

# DuPage River Salt Creek Workgroup Members and Executive Board

## Agency Members (blue)/ Associate Members (gray):

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Village of Bensenville · Black & Veatch · Village of Bloomingdale · Village of Bolingbrook · The Conservation  
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## Executive Board

President	Dave Gorman, <i>Village of Lombard</i>
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## Committee Chairs

Monitoring	Jennifer Hammer, <i>The Conservation Foundation</i>
Salt Creek	Dennis Streicher, <i>Sierra Club-River Prairie Group</i>
East Branch DuPage	Larry Cox, <i>Downers Grove Sanitary District</i>
West Branch DuPage	Erik Neidy, <i>Forest Preserve District of DuPage County</i>

## Staff

Director of Watershed Protection	Stephen McCracken, <i>The Conservation Foundation</i>
Watershed Project Manager	Deanna Doohaluk, <i>The Conservation Foundation</i>
Administrator	Nancy Cinatl, <i>The Conservation Foundation</i>
Watershed Education & Outreach Manager	Monica Rockstroh, <i>The Conservation Foundation</i>



## DuPage River Salt Creek Workgroup

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Naperville, IL 60565



## DuPage River Salt Creek Workgroup

Winter 2019

### Letter from the President

Dear Readers:

Chlorides are increasingly in the regulatory spotlight. Deicing operations are a necessity in our region yet they unavoidably increase chloride runoff into wetlands, ponds, and rivers. Chlorides, as well as corroding our built infrastructure, are a primary stressor to aquatic life which underpins much of our NPDES permit regulations. Although the DRSCW is busy on many fronts this newsletter focuses solely on bringing you up to speed on the latest chloride initiatives in Northeastern Illinois.

Encouragingly, the implementation of chloride best management practices (BMPs) is expanding beyond typical municipal operations to the parking lots and sidewalks of industries, businesses, schools, and park districts. There is also an effort by municipalities in the Lower Des Plaines River watershed to obtain regulatory relief from the current chloride water quality standard by joining the so-called "Chloride Variance". Elements of both are covered inside.

We hope to see you at our annual meeting on February 27, 2019 to learn more about our work with chlorides and additional efforts to improve water and stream quality in the West Branch DuPage River, East Branch DuPage River and Salt Creek watersheds.

-David Gorman, President



Let's make over-salting  
a thing of the past!

### New Chloride Regulations on Private Industrial Facilities

Recent moves by the IEPA in regard to the ILR00 General Storm Water Permit for Industrial Activities suggest that the agency will be increasing the use of its NPDES permit authority to implement storm water controls for pollutants with TMDLs or 303 (d) listings. The ILR00 Permit covers storm water runoff from many industrial facilities where materials and equipment may be exposed to storm water. The 2017 permit requires that the site operator document in their Storm Water Pollution Prevention Plan (SWPPP) if the stream to which they discharge storm water is listed on the 303(d) list of impaired waters or has an approved TMDL. If a facility is releasing a TMDL or a 303(d) pollutant in its storm water than the facility must take additional steps to address the impairments.

For receiving streams with an approved TMDL for chloride, the ILR00 requires all holders of the permit to evaluate and implement ways to reduce chloride (salt) runoff from their facilities. These requirements could affect as many as 35 private industrial facilities within the DRSCW watersheds. Other public entities such as Publically Owned Treatment Works may also be subject to these requirements. How the chloride reductions are made would vary depending on if the facilities hire a contractor or self-perform snow and ice removal.

- If hiring a contractor, the contract should reflect the practices and documentation necessary (visit <https://drscw.org/wp/sidewalks-and-parking-lots/> for a model contract). The contractor could also be required to attend one of the sensible salting workshops in the region.
- If self-performing, a winter facility plan should be developed setting service levels for the complex. Application rates should be reviewed (see link above). All salt storage of materials should be covered with an impervious cover and kept away from storm drains or areas of surface flow. All practices should be documented. Staff may be required to attend a sensible salting workshop.
- Monitoring for chlorides at the facilities outfall may be also required.

For industrial facilities that discharge to an impaired water where there is not an approved TMDL, the ILR00 requires these facilities to monitor chlorides at each outfall a minimum of one time per year.

**Chloride Variance – Important Update for Members Partially in the Lower Des Plaines River Watershed**

NPDES permit holders, including municipal, industrial, MS4s, and transportation agencies, that discharge to the Chicago Area Waterway System (CAWS) and the Lower Des Plaines River watersheds are seeking a time-limited water quality standard (TLWQS) for chlorides from the Illinois Pollution Control Board (IPCB). This is more commonly referred to as the Chloride Variance. If approved by the IPCB, the TLWQS will not change the chloride Water Quality Standard of 500 mg/L but provide the permitted dischargers 15-years to implement chloride Best Management Practices (BMPs) as means of meeting the chloride standard. The Joint Submittal Petition, prepared principally by the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), provided details on the need for the TLWQ, required chloride reduction BMPs, and reporting requirements.

The Illinois Environmental Protection Agency (IEPA) is encouraging all permit holders located in the CAWS and Lower Des Plaines River watersheds to become signatories to the Petition. Several of our DRSCW members have portions of their jurisdictions that fall within the Lower Des Plaines River watershed. See Table 1 for DRSCW municipalities with area in the CAWS/Des Plaines River Watershed. **Based on discussions with the IEPA, the DRSCW is recommending that these members file a Notice of Filing/Certificate of Service with the IPCB and sign-on to the Petition for the area located within the Lower Des Plaines River watershed.** Failure to participate in the Petition could result in being found in violation of your ILR40 Permit: General NPDES Permit for Small Municipal Separate Storm Sewers (Part III. D).

More information on the Chloride TLWQS and the documents filed by MWRDGC with the IPCB can be found at: <https://pcb.illinois.gov/Cases/GetCaseDetailsById?caselid=15206>.

Bellwood	Franklin Park	Northlake
Bensenville	Hinsdale	Stone Park
Bolingbrook	LaGrange	Western Springs
Broadview	Lyons	Westmont
Brookfield	Maywood	Wood Dale
Clarendon Hills	Melrose Park	Woodridge
Darien	North Riverside	

Table 1. DRSCW municipalities with area in the CAWS/Des Plaines River Watershed

**Fox Valley Park District Reduces Salt Usage by 40%**  
*Jim Schmidt, West Maintenance Supervisor, Fox Valley Park District*

After attending the DRSCW deicing workshops in 2015, the Fox Valley Park District staff was inspired to launch an initiative to reduce the amount of salt they used to safely maintain access to their facilities during winter snow and ice events. Fox Valley Park District (FVPD) manages seven facilities (three of which are community centers), and a number of parking lots for trailheads and dog parks. In particular, staff provides winter maintenance services to the Vaughan Athletic Center, which has approximately 10,000 square feet of walkways. In 2015 staff was exclusively using dry rock salt on all of these surfaces.

In 2016 staff shifted to pretreating walkways. A brine and beet juice mixture was applied with an application system staff built themselves after a few trips to Home Depot to identify equipment that could be adapted for this use. Implementing pretreatment reduced the amount of material used to remove ice once it had formed. During the winter of 2017 staff extended this anti-icing activity to Park District parking lots.

Also in 2017, staff began pre-wetting salt for use during storms which allowed further reductions in salt usage. Along with the changes in materials, the Park District purchased an additional sweeper and a hand sweeper unit. Staff was resourceful and even used existing backpack leaf blowers to remove light snow accumulations. The diligent use of mechanical snow and ice removal with plows, blowers and sweepers has been key to lowering salt use while maintaining existing levels of service.

Staff estimates that they have cut their salt usage by as much as 40% and even noted a reduction of reported slips and falls in the 2017-2018 winter season. This means less spending on material, less infrastructure degradation, less salt ending up in our rivers, and maintaining safe conditions for residents utilizing Park District facilities.



*Sweeper, which has proven very effective on sidewalks*

**Alternative Cutting Edges**  
*Scott Weber, Streets and Forestry Supervisor, Village of Hanover Park*

Snow removal has rapidly evolved during the last ten years. At Hanover Park a primary focus has been to maintain or even improve our level of service while also reducing the amount of chlorides used. Doing all of the right things by using liquids, reducing application rates, and following materials Best Management Practices just isn't enough anymore.

We decided to look at options in cutting edges because after all, better removal equals less salt needed. The old standard carbon steel blades wear unevenly and don't conform well to our ever changing pavement conditions. These conditions create a trailing of snow after the plow passes and requires additional passes or material used. This all costs us more money to clear the same amount of snow.

In 2015, we chose to experiment with carbide sectional cutting edges. These cutting edges are encased in rubber allowing the blade sections to float which conforms to uneven pavement, promotes better uniform wear, and better clearing of the pavement. Over the last three seasons of testing, our findings have proven that the Carbide Sectional blades have outperformed the Carbon Steel blades four to one with regards to wear rates. For material alone the breakeven cost is four to one, this does not take in to account the Fleet Departments cost savings because of the reduced frequency of changing blades. Additionally, these blades greatly reduce vibration and noise levels inside the cab of the truck making a much better work environment for my operators. We noticed a noise reduction of as much as 10 decibels from the front plow and under body scraper on our trucks compared to running carbon steel blades. The greatest reduction of noise and vibrations was made in the use of the sectional Carbide system on our under body scraper, compared to front plow only. This greatly reduces the operators' risk of fatigue and hearing damage due to exposure.

Better wear, better clearing, better conditions for our operators with less salt used seems pretty clear to us.



This is an old mild steel set up, showing the uneven wear causing a trailing of snow condition and sub optimal driving conditions.



The new style sectional blade contours the pavement much better, leaving a cleaner plowed surface.