

CROW WING COUNTY

February 4, 2021 Snow Event #3 - 2021 - 14



Reported Event Conditions

Date: 2/4/2021
Event No: #3-2021-14
Begin Time: 2-4-21 12AM
End Time: 2-4-21 6AM
Weather: Snow
Precipitation: 1"
Temperature: 22\3
Wind: 10-25 MPH

Event Costs

Salt	\$10,920
Sand	\$19
Brine	\$3,096
Equipment/Fuel	\$12,595
Personnel Reg.	\$4,622
Personnel OT	\$1,464
Total	\$32,282
Cost Mile	\$58
Season Total:	\$537,135

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%

— MnDOT Highway

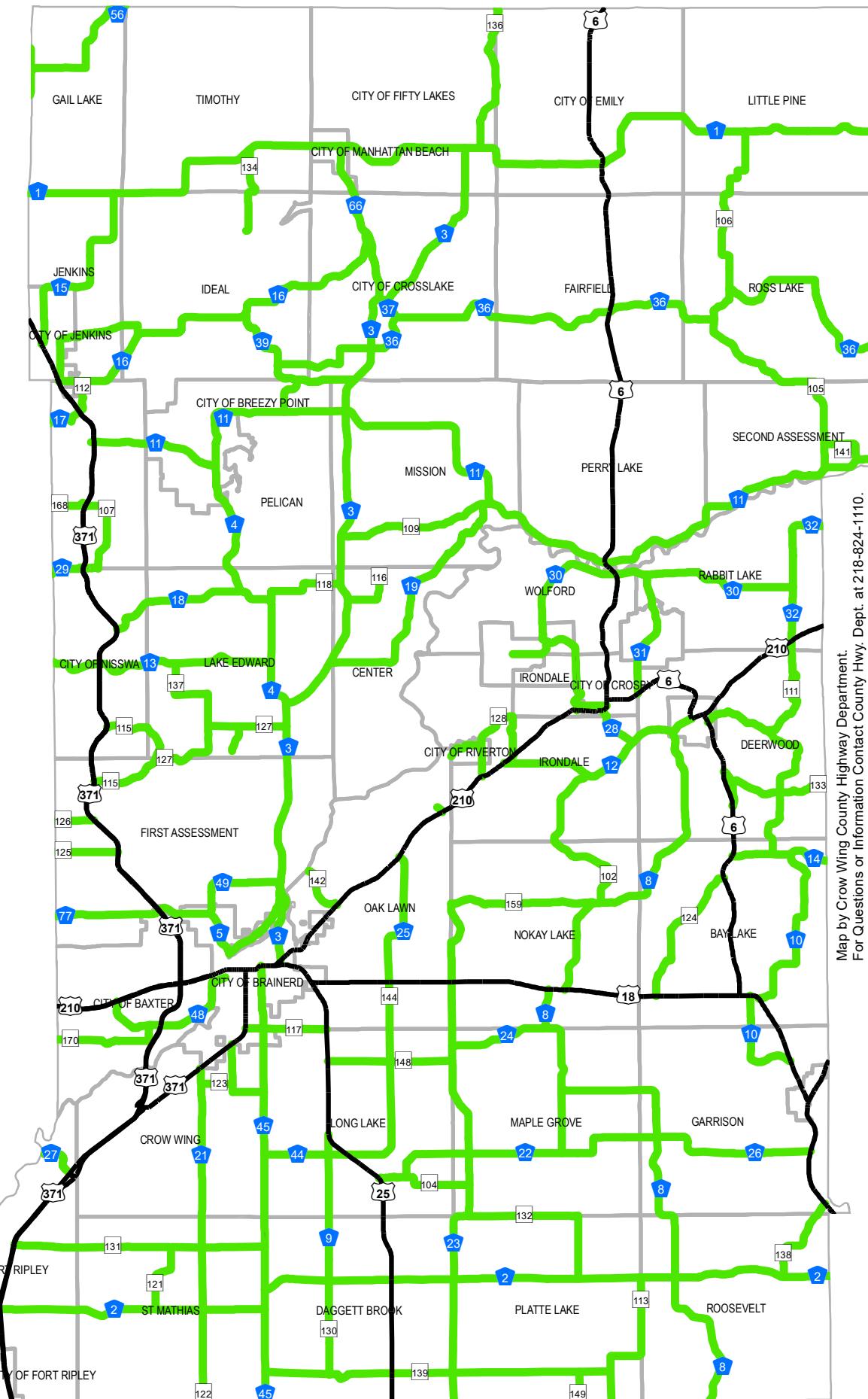
Route Priority

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

Route Target

- Target Achieved
- Target Partly Achieved
- Target Not Achieved

Report Date: 2/8/2021



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.

2020/2021 Summary For Snow Event #3 - 2021 - 14

Date 2-4-21

Salt Tons	Salt \$	Sand Tons	Sand \$	Brine gal	Brine \$	Mat. Total	Equip \$	Reg. Personnel	OT \$
120	\$10,920	18.75	\$638	3096	\$2,043	\$13,601	\$12,595	\$4,622.00	\$1,464

Total \$32,282

9.8 Plow hrs.

\$3,283 per/hr.

177.00 Man hrs.

\$58 per/CL/mile

\$1.22 per/household for entire County

Forecast

Rain starting at 10:00 PM 2-3-21, changing over to snow at 2:00 AM 2-4-21. Temps around 32 and falling into the morning and throughout the day to below zero.

Pre Plan

Anti-ice major intersections on 2-3 to hopefully prevent ice bonding. Check roads in the early a.m. to see if rain started to freeze. Apply 300 lbs of salt to ensure full melting before temp drop below zero.

Actual Event

Event start: 2-4-21 12:00AM

Event ended 2-4-21 6:00AM

Comments

Trace rain fell overnight and began to freeze around 2:00 a.m. 2-4. Trucks were called out at 2:30 a.m. to start checking roads.

Conditions

Temperatures began falling early on 2-4 with a 10 mph NW wind. Some roads began to refreeze at day break and we encountered widespread patches of black ice.

Road	Road Temp	Date	Time	Air Temp
HWY 6	26	2/4/2021	3:00AM	26
HWY 25	28	2/4/2021	3:00AM	27

Date	High	Low
2/3/2021	30	23
2/4/2021	22	3
2/5/2021	9	-9
2/6/2021	-6	-16

Source: weather.com. Monthly Weather. 56401

Summary

Roads froze with the light rain but started to melt quickly with salt application at 300 lbs. Widespread refreezing around 7:00 AM 2-4-21 and trucks reran some roads and applied 150 lbs. of salt to drive lanes to help mitigate the refreezing, particularly in the passenger wheel paths. All roads had bare wheel paths by 9:00 AM, 2-4-21.

Decisions Made

Begin plowing at 2:30 AM. Apply 300 lbs. Recheck and apply 150 lbs. to fdrivelanes where needed due to refreeze.

Lessons Learned

Quickly dropping temps and morning rise in humidity caused widespread intermittent refreezing in areas of the county. The 10 mph wind did not affect operations other than swift temperature drop. 300 lbs of treated salt application worked well but there wasn't enough liquid to keep it melting across the entire lane with the quickly falling temps.

Goals Met/Not Met

Plowing

Goals

Bare wheel paths

Goals

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

Priority 1 Met 18 Hr.
Priority 2 Met 48 hr.