

MINNESOTA ROAD SALT & TURF TRAINING MODELS

Presented by:

Andy Ronchak
MPCA
& Connie Fortin
Fortin Consulting

8/15/12

Voluntary Environmental Certification Level 1 *Turfgrass Maintenance Best Practices*



Your knowledge and actions will help protect
Minnesota lakes and streams.

This is to certify that

<<name>>
<<company name>>

has passed the certification
examination and has volunteered to
apply summer maintenance best
management practices.

A handwritten signature in black ink, appearing to read 'A. Ronchak'.

Andrew Ronchak
Prevention and Assistance Division
Date: <<date>>



Minnesota Pollution Control Agency

Overview (ROAD SALT MODEL)

- Road Salt Model
 - Where we came From
 - Results
- Summer (Turf) Maintenance Model
- Where we are Now
- Challenges
- More Information

Where we came From

- 7 years ago
- Pilot Training started:
 - P2 Grant of \$25K available to do TMDL related work
 - Fortin Consulting Proposal Selected Spring 2005
 - Diverse Stakeholder group
 - 4 Pilot Trainings (Fall 2005-Spring 2006)

Where we came From

- Pilot findings
 - Common thinking more salt the safer - over application
 - Pilot training feedback highly positive – 4 hrs about the right length

Where we came From

- Pilot findings
 - Training Format
 - 4 hrs in length
 - Includes: Environmental impacts, BMPs, Practical application
 - Ends with a test and a voluntary commitment to implement BMP's learned to minimize environmental impact without compromising safety
 - Training approach key (**BMP's, Test , Certification**)

RESULTS

- Let's look at a couple of training results:
- First – lets understand the impact of Road Salt:

The U.S. Government has standards for pollutants

- **Chronic standard for Chlorides:**

230 mg/l

= 1 teaspoon salt in 5 gallons water

(might be on the test)



One Ton (about one scoop of Road Salt) contaminates about 700,000 gallons of water



Example 1

Ridgedale Mall

***Parking Lot/ Sidewalks/
Service Roads***

80 acres BIG!

**Real
Reductions of
50-75%**

Before training they would typically apply ***10-12 tons*** of rock salt following a one day storm event

After training they have been concentrating on mechanical removal and are applying ***3- 5 tons*** of rock salt following a one day storm event.

Example 2

University of Minnesota

**Real
Reductions of
985 tons**

Reductions since training:

- 1) Rock Salt – 617 tons (65%)
- 2) Ice Melt – 80 tons (65%)
- 3) Sand (w/10% salt) – 288 tons (92%)

Savings - \$55,071

Example 3



Metro County

Amount pre-training – 405 tons/event

Amount 2 years post training – 355 tons/event

Example 3a



**Real
Reductions of
3100 tons**

Metro County

- 2008/2009 - 35 events & 2009/2010 – 27 events

**Freshwater impact reduction – 2+ billion gallons
of water**

Summer Maintenance

- Developed in Partnership with the Mississippi WMO
- Same voluntary model as Road Salt
 - 4hr Training
 - Test
 - Commitment to BMPs
 - Certification

Where are we now?

- ROAD SALT: 3000 certified in Minnesota plus almost 1100 out of state
- SUMMER MAINTENANCE: 750 certified in Minnesota plus a small amount out of state
- BMP's Implemented

CHALLENGES

- **MODEL WORKS**
 - Voluntary with great results
- **FUNDING**
- **EXPAND TO OTHER STATES**
- **DO YOU HAVE AN OPPORTUNITY?**
 - Take a Risk
 - Make an Impact

MORE INFORMATION

- Road Salt Web:

www.pca.state.mn.us/roadsalt.html

- Turf Maintenance Web:

http://www.pca.state.mn.us/programs/summer_maintenance.html

Andy Ronchak: MPCA, 651-558-6157

andrew.ronchak@state.mn.us

Connie Fortin: Fortin Consulting, 763-478-3606

connie@fortinconsulting.com

Questions???