

CROW WING COUNTY

Snow Event 10-2023-15 March 10-12, 2023



Reported Event Conditions

Date:	3/10-3/12/2023
Event No:	10-2023-15
Begin Time:	3/9 4PM
End Time:	3/12 5PM
Weather:	Snow
Precipitation:	12" Snow
Temperature:	36/3
Wind:	10-35 MPH

Event Costs

Salt	\$39,803
Sand	\$264
Brine	\$1,800
Equipment/Fuel	\$70,866
Personnel Reg.	\$10,276
Personnel OT	\$14,395
Total	\$137,397
Cost Mile	\$245
Season Total:	1.91M

Priority By Route

Priority 1

% Target 1A Met:	100%
% Target 1B Met:	95%

Priority 2

% Target 2A Met:	100%
% Target 2B Met:	94%

Priority 3

% Target 3A Met:	100%
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— MnDOT Highway

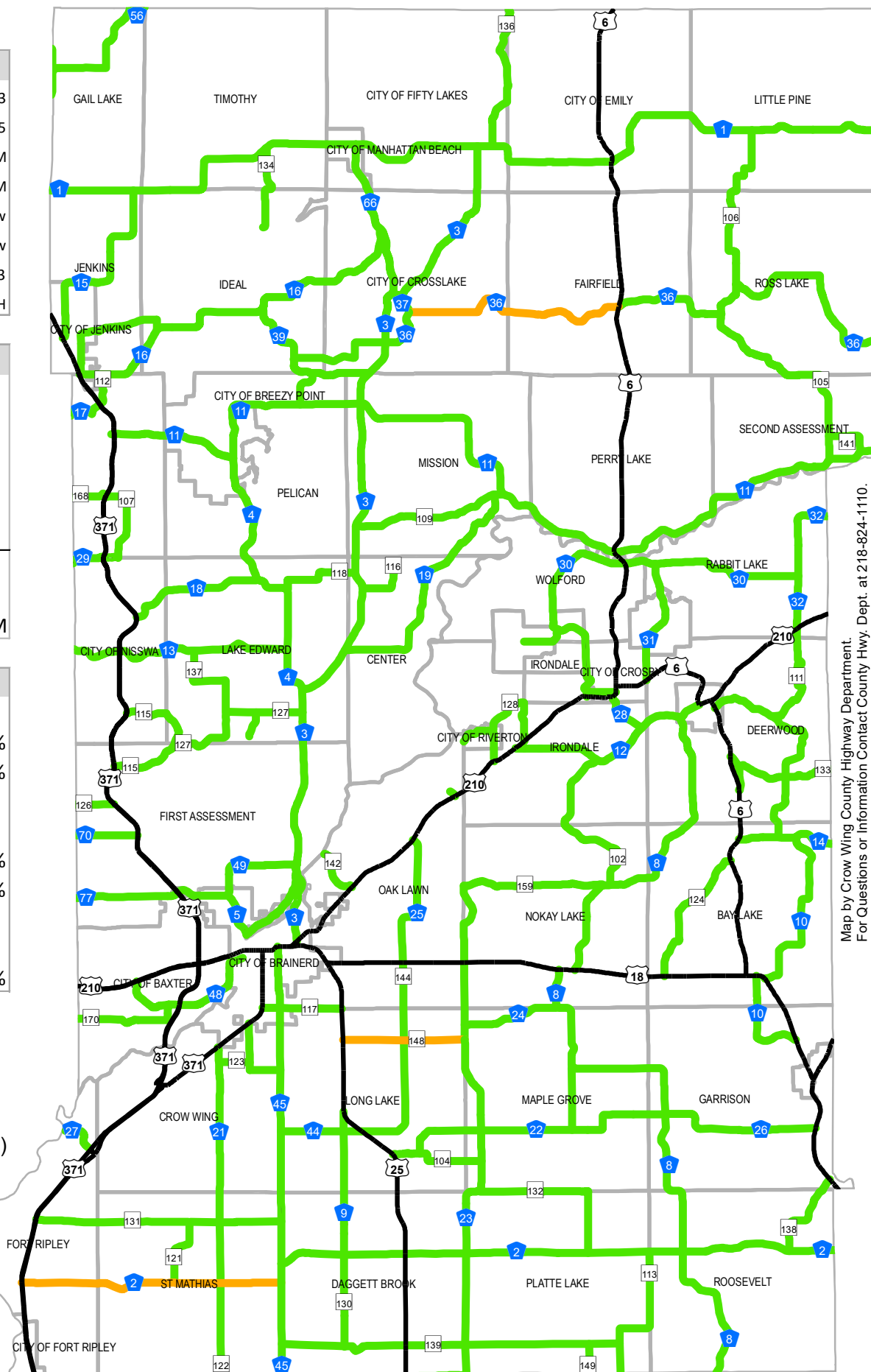
Route Priority

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

Route Target

- Target Achieved
- Target Partly Achieved
- Target Not Achieved

Report Date: 3/15/2023



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 10-2023-15

Date 3/10-3/12

Salt Tons	Salt \$	Sand Tons	Sand \$	Brine gal	Brine \$	Mat. Total	Equip \$	Reg. Personnel	OT \$
274.5	\$39,803	7.75	\$264	2728	\$1,800	\$41,866	\$70,860	\$10,276.00	\$14,395

Total \$137,397

30.6 Plow hrs.

\$4,486 per/hr.

490 Man hrs.

\$245 per/CL/mile

\$5.18 per/household for entire County

Forecast

8-12" of snow forecasted to fall starting at 5:00 pm on 3-9 and continue until 5:00 pm 3-12, with 10-35 mph winds

Pre Plan

Start plowing early 3-10 & apply 300 lbs. of material on centerlines. Keep plowing until roads start melting. Start plowing at 7:00 am on 3-11 & apply no material due to dry snow & wind. Keep plowing until 8:00 pm. Start plowing at 6:00 am on 3-12 & apply 300 lbs. of material to centerlines. Keep plowing until 7:00 pm. Start plowing at 7:00 am on 3-13 to address any drifting or compaction areas that didn't burn off on 3-12.

Actual Event

Event start: 3/9/23 4:00PM

Event ended 3/12/23 5PM

Details/Comments

3/9/23 started snowing at 4:00 pm. It stopped briefly on 3/10 before starting up again 3/11 at 7:00 am and continuing until 5:00 pm 3/12/23. Plows began at 4:30 am 3/10 and plowed until 1:00 pm, applying 300 lbs. of salt to centerlines. Resumed plowing at 12:00 pm 3/11/23 and continued until 8:00 pm, no material applied. Resumed plowing at 6:00 am 3/12/23 and continued until 6:00 pm, applied 300 lbs. of salt because compaction was starting. Widespread drifting and compaction is shaded areas. Plows resumed at 7:00 am 3/13, applying 300 lbs. of salt where needed. Most roads met goals. Only isolated areas of drifting did not allow for 100% achievement of our goals. 10"-16" of snow fell.

Conditions

Periods of heavy snow. Upper 20s/low 30s. 10"-16" of snow fell. 10-35 mph winds.

Road	Road Temp	Date	Time	Air Temp
HWY 6	24	3\10\23	5:00AM	21
HWY 25	24	3\10\23	5:00AM	23
HWY 6	26	3\11\23	12:00PM	27
HWY 25	24	3\11\23	12:00PM	21
HWY 6	22	3\12\23	6:00AM	25
HWY 25	25	3\12\23	6:00AM	24

Date	High	Low
3/8/2023	33	28
3/9/2023	36	22
3/10/2023	31	20
3/11/2023	27	25
3/12/2023	29	3
3/13/2023	28	4

Source: weather.com. Monthly Weather. 56401

Summary

The long duration snowfall created challenges with keeping up. As soon as the roads were plowed, they were covered a short time later. Compaction set in late on 3/12 as the salt started to melt it loose, colder temps caused refreezing. Strong winds continued to cause blowing snow and drifting into Wednesday. Two priority 2 roads did not pass because of the continued falling snow and drifting.

Decisions Made

Numerous decisions on start times and application of material.

Lessons Learned

It is difficult to keep the road open and from compacting during these long duration snowfalls. The snowplow operators did well trying to stay ahead and the power of the sun helped us reach our goals.

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	95%	18 Hr.
Priority 2	94%	48 hr.