



# Storm #1 - Snow Tonight

March 21, 2024  
4:53 AM

Broad swath of 2-5" likely over much of central-southern MN into western WI

## Key Messages

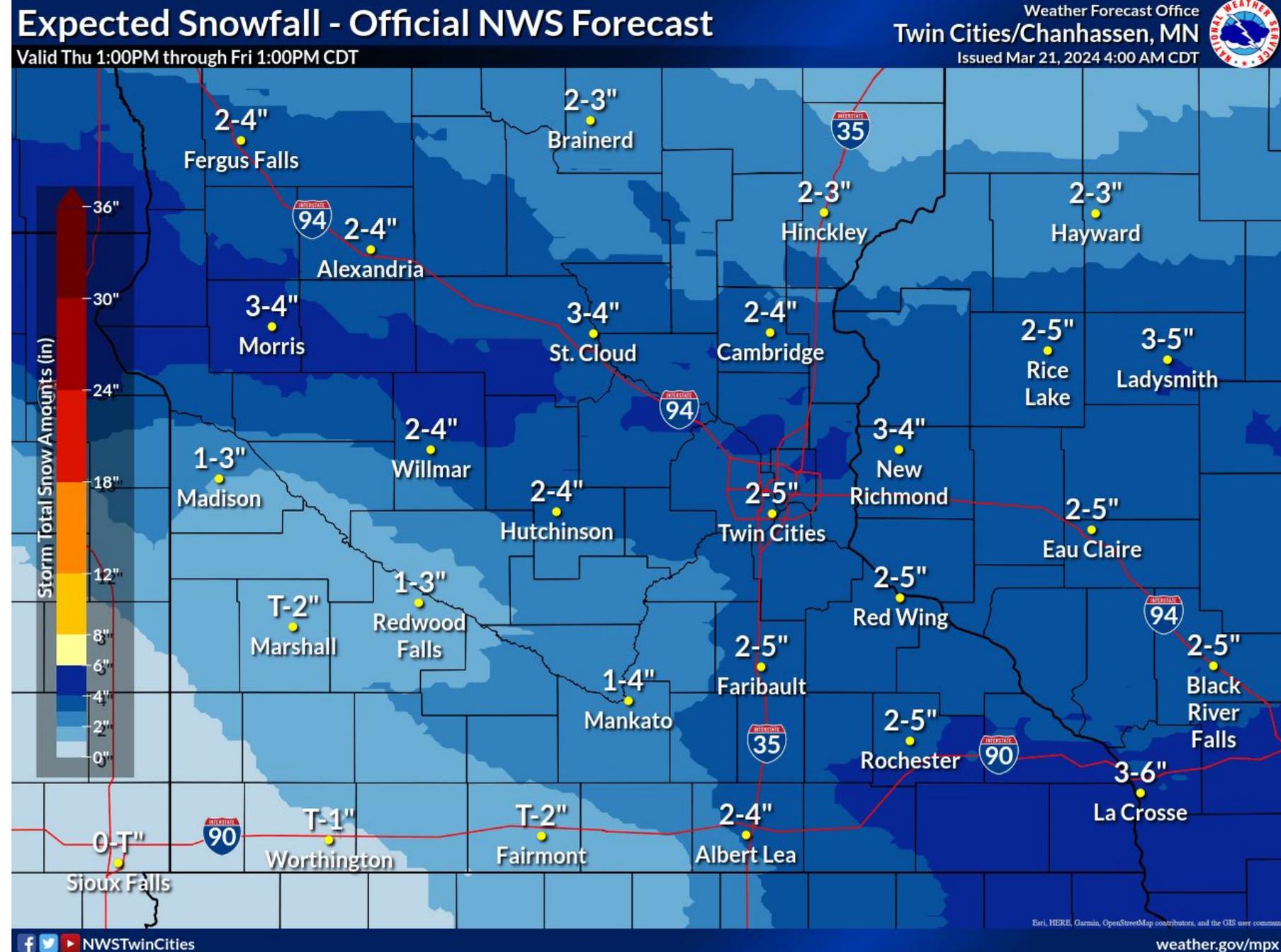
- A swath of 2-5" of snow is expected across the region beginning later today and ending Friday morning.
- The highest amounts will be along I-94, and also along/east of I-35.
- Plan on travel impacts tonight into the Friday morning commute as temperatures drop into the mid 20s.
- Winds will be less than 20 mph, so blowing snow shouldn't be an issue with this system.

## What Has Changed

- The double banded snowfall scenario seems more likely, and as a result snowfall amounts have decreased a bit but become more widespread.

## Next Update

- Thursday Afternoon





# Storm #1 - Timing and Impacts

March 21, 2024  
4:53 AM

## Timing

- A few snow showers today, but the accumulating snow begins later this afternoon across western Minnesota.
- Snow will become more widespread across the region this evening.
- The heaviest snow will fall tonight.
- Snow will end from west to east Friday morning.

## Impacts

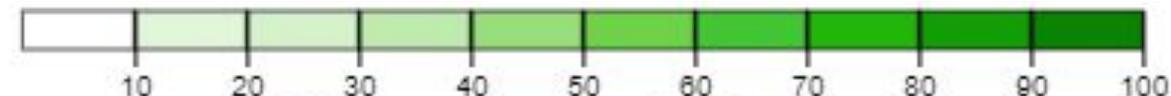
- Ground temperatures will be cold enough for snow to accumulate.
- Roads will become slippery this evening through Friday morning.

NW

SE

## Probability of Snow (%)

	3/21 Thu							3/22 Fri										
	5pm	6pm	7pm	8pm	9pm	10pm	11pm	12am	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am
Alexandria	20	30	55	80	90	95	95	95	80	75	60	55	50	50	20	10	5	10
Little Falls	10	15	30	55	70	90	90	90	90	90	80	75	60	45	25	15	10	10
Mora	10	10	20	40	60	85	90	90	95	95	90	85	70	45	40	35	20	15
Saint Cloud	10	20	30	55	75	95	95	95	95	85	70	60	55	45	30	25	15	10
Madison	20	35	40	55	70	85	80	80	60	55	40	30	30	25	25	20	15	10
Willmar	20	25	45	65	80	95	95	90	75	70	55	35	30	30	25	20	10	10
Saint Croix Falls	10	10	10	30	60	80	90	95	95	95	85	80	70	55	40	40	35	20
Ladysmith	5	5	5	20	35	65	70	80	90	95	95	90	85	70	55	55	55	50
Hutchinson	15	25	30	50	70	90	95	90	85	80	70	55	45	35	30	30	20	10
Twin Cities	10	15	15	30	65	85	95	95	95	95	85	80	70	60	40	40	35	15
Redwood Falls	20	30	25	30	45	60	70	75	80	80	65	55	40	30	20	20	15	10
Eau Claire	5	10	10	20	25	55	75	90	95	100	95	85	80	70	55	50	50	40
Red Wing	15	15	15	20	45	65	80	85	95	100	90	85	75	60	40	40	35	20
Mankato	20	25	15	20	30	45	55	75	80	95	90	85	70	60	25	25	20	15
Fairmont	15	15	10	10	15	15	20	20	55	85	95	95	80	65	15	20	15	10
Albert Lea	15	15	10	10	15	25	40	50	80	85	95	100	90	65	45	25	25	20





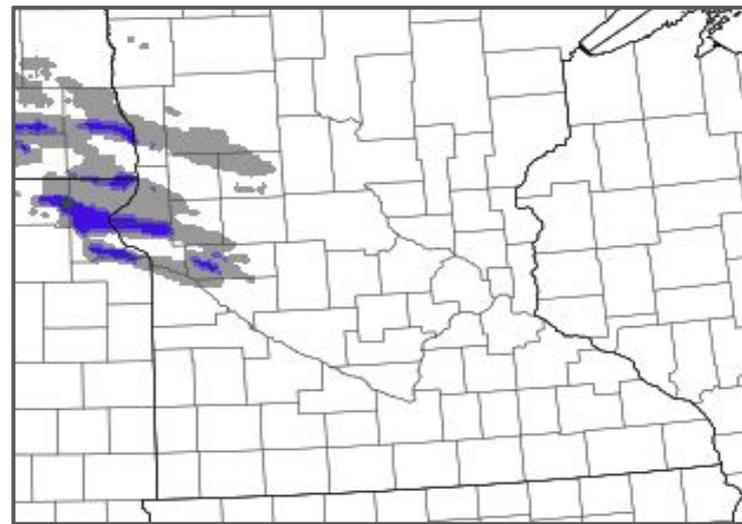
# Storm #1 - Snowfall Rates

March 21, 2024  
4:53 AM

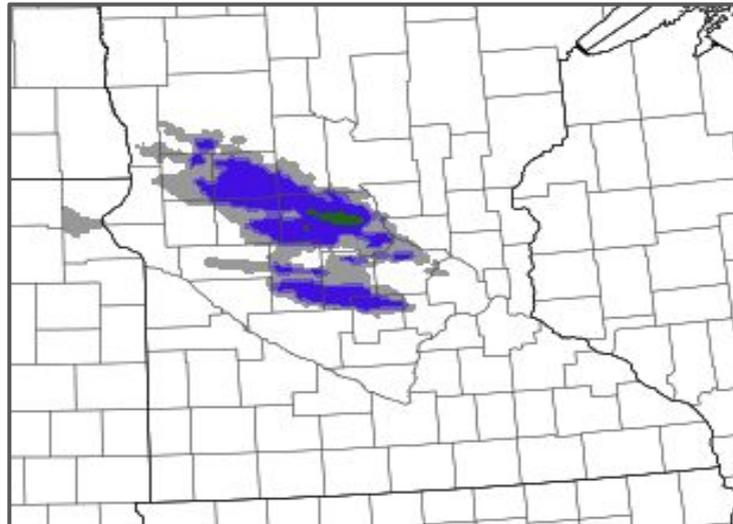
## Snowfall Rates

- Snowfall rates will generally be 1/2 to 1 in/hr.
- The gray/blue shading shows a chance (10 to 30%) that rates could exceed 1 in/hr along I-94 tonight, with another area along I-90 early Friday morning.

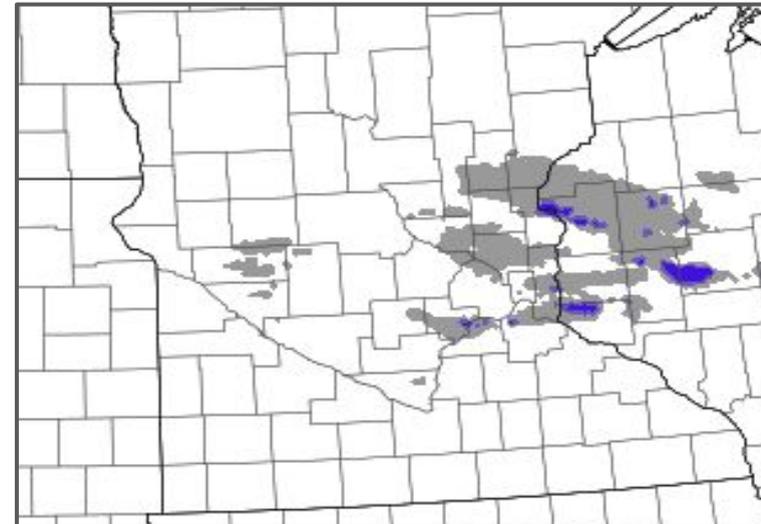
9pm



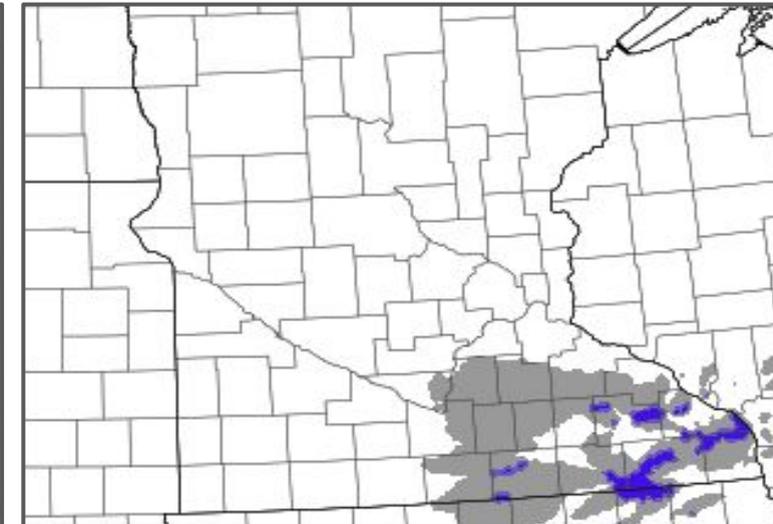
11pm



1am



5am



Probability of Snow >1"/hr (%)





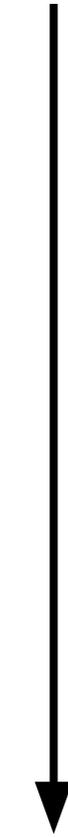
# Storm #1 - Temperatures

March 21, 2024  
4:53 AM

## Forecast Details

- No significant changes.
- Temperatures will be at or below freezing as the snow falls, with subfreezing temperatures lingering into Friday morning.
- Temperatures will warm above freezing on Friday afternoon, which should help plowed surfaces recover.

NW



SE

	3/21 Thu						3/22 Fri																			
	6pm	7pm	8pm	9pm	10pm	11pm	12am	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	
Alexandria	29	28	27	26	24	23	23	23	22	22	22	23	22	22	22	22	23	25	26	28	29	29	30	29	28	
Little Falls	32	31	30	27	26	26	25	24	24	24	23	23	23	22	22	24	26	27	28	30	31	31	32	31	30	
Mora	32	32	30	27	26	25	25	24	24	23	23	23	23	22	23	24	27	29	31	31	32	33	34	32	31	
Saint Cloud	33	33	31	30	29	27	26	25	25	25	25	24	24	23	23	24	26	28	29	30	31	32	33	32	31	
Madison	33	32	31	29	28	28	28	28	27	27	26	26	26	25	25	25	27	28	28	30	30	31	32	31	30	
Willmar	33	33	32	29	28	27	27	27	26	26	26	25	25	24	24	25	27	27	28	30	30	31	32	31	30	
Saint Croix Falls	32	32	31	28	28	27	26	25	25	25	25	24	24	24	24	25	28	29	30	32	32	33	34	32	31	
Ladysmith	32	32	30	28	27	27	26	25	24	24	23	23	23	23	23	25	28	29	31	33	34	34	35	33	32	
Hutchinson	34	33	32	30	29	28	27	28	26	26	26	26	26	25	25	26	27	29	29	31	31	32	33	32	31	
Twin Cities	34	34	33	32	31	30	28	27	27	27	27	27	27	26	26	26	27	28	30	31	32	33	34	35	34	33
Redwood Falls	34	33	32	30	29	29	30	29	29	28	27	27	27	26	26	26	27	29	30	31	32	32	33	32	32	
Eau Claire	36	35	34	32	31	30	29	27	27	27	26	27	27	26	26	27	29	31	32	34	35	36	37	35	34	
Red Wing	35	35	34	32	32	30	29	29	28	28	28	28	28	27	28	28	30	31	32	34	35	36	36	35	34	
Mankato	37	36	35	33	32	31	32	31	31	30	29	29	29	28	28	28	30	31	33	34	35	35	35	34	33	
Fairmont	38	37	35	35	34	33	33	33	32	31	30	30	29	28	29	28	30	31	32	33	34	35	35	34	33	
Albert Lea	35	35	33	33	33	32	31	30	30	29	29	29	29	28	29	29	31	32	33	35	35	35	36	34	33	





# Storm #1 - Winds

March 21, 2024  
4:53 AM

## Forecast Details

- No significant changes.
- Winds will be out of the east at 10 to 15 mph, with gusts near 20 mph at times.
- The risk for blowing snow is low at these speeds.

NW  
↓  
SE

### Maximum Wind Gust Forecast (mph)

	3/21 Thu						3/22 Fri																		
	6pm	7pm	8pm	9pm	10pm	11pm	12am	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm
Alexandria	12↖	12↖	12↖	12↖	13↖	14↖	15↖	15↖	15↖	15↖	15↖	15↖	15↖	15↖	15↖	16↖	16↖	17↘	17↘	17↘	18↘	18↘	20↘	18↘	20↘
Little Falls	9↖	9↖	9↖	8↖	9↖	9↖	12↖	12↖	10↖	12↖	12↖	12↖	13↖	14↖	14↖	15↖	15↖	16↘	16↘	16↘	16↘	17↘	18↘	18↘	18↘
Mora	7↖	7↖	7↖	7↖	8↖	7↖	8↖	9↖	10↖	10↖	12↖	12↖	12↖	12↖	13↖	13↖	14↖	16↖	16↘	16↘	16↘	17↘	18↘	18↘	18↘
Saint Cloud	10↖	10↖	10↖	10↖	10↖	12↖	12↖	13↖	14↖	14↖	14↖	14↖	14↖	14↖	14↖	14↖	15↖	16↘	16↘	16↘	16↘	17↘	17↘	17↘	17↘
Madison	16↖	16↖	15↖	16↖	18↖	18↖	18↖	18↖	17↖	14↖	13↖	13↖	14↖	14↖	15↖	16↘	18↘	20↘	18↘	18↘	18↘	18↘	20↘	18↘	18↘
Willmar	13↖	13↖	13↖	14↖	15↖	16↖	17↖	17↖	17↖	16↖	15↖	14↖	14↖	14↖	15↖	16↖	16↖	17↘	17↘	17↘	18↘	20↘	20↘	20↘	20↘
Saint Croix Falls	7↖	7↖	6↖	7↖	8↖	8↖	9↖	9↖	12↖	10↖	12↖	12↖	13↖	12↖	12↖	12↖	13↖	14↖	14↖	16↘	17↘	17↘	18↘	17↘	17↘
Ladysmith	7↖	6↖	6↖	6↖	8↖	7↖	7↖	7↖	8↖	9↖	9↖	9↖	10↖	10↖	9↖	9↖	8↖	9↖	9↖	13↘	14↘	15↘	16↘	17↘	17↘
Hutchinson	12↖	12↖	12↖	13↖	14↖	15↖	16↖	16↖	16↖	15↖	15↖	14↖	14↖	14↖	14↖	15↖	16↘	17↘	17↘	18↘	20↘	20↘	20↘	20↘	18↘
Twin Cities	9↖	9↖	10↖	10↖	10↖	10↖	12↖	12↖	12↖	13↖	12↖	12↖	12↖	10↖	10↖	10↖	13↖	14↖	16↘	18↘	18↘	20↘	20↘	20↘	20↘
Redwood Falls	16↖	16↖	16↖	16↖	17↖	18↖	18↖	18↖	18↖	16↖	15↖	15↖	14↖	13↖	14↖	16↖	17↘	17↘	18↘	20↘	22↘	22↘	22↘	21↘	21↘
Eau Claire	7↖	7↖	7↖	8↖	9↖	9↖	9↖	10↖	10↖	12↖	13↖	12↖	12↖	10↖	10↖	9↖	9↖	9↖	12↖	13↘	14↘	16↘	17↘	20↘	18↘
Red Wing	8↖	9↖	10↖	12↖	12↖	12↖	12↖	13↖	13↖	14↖	14↖	14↖	12↖	12↖	10↖	10↖	12↖	12↖	14↖	16↘	17↘	18↘	18↘	20↘	20↘
Mankato	12↖	13↖	13↖	14↖	14↖	14↖	15↖	15↖	15↖	15↖	15↖	15↖	13↖	12↖	12↖	13↖	14↖	15↖	17↘	18↘	20↘	22↘	21↘	21↘	20↘
Fairmont	16↖	17↖	17↖	18↖	18↖	18↖	17↖	17↖	15↖	15↖	15↖	15↖	13↖	13↖	14↖	15↖	17↘	18↘	21↘	24↘	24↘	24↘	24↘	23↘	22↘
Albert Lea	13↖	13↖	14↖	15↖	17↖	16↖	16↖	16↖	17↖	17↖	16↖	15↖	14↖	13↖	12↖	12↖	14↖	17↘	20↘	21↘	21↘	21↘	21↘	21↘	21↘

Created: 4 am CDT Thu 3/21/2024 | Values are maximums over the period beginning at the time shown.



# Storm #1 - Winter Weather Advisory

March 21, 2024  
4:53 AM

Advisory begins 7pm Thursday, ends 10am Friday.

## Key Messages

- Winter Weather Advisory was expanded a few counties to the south and west.

## Timing

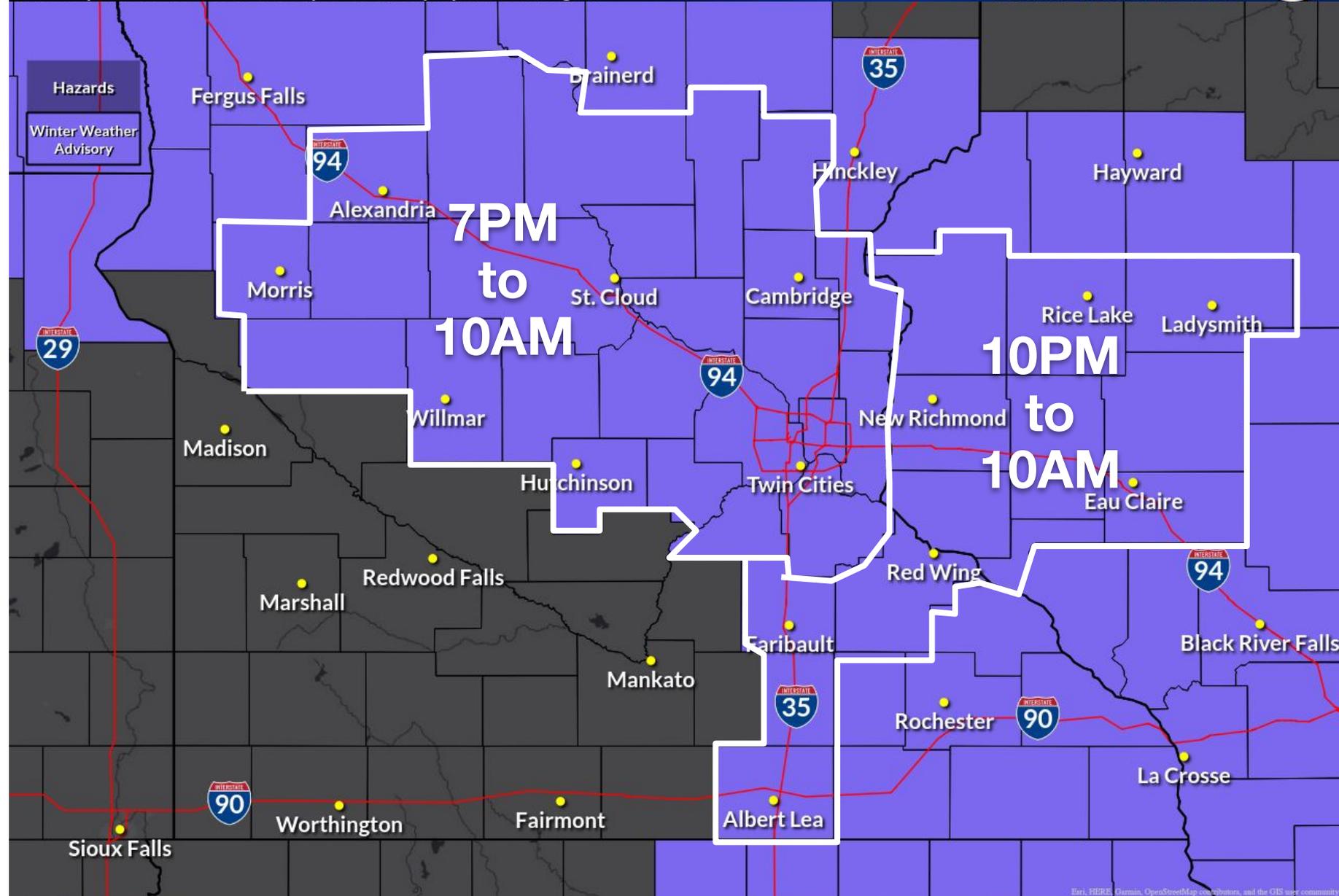
- The Winter Weather Advisory will go into effect this evening and last into Friday morning.
- The heaviest snow will be between 8PM and 4AM (from west to east), but travel impacts will linger into Friday morning.

## Winter Weather Advisory For Thursday Night's Snow

Weather Forecast Office  
Twin Cities/Chanhassen, MN  
Issued Mar 21, 2024 3:53 AM CDT



Generally 3 to 5 inches of snow is expected in the purple shaded region



f t v NWSTwinCities

weather.gov/mpx



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

National Weather Service  
Twin Cities/Chanhassen, MN



# Storm #2 - Sunday into Tuesday

March 21, 2024  
4:53 AM

**A second, larger system will impact the region  
Sunday and could last into Tuesday.**





# Storm #2 - Sunday into Tuesday

March 21, 2024  
4:53 AM

## Key Messages

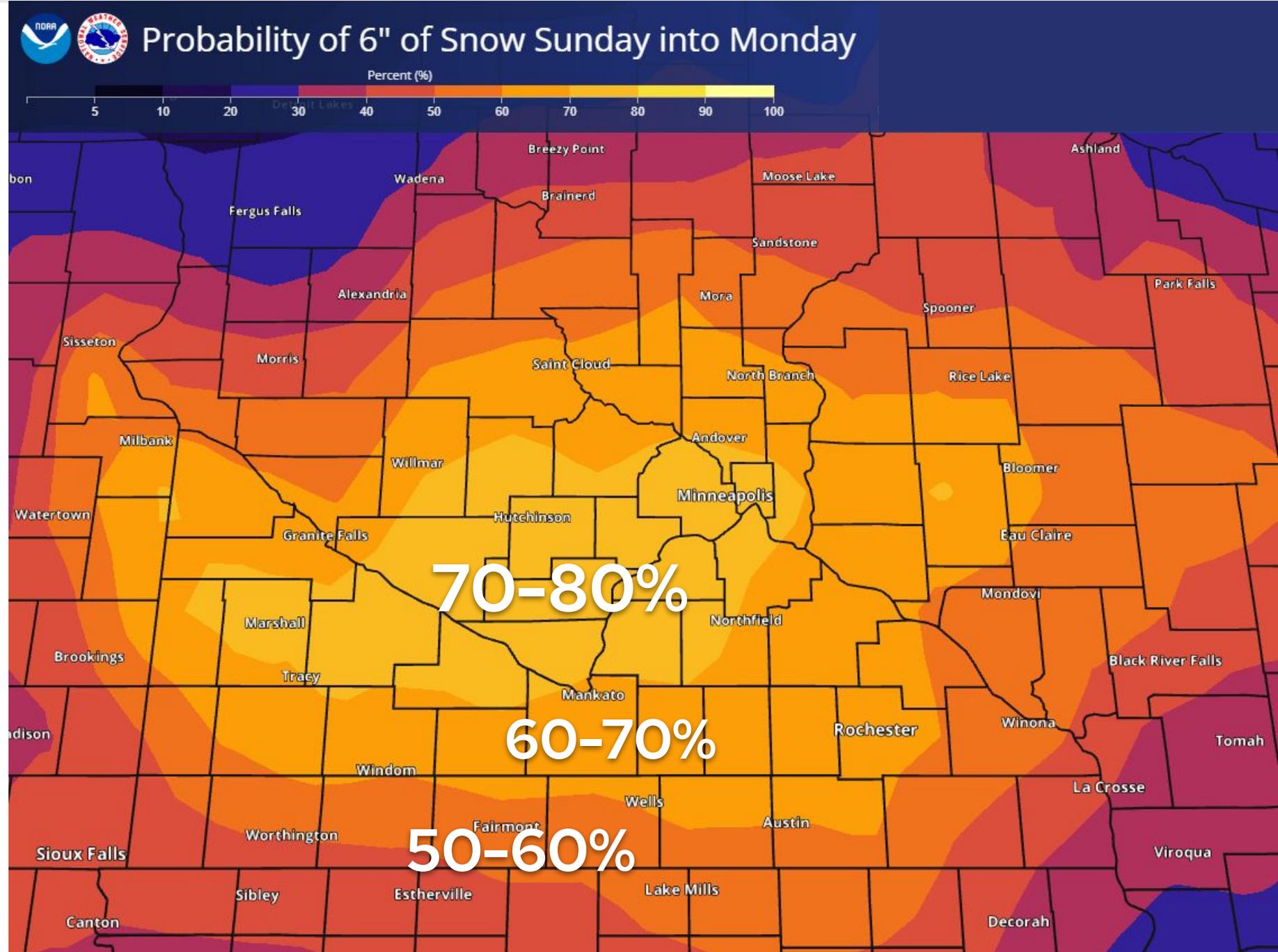
- A second, more significant winter storm will impact the Upper Midwest Sunday through Tuesday.
- **This is a dynamic system. The track, temperatures, and rain/snow amounts are going to change with every update. (next slide)**
- Confidence remains high in broad swath of 6"+ of snow, possibly mixed with rain/sleet (see map), along with strong easterly winds of 25 to 35 mph.

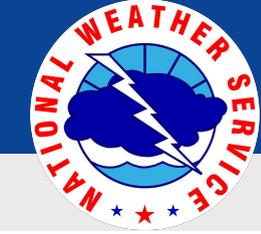
## Impacts

- Travel will be the primary impact, but the power grid may also be impacted depending on how much falls as ice versus snow.

## What To Do

- Stay tuned to updates and use reliable sources for forecast information.
- Don't focus on specific totals. Snow amounts and location will vary a lot when the storm is this far out into the future.



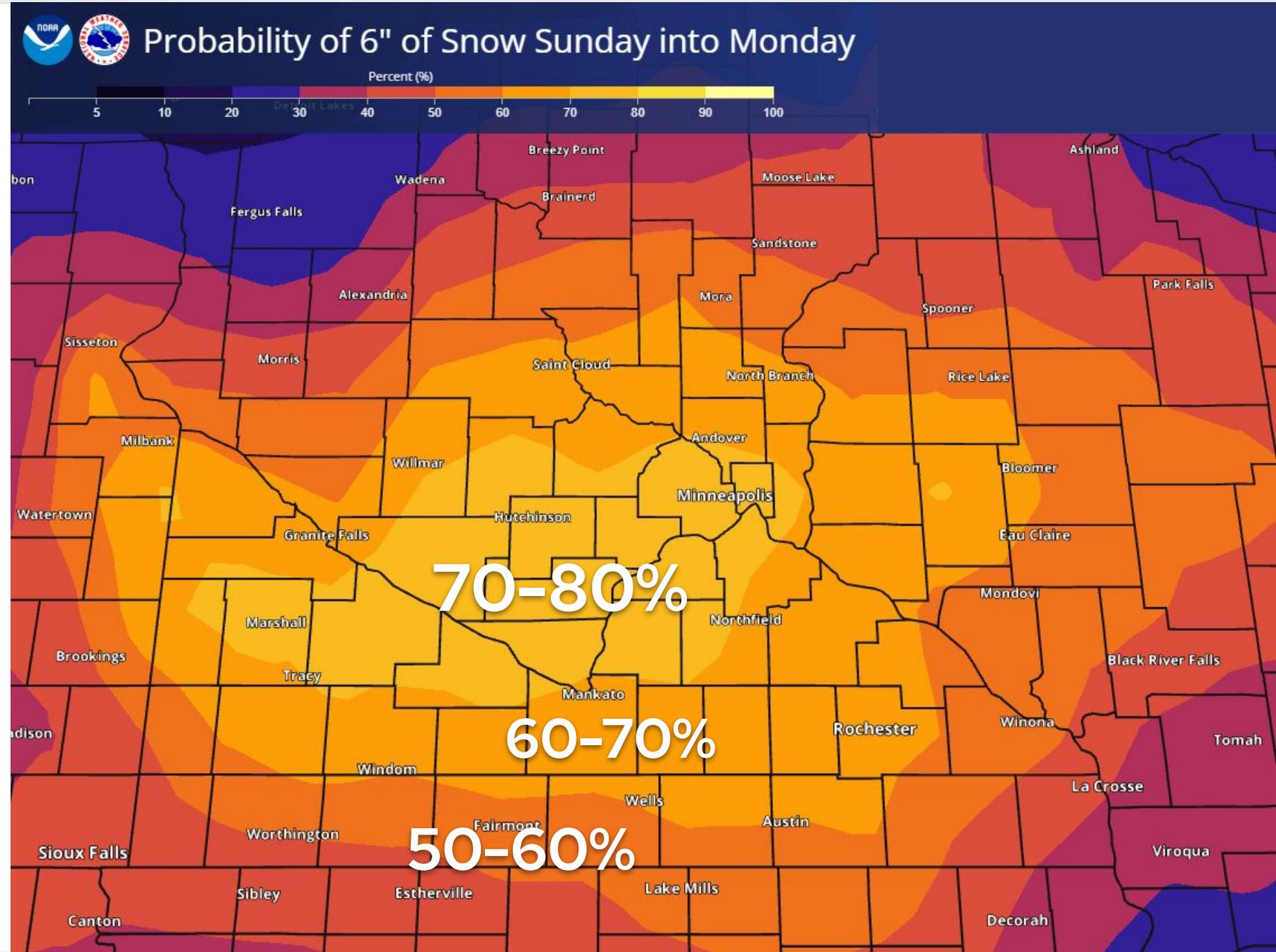


# Storm #2 - Sunday into Tuesday Cont'd

March 21, 2024  
4:53 AM

## Uncertainty

- Confidence is high in accumulating snow on Sunday.
- Confidence remains low Sunday night, Monday and Tuesday.
  - There is uncertainty where the storm will track and how fast it will move.
  - As a result, precipitation amount and type (rain, ice, or snow) is uncertain.



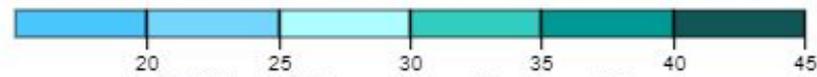


# Storm #2 - Temperatures & Winds

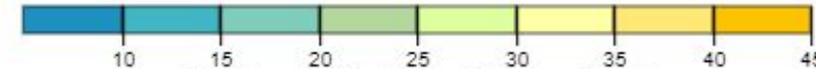
March 21, 2024  
4:53 AM

Temperatures will gradually warm above freezing Sunday night into Monday.

	3/24 Sun								3/25 Mon							
	12am	3am	6am	9am	12pm	3pm	6pm	9pm	12am	3am	6am	9am	12pm	3pm	6pm	
Alexandria	23	22	22	23	27	29	30	29	28	27	27	27	29	32	31	
Little Falls	23	22	22	24	29	32	31	29	28	27	27	28	30	33	33	
Mora	23	23	23	26	30	32	31	29	28	28	28	30	33	35	35	
Saint Cloud	24	23	23	25	29	31	32	31	30	29	28	30	32	35	36	
Madison	25	24	24	25	29	31	32	31	30	29	29	30	31	33	31	
Willmar	24	23	23	24	27	30	32	30	30	29	28	29	31	34	32	
Saint Croix Falls	25	23	23	26	30	32	31	30	30	30	30	31	35	39	37	
Ladysmith	23	22	22	25	31	34	31	29	28	28	28	31	36	40	38	
Hutchinson	24	23	24	25	29	31	32	31	31	30	30	31	33	35	35	
Twin Cities	27	27	27	28	31	34	34	33	33	33	33	34	36	39	40	
Redwood Falls	25	25	25	26	30	33	34	32	32	31	31	31	33	36	34	
Eau Claire	26	25	25	27	31	34	34	32	31	31	31	33	37	42	42	
Red Wing	27	26	26	27	30	33	34	32	32	32	32	33	36	40	41	
Mankato	27	26	27	28	31	34	35	34	35	34	33	34	38	41	39	
Fairmont	27	26	27	28	30	34	36	34	35	34	33	34	37	40	37	
Albert Lea	25	25	25	26	30	33	35	33	33	33	33	35	38	41	39	



	3/24 Sun								3/25 Mon							
	12am	3am	6am	9am	12pm	3pm	6pm	9pm	12am	3am	6am	9am	12pm	3pm	6pm	
Alexandria	23	29	33	31	35	35	35	36	36	35	35	36	35	33	32	
Little Falls	18	22	25	28	31	32	32	33	32	32	32	33	33	32	30	
Mora	16	20	24	26	28	29	30	31	31	31	32	33	32	31	30	
Saint Cloud	20	23	26	29	32	32	32	33	33	32	32	33	33	32	30	
Madison	28	33	36	32	32	32	32	32	31	30	31	31	31	32	32	
Willmar	26	31	33	32	35	36	35	35	35	35	35	36	36	33	32	
Saint Croix Falls	15	20	26	28	29	30	31	32	32	33	35	36	36	35	33	
Ladysmith	13	16	20	23	25	26	26	29	30	31	33	36	37	37	36	
Hutchinson	22	26	29	31	32	32	32	33	32	32	32	33	33	31	28	
Twin Cities	18	22	25	28	30	30	30	30	31	31	32	32	33	32	30	
Redwood Falls	28	32	37	33	35	35	33	33	33	33	32	32	33	32	32	
Eau Claire	14	18	22	24	29	29	29	31	32	33	35	37	38	37	36	
Red Wing	16	20	24	30	32	32	31	32	33	35	35	36	35	33	32	
Mankato	24	26	31	32	33	33	32	33	35	35	35	35	35	33	31	
Fairmont	26	30	33	33	35	35	33	36	36	35	33	33	33	32	31	
Albert Lea	25	28	31	36	36	36	37	38	39	39	36	37	37	37	33	





## Safety and Preparedness

- Snow will accumulate on the ground & paved surface despite stretch of warm temperatures.
- Expect travel impacts this evening, and especially the Friday morning commute.
- Stay tuned to updates and use reliable sources for forecast information, especially if you have weekend travel plans.

## Helpful links:

- [Snow and Ice Forecast](#)
- [Local Snow Reports](#)

## For the latest road conditions:

MNDOT Road Conditions: <http://www.511mn.org>

WIDOT Road Conditions: <http://www.511wi.gov>

## What to Expect with 2-5" of Snow



Travel Delays  
(severe at rush hour)



Accidents  
and Spin-outs



People driving  
too fast for  
the conditions



Plowing and  
Road Treatment

### How to Prepare



Pack a winter supply kit that has warm clothes, cell chargers, water and a flashlight.



Give yourself extra time to travel and consider changing your travel plans.



Fill your gas tank, ensure your lights are working, tires have good tread and washer fluid is full.