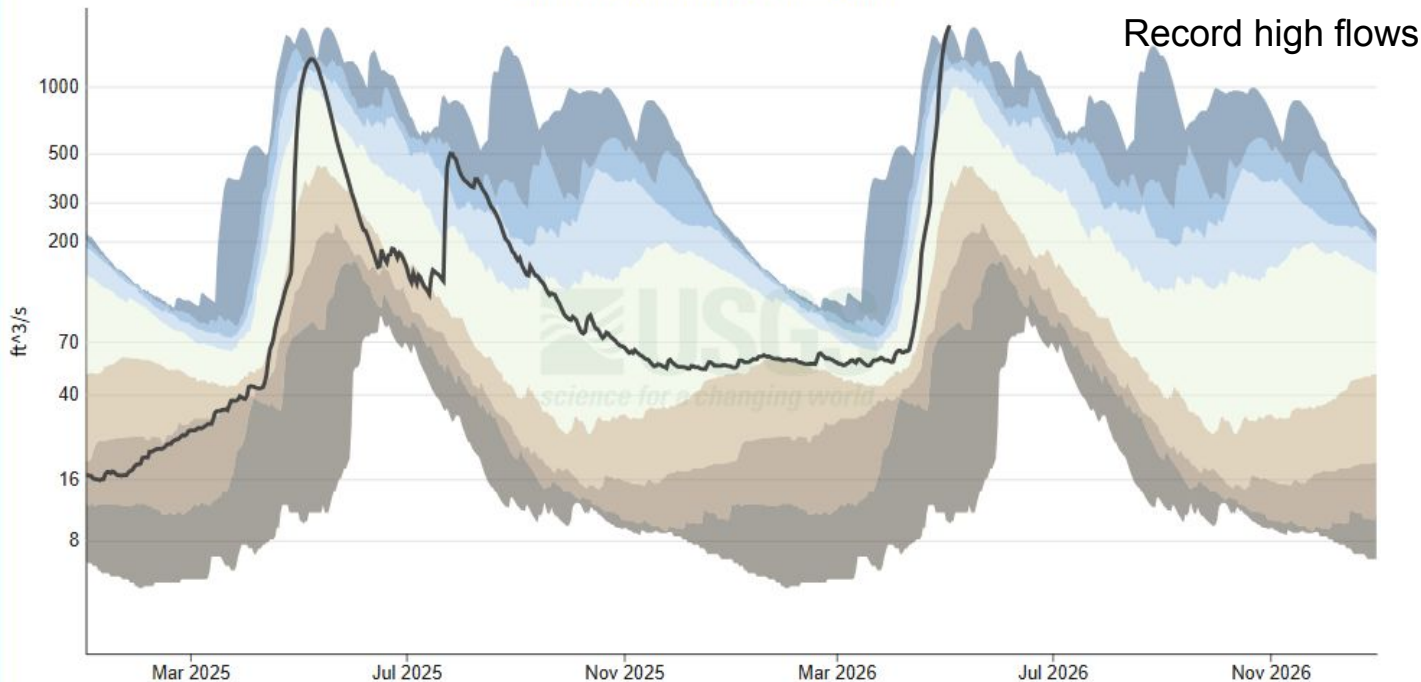




Kawishiwi River near Ely, MN

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

January 1, 2025 - December 31, 2026
Discharge, cubic feet per second



Record high flows

— Daily average (mean) for Discharge, cubic feet per second

Percentile ranges for daily averages (means) for each day of a year (with comparison to normal)

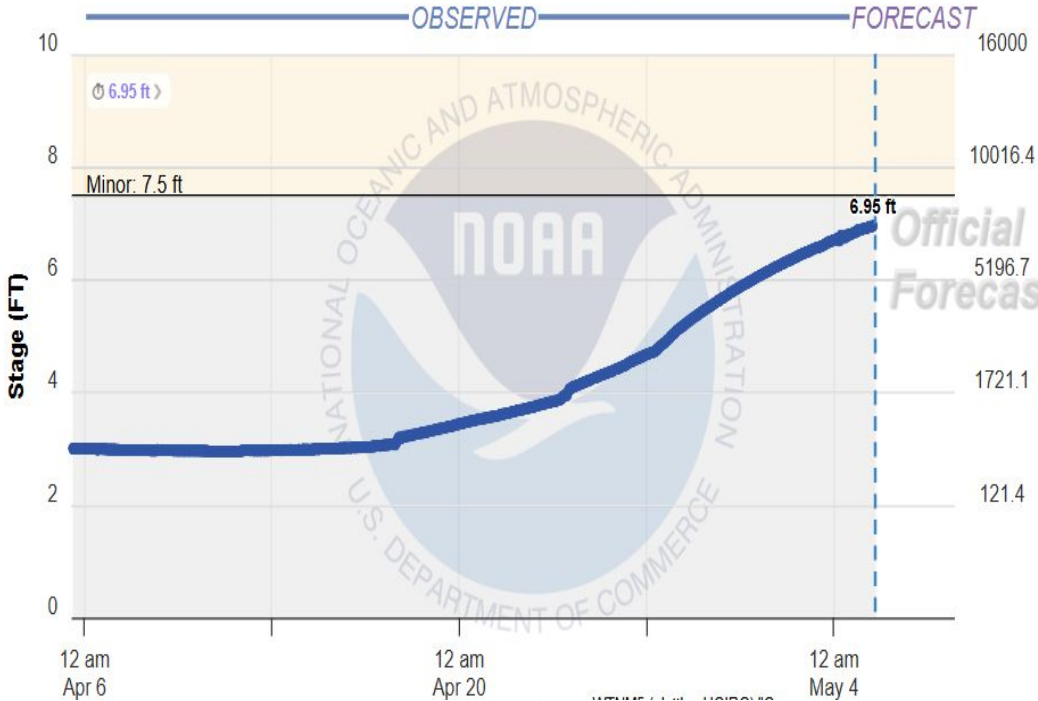
0-5 Extremely below	5-10 Much below	10-25 Below normal	25-75 Normal	75-90 Above normal	90-95 Much above	95-100 Extremely above
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Basswood River near Winton

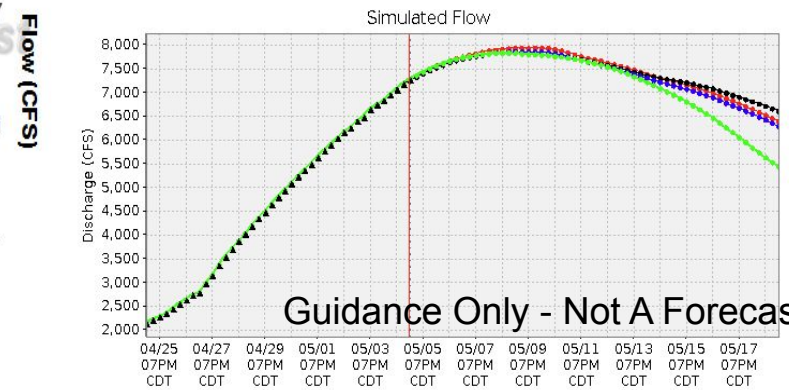
Basswood River near Winton

NWSLI: WTNM5, Reach ID: 7098203



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



Guidance Only - Not A Forecast

3 day Max QPF 16 day QPF 7 day QPF Operational QPF Observed Flow

Disclaimers: Not an official forecast - Model Guidance Only
The NCRFC Forecast includes 24 hours of forecast precipitation. Created on 05/05/2026 at 11:08:42 AM CDT

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



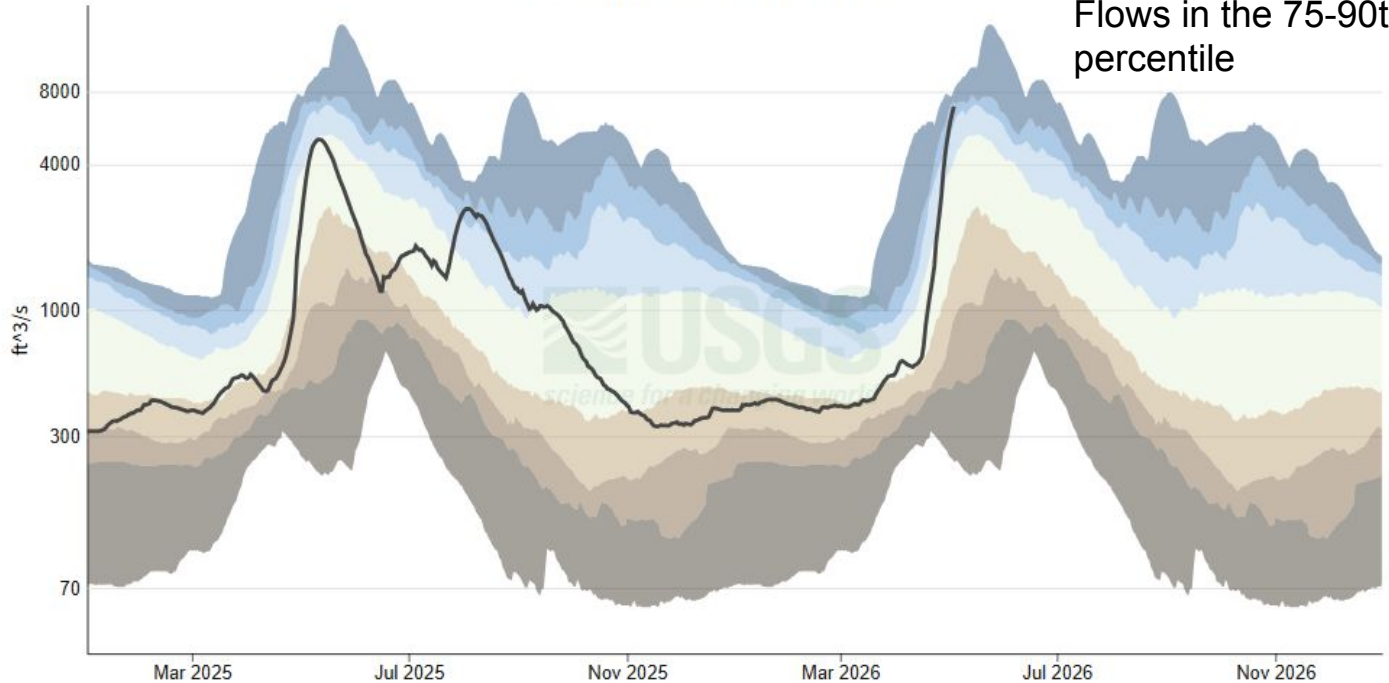
Basswood River near Winton

January 1, 2025 - December 31, 2026

Discharge, cubic feet per second

Flows in the 75-90th percentile

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



— Daily average (mean) for Discharge, cubic feet per second

Percentile ranges for daily averages (means) for each day of a year (with comparison to normal)

0-5 Extremely below	5-10 Much below	10-25 Below normal	25-75 Normal	75-90 Above normal	90-95 Much above	95-100 Extremely above
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