

# Clean Water Summit 2013

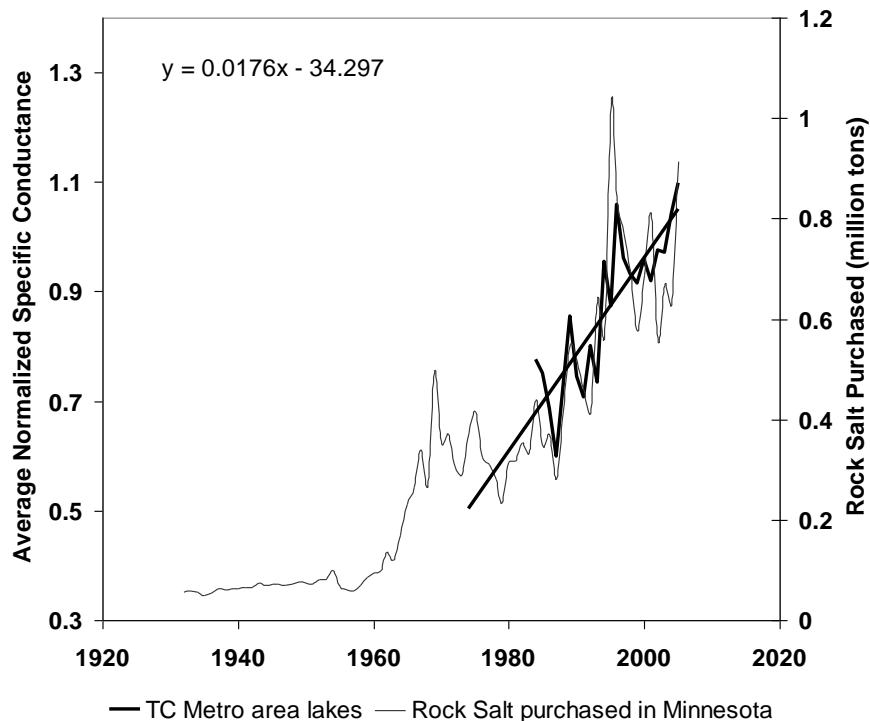
## Municipal Chloride Reduction Programs: Public Works Working to Reduce Salt use

Connie Fortin – Fortin Consulting



# Complicated Problem

- Too much salt entering our lakes, rivers, and ground water
- Salt use is associated with winter driving safety

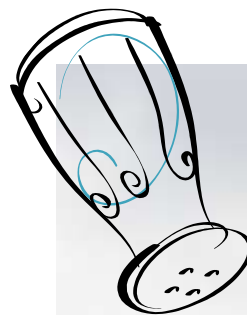


SAFL project  
report #505

## MPCA 2013 report: Salt in our Groundwater?

30% of wells tested in twin cities metro area had concentrations of chloride higher than the water-quality standard

Primary source is road salt



An MPCA Report on *The Condition of Minnesota's Groundwater, 2007-2011*  
(<http://www.pca.state.mn.us/0agx947>)

One teaspoon of salt contaminates 5 gallons of water.

How much salt do we apply each year?



About 350,000 tons per year in the metro area



# Should we regulate or should we work with the industry?

**Shame on us if we don't try to work with the industry first**

- This is not where regulation is needed

**Shame on the industry if they are aware of the problem and don't change**

- That is when regulation is needed

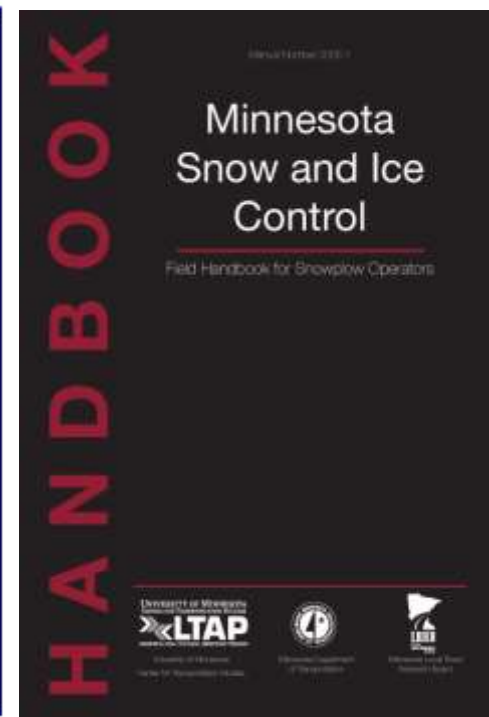
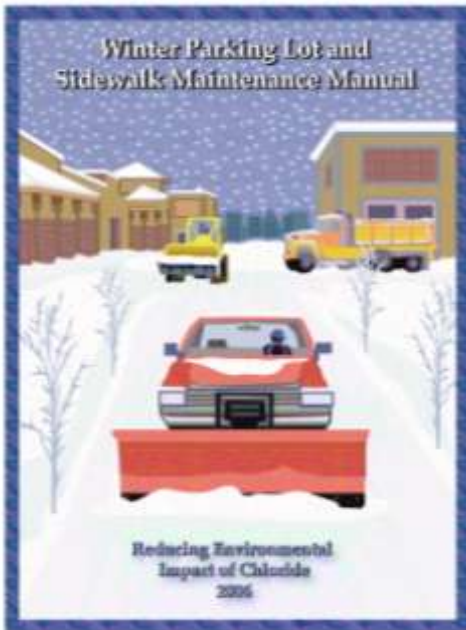
Here is our attempt to work with the industry....



# Training and Voluntary Certification

## For winter maintenance of Parking lots/Sidewalks

## For winter maintenance of Roads



To print copies of the manuals:  
[www.pca.state.mn.us/programs/roadsalt.html](http://www.pca.state.mn.us/programs/roadsalt.html)

# 4 hour training: Integrating environmental protection with Best winter Maintenance Practices



5,000 people certified in 7 years

Over 90% would recommend the class to others

*“Real world examples by people using these methods, brings integrity to the presentation”*

*“Many new concepts introduced. Good science & background on impacts to the environment”*

# What worked to get people to class

- #1 – Need an entertaining and useful training class.
- #2 : This helps
- Word of mouth advertising (within the industry)
  - Over 90% said they would recommend this class to others.
- Phone call advertising
- Coffee/free lunch
- Certification
- Convenient Training Locations
- Bring training to their shop

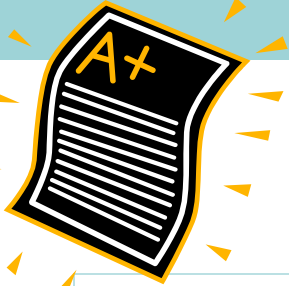
**Over 5,000 now  
certified**



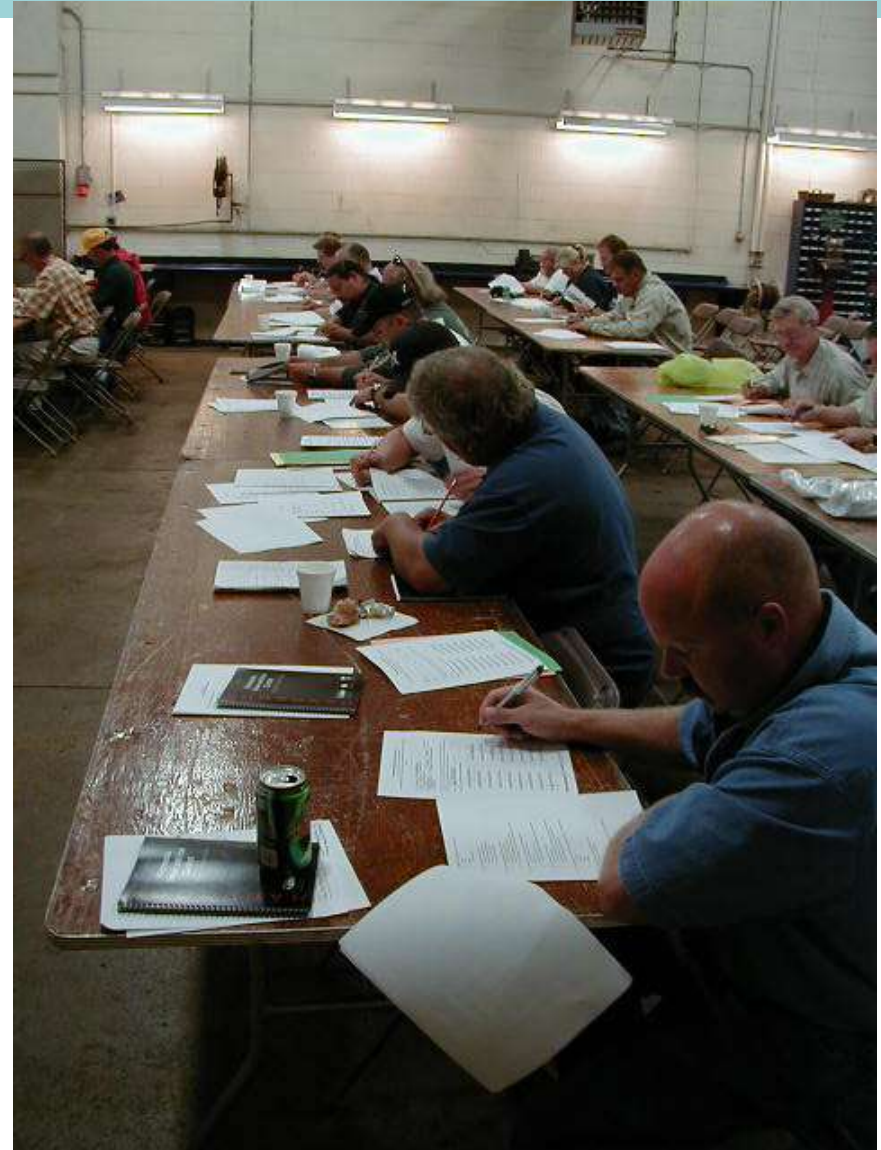
# What skills or methods were used in training

- Integrate environment & transportation don't pick sides
- Have both environment & transportation expert teaching
- Positive empowering, not blaming
- Science based
- Interesting pictures
- Focus on practical/ do-able changes
- Avoid academic
- Instructors bring examples from their experiences
- Ask audience to give advice, examples

# What works to keep people listening during class



- Test at the end
  - 35 multiple choice questions
  - Very basic
  - Easy to pass if you listened



# What works to get people to change

- Explain the problem
- Ask for help in fixing problem
- Don't tell them what to do
- Suggest changes within their own job that doesn't need approval from 7 layers of management.
  - Plow driver: Drive slower, turn down spread pattern
  - Mechanic: Calibrate spreaders, Drill holes in spinners
  - Supervisor: Order different de-icers, improve storage
  - City Council: Approve purchase of computer controllers



# What works to get people to change

- Reduced salt saves \$ (supervisor motivation)
- Smarter salting gives safer winter surfaces
- Awareness of what is happening to their fishing lake
- Pride in their profession



After  
Training:



UNIVERSITY OF MINNESOTA

Saved  
\$55,000 the  
first year



Mississippi River

Reduced:

Road salt 41%

Mag chloride 51%

Sand 99%

# What Didn't work

- Hold winter maintenance training when it is snowing
- Hold training during deer hunting
- Charge for training (numbers drop fast). Only supervisors will come.
- Electronic advertising alone.
  - If you post it on your website they won't come.



# Cities: What can you do?



- Make changes in your operations to reduce salt
- Get your crew certified
- Run homeowner video on your cable TV station
  - [www.pca.state.mn.us/programs/roadsalt.html](http://www.pca.state.mn.us/programs/roadsalt.html)

# Businesses: What can you do?



Hire certified contractors.  
Require it on your bids

Get trained yourself.

- You will better understand how to do your own maintenance and you will better understand what to ask of your contractor.



# Residents: What can you do?

- Use less salt
- Take heat off of public works to have instantly clear roads
- Tell your others to use less salt
- Watch the homeowner winter maintenance video:
  - [www.pca.state.mn.us/programs/roadsalt.html](http://www.pca.state.mn.us/programs/roadsalt.html)



# Policy Makers: What can you do?

- Encourage your maintenance organization to be trained and certified.
- Make an ordinance that contractors have to be certified to apply salt in your city/watershed.
- MPCA offers free or low cost training until 2017



# Think Big!

- What industry or pollutant do you work in or with?
- Would it benefit from state wide a voluntary certification program.
- Start it out and grow it!



# Summer Maintenance of Turf with reduced environmental Impacts



**MPCA certification course patterned after winter maintenance courses**

# Resources

- Schedule of training, training manuals,  
[www.pca.state.mn.us/programs/roadsalt.html](http://www.pca.state.mn.us/programs/roadsalt.html)
- [www.pca.state.mn.us/programs/summermaintenance.html](http://www.pca.state.mn.us/programs/summermaintenance.html)
- Questions about training, want to host a training class?
- [www.fortinconsulting.com](http://www.fortinconsulting.com)
- [connie@fortinconsulting.com](mailto:connie@fortinconsulting.com)
- 763-478-3606