

Chicago Area Waterways Chloride Reduction Initiative - 2015 De-icing Workshop

When: Thursday October 29th, from 9AM – Noon.

Where: The MWRD Stickney Water Reclamation Plant auditorium (same location as our first two meetings) 6001 West Pershing Road (at Austin Ave.), Cicero, IL -- or teleconference.

Agenda: The purpose of this workshop is to provide the membership with current, expert information on chloride reduction, from a regulatory, scientific, and operational perspective.

9:00AM: Welcome (Tony Quintanilla, MWRD)

9:05 AM: CAWS Chloride Initiative overview and update (Tony Quintanilla)

- Tony is Assistant Director of Maintenance and Operations for MWRD.

9:20 AM: Federal variance process (Candace Bauer, USEPA)

- Dr. Candice Bauer is an Aquatic Scientist for the US Environmental Protection Agency Region 5 in Chicago IL. Dr. Bauer received her Ph.D. from the University of Notre Dame for work related to invasive species in the Great Lakes, and has been working on Water Quality Standards issues since 2001. Dr. Bauer's role at USEPA includes extensive work on the Chicago Area Waterways standards rulemaking and better understanding the toxicity of salts to aquatic life.

Title and Description of Presentation:

- Working Together to Comply with Clean Water Act Requirements in the Chicago Area Waterway System
- This talk will focus on Clean Water Act requirements, including those that require states to set forth water quality standards for their waters. To the extent that waters are unable to comply with the water quality criteria necessary to ensure the protection and propagation of aquatic life, support recreation in and on the water, and protect human health, the Clean Water Act provides for mechanisms, including a tool called a water quality variance, to work toward the restoration of water quality. The Chicago Area Waterway System Chloride Initiative being led by MWRD is working toward plans to restore water quality to better support aquatic life in the area's waters. This important effort to reduce chloride runoff into the Waterways that originates from winter road salt applications will help to form the basis for complying with Clean Water Act variance requirements.

9:40 AM: Science background on chloride water quality standards (Jim Huff, Huff & Huff, Inc.)

- Jim is a Purdue graduate in Chemical Engineering (1970) and has his Master's from the Environmental Engineering Department at Purdue (1971). Since 1980, Jim has been Vice President and part owner of Huff & Huff, Inc. Jim has assisted a number of utilities, refineries and chemical plants with complex water pollution and water intake issues. These have ranged from wastewater treatment design to permitting grass root facilities to stream surveys and antidegradation assessments. Most recently he has

been active in the chloride offset program for the Elgin-O'Hare Expressway, the I-90 expansion, and for the Citgo Refinery in Lemont.

In this talk Jim Huff will cover the following topics:

- The Illinois Pollution Control Board recently adopted chloride water quality standards for the Chicago Area Waterways. These standards are currently not achieved during de-icing period runoff. The science behind the recently adopted standards will be presented, focusing in on aquatic toxicity to fish, macroinvertebrates, and mussels will be presented, along with the changes in these aquatic communities in the winter time.
- Historical water quality data will be summarized on the Chicago Area Waterways will be presented to establish the reductions that must be achieved to meet the water quality standards, based on the maximum annual concentrations and maximum concentrations over the past decade.
- Finally, several out of the box opportunities for chloride reductions on the Chicago Area Waterways beyond Best Management Practices will be offered for discussion purposes.

10:10 AM: Snow and ice control methods and materials (Wilfrid Nixon, Salt Institute)

- Dr. Wilfrid Nixon is the Vice President for Science and the Environment at the Salt Institute, a North American based non-profit trade association dedicated to advocating the many benefits of salt, particularly to ensure winter roadway safety, quality water and healthy nutrition.

In this talk, Dr. Nixon will cover the following topics:

- Why road salt is a critical tool for achieving desired levels of service
- Purpose of using road salt (it may not be what you think!)
- Overview of BMPs for road salt use
- The low hanging fruit among BMPs – what you can implement with little to no up-front costs
- What salt usage reduction might you see with each BMP you implement
- Infrastructure issues and road salt usage

After hearing the talk, attendees should be able to take the following actions:

- Identify BMPs that they can introduce in their agency for the coming winter, with minimal cost and operational disruption
- Quantify the salt reductions they would expect to see if those BMPs are successfully implemented
- Detail the potential challenges and pitfalls of implementing their chosen BMPs and have ideas about how to address those challenges

10:45 AM Coffee Break

11:00 AM: Deicing practitioners' panel (Moderators: Jim Huff, Wilfrid Nixon)

- This panel will include representatives from small, medium, and large municipal and transportation agencies. It will focus on key questions, such as, operational practice, level of service, barriers to achieving chloride use, success stories, cost savings, public communication, and key challenges. Questions from the audience will be welcome.
- Our panel:
 - City of Chicago, Department of Streets and Sanitation (Ray Laureano, Cole Stallard)
 - City of Evanston (Jim Maiworm)
 - Cook County Highway Department (Dilip Patel)
 - Illinois Department of Transportation (Jim Stumpner)
 - Illinois Tollway (Scott Kapton)
 - Village of Hanover Park (Scott Weber)
 - Village of Hanover Park Streets and Forestry Supervisor. Over 24 years of service for the village in snow removal operations.

12:00 PM: Adjourn