

CROW WING COUNTY

March 5, 2018 Snow Event #17 2018-7



Reported Event Conditions

| | |
|----------------|----------------|
| Date: | 3/5/2018 |
| Event No: | #17 2018-7 |
| Begin Time: | 3/5/18 12:00AM |
| End Time: | 3/6/18 6:30AM |
| Weather: | Snow |
| Precipitation: | 8" - 12" Snow |
| Temperature: | 38 - 5 |
| Wind: | 15-45 MPH |

Event Costs

| | |
|----------------|-----------------|
| Salt | \$17,507 |
| Sand | \$17 |
| Brine | \$2,195 |
| Equipment/Fuel | \$40,938 |
| Personnel Reg. | \$15,898 |
| Personnel OT | \$4,997 |
| Total | \$81,552 |
| Cost Mile | \$146 |
| Season Total: | \$706,477 |

Priority By Route

Priority 1

| | |
|------------------|------|
| % Target 1A Met: | 100% |
| % Target 1B Met: | 90% |

Priority 2

| | |
|------------------|------|
| % Target 2A Met: | 100% |
| % Target 2B Met: | 100% |

Priority 3

| | |
|------------------|------|
| % Target 3A Met: | 100% |
|------------------|------|

Legend

MnDOT Highway

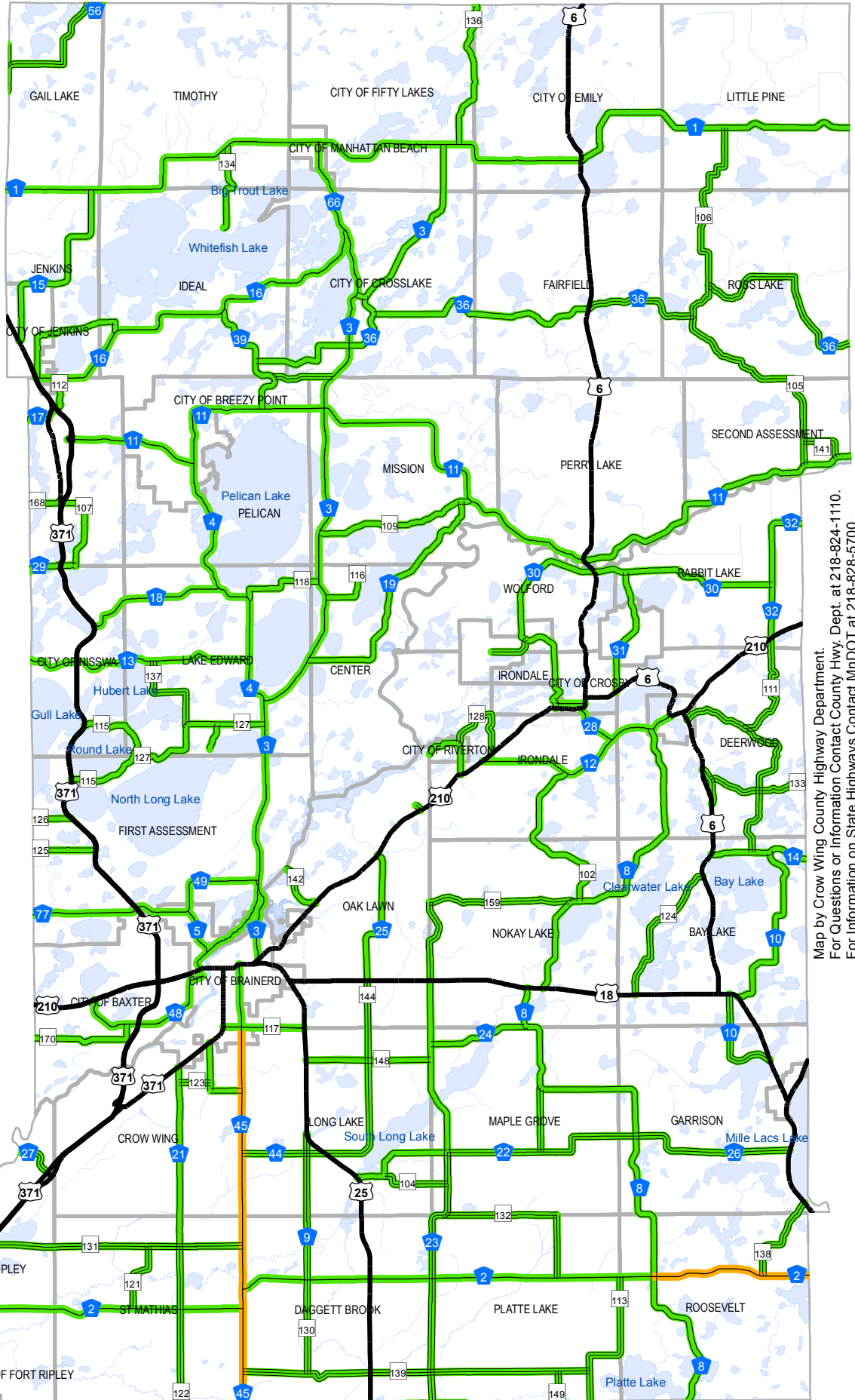
Route Priority

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

Route Target

- Target Achieved
- Target Partly Achieved
- Target Not Achieved

Report Date: 3/8/2018



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.

2017/2018 Summary For Snow #17 2018-7

Date 3-5-18

| Salt Tons | Salt \$ | Sand Tons | Sand \$ | Brine gal | Brine \$ | Mat. Total | Equip \$ | Reg. Personnel | OT \$ |
|-----------|----------|-----------|---------|-----------|----------|------------|----------|----------------|---------|
| 287 | \$17,507 | 0.5 | \$17 | 3325 | \$2,195 | \$19,719 | \$40,938 | \$15,898.00 | \$4,997 |

Total \$81,552

Total \$81,552 32 hrs = \$2,548 per/hr 613 man hours
\$146 per/CL/Mile

Forecast

Rain expected to start at 11:00 P.M. 3-3-18
 Snow expected to start at 9:00 P.M. 3-4-18
 1" of rain and 9"-12" of snow forecasted
 10-40 MPH winds expected
 heavy snowfall amounts of .5"-.8" per hour expected during the day on 3-5-18.
 Snow forecasted to end at 10:00 A.M. 3-6-18

Pre Plan

Begin plowing at 7:00 A.M. 3-5-18 and apply 300 lbs at intersections.
 Snowplows will concentrate on drive lanes and keeping the roads open.
 Snowplows will keep plowing into the evening, around 7:00 P.M.
 Begin plowing again at 4:00 A.M. 3-6-18.

Comments

Snow fell more on the west side of the county. 2"-6" throughout the County at 7:00 A.M. 3-5-18.
 Event started at 12:00 A.M. 3-5-18.
 Event ended at 6:30 A.M. 3-6-18
 The wind continued throughout 3-6-17 causing drifting and snow to stick to the road and compact.
 Compaction was tough to remove. The salt didn't start working until noon on 3-6-18.
 Second wave started about 3:30 pm 3-5.

Conditions

Snow and wind out of the east southeast.
 Wind was strong 3-5 & 3-6 15-45 mpg
 Blowing snow stuck to the road.

| Road | RDTemp | Date/Time | | Air Temp |
|--------|--------|-----------|----------|----------|
| Hwy 25 | 30 | 3\5\18 | 8:00 AM | 31 |
| Hwy 6 | 30 | 3\5\18 | 8:00 AM | 31 |
| Hwy 25 | 26 | 3\6\18 | 2:00 AM | 26 |
| Hwy 6 | 29 | 3\6\18 | 2:00 AM | 26 |
| Hwy 25 | 41 | 3\7\18 | 10:00 AM | 18 |
| Hwy 6 | 36 | 3\7\18 | 10:00 AM | 18 |

| Date | High | Low |
|----------|------|-----|
| 3/4/2018 | 38 | 35 |
| 3/5/2018 | 38 | 27 |
| 3/6/2018 | 33 | 6 |
| 3/7/2018 | 27 | 5 |
| | | |
| | | |

Summery

We were challenged to keep up with the snow because of the duration of the event, amount, timing and type of snow.
 The roads cleaned up well on 3-5 before the second wave of snow. All roads were black and wet. When the second wave hit the intensity of the snowfall (over 1" per hour) and the wind >45 mph gusts aided in the snow sticking and compacting to the roads. 3-6 we had trouble getting the compaction off.
 On 3-5 where we applied salt, the snow was catching, sticking and compacting. However, these areas

prevented bonding of the compacted snow to the roadway on 3-6.

Decisions Made

Start initial plowing at 7:00 A.M. 3-5-18 and apply 300 lbs at intersections.

End plowing between 7-8 pm 3-5.

Begin plowing again at 3 am 3-6, apply 400 lbs on centerlines.

Lessons Learned

We should have applied salt on centerline on 3-5 to reduce compaction. We realized this on 3-6.

On 3-5 we saw the salt we applied catching and creating compaction but overnight it softened and plowed off the roadway easier.

Goals Met/Not Met

Plowing

Priority 1 Met

Priority 2 Met

Priority 3 Met

Bare wheel paths

Priority 1 Not Met

Priority 2 Met