

LRRB
Local Operational Research Assistance Program (OPERA) for
Local Transportation Groups
Field Report

This report must include the underlined subject areas and supporting resources (i.e. photos, graphs, charts, etc.). The OPERA program will use this information in an annual report that will be shared with other local agencies within the state. We request that a short 5-10 minute demo or presentation be shared at the Spring Maintenance Training Expo, MN Fall Maintenance Expo or with a professional organization.

Date: FALL 2010

Project Title: Minnetonka "Winter Green" Initiative

Project Number:

Agency: CITY OF MINNETONKA

Person Completing Report: TOM STRUVE, OPERATIONS MANAGER

Project Leader: TOM STRUVE OPERATIONS MANAGER

Phone Number: 952-988-8400

Problem:

Notification from officials at Nine Mile Creek Watershed District that the city is exceeding maximum chloride loading standards for Nine Mile Creek running through city.

Solution:

Training and technology (upgrade equipment)

GOAL: Ongoing winter chemical reduction while maintaining safe roads and meeting citizen expectations

Procedure:

1. Implement aggressive and comprehensive training program.
 - a. Kathy Schafer, LTAP Snow and Ice Training
 - b. Kevin Biglake- 9 Mile Creek Snow and Ice Operations/recommendations
 - c. Connie Fortin, Fortin Consulting – Snow and Ice Environmental Training
 2. Purchase and install pre-wet systems, ground oriented spreading equipment, calibrations scale and wireless electronic monitoring equipment
 - a. Implement capability of 5100's

Event logging for all trucks with 5100 (11 units @ \$125)	\$1375
Precise set up	
"Drive-by" Access pt @ Public Works	\$1400
Sender unit for 10 trucks 10 @ \$750	\$7,500
Sender install 10 @ \$250	\$2,500
 - b. In Nine Mile Creek Watershed

7 sets retrofit TG tanks @\$1800 (23,24,25,32,35,38,39)	\$12,600
and (2) saddle tank sets @\$4000 (144-30)	<u>\$8,000</u>
	\$33,375
- Pre-wet treated & straight salt (above 20 degr) with 5100 equipped units

Results:

The Minnetonka "Green Initiative" has to date been enormously successful. The Nine Mile Creek representatives set a target for us of 4.2 tons of salt per lane mile annually in the watershed. Our operators embraced the challenge and did very well in all phases of training. The new equipment allowed us to aggressively pre wet and carefully monitor applications rates. We installed an electronic geo-fence around the Nine Mile Creek Watershed in Minnetonka and were able to track (to the lb) material usage for the year. (pls see attached)

Net result for winter of 2010-11; 7.033 tons per mile in Nine Mile Creek Watershed
(7.033 tons represents achieving goal (4.2 tons) as winter snow volume = approx 180% of normal)

Implementation:

Fundamentals of this effort are fully implemented

Status:

Complete

Total Duration of Project:

9 months

Project End Date:

May 2011

Approximate Cost of Entire Project:

\$35,000

Total OPERA Funds used for project:

\$5000

VERY grateful to OPERA Funds Managers for this great help

Send and Email a completed report with pictures to: Mindy Carlson, CTS - 200 TSB, 511 Washington Ave. SE, Mpls. MN 55455, email carlson@umn.edu. For questions about this report please contact Mindy Carlson at 612-625-1813.