Minnesota Department of Natural Resources
Division of Ecological and Water Resources

Hydrologic Conditions Report

May 2025

Previous reports at: https://www.dnr.state.mn.us/current_conditions/hydro_conditions.html

- Had it not been for a wet spell from May 19-21, May 2025 would have wound up very dry statewide. For the month of May more places finished below normal for precipitation than above. The preliminary overall statewide average precipitation was 2.73 inches, which is 1.04 inches short of normal. This is almost three inches drier than in May 2024. One of the highest precipitation totals currently recorded was in Hastings at 6.03 inches, which is 1.70 inches above normal. One of the driest locations was near Northome in north central Minnesota with 1.04 inches of precipitation or 1.97 inches short of normal. Some moderate drought persists over portions of the state that began late in the summer of 2024. The June 2nd U. S. Drought Monitor map shows that 56% of the state has *Abnormally Dry* conditions, with 15% of the state having *Moderate* conditions. The *U.S. Drought Monitor* index is a blend of science and subjectivity where drought categories (*Moderate*, *Severe* etc.) are based on several indicators.

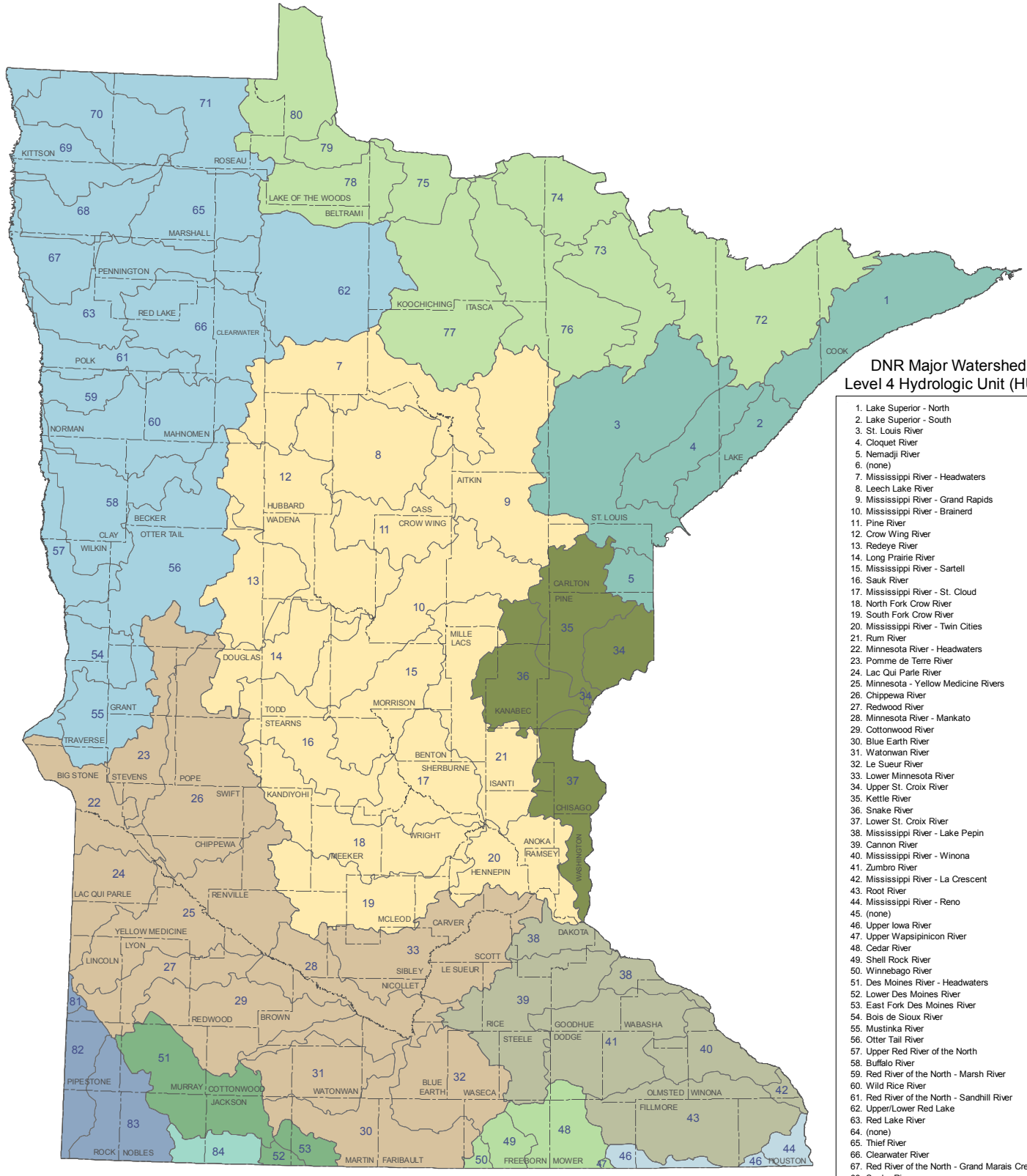
- For the month of May 2025, 5 watershed ranked Above Normal (75th - 90th percentile), 74 watersheds ranked Normal (25th - 75th percentile), 2 watersheds ranked Below Normal (10th - 25th percentile).

- Fifteen of the 20 lakes in the Lake Level Status map with May lake levels are showing Normal percentiles. Three of the 20 lakes with data in the map presented in the Low percentile and two lakes presented in the Very Low percentile. Across the state, 430 lakes report May 2025 lake levels and 388 lakes had records suitable for statistics. Of those lakes, 58% percent were at a Normal percentile when comparing May 2025 lake levels to their historic May record. Twenty-nine percent were at Low or Below Normal percentiles and 12% were at High or Above Normal percentiles for May. Fifty-seven percent of the May 2025 lakes were above their average lake level for the entire historic record, while 43% were at or below their historic average.

- For May 2025, 107 of the 337 total groundwater observation wells reported water level measurements. 6% of reporting wells ranked as high water level (> 90th percentile). 10% of wells ranked Above Normal water level (75th to 90th percentile). 38% of wells ranked Normal water level (25th to 75th percentile). 23% of wells were ranked Below Normal (10th to 25th percentile). 23% of wells were ranked Low water level (≤10th percentile).

The information in this report is provided by DNR through long term programs committed to recording and tracking the long term status of our water resources. The current conditions of precipitation, stream flows, lake levels, and groundwater levels in this report provide valuable information for natural and economic resource management on a state, county, and watershed level. If you have questions on the content of this report please contact the report team: csg.dnr@state.mn.us

Minnesota Counties and Major Watershed Index



DNR Major Watershed - Level 4 Hydrologic Unit (HUC8)

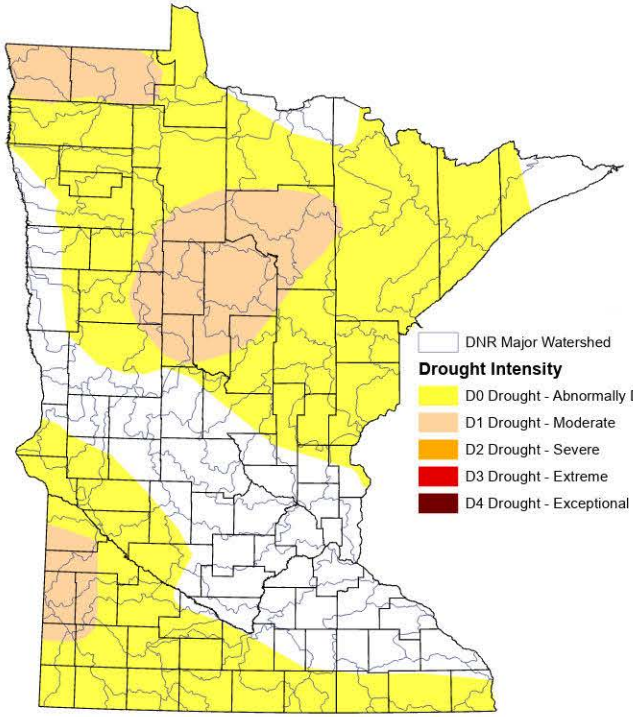
1. Lake Superior - North
2. Lake Superior - South
3. St. Louis River
4. Cloquet River
5. Nemadji River
6. (none)
7. Mississippi River - Headwaters
8. Leech Lake River
9. Mississippi River - Grand Rapids
10. Mississippi River - Brainerd
11. Pine River
12. Crow Wing River
13. Redeye River
14. Long Prairie River
15. Mississippi River - Sartell
16. Sauk River
17. Mississippi River - St. Cloud
18. North Fork Crow River
19. South Fork Crow River
20. Mississippi River - Twin Cities
21. Rum River
22. Minnesota River - Headwaters
23. Pomme de Terre River
24. Lac Qui Parle River
25. Minnesota - Yellow Medicine Rivers
26. Chippewa River
27. Redwood River
28. Minnesota River - Mankato
29. Cottonwood River
30. Blue Earth River
31. Watonwan River
32. Le Sueur River
33. Lower Minnesota River
34. Upper St. Croix River
35. Kettle River
36. Snake River
37. Lower St. Croix River
38. Mississippi River - Lake Pepin
39. Cannon River
40. Mississippi River - Winona
41. Zumbro River
42. Mississippi River - La Crescent
43. Root River
44. Mississippi River - Reno
45. (none)
46. Upper Iowa River
47. Upper Wapsipinicon River
48. Cedar River
49. Shell Rock River
50. Winnebago River
51. Des Moines River - Headwaters
52. Lower Des Moines River
53. East Fork Des Moines River
54. Bois de Sioux River
55. Mustinka River
56. Otter Tail River
57. Upper Red River of the North
58. Buffalo River
59. Red River of the North - Marsh River
60. Wild Rice River
61. Red River of the North - Sandhill River
62. Upper/Lower Red Lake
63. Red Lake River
64. (none)
65. Thief River
66. Clearwater River
67. Red River of the North - Grand Marais Creek
68. Snake River
69. Red River of the North - Tamarac River
70. Two Rivers
71. Roseau River
72. Rainy River - Headwaters
73. Vermilion River
74. Rainy River - Rainy Lake
75. Rainy River - Black River
76. Little Fork River
77. Big Fork River
78. Rapid River
79. Rainy River - Baudette
80. Lake of the Woods
81. Upper Big Sioux River
82. Lower Big Sioux River
83. Rock River
84. Little Sioux River

Level 2 Hydrologic Unit (HUC4)

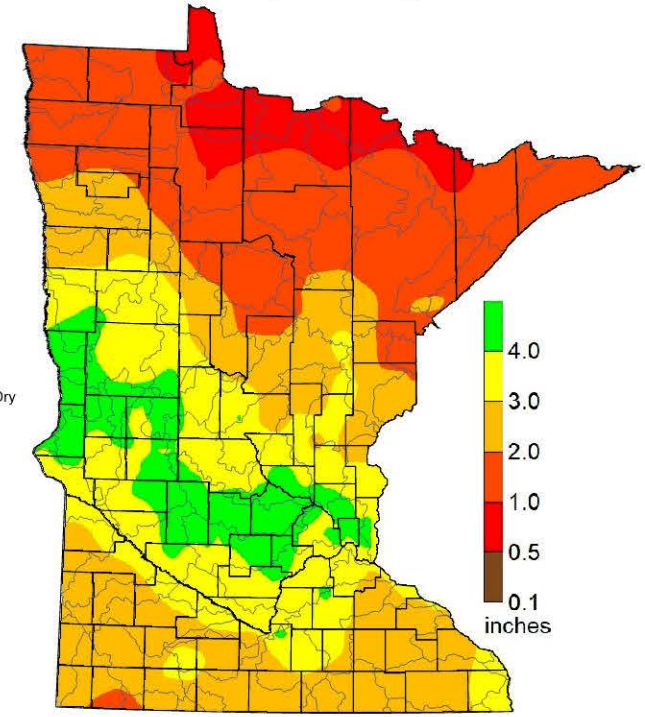
- Cedar River
- Des Moines River
- Lower Mississippi River
- Minnesota River
- Mississippi - Upper Iowa Rivers
- Mississippi River - Headwaters
- Missouri - Big Sioux Rivers
- Missouri - Little Sioux Rivers
- Rainy River
- Red River of the North
- St. Croix River
- Western Lake Superior

Climatology

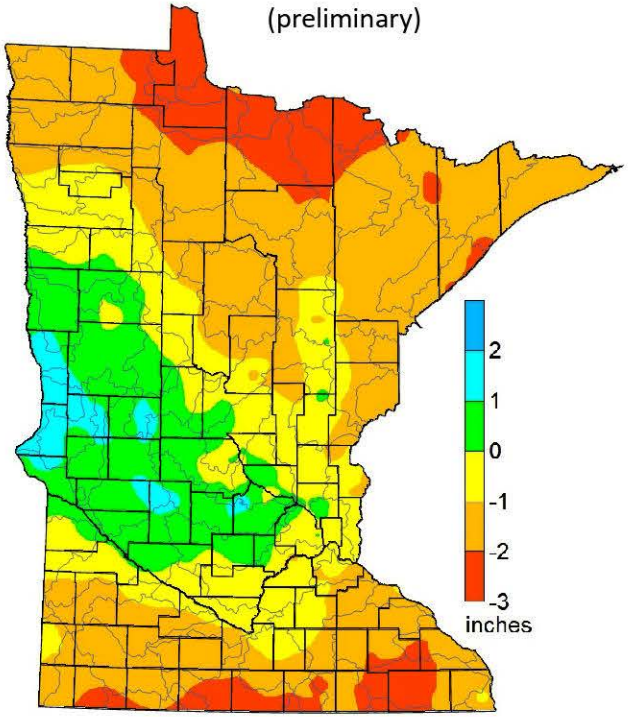
U.S. Drought Monitor
June 2, 2025



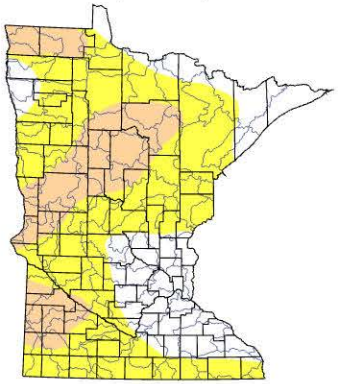
Total Precipitation
May 2025
(preliminary)



Total Precipitation
Departure from Normal:
May 2025
(preliminary)

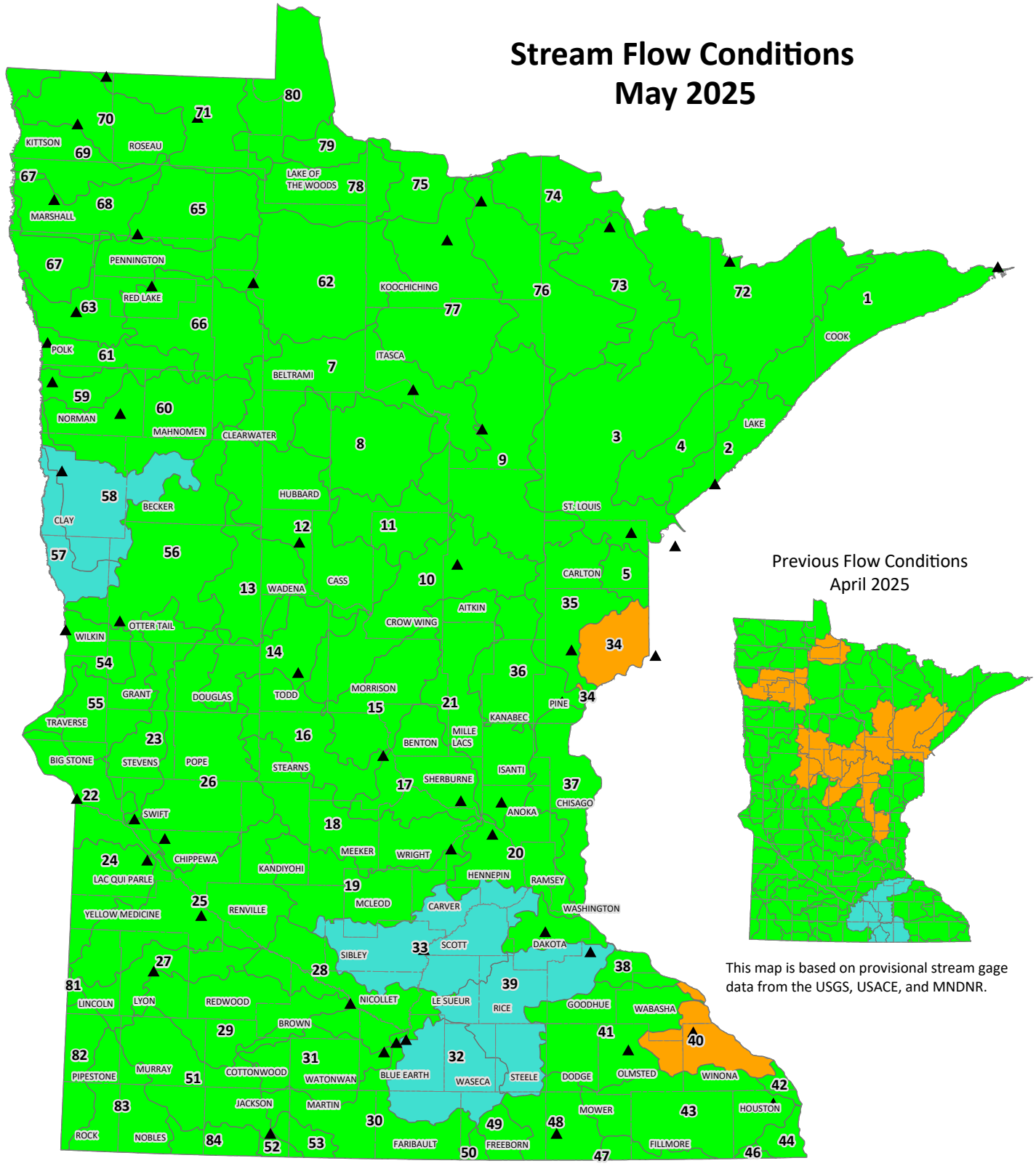


April 29, 2025



Had it not been for a wet spell from May 19-21, May 2025 would have wound up very dry statewide. For the month as a whole, more places finished below normal for precipitation than above with the overall preliminary average statewide precipitation being 2.73 inches or 1.04 inches short of normal, or about three inches drier than in 2024. One of the highest precipitation totals found so far was 6.03 inches or 1.70 inches above normal at Hastings. One of the driest locations was near Northome in north central Minnesota with 1.04 inches of precipitation or 1.97 inches short of normal. There was not a repeat of the wet spring of 2024, so drought persists over portions of the state that began late in the summer of 2024. The June 2nd U. S. Drought Monitor map shows that 56% of the state has Abnormally Dry conditions, with 15% of the state having Moderate conditions. The U.S. Drought Monitor index is a blend of science and subjectivity where drought categories (Moderate, Severe etc.) are based on several indicators.

Surface Water: Stream Flow



Previous Flow Conditions
April 2025

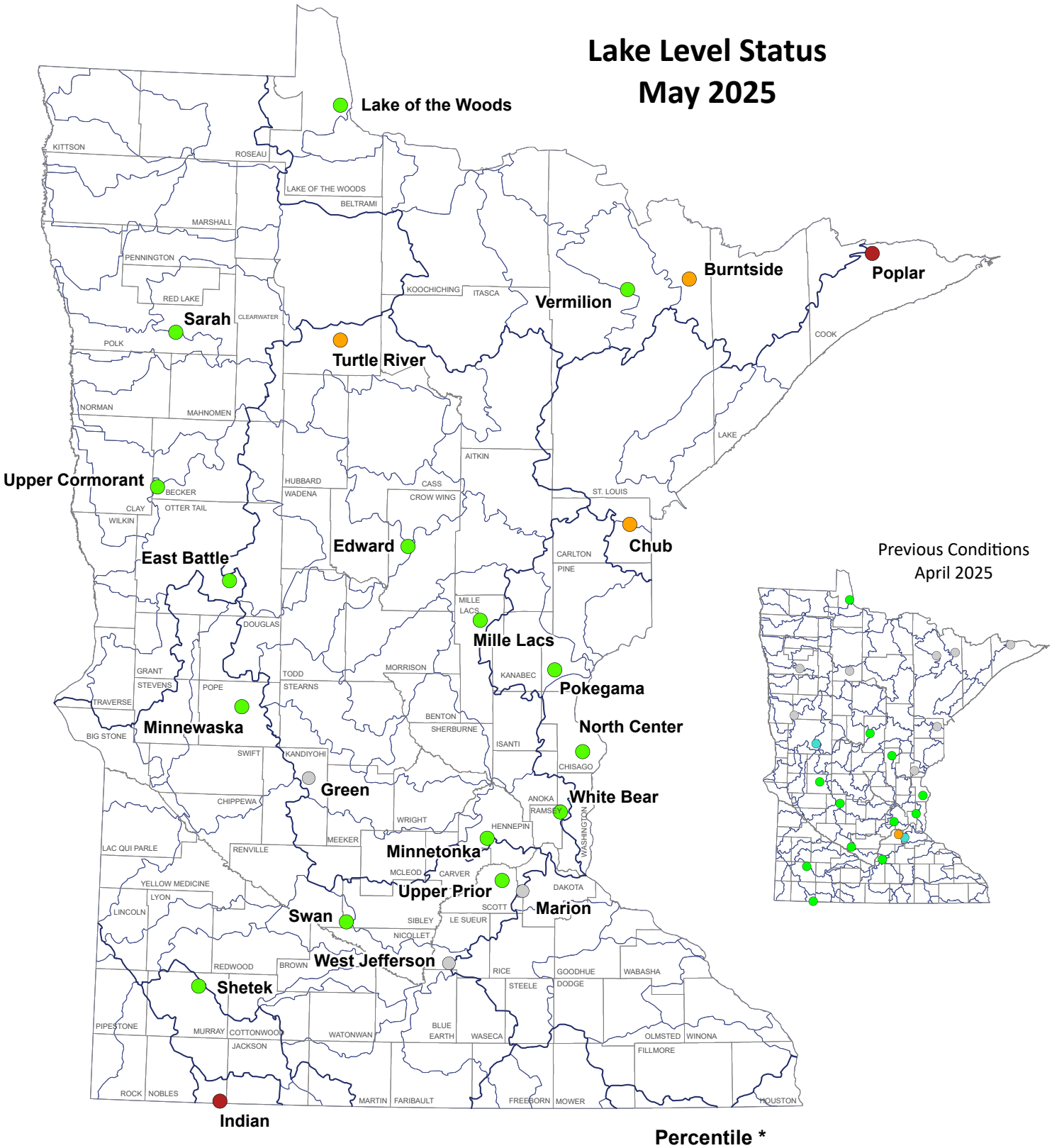
This map is based on provisional stream gage data from the USGS, USACE, and MNDNR.

▲ Designated major watershed gage

* Percentile ranking based on mean daily flows for the current month averaged and ranked with all historical mean daily flows for that month.
A watershed ranked at zero means that the present month flow is the lowest in the period of record; a ranking of 100 indicates the highest in the period of record.
A ranking at the 50th percentile (median) specifies that the present-month flow is in the middle of the historical distribution.

- High Flows (>90th percentile)
- Above Normal Flows (75 - 90th percentile)
- Normal Flows (25 - 75th percentile)
- Below Normal Flows (10 - 25th percentile)
- Low Flows (<= 10th percentile)
- Flow affected by ice
- Flow affected by backwater
- Rating being developed or revised
- No Data

Surface Water: Lake Levels



Previous Conditions
April 2025

Percentile *

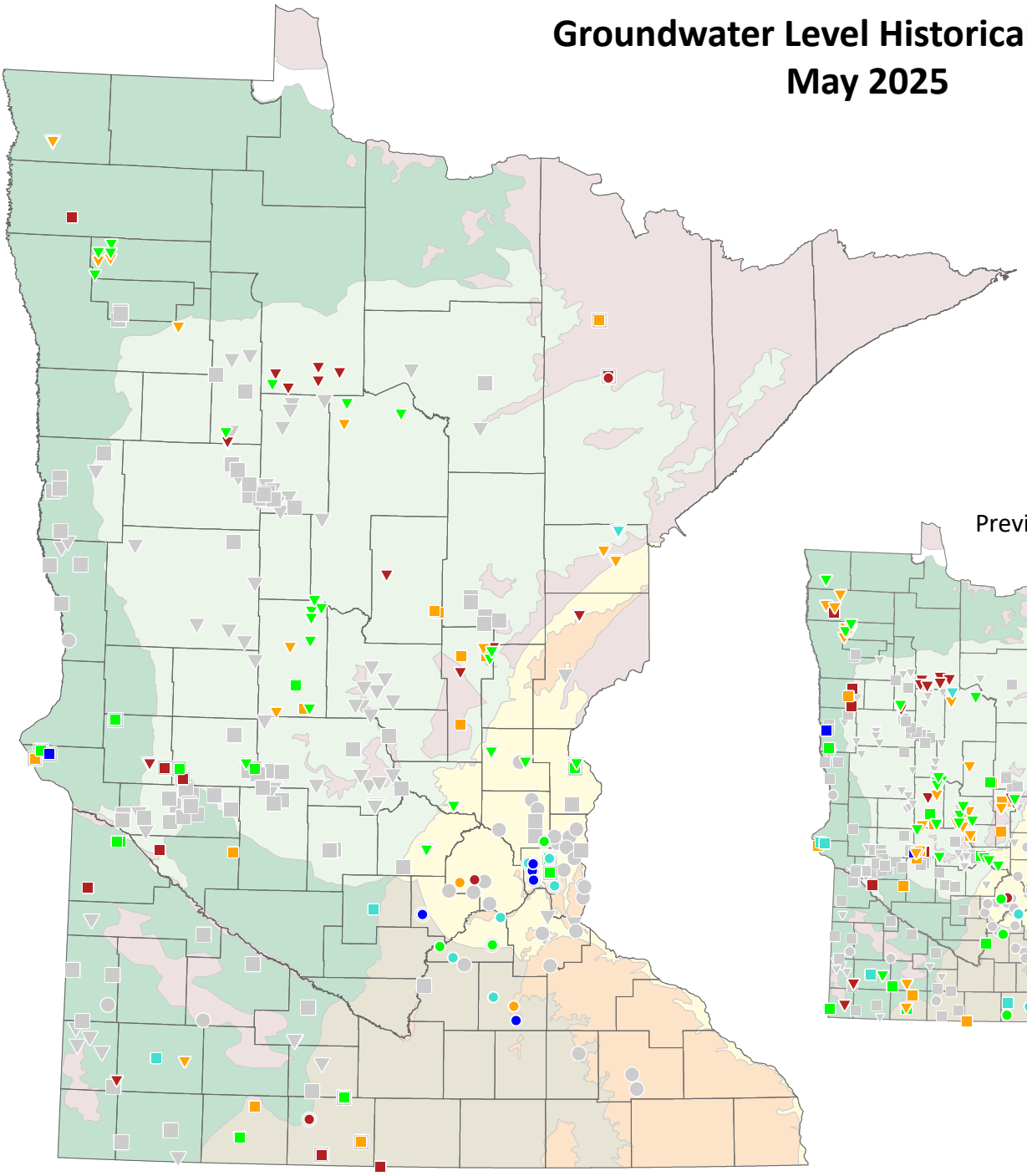
- High Water Levels (>90th percentile)
- Above Normal Water Levels (75 - 90th percentile)
- Normal Water Levels (25 - 75th percentile)
- Below Normal Water Levels (10 - 25th percentile)
- Low Water Levels (<= 10th percentile)
- No reading available
- Level 2 Hydrologic Unit
- DNR Major Watershed

* Percentile ranking based on last reported reading for the current month compared to all historical reported levels for that month. A lake ranked at zero means that the present reported level is the lowest in the period of record; a ranking of 100 indicates the highest in the period of record. A ranking at the 50th percentile (median) specifies that the present-month reported lake level is in the middle of the historical distribution.

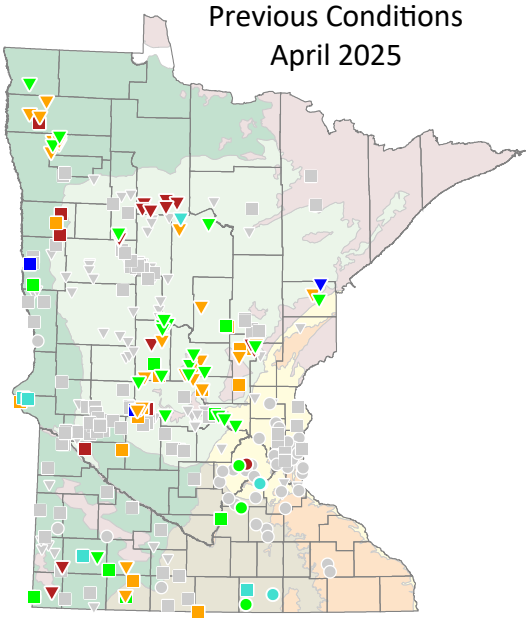
Source data from: MN DNR Lake Level Minnesota Monitoring Program

Groundwater

Groundwater Level Historical Rankings
May 2025



Previous Conditions
April 2025



Minnesota Groundwater Provinces

- East-central
- Central
- South-central
- Western
- Karst
- Arrowhead-shallow bedrock

Percentile *

- High Water Levels (>90th percentile)
- Above Normal Water Levels (75 - 90th percentile)
- Normal Water Levels (25 - 75th percentile)
- Below Normal Water Levels (10 - 25th percentile)
- Low Water Levels (<= 10th percentile)
- No reading available

Aquifer Type

- Water Table
- Bedrock
- Buried Artesian

* Percentile ranking based on last reported reading for the current month compared to all historical reported levels for that month. A water level ranked at zero means that the present reported level is the lowest in the period of record; a ranking of 100 indicates the highest in the period of record. A ranking at the 50th percentile (median) specifies that the present month reported water level is in the middle of the historical distribution.

Source data from: MN DNR Groundwater Level Monitoring Program