

# CROW WING COUNTY

## November 11, 2020 Snow Event #9 - 2020 - 3

Reported Event Conditions	
Date:	11/11/2020
Event No:	#9-2020-3
Begin Time:	11/10/20 6PM
End Time:	11/11/20 12AM
Weather:	Snow
Precipitation:	6"
Temperature:	30/16
Wind:	5-10 MPH

Event Costs	
Salt	\$15,243
Sand	\$0
Brine	\$2,062
Equipment/Fuel	\$23,813
Personnel Reg.	\$8,327
Personnel OT	\$2,581
<b>Total</b>	<b>\$52,025</b>
Cost Mile	\$93
Season Total:	\$105,414

Priority By Route	
<b>Priority 1</b>	
% Target 1A Met:	92%
% Target 1B Met:	67%
<b>Priority 2</b>	
% Target 2A Met:	80%
% Target 2B Met:	78%
<b>Priority 3</b>	
% Target 3A Met:	100%

— MnDOT Highway

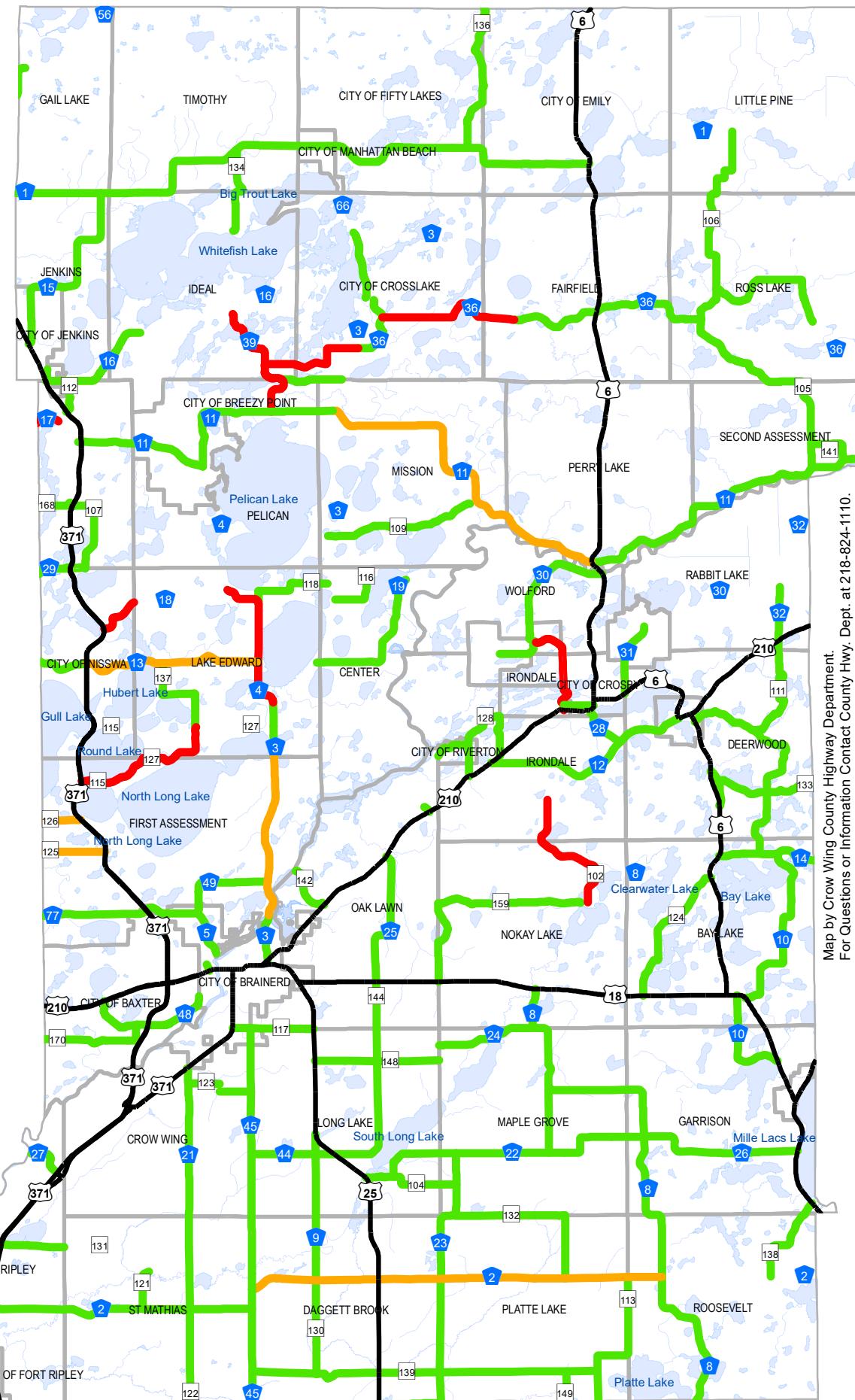
### Route Priority

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

### Route Target

- Target Achieved
- Target Partly Achieved
- Target Not Achieved

Report Date: 11/16/2020



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 #9 2020 #3

Date 11-11-20

Salt Tons	Salt \$	Sand Tons	Sand \$	Brine gal	Brine \$	Mat. Total	Equip \$	Reg. Personnel	OT \$
167.5	\$15,243	0	\$0	3124	\$2,062	\$17,304	\$23,813	\$8,327.00	\$2,581

**Total** \$52,025

320 Man Hours  
21 Plow Hours

\$163 per/hr.  
\$93 per/CL/mile  
\$1.96 per/household for entire County

### Forecast

6" of snow was forecasted to fall from 4 PM 11-11 to midnight 11-11.

### Pre Plan

The plan was to begin plowing at midnight 11-11 and apply 200 pounds of salt because the road temps would be in the low 30s.

### Actual Event

Event start: 11-10-20 6PM

Event ended 11-11-20 12AM

### Comments

The snow was wet and heavy. It snowed hard from 6 PM to midnight 11-10. The ground was warm that caused the snow to have a capped layer of slush.

### Conditions

Temps remained around freezing as the snow started to fall and continued to decline throughout the night.

Road	Road Temp	Date	Time	Air Temp
CR 3	30	11\12\20	2:00 AM	28

Date	High	Low
11/10/2020	30	22
11/11/2012	32	16
11/12/2020	29	18
11/13/2020	33	8

Source: weather.com. Monthly Weather. 56401

### Summary

The layer of slush froze once it was driven on and plowed off, creating many stubborn areas of ice and compacted snow. The warm pavement quickly froze after initial plowing, bonding the slush to the road. We were impacted by three drivers who were unable to report for duty. This slowed plowing all of the roads under our goal times and lead to more compaction in some areas.

### Decisions Made

Applying 200 lbs. of salt worked on roads with low traffic volumes initially. On roads with higher traffic volumes, we had to use more salt to try and loosen the compaction. Motor graders were dispatched and worked 11-11 thru 11-13 to cut and scrape the compacted snow and ice. Typically we can use less salt as the sun comes up but in this case we had to increase our salt usage due to falling temperatures after day break.

### Lessons Learned

We should have used more salt initially to break the compaction's bond to the road. The salt was working initially but as the temps dropped, the salt slowed and the compacted snow remained bonded to the road.

### Goals Met/Not Met

	Plowing	Goals
Priority 1	92%	6 hr.
Priority 2	80%	8 hr.
Priority 3	100%	10 hr.

	Bare wheel paths	Goals
Priority 1	67%	18 Hr.
Priority 2	78%	48 hr.