

# DuPage River Salt Creek Workgroup Members and Executive Board

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

Village of Addison • AECOM • Arcadis US • Village of Arlington Heights • Baxter & Woodman • Village of Bartlett • Village of Bensenville • Black & Veatch • Village of Bloomingdale • Village of Bolingbrook • CDM Smith • The Conservation Foundation • Village of Carol Stream • Christopher B. Burke Engineering • Village of Clarendon Hills • Clark-Dietz • Donohue & Associates • Village of Downers Grove • Downers Grove Sanitary District • DuPage County • DuPage County Health Department • City of Elmhurst • Elmhurst-Chicago Stone Company • Engineering Resource Associates • Forest Preserve District of DuPage County • Geosyntec Consultants • Glenbard Wastewater Authority • Village of Glen Ellyn • Village of Glendale Heights • HR Green • Village of Hanover Park • Hey & Associates • Village of Hinsdale • Village of Hoffman Estates • Huff & Huff • Illinois Department of Transportation • Illinois State Toll Highway Authority • Inter-Fluve • Village of Itasca • K-Tech Specialty Coatings • Mary Lou Kalsted • Village of Lisle • Lisle Township Highway Dept. • Village of Lombard • Metropolitan Water Reclamation District of Greater Chicago • Monroe Truck Equipment • The Morton Arboretum • City of Naperville • Naperville Park District • Naperville Township Road District • City of Northlake • City of Oakbrook Terrace • Prairie Rivers Network • RHMG Engineers • RJN Group • Robinson Engineering • Village of Roselle • Salt Creek Sanitary District • Salt Creek Watershed Network • Village of Schaumburg • Sierra Club, River Prairie Group • Strand Associates • Suburban Laboratories • Trotter & Associates • V3 Companies • Village of Villa Park • Walter E. Deuchler Associates • City of Warrenville • WellSpring Environmental Products • City of West Chicago • Village of Westchester • Village of Westmont • City of Wheaton • Wheaton Sanitary District • Village of Winfield • City of Wood Dale • Village of Woodridge • York Township Highway Department

### Executive Board

President	Dave Gorman, <i>Village of Lombard</i>
Vice President	Sue Baert, <i>Wheaton Sanitary District</i>
Secretary/Treasurer	Robert Swanson, <i>DuPage County</i>
Members At Large	Rick Federighi, <i>Village of Addison</i> Nick Menninga, <i>Downers Grove Sanitary District</i> Antonio Quintanilla, <i>Metropolitan Water Reclamation District of Greater Chicago</i> Steven Zehner, <i>Robinson Engineering, Ltd.</i>

### 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

Watershed Coordinator	Stephen McCracken, <i>The Conservation Foundation</i>
Water Resource Assistant	Tara Neff, <i>The Conservation Foundation</i>



## DuPage River Salt Creek Workgroup

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## DuPage River Salt Creek Workgroup

### Letter from the President

March 2016

Dear Readers,

Last year was a pivotal one for the DRSCW as a result of our unique NPDES permit agreement with state and federal regulators. As a result, we will be undertaking projects to make real (i.e. measureable) improvement toward the Clean Water Act goals while saving our members operating costs over the next ten-eleven years, as compared to the default alternative of immediate waste water treatment plant upgrades and/or chemical additives focused solely on further reducing pollutant levels.

These projects will address the waterways' most significant impairments, being lack of habitat, fish passage and dissolved oxygen behind dams. Our project-focused approach has and will continue to take much time, effort and funds contributed by all of our members. To get to this point, we have had a decade of gathering and analyzing data, countless hours of work by DRSCW members and staff, and the invaluable support of environmental advocacy groups and regulatory agencies.

Our Integrated Prioritization System (a.k.a. the "IPS") allows us to identify and rank potential projects and their likelihood of improving insect, shellfish and fish scores (known as the index of biotic integrity for macroinvertebrates and fish, or "mIBI" and "fIBI"). This tool generated

the priority project list for the permit condition. Removing pollutants such as phosphorus and nitrogen is also considered in the IPS but that costly effort would be less likely than the identified projects to produce the measureable increases in mIBI and fIBI. We will rerun the IPS once these projects are completed and then reevaluate the impact of pollutant levels. As engineers, scientists, and managers, we intend to follow the numbers.

The first of the projects, the dam removal and river restoration at Oak Meadows golf course in Addison and Wood Dale, is already underway. This project is detailed in the next article and it is a wonderful collaborative effort between the Forest Preserve District of DuPage County, DuPage County Stormwater Management and the DRSCW. Many of you have experienced, like I have, that participating in the DRSCW has been very professionally rewarding and I encourage you to attend meetings and volunteer for a committee. After all, these are our waterways and we, more than anyone else, will benefit from their improved health.

*David Gorman, President*



*Drone image of the Oak Meadows Golf Preserve project in Addison and Wood Dale. Temporary diversion channel on the right and Salt Creek to the left. Image supplied Ed Stevenson, Forest Preserve District of DuPage County.*

## Golf Meets Watershed Management at Oak Meadows Golf Preserve

When earth was broken at the Oak Meadows Golf Preserve a hard-working, multi-disciplinary team let out a sigh of relief and immediately took up their next worry - weather. By any measure, the Oak Meadows Golf Preserve project is large and complex. The project site spans over **280 acres, includes approximately 1.5 miles of stream corridor** and integrates golf course design and surface water management.

Regular flooding disrupted play on the course and created millions of dollars of damage and lost revenue. Reconfiguring the course to reduce flooding offered parties interested in both **recreation and natural resource management** the opportunity to reimagine the entire site.

The golf course redesign reduced the total number of holes from 27 to 18,



*Regrading banks and gravel run at Oak Meadows. Image supplied by Ed Stevenson, FPDDC.*

and simultaneously relocated and regraded the golf course to become more flood resistant to the fast rising Salt Creek. When complete, the golf course will offer tee options from 4,500 to 7,200 yards. These new holes will provide a unique golf experience amongst restored oak savannas, prairies, and wetlands for which historic Northern Illinois is known.

Salt Creek was diverted into a mile long, temporary channel to drain the

river. With the river bed exposed, a dam and over a mile of concrete and steel river-bank armoring was removed and 9000 square feet of cobble added to return more natural habitat to the river bed. Trees removed during the redesign were added to newly graded river banks (see image) to add complex habitat that support greater fish and insect diversity. These improvements were identified by surveys of both this degraded site and other more biologically diverse river sections of Salt Creek.

To date, thanks to unusually dry weather, work has proceeded rapidly. The river restoration work is on track to be completed by summer 2016. The **golf course is scheduled to reopen in May 2017.**

## Village of Hanover Park Implements Liquids to Reduce Salt Use

Like many road management agencies, the Village of Hanover Park Public Works Department and its hard working crews, take great pride in effective snow and ice control for its residents and the motoring public. Safety and high levels of service are key objectives for our agency.

About 12 years ago, faced with the increasing cost of de-icing materials and their associated environmental impacts, we concluded that our procedures had to change. Starting in 2003, our department implemented changes to reduce the amount of rock salt used while maintaining the same high level of service to our residents.

I am pleased to say by increasing our plowing and adopting an aggressive liquids program, the Village of Hanover Park has **reduced the amount of rock salt applied to pavement by approximately 40% when compared to 2003, all while maintaining public safety.** Incorporating liquids in anti-icing and de-icing was probably the most important tool in that reduction. Anti-icing prohibits the bond of snow and ice to the pavement requiring less plowing and post storm

salting to clean up; pre wetting road salt reduces loss due to bounce and scatter by up to 30 percent.

I think the first step in starting a liquid program that best serves a community and its residents is to **pre wet all salt** that is applied to the roadway. This can be done with salt brine to start, which is very inexpensive. The required equipment can be purchased with any new trucks and can be retro fitted for existing trucks. Second would be to get started with a small **anti icing program** using the same material, and a single spray unit. Expansion from there includes manufacturing, and blending your own products, pre wetting on all trucks, and larger tanks and spray units.

The use of liquids in your snow and ice control program can reduce the amount of salt used, which will save money, reduce the negative impacts on the environment, and continue to provide safe roadways in the winter months.

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

## New ILR 40 Permit for MS4 Communities

On February 10, 2016 the Illinois Environmental Protection Agency (IEPA) reissued the General National Pollution Discharge Elimination System (NPDES) Permit ILR 40 for discharges of Small Municipal Separate Storm Sewer Systems (MS4). The new permit, effective March 1, 2016, contains a number of significant changes and should be reviewed by public works and stormwater personnel at all member agencies. Municipal and DuPage County staff have already begun to discuss ways to share services in meeting these requirements.

The permit now requires permittees to: identify **environmental justice areas** and include appropriate public involvement/participation; includes consideration of potential impacts and effects of **climate change** on stormwater controls, flood management projects, and BMP implementation.

There are new requirements related to deicing materials and monitoring. Below, we highlighted a few requirements permit holders face related to DRSCW activities.

**Salt Management** – For the first time, chloride is specifically mentioned in several parts of the permit. Permit holders that conduct deicing operations must:

- Store deicing supplies in a permanent storage structure by March 1, 2018 (you may implement seasonal (wet weather) tarping in the interim).
- Provide annual employee training to staff on material storage, handling, and use of chlorides on roadways.
- Participate in any watershed group organized to implement control measures which will reduce chloride concentrations in any receiving stream within the watershed. It seems this item was originally developed to induce organizations to participate in the chloride variance process developing in the Chicagoland area.



**TMDLs** - The permit ties the stormwater permit to Total Maximum Daily Loads (TMDLs). Permit holders must:

- Review any applicable TMDLs for pollutants that are likely to be found in stormwater discharge and verify whether they meet the load allocations in said TMDL.
- If not, changes to the MS4 system should be proposed to IEPA within 18 months. While our area already has several chloride TMDLs in effect, they do not have load allocations for permit holders; it is unclear how this will be interpreted. However, chloride is clearly a recurring theme in many of these regulations and all members should document improvements made to the efficiency of their storage, handling and use of deicing materials.

**Monitoring** – This section is new to the permit and requires the development and implementation of a monitoring and assessment program to evaluate the effectiveness of the BMPs being implemented to reduce pollutant loadings and water quality impacts within 180 days of the effective date of this permit. Permit holders must:

- Develop the program from a menu of alternative monitoring and assessments programs.
- The DRSCW, DuPage County Stormwater Management and Metropolitan Water Reclamation District (MWRD) will review current monitoring data/plans and discuss if/how collectively they can be used to meet new requirements.

**Stormwater Management Programs** — This requires reporting on annual reviews of your Stormwater Management Program. Permit holders must:

- Submit explanation of modifications of ineffective or infeasible BMPs identified in the Stormwater Management Program within 60 days prior to implementing any alternative BMPs.
- Include modifications to stormwater management related ordinances.
- Address any alternative modifications and time schedule in writing for when Storm Water Management Program updates is requested by the Agency.

## DRSCW Recognized for 10 Years!

The Conservation Foundation (TCF) recognized the DuPage River Salt Creek Workgroup (DRSCW) for ten years of cutting-edge water resource improvement work at their winter membership and awards luncheon on March 2nd at the Westin Lombard.

Pictured left to right: Jennifer Hammer, TCF; Dave Gorman, Village of Lombard and DRSCW Board President; Brook McDonald, TCF President/CEO; Christopher Burke, Christopher B. Burke Engineering, Ltd. and TCF Board Chairman.