



Bassett Creek Watershed Management

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator
Date: October 14, 2021

RE: Chloride Reduction Efforts and Projects

With winter knocking at the door, it's time to get caught up on all the chloride reduction projects happening in the Bassett Creek Watershed and beyond. In addition to these new projects, the BCWMC education program and activities through the West Metro Water Alliance continue to focus on salt reduction with a variety of messages and materials.

1. Hennepin County Chloride Initiative (HCCI)

This project began when all eleven watersheds in Hennepin County agreed to use 10% (or \$101,800) of their 2019 Watershed Based Implementation Funding to collectively address chloride pollution from winter deicers through a county-wide effort. Members of this collaborative include the eleven watershed organizations, Hennepin County, the Minnesota Pollution Control Agency, Stop Over Salting volunteers, and multiple cities including Plymouth and Minneapolis. Although this effort was originally coordinated by Riley Purgatory Bluff Creek Watershed District (RPBCWD), coordinating responsibilities were moved to BCWMC in early 2021 due to staffing changes at RPBCWD. To date, project outcomes include:



- Technical Barriers Study: A study by a University of Minnesota Ph.D. student on the barriers, needs, and attitudes of private salt applicators around the Metro Area in reducing chloride usage. Qualitative interviews and quantitative survey data were collected from private salt applicators in the summer and fall of 2019. The study found that knowledge of, and education about chloride water contamination issues were not necessarily a barrier for salt applicators. Liability and client demand were most associated with salt application choices, along with financial costs and liability concerns.
- Smart Salting for Property Management Manual: Some HCCI funding was used for the development of this guidebook by Fortin Consulting in 2019.
- Winter Maintenance Plan Templates: Development of templates for winter maintenance (or chloride reduction) plans to be used by cities or watersheds who request or require them for certain developments. (For example, BCWMC required the previous Four Seasons Mall developer to implement a chloride management plan, but when asked for an example or template for such a plan, none existed at the time.) Fortin Consulting was hired by HCCI to develop the templates. A group of advisors (including me and Plymouth staff) provided input and review of the draft templates. Three different levels of templates (basic, intermediate, and detailed) were developed along with a calculator to help determine the best template for a particular site or development. Find the calculator and templates at: <https://www.bassettcreekwmo.org/developer/winter-maintenance>.

- Professional Marketing Campaign: HCCI recently decided to request proposals from professional marketing firms to develop a program that will engage, educate, and support citizen boards with condo and townhome associations and faith-based organizations in reducing the amount of winter deicing salt used on their properties. A Request for Proposals is being distributed to firms this week. We envision the campaign materials (including a presentation and video) would be delivered by city or watershed staff or volunteers in order to build trust and ongoing relationships with these groups. Implementation of the program will hopefully result in a shift in client demand toward a reduction in deicing salts, and the use of best practices by contracted winter maintenance crews for targeted properties.

2. Parkers Lake Chloride Reduction Project Facilitation

This project is part of a BCWMC Capital Improvement Project aimed at reducing chloride loading to Parkers Lake. In this initial phase of the project, Plymouth is contracting with Young Environmental Consultants to facilitate data gathering and conversations with water quality experts from a variety of cities and watersheds (including BCWMC). This phase is also being partially funded with HCCI funding. The results of this phase of the project will be to: 1). Compile available land use data and chloride concentrations, 2). Develop consensus on the chloride sources to Parkers Lake and potential projects to address these sources, 3). Develop a recommendation for a future pilot project to reduce chloride concentrations in Parkers Lake and could be replicated in other areas of Hennepin County, similar to Parkers Lake, and 4). Help target education and training needs by land use.

The first meeting of the group of water quality experts was held in July. Experts are currently gathering and analyzing their own chloride data to present to the group at a meeting later this month. Additional meetings are scheduled for November, December, and January. A final report should be available early next year.

3. City Initiatives and MS4 Permits

Cities continue to use a variety of new and existing methods to help reduce chloride use. Here are just a few of the chloride management techniques used by BCWMC member cities.

- The new MS4 permit includes requirements for cities with regards to winter maintenance and chloride use including proper storage and handling, Smart Salt certified crews, education and outreach to the community, development and use of a written snow and ice management policy, etc. Each city is currently reviewing their practices and are revising policies and procedures, as warranted. Additionally, each city must now require proper salt storage at commercial, institutional, and industrial facilities including indoor or covered salt storage areas located on impervious surfaces.
- Cities (including Plymouth and Minnetonka) are hosting Smart Salting Certification Trainings for roads and parking lots/sidewalks. Classes being held this fall are filling up fast.
- Golden Valley is adding language to all its stormwater maintenance agreements requiring submittal of a Chloride Management Plan, addressing the use of chloride on the site, snow storage areas, personnel certified for chloride application, rate of application for the site, and sensitive areas to avoid application. The city is also developing a chloride dosing calculator for property managers.
- Plymouth is using its new high efficiency street sweeper to pick-up left-over salt in some areas. A report on the street sweeper is expected to be presented to the Commission in November.