



Maintenance Research

Bulletin: October 2012

NTREC--New Technology Research Equipment Committee

MOR-- Maintenance Operations Research



Aerator Project

During blowing snow events, motorists traveling south bound on I-35 near Albert Lea experience "white out" driving conditions and snow drifts extend across the travel lanes that are unanticipated by motorists. The purpose of this research project is to evaluate the effectiveness of a wind driven lake aeration system at reducing the creeping and saltating snow particles being blown 2 miles across a frozen lake surface. The wind driven lake aeration system is a wind mill mounted on a 20 foot diameter base with 10 inch floats for stable operation. It will be positioned in the prevailing winter wind direction on the lake, 525 feet from I-35 shoulder of the road. The wind powers a 7 foot diameter wind wheel that efficiently provides torque to a 32 inch diameter impeller that circulates the water keeping a section of the lake from freezing over. It is anticipated that an open body of water will capture the creeping and saltating snow particles from across the frozen lake surface thus reducing the amount of blowing snow that reaches the causeway.

For more information contact:

Wes Smith, 507-446-5504

TOS 4, District 6

Upcoming Events

Election Day
November 6, 2012

Veteran's Day



November 12, 2012

APWA Minnesota Chapter
Fall Conference and Workshop
Earle Brown Center
Brooklyn Center, MN
Workshop November 14, 2012
Fall Conference
November 15-16, 2012

Thanksgiving



November 22, 2012

<http://www.dot.state.mn.us/maintenance/research/research.html>

Comments? Questions?
Maintenance Research Project
Manager
651/366-3585

Your Destination...Our Priority

