

Weather

# Here's the flood forecast for Minnesota's river basins

Tim Nelson March 23, 2023 4:33 PM



Stillwater braces for record flooding as spring nears. City leaders are making plans to close parks and begin sandbagging. Andrew Krueger | MPR News

There are growing signs that major and potentially damaging flooding could be headed for parts of Minnesota, with historic levels of water sitting on the landscape in the form of snow.

The region's National Weather Service offices issued their latest outlooks today, which includes a slight easing of the risk of major flooding in the Twin Cities.

## Big snowpack + slow snow melt = high flood risk

Parts of Minnesota are seeing snowfalls that rank in the top 10 snowiest winters, and the snow still on the ground is one of the reasons why the flood risk is so high.

The snow water equivalent, or the measure of how much water is on the ground if the snow melted, is unusually high right now in river basins throughout the state.

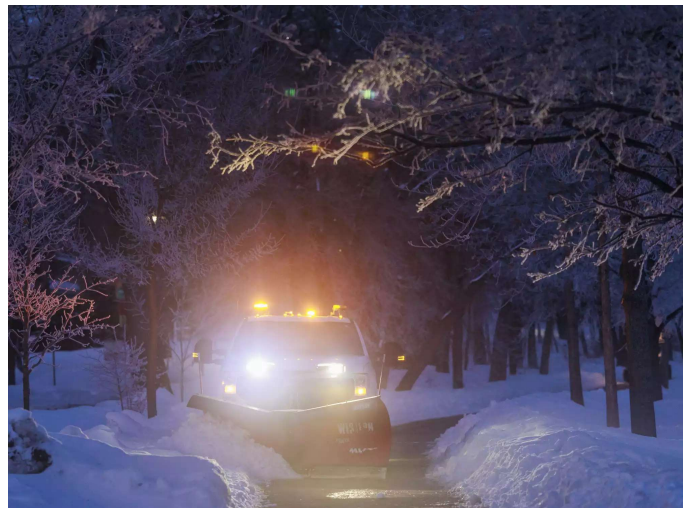
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“Most of our basins are in the top 80 to 100 percent of the historical record. Many of them in the top 10 percent, essentially, of the historical record of snow water equivalent,” said Ketzell Levens, with the National Weather Service office in Duluth.

There are places around Duluth and Lake Superior that have more than 40 inches of snow still on the ground.



A Minneapolis city crew clears snow from the road on March 14 in Minneapolis. Kerem Yücel | MPR News

When that snow melts is another key factor in flood risk, and this year has been unusually cold, keeping much of that snowpack on the ground.

Usually, the Twin Cities sees its first daily high temperature of 50 by March 9. MPR News Meteorologist Sven Sundgaard said 91 percent of the time, the Twin Cities has a 50-degree day before April 1, but we might not see that this year.

“It's just the delay of the thaw. That snowpack, which is just full of water right now, just sitting there, like a ticking time bomb, waiting to go off,” Sundgaard said.

So on one hand, we've got top 10 percent snowpack and on the other hand, we have sort of a bottom 10 percent early melt. And that intersection is what is causing concern.

## Greater Minnesota flood forecast

The Rainy River basin had terrible summer flooding last year along the Canadian border. This year, the snow water equivalent there is only slightly above normal.

But meteorologists said this year the North Shore got unusually energetic lake effect snows, which could mean spectacular runoff into Lake Superior and some breathtaking waterfalls.

Moving over to the other side of the state and the Red River Valley, there was good news and bad news. The flood potential for major flooding on the main stem of the Red River has actually gone up in the last couple of weeks, particularly around Fargo, N.D.

That's also true of the tributaries on the Minnesota side, east of Moorhead. But other tributaries, like the Red Lake River that runs through Crookston are still looking relatively quiet.

Fargo and Grand Forks, N.D., have some significant flood protection, and major flooding is kind of a relative term up there.

Chances for major flooding in the chronic flood area of the Mississippi River near Aitkin, Minn., keep rising, although St. Cloud, Minn., has about a 50 percent chance of moderate flooding.

## Twin Cities flood forecast

Stillwater has some major flooding potential. They're eyeing something like another 2001 flood, which would bring the water up another 15 feet of water. The St. Croix River basin has a lot of snow, and there's about a 30 percent chance of topping the 2001 flood.

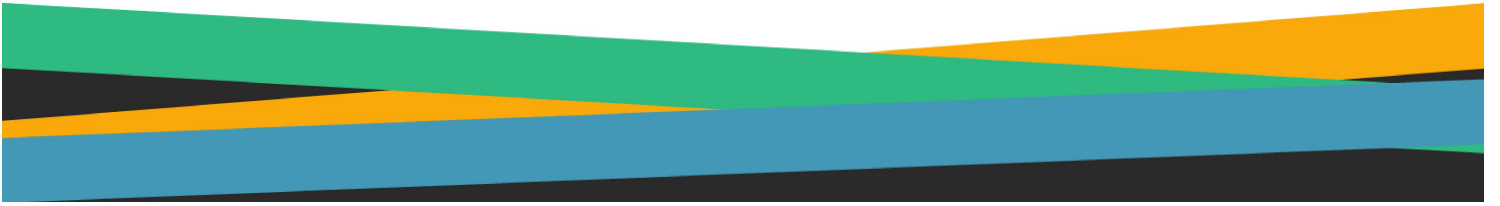
St. Paul has about a 50 percent chance of major flooding, which is actually down slightly in the last couple weeks. The forecast models are taking into account slightly lower existing soil moisture in the area now. The Mississippi River from the Twin Cities and south is very unlikely to hit 2001 levels.

The Minnesota River has a 50-50 shot at moderate flooding, according to the latest forecasts.

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