

CROW WING COUNTY

Snow Event 15-2022-4 December 20, 2022



Reported Event Conditions

Date:	12/20/2022
Event No:	15-2022-4
Begin Time:	12/19 2PM
End Time:	12/20 2AM
Weather:	Snow
Precipitation:	2" Snow
Temperature:	9/-18
Wind:	0-5 MPH

Event Costs

Salt	\$0
Sand	\$1,207
Brine	\$296
Equipment/Fuel	\$16,418
Personnel Reg.	\$3,162
Personnel OT	\$2,460
Total	\$23,543
Cost Mile	\$42
Season Total:	\$491,945

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

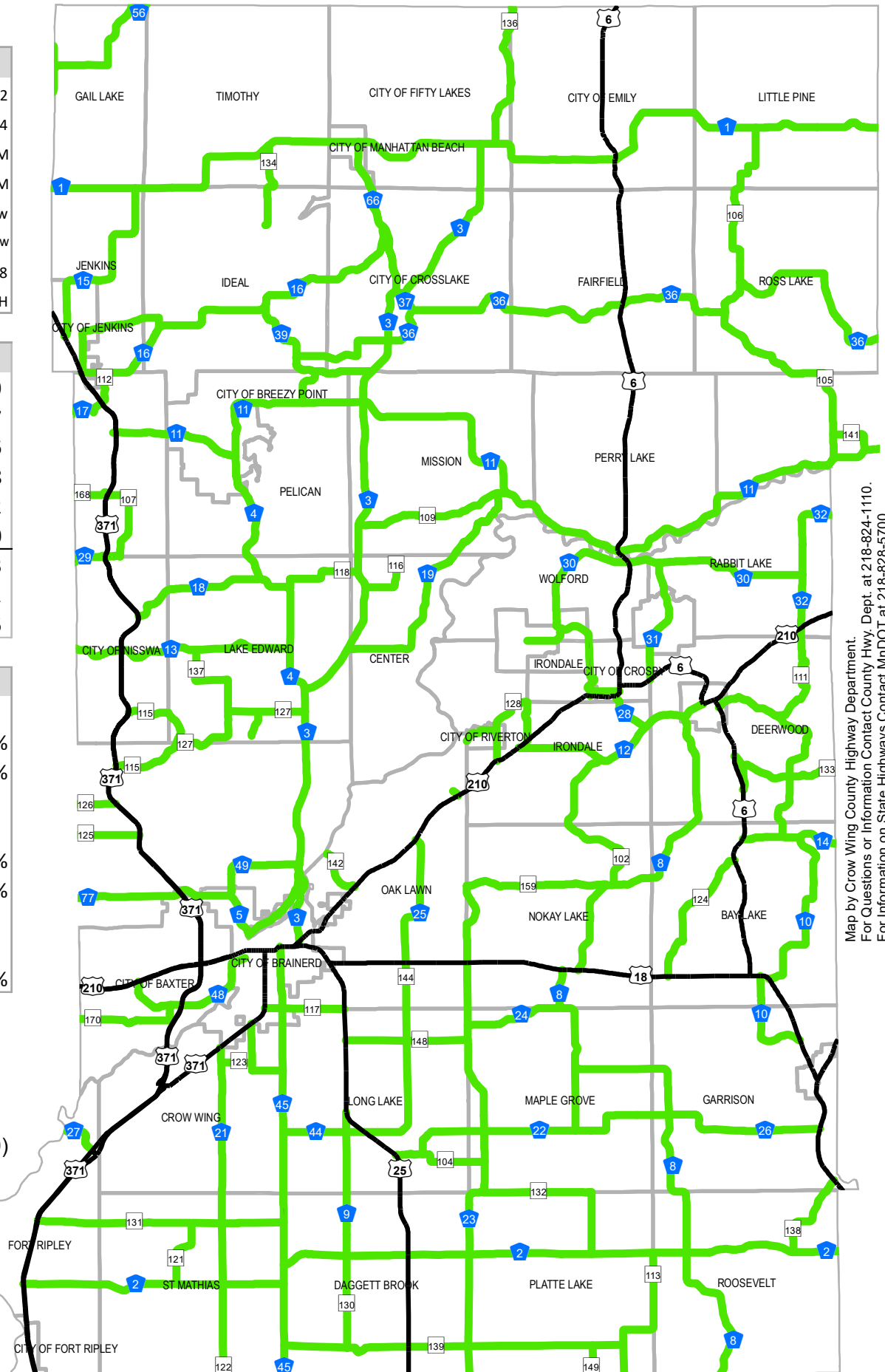
Route Priority

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

Route Target

- Target Achieved
- Target Partly Achieved
- Target Not Achieved

Report Date: 12/22/2022



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 15-2022-4
Date 12-20-22

Salt Tons	Salt \$	Sand Tons	Sand \$	Brine gal	Brine \$	Mat. Total	Equip \$	Reg. Personnel	OT \$
0	\$0	35.5	\$1,207	449	\$296	\$1,503	\$16,418	\$3,162.00	\$2,460

Total	\$23,543	9.1 Plow hrs.	\$2,580 per/hr.
		146.00 Man hrs.	\$42 per/CL/mile
			\$0.89 per/household for entire County

Forecast

2" of light, fluffy snow forecasted to begin falling on 12/19 at 1pm and continue until 2am 12/20.

Pre Plan

Check roads and begin plowing at 3 a.m. on 12/20 if ice or compaction is observed. Apply sand to compacted intersections only.

Actual Event

Event start: 12/19/22 2pm

Event ended 12/20/22 2am

Details/Comments

The snow was very dry and fluffy with the extremely cold temps. All priority 1 roads met the targets for bare wheel paths without action. Traffic was keeping the lanes open. The same for priority 2s and 3s except intersections and slow moving areas. At 11pm on 12/19 it was observed that intersections were starting to ice up from exhaust. There was also black ice forming close to the snow on centerline and shoulders. Plows were dispatched at 3 a.m. 12/20 to remove the snow ribbons and apply sand to intersections.

Conditions

Single digit temps and very little wind contributed to black ice forming close to snow ribbons on the centerlines and shoulders.

Road	Road Temp	Date	Time	Air Temp
Hwy 6	11	12/19/22	1:00pm	8
Hwy 25	12	12/19/22	1:00pm	8
Hwy 6	5	12/20/22	2:00am	1
Hwy 25	2	12/20/22	2:00am	-2

Date	High	Low
12/18/2022	7	-6
12/19/2022	9	-11
12/20/2022	-2	-18
12/21/2022	-6	-12

Source: weather.com. Monthly Weather. 56401

Summary

Removing the ribbons and snow on shoulders kept the lanes open and ice free. Sand at intersections help combat compaction and provided tracking, even as the exhaust and moisture fell at intersections. All goals achieved. Some priority 1 and 2 roads were close to not making goals because of plowing timing and when the event ended, but they were all plowed within targets.

Decisions Made

Decided to dispatch the plows at 3:00 a.m. 12/20 to removed snow on centerlines and some shoulders and apply sand to intersections.

Lessons Learned

Removing the snow eliminated black ice that had started. Extreme cold helped freeze dry the roads.

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.