

CROW WING COUNTY

December 5, 2021 Snow Event #11 - 2021 - #4



Reported Event Conditions	
Date:	12/5/2021
Event No:	#11-2021-#4
Begin Time:	12-4-21 3 AM
End Time:	12-6-21 3 AM
Weather:	Snow/Rain
Precipitation:	6"
Temperature:	30°0
Wind:	10-40 MPH

Event Costs	
Salt	\$35,490
Sand	\$0
Brine	\$3,054
Equipment/Fuel	\$37,925
Personnel Reg.	\$11,127
Personnel OT	\$6,203
Total	\$93,799
Cost Mile	\$167
Season Total:	\$166,793

Priority By Route	
Priority 1	
% Target 1A Met:	100%
% Target 1B Met:	100%
Priority 2	
% Target 2A Met:	100%
% Target 2B Met:	85%
Priority 3	
% Target 3A Met:	100%

Legend

— MnDOT Highway

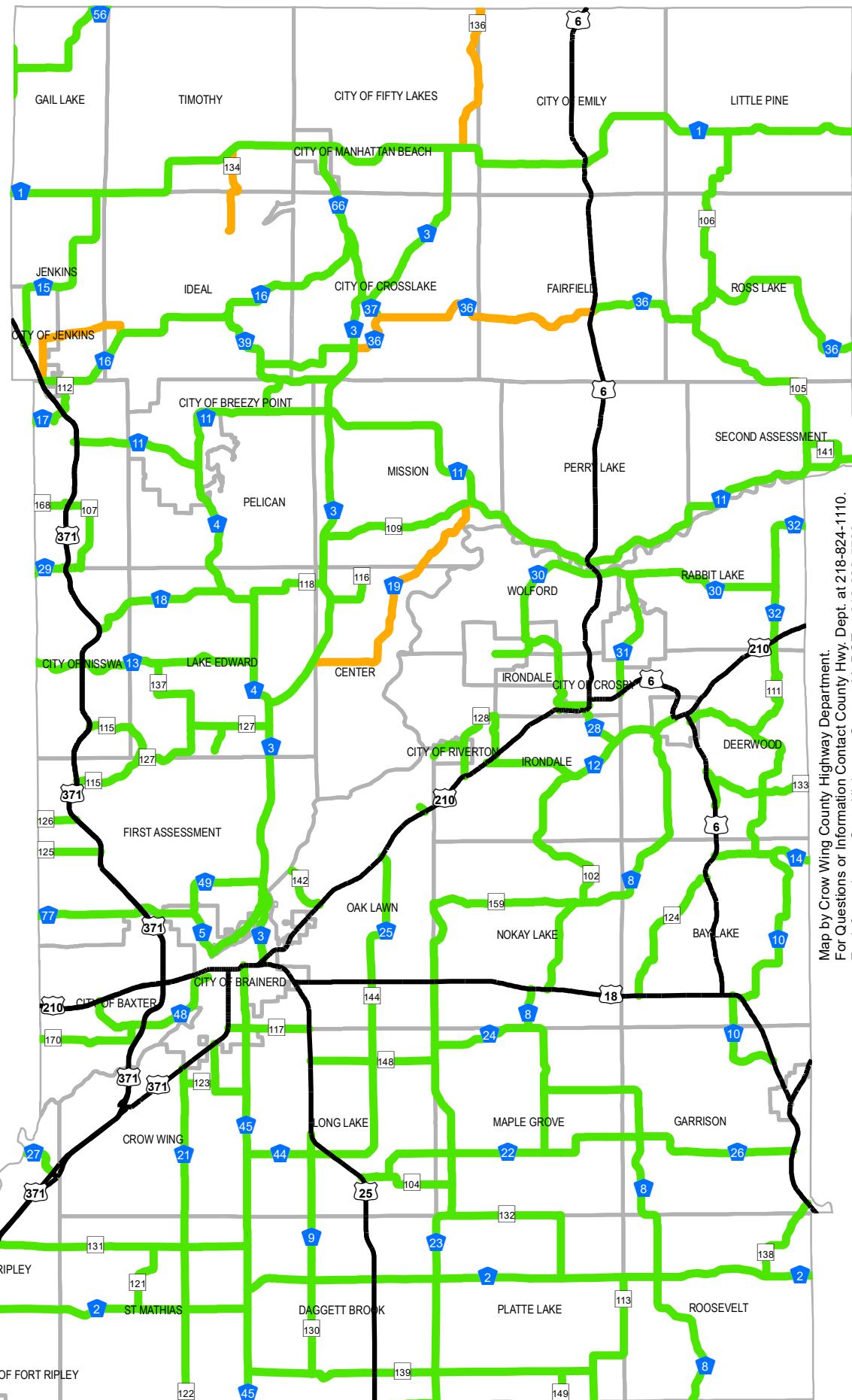
Route Priority

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

Route Target

- Target Achieved
- Target Partly Achieved
- Target Not Achieved

Report Date: 12/13/2021



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 #11 - 2021 - #4

Date 12-5-21

Salt Tons	Salt \$	Sand Tons	Sand \$	Brine gal	Brine \$	Mat. Total	Equip \$	Reg. Personnel	OT \$
390	\$35,490	0	\$0	4627	\$3,054	\$38,544	\$37,925	\$11,127.00	\$6,203

Total \$93,799 30 Plow hrs. \$3,123 per/hr.
 480.50 Man hrs. \$167 per/CL/mile
 \$3.54 per/household for entire County

Forecast

Snow forecasted to start falling 8:00 p.m. 12-4-21 and continue until the morning of 12-5-21, with lingering flurries. Strong winds 20-30 mph out of the SE and then switching out of the NE with gusts up to 40 mph. 3-6" of snow forecasted. More to the north than the south. Temps dropping to the single digits and below zero on 12-6.

Pre Plan

Begin plowing at 5:00 a.m. 12-5-21. Apply 350 lbs. of salt on centerline allow any remaining snowfall to melt. Priority goal 1A was to plow the snow off and get the roads open and priority goal 1B was to get the roads melted before the temps dropped to low for salt to work effectively, without the salt catching blowing snow, causing compaction. If we cannot keep up with the snow, we will end the day by 6:00 p.m. 12-5 and come back very early in the morning 12-6. On 12-6 start at 3 a.m. and apply 400 lbs. of treated salt to centerlines where the wind was not blowing.

Actual Event

Event start: 12-4-21 3PM Event ended 12-6-21 3AM

Comments

Strong winds had us change our original plan to plowing and only applying salt to intersections and curves so the blowing snow didn't stick to salted areas and cause ice or compaction. Around 7:00 12-5 we decided to apply salt to all areas not susceptible to wind because the wind died down to 10 mph.

Conditions

6" of snow at 5:00 a.m. 12-5. Strong blowing winds. Temps dropping fast on 12-6.

Road	Road Temp	Date	Time	Air Temp
HWY 6	26	12\5\21	7:30AM	25
HWY 25	26	12\5\21	7:30AM	25
Co Rd 3	17	12\6\21	3:30AM	6
HWY 6	10	12\6\21	5:30AM	6
HWY 25	12	12\6\21	5:30AM	7

Date	High	Low
12/3/2021	38	24
12/4/2021	30	24
12/5/2021	29	0
12/6/2021	3	-6
12/7/2021	17	3
12/8/2021	20	15

Source: weather.com. Monthly Weather. 56401

Summary

Roads scraped down well but left a thin layer of ice after initial plowing on Sunday. The salt applied melted the ice and targets met on all roads. Continued falling snow along with blowing snow Sunday afternoon and evening caused us to loose our targets late Sunday afternoon. The salt applied 12-5 seemed to help loosen up the snow on 12-6. Reapplication on 12-6 with treated salt quickly got roads to start melting again. We sent trucks out to rescrape and apply material on 12-7 and 12-8. Temps started to warm up 12-8, helping the salt work better. Roads 19, 136, 134, 145 & 36 met wheel path targets and passed on 12-8.

Decisions Made

Start plowing at 5:00 a.m. 12-5-21. Change from salt only at intersections to salt on all centerlines where the wind isn't blowing 12/5. On 12-6 start plowing at 3:00 a.m. and apply 400 of treated salt to centerlines where the wind was not blowing.

Lessons Learned

Early snowplowing with warmer temps on 12-5 helped the roads melt to achieve our goals. The wind helped to blow the roads clean in some areas. Treated salt worked well on 12-6 where we could apply.

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	Not Met	48 hr. 19, 136, 134, 145 & 36 until 12-8-21