DuPage River Salt Creek Workgroup

Summer 2020

The Master Plan for Salt Creek at Fullersburg Woods replaces the dam with a rock riffle, restores the streambank, and creates more opportunities for recreation. *Read more on page 2.*

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LETTER FROM THE PRESIDENT

Dave Gorman

The Master Plan for Fullersburg Woods is being finalized following the online public meetings. This is one of the DRSCW's most important projects, promising to significantly improve Salt Creek and provide regulatory compliance on our members' NPDES Permit Special Condition. As such, I strongly encourage you to peruse and share the website, restoresaltcreek.org, to learn more and leave comments. By temporarily offsetting expensive treatment plant updates for additional phosphorus removal, this project will save over $200 Million in public monies while permanently improving a regional natural resource. The plan is to replace the dam with a rippling rock riffle, and replace the impoundment with a beautiful natural channel. Upland components may include walking paths, informational signage, and improvements to the mill race.

At the end of 2019, the IEPA released their second report on the Illinois Nutrient Loss Reduction Strategy (Illinois NLRS). The NLRS is a framework for using science, technology and industry experience to assess and reduce excessive nutrients in Illinois waters and the Gulf of Mexico. It is directing efforts to reduce nutrients from point and nonpoint sources in a coordinated, primarily voluntary, and cost-effective manner. The majority of these costs will fall onto local governments, and so the NLRS is of great consequence and interest to our members. The highlight of the report was the size of the nutrient reductions credited to POTWs across Illinois, contributing to improving the water quality in the Gulf of Mexico.

Thanks for your interest and membership as we continue improving our waterways.

Northern Pike downstream of the Graue Mill dam—coming to Elmhurst soon?

MASTER PLAN FOR FULLERSBURG WOODS: WHY THE DAM IS A PRIORITY PROJECT FOR THE DRSCW

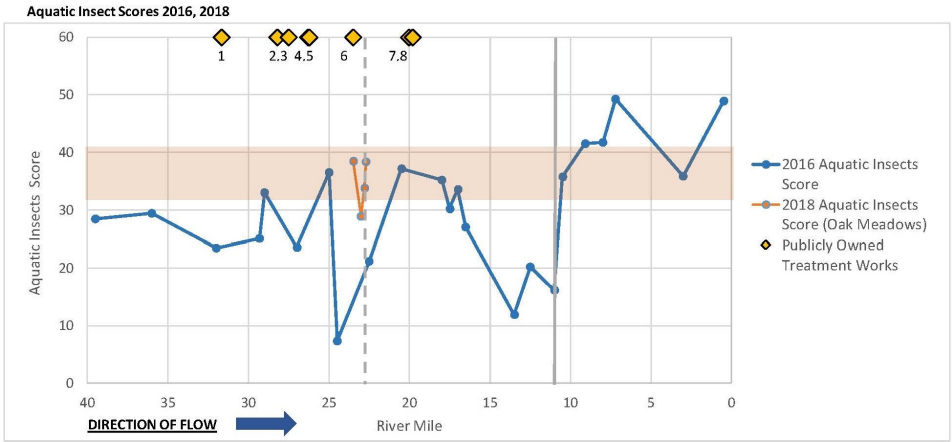
Stephen McCracken, *DRSCW and The Conservation Foundation*

This fall, after a decade of work, the DRSCW will submit a plan to the DuPage Forest Preserve District Commission recommending the removal of the dam and the restoration of the river at Fullersburg Woods. The project's objectives are to remove the fish passage barrier and improve the aquatic insect population and dissolved oxygen (DO).

The Commission will then decide whether to authorize the DRSCW to proceed with drawing up detailed engineering plans for the project.

The project was originally identified as an alternative to the 2004 plan from the State of Illinois to improve Dissolved Oxygen (DO) in Salt Creek. That plan relied on upgrading waste water treatment plants (WWTPs) at an estimated cost of 200 million dollars in capital investment. The logic was that improving DO in Salt Creek would improve fish and aquatic insect communities in the creek, both of which are failing to meet state law.

However, a review of aquatic biodiversity shows it does not track well with treatment plant discharges. Rather, the largest distortions in the fish and aquatic insect populations are clearly associated with the dam. For fish, the dam physically blocks 16 native species from moving upstream. For insects, the sediment and habitat damage in the dam's impoundment creates an area that is unable to support the aquatic insect community needed to meet state law. The removal of the Oak Meadows dam on Salt Creek in 2016 allowed a doubling of aquatic insect scores even as effluent quality was held steady. Lastly, the muddy, stagnant conditions behind the Graue Mill dam are ideal for creating warm weather DO problems.



Removing the Graue Mill dam and restoring the river in the impounded area will hit multiple objectives. It will:

- Allow 16 species of native fish to access 17 miles of upstream waterway for the first time in 90 years moving the basin towards compliance with the State's fish biodiversity goals.
- Move the aquatic insect community into compliance with state law in the project's footprint.
- Improve warm weather DO conditions in the lower Salt Creek to a greater degree than the proposed WWTP upgrades.
- Establish an essential foundation for reaching the long-term permit goals for all NPDES permit holders in the Salt Creek basin while offsetting hugely expensive and ineffective upgrades at area treatment plants.
- Investigate a separate source of water for the Graue mill raceway.

The estimated cost of this plan is in the range of 5 million dollars. For more information, or to comment on the project, please visit **restoresaltcreek.org**

Above. Habitat is the principle limiter of aquatic insects on Salt Creek. This is shown by the steep declines in their biodiversity upstream of the Oak Meadows dam (dashed line at river mile 24) and Graue Mill dam (line at river mile 10.2) reflecting the sedimentation and flow distortion in the impoundment. Elimination of the dam at Oak Meadows in 2016 eliminated these conditions and led to a large leap in biodiversity at the site. The shaded area represents the target area for compliance with state law.

Below. The Master Plan also improves landscaping, adds a walking path, places new educational signs, and enhances recreation with trails, fishing access, and a canoe launch.

NUTRIENT LOSS REDUCTION STRATEGY IMPLEMENTATION 2019 BIENNIAL REPORT

Trevor Sample, *Illinois Environmental Protection Agency*

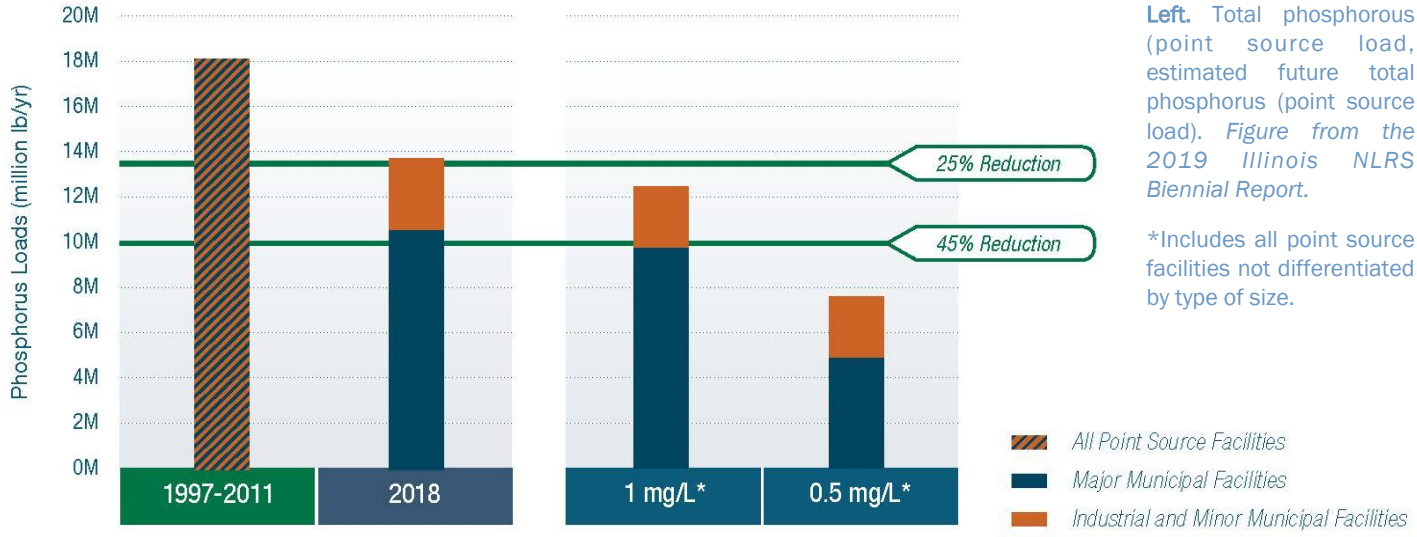
The Illinois Nutrient Loss Reduction Strategy (NLRS) 2019 Biennial Report was released on November 18, 2019. The report can be found at: http://go.illinois.edu/NLRS. This is the second biennial report since the release of the NLRS in 2015. The first biennial report was released in 2017. The 2019 Biennial Report presents and discusses data and information related to the implementation of the NLRS for the past two years from the three main sectors: agriculture, point sources, and urban stormwater. It also contains an updated Science Assessment conducted by University of Illinois professor Dr. Greg McIsaac. The updated Science Assessment used more recent water quality data to calculate nutrient loads and yields statewide as well as on a HUC 8 watershed basis. The 2019 Biennial Report also features a new chapter called Adaptive Management, which compares implementation levels to the water quality goals and implementation scenarios outlined in the NLRS.

The agriculture chapter once again highlights the acres of conservation practices that have been installed with state and federal financial and technical assistance programs. The 2019 Biennial Report also includes data from the Soil Transect Survey as an indicator for reduced tillage practices and acres meeting or exceeding "T". A National Agricultural Statistics Service NLRS survey was conducted to estimate the amount and types of conservation practices that were established as well as gauging farmer knowledge on certain practices for the 2017 growing season. The report also recognizes the contributions of the non-governmental organizations who are working to implement the NLRS.

The urban stormwater chapter shows the level of urban stormwater practices that were installed in the last two years with financial assistance provided by the Illinois EPA 319 Nonpoint Source Grant Program. In addition, data gleaned from Municipal Separate Storm Sewer Systems (MS4) annual inspection reports were summarized for the first time, as a means to track additional urban stormwater practices. This chapter also recognizes stormwater partner contributions and programs from around the state.

One of the highlights of the 2019 Biennial Report is found in the point source chapter. Using Discharge Monitoring Report data from municipal and industrial point source facilities, the data show that from 2011 to 2018, there has been an annual reduction of 4.3 million pounds of total phosphorus from point sources. This represents a 24% reduction in point sources' total phosphorus loads compared to the 2011 baseline loads used in the NLRS. This achievement is largely due to phosphorus concentration limits being placed in National Pollutant Discharge Elimination System (NPDES) permits for major municipal facilities (those discharging one million gallons per day or greater).

The NLRS Annual Conference was held at the Crown Plaza in Springfield on December 3rd-4th. United States Department of Agriculture Undersecretary Bill Northey was the keynote speaker. The Conference agenda and presentations are available on the website listed above. Meetings of the Policy Working Group and associated committees and subgroups will be scheduled for the coming year. The next Biennial Report will be released in 2021.



Left. Total phosphorous (point source load, estimated future total phosphorus (point source load). *Figure from the 2019 Illinois NLRS Biennial Report.*

*Includes all point source facilities not differentiated by type of size.

DuPage River Salt Creek Workgroup
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