

# CROW WING COUNTY

## Snow Event 14-2022-3 December 14-17, 2022



### Reported Event Conditions

Date:	12/14-17/22
Event No:	14-2022-3
Begin Time:	12/13 3PM
End Time:	12/17 9AM
Weather:	Snow
Precipitation:	15" Snow
Temperature:	34/-5
Wind:	5-30 MPH

### Event Costs

Salt	\$109,113
Sand	\$255
Brine	\$5,321
Equipment/Fuel	\$86,965
Personnel Reg.	\$15,859
Personnel OT	\$18,818
<b>Total</b>	<b>\$236,330</b>
Cost Mile	\$422
Season Total:	\$468,402

### Priority By Route

#### Priority 1

% Target 1A Met:	100%
% Target 1B Met:	100%

#### Priority 2

% Target 2A Met:	100%
% Target 2B Met:	100%

#### Priority 3

% Target 3A Met:	100%
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— MnDOT Highway

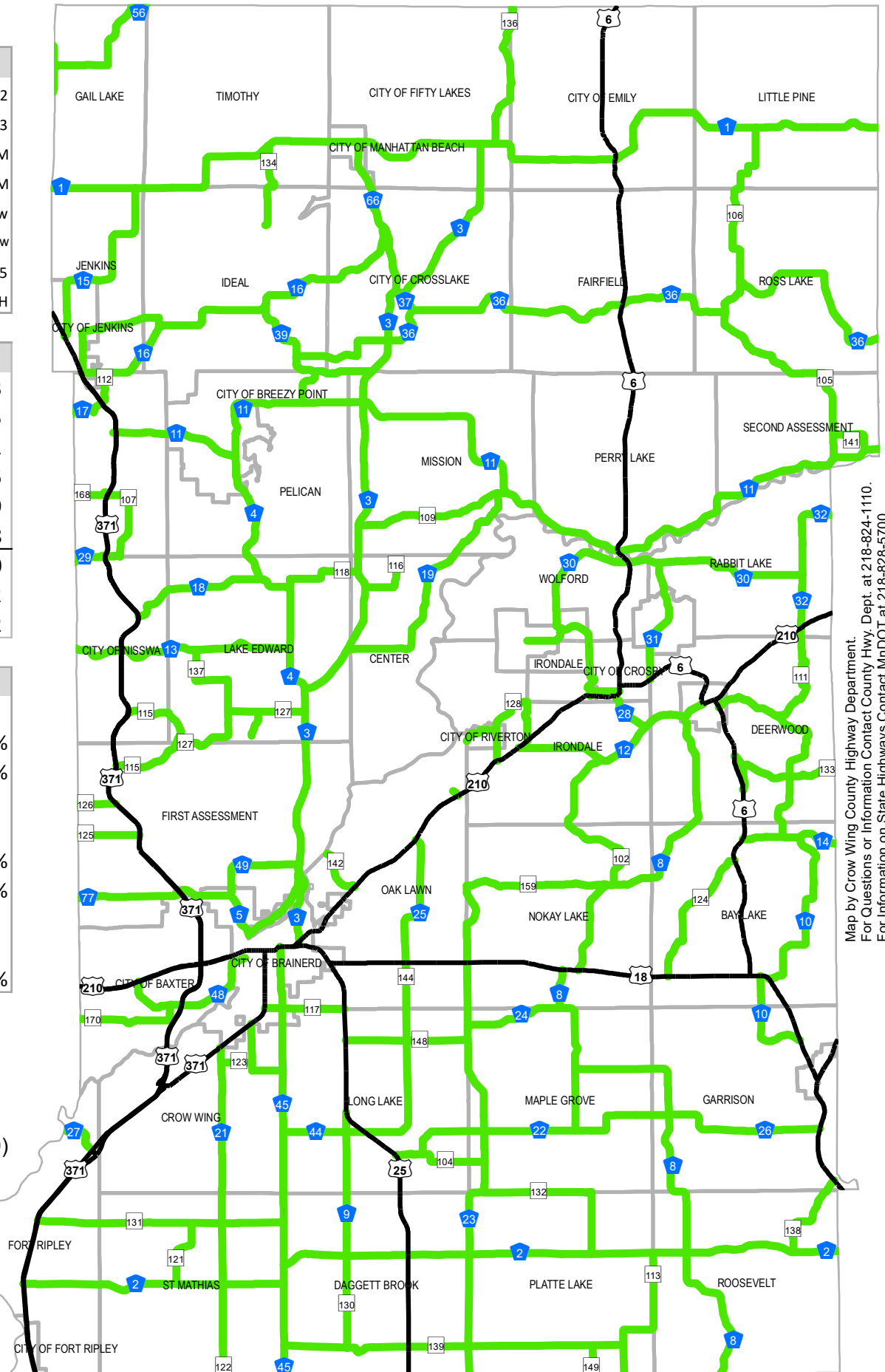
### Route Priority

- 1 (ADT>5000)
- 2 (500>ADT<5000)
- 3 (ADT<500)

### Route Target

- Target Achieved
- Target Partly Achieved
- Target Not Achieved

Report Date: 12/20/2022



Map by Crow Wing County Highway Department.  
For Questions or Information Contact County Hwy. Dept. at 218-824-1110.  
For Information on State Highways Contact MnDOT at 218-828-5700.

**2022/2023 Summary For Snow Event 14-2022-3**  
**Date 12/14-17/2022**

Salt Tons	Salt \$	Sand Tons	Sand \$	Brine gal	Brine \$	Mat. Total	Equip \$	Reg. Personnel	OT \$
752.5	\$109,113	7.5	\$255	8062	\$5,321	\$114,688	\$86,965	\$15,859.00	\$18,818

**Total**      \$236,330

53.5 Plow hrs.  
856.50 Man hrs.

\$4,415 per/hr.  
\$422 per/CL/mile  
\$8.91 per/household for entire County

## Forecast

Snow forecasted to begin falling at 3:00 pm 12/13/22. Snow will continue through 12/17/22 with 6-10" of snow forecasted. Strong 40 mph winds and warmer temperatures until 12/17. Temps will start to drop significantly Friday. Snow forecast changed on 12/14. Small lull on 12/14 after 9 a.m. but snow resumes late evening and totals increased through 12/16/22. On 12/15 forecast changed again that a majority of the snow will end 12/16 at 2 am with a chance of flurries during the afternoon.

## Pre Plan

Begin plowing at 3:00 am 12/14/22. Apply 300 lbs. of salt on centerlines to keep the snow melting and to limit compaction. Return 5:00 am 12/15/22 and plow into the evening. Apply 200 lbs. to centerlines while it is snowing and 300 lbs. to centerlines if snow stops on 12/15. Resume plowing 12/16 at 5:00 am and apply 350 lbs. on centerlines. Check roads 7:00 am 12/17, apply to compacted areas.

### Actual Event

**Event start:** 12/13/22 3:00PM

**Event ended** 12/17/22 9:00AM

### Details/Comments

Plows started at 3 am 12/14. Applied 300 lbs. on centerline. Heavy wet snow compacted. 30 mph winds. Plows kept plowing until 5 pm 12/14. Plows began plowing again at 5 am 12/15. Heavy wet snow compacted again but the salt applied 12/14 helped it peel better than on 12/14. Plows continued until 7 pm. Plows dealt with lots of trees down across roads. Plows resumed 5 am 12/16. Plows came in to check roads on 12/17 and it started to snow again so plows began plowing.

## Conditions

Rain/sleet continued initially until 8:00 pm on 12/13 before changing over to snow. About 3" at 3:00 am 12/14. Heavy snow started around 4:00 am 12/14 and continued until 9:00 am. Snow resumed at 2 am 12/15. Heavy wet snow caused trees to break and fall into the roads. Snow continued on 12/16. Snow ended at 9 am 12/17.

Road	Road Temp	Date	Time	Air Temp
Hwy 6	32	12\14\22	8:00am	31
Hwy 25	28	12\14\22	8:00am	32
Hwy 6	30	12\15\22	5:00am	31
Hwy 25	28	12\15\22	5:00am	31
Hwy 6	32	12\16\22	5:00am	28
Hwy 25	29	12\16\22	5:00am	29
Hwy 6	18	12\17\22	5:00am	14
Hwy 25	18	12\17\22	5:00am	15

Date	High	Low
12/12/2022	33	30
12/13/2022	33	30
12/14/2022	34	30
12/15/2022	33	28
12/16/2022	32	15
12/17/2022	18	-5
12/18/2022	7	-6
12/19/2022	9	-9

Source: weather.com. Monthly Weather. 56401

## Summary

Long duration event with challenging snowfall rates, consistency of snow, trees falling on the roads, timing of snowfall, compaction, and then falling temps.

### **Decisions Made**

Start times as early as possible but still allowing coverage for evening commutes, Apply salt to try to combat continued falling snow and compaction.

### **Lessons Learned**

Wet heavy snow, even if the temps are favorable, requires some salt to keep it from compacting and sticking versus not applying salt. Early plowing and salt application worked well.

### **Goals Met/Not Met**

	Plowing	Goals
Priority 1	Met	6 hr.
Priority 2	Met	8 hr.
Priority 3	Met	10 hr.

	Bare wheel paths	Goals
Priority 1	Met	18 Hr.
Priority 2	Met	48 hr.