



DuPage River Salt Creek Workgroup

Chloride Education and Reduction Program Update

June 26, 2019

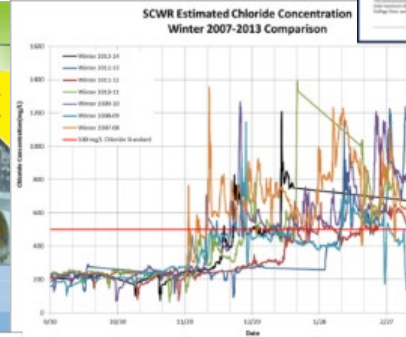
Dan Bounds, P.E.



SAVE THE DATE
2014 Public Agency Deicing Workshop

Investment Matters **2014 Public Agency Deicing Workshop**

Less Salt, Less Money, Enough Said.



BAXTER & WOODMAN
 Consulting Engineers

2018 Implementation Survey

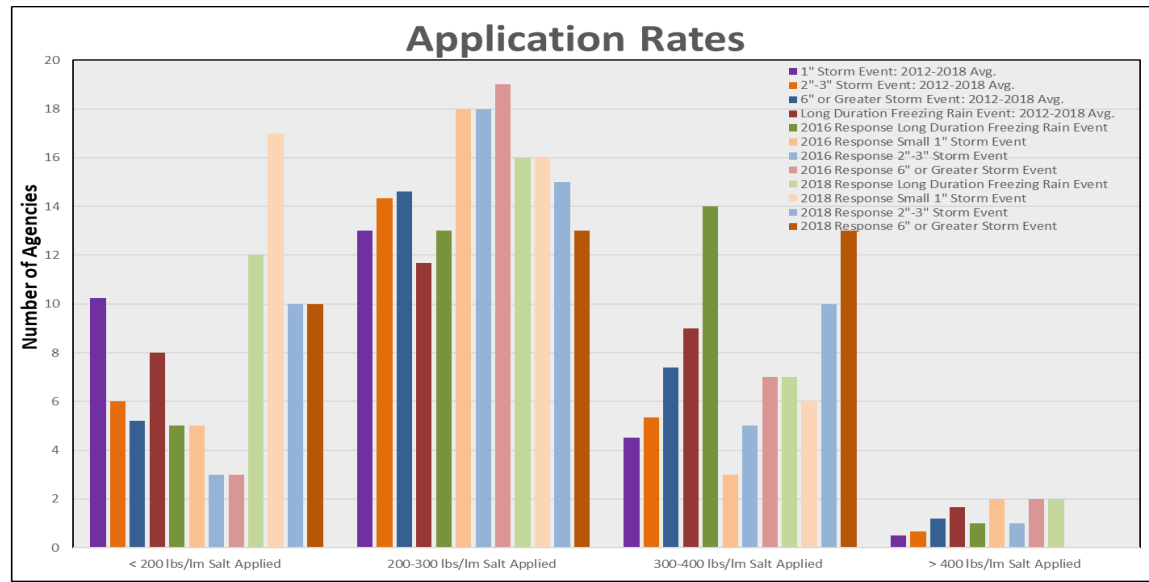


- Updated survey was distributed in 2018
- 39 responses received (down from 43 in 2016)
 - Nearly 80 surveys sent out
- Survey response data has been analyzed
- Draft summary report has been reviewed by Chloride Committee

2018 Implementation Survey



- The majority of agencies indicated an average salt application rate of 200-300 pounds per lane mile (lbs/lm)
- Responses indicate more agencies are applying less salt per lane mile than in previous years for smaller winter storm events, more salt per lane mile for largest of events



2018 Implementation Survey

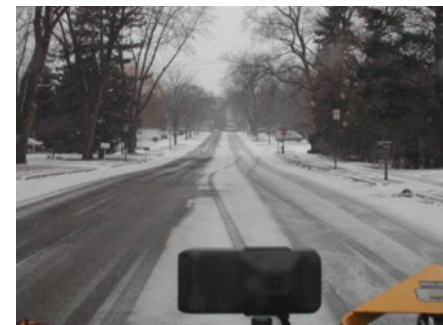


- 27 respondents make use of pavement temperature for winter event deicing response
 - Slight increase from the previous survey
- 33 agencies indicated calibrating their de-icing equipment
 - Increase of agencies performing calibration
 - Most agencies providing calibration annually
 - 3 agencies calibrating at least 2 times per season
 - 3 agencies calibrating every 2 years
 - 6 agencies calibrating after major maintenance or repairs
 - In addition to annually

2018 Implementation Survey



- 30 agencies reported using pre-wetting practices
 - 5 to 100% of total salt used
 - Majority pre-wetting 90 to 100% of salt
- 21 agencies reported implementing anti-icing practices
 - Benefits:
 - Lowered salt usage, safer roadways, easier plowing, reduced staff time plowing, reduce call-ins for minor snow events
 - Barriers to anti-icing were reported as:
 - Lack of equipment / cost of equipment, lack of personnel, political pressures, size of community (small budget), type of roads (low speed /volume residential)



2018 Implementation Survey



- Anti-icing practices implementation
 - 2007 - 14 agencies
 - 2010 - 20 agencies
 - 2012 - 20 agencies
 - 2014 - 13 agencies
 - 2016 - 26 agencies
 - 2018 - 21 agencies



2018 Implementation Survey



- Eight responders indicated they have salt storage areas which are not fully enclosed or on an impervious pad
 - 12 areas total



2018 Implementation Survey



- 29 agencies reported having set guidelines for equipment speed to reduce bounce and scatter
- 25 agencies indicated that operators are trained annually
 - Or more often



2018 Implementation Survey



- 27 agencies use an advanced weather forecasting service
 - Similar to previous survey
- 27 respondents make use of pavement temperature sensing
 - Slight increase from the previous survey
- Several communities within the program area still not making use of these practices



2018 Implementation Survey



- 7 responders indicate contractors are utilized
 - Most for clearing cul-de-sacs
 - 1 uses a contractor to clear 20% of the road system



2018 Implementation Survey



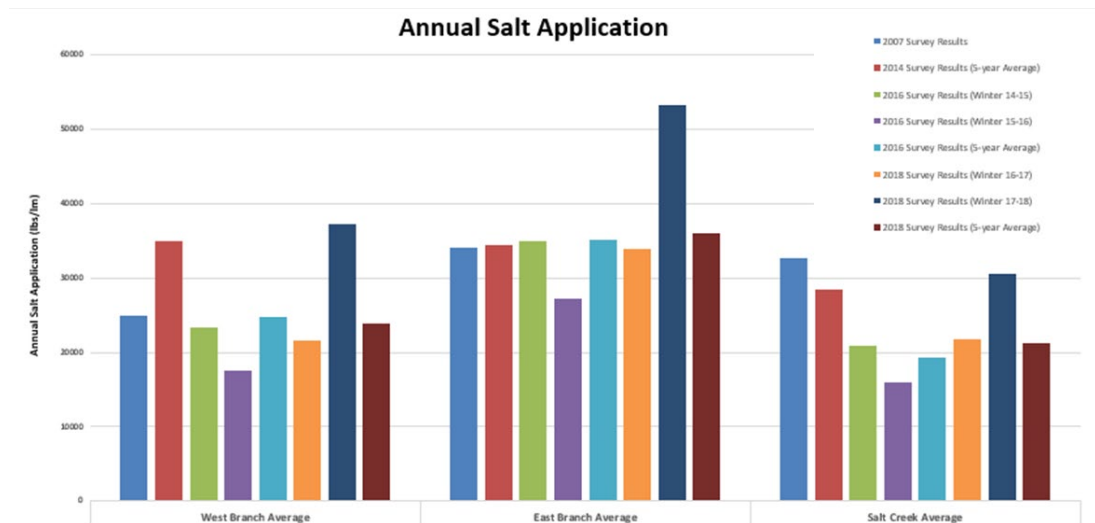
- 18 agencies reported changes to deicing program due to local deicing program workshops
 - Agencies are hearing about alternative ways to implement deicing practices at the workshops
 - Testing new practices that could reduce overall salt usage



2018 Implementation Survey



- Consistent responses from each community are essential for data consistency and long term trending
 - 2012: 34 responses
 - 2014: 27 responses
 - 2016: 43 responses
 - 2018: 39 responses



2018 Next Steps



- Sufficient information to develop an area-specific salt application rate guidance table
- Document the past 12 years of chloride water quality data, reductions in community application rates, and deicing program improvements
- 2020 survey

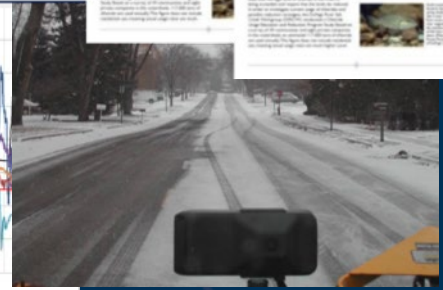
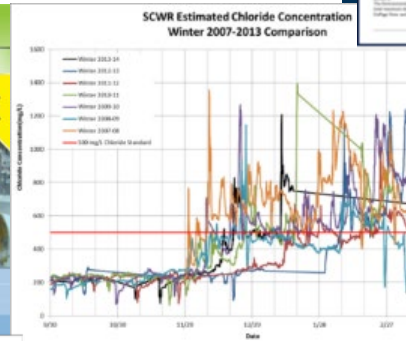


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