

Entry: 538

NEW Water's Silver Creek Project

Started at: 10/22/2021 10:47 AM - Finalized at: 10/22/2021 02:53 PM

Page: NEAA Nomination Form

APPLICATION DEADLINE: **Friday, October 22, 2021, 11:59 pm PST**

All fields indicated by a red asterisk (*) must be completed

Category

Watershed Collaboration Award

NOMINATING AGENCY'S INFORMATION

Name & Title of Individual Submitting this Application

Tricia Garrison, Public Affairs & Education Manager

Submitting Agency's Name

NEW Water

State (2letters)

WI

Service Area Population of Submitting Agency

236,000

Social Media (Indicate all that applies)

Communications Person's Name & Email, Facebook, Instagram, Twitter

Communications Contact

Tricia Garrison

Communications Contact's Email

tgarrison@newwater.us

Facebook

<https://www.facebook.com/GreenBayMetropolitanSewerageDistrict> (<https://www.facebook.com/GreenBayMetropolitanSewerageDistrict>)

Instagram

<https://www.facebook.com/GreenBayMetropolitanSewerageDistrict> (<https://www.facebook.com/GreenBayMetropolitanSewerageDistrict>)

Twitter

https://twitter.com/newwater_wi (https://twitter.com/newwater_wi)

Agency Logo - Hi-Res Picture (jpg; or .png)

Download File (https://vo-general.s3.amazonaws.com/1791819d-f6fc-46c3-b1b7-a1d38a2bd4d4/30366f9d-d9eb-49b3-b3eb-962581f5e412?AWSAccessKeyId=AKIAJ4PRWO26HAX3IOCA&Expires=1723306034&response-content-disposition=inline%3B%20filename%3D%22NW_Logo_BRANDTAG_RGB_Final.png%22&response-content-type=image%2Fpng&Signature=ENWtkBgE8q2ETmuAZ%2BgiaY%2F9Wqo%3D)

PROJECT / INDIVIDUAL NOMINEE'S INFORMATION**Name of Nominated Project / Program or Nominee (as it will appear on the NEAA award)**

NEW Water's Silver Creek Project

Has this project / program ever been submitted for NEAA recognition in the past?

No

SUPPORTING DOCUMENTATION**Narrative Description: Project / Program or Individual (attach pdf, limited to 4 pages, double-spaced, 12pt)**

Download File (<https://vo-general.s3.amazonaws.com/1791819d-f6fc-46c3-b1b7-a1d38a2bd4d4/dbe80ead-198d-443b-a05c-58085e8b4022?AWSAccessKeyId=AKIAJ4PRWO26HAX3IOCA&Expires=1723306034&response-content-disposition=inline%3B%20filename%3D%22NACWA%20Silver%20Creek%20Narrative%20FINAL.pdf%22&response-content-type=application%2Fpdf&Signature=XFTeBU%2F6N5ihXVjCDNCYqDm1zF4%3D>)

Supplemental Information Included - i.e. images, video, add'l document (Optional)

Yes

Supporting Material (PDF, limited to 4 pages)

Download File (<https://vo-general.s3.amazonaws.com/1791819d-f6fc-46c3-b1b7-a1d38a2bd4d4/1a27b2f5-dfe9-472f-90be-ace87ef6ae42?AWSAccessKeyId=AKIAJ4PRWO26HAX3IOCA&Expires=1723306034&response-content-disposition=inline%3B%20filename%3D%22Silver%20Creek%20Addendum%20FINAL.pdf%22&response-content-type=application%2Fpdf&Signature=9In6dNwkHWe9QrZ%2Brib4vuAz9z4%3D>)

Supporting Material - Video (provide link)

<https://www.youtube.com/watch?v=WSKHxvwwbAc&t=3s> (<https://www.youtube.com/watch?v=WSKHxvwwbAc&t=3s>)

MEMBER SPOTLIGHT

Please attach a third-person article (350-400 words MS doc) - something that a layperson would understand, describing your project / program to be posted on the front page of NACWA's website as part of our "Member Spotlight" section.

Member Spotlight Document (MS Word)

Download File (<https://vo-general.s3.amazonaws.com/1791819d-f6fc-46c3-b1b7-a1d38a2bd4d4/3d73f477-2822-4da8-bde3-de3ac591b554?AWSAccessKeyId=AKIAJ4PRWO26HAX3IOCA&Expires=1723306034&response-content-disposition=inline%3B%20filename%3D%22NACWA%20Silver%20Creek%20Summary%20FINAL.docx%22&response-content-type=application%2Fvnd.openxmlformats-officedocument.wordprocessingml.document&Signature=2oTc1rZTTzyikn6P5Zd5HlmgKQ%3D>)

Member Spotlight Hi-Res Picture (jpg; or .png)

Download File (<https://vo-general.s3.amazonaws.com/1791819d-f6fc-46c3-b1b7-a1d38a2bd4d4/9b5629c8-8269-40cd-8dd9-7c1542542eee?AWSAccessKeyId=AKIAJ4PRWO26HAX3IOCA&Expires=1723306034&response-content-disposition=inline%3B%20filename%3D%22Jeff%20in%20FIeld%20Silver%20Creek.jpg%22&response-content-type=image%2Fjpeg&Signature=%2FAZIMm7XYNvueGD9b%2FvBcBBqmyU%3D>)

Member Spotlight Hi-Res Picture (.jpg; or .png)

No File Uploaded

PROJECT POSTER or PROJECT WEBSITE

Please include a hi-res PDF or website link of your Project to be displayed on NACWA's NEAA website (example of last year's [honorees \(https://www.nacwa.org/about-us/awards/national-environmental-achievement-award-program/nea-2021-honorees\)](https://www.nacwa.org/about-us/awards/national-environmental-achievement-award-program/nea-2021-honorees).)

Project Poster / Website (indicate at least one)

Project Website

Project Website

<https://www.newwater.us/projects/silver-creek> (<https://www.newwater.us/projects/silver-creek>)

APPLICATION AUTHORIZATION

Please contact btrombino@nacwa.org (<mailto:membership@nacwa.org>; btrombino@nacwa.org?subject=Who%20is%20Our%20NACWA%20Primary%20Contact%20for%20the%20NEAA%20application%3F). if you do not know the name of your NACWA Representative (SUBJECT: Who is Our NACWA Primary Contact for the NEAA application?

Signature of Individual Submitting Application (pdf/jpg)**Name of Submitting Agency's NACWA Representative**

Thomas W. Sigmund, P.E.

Title of Submitting Agency's NACWA Representative

Executive Director

Email of Submitting Agency's NACWA Representative

tsigmund@newwater.us

Signature of Submitting Agency's NACWA Representative (pdf/jpg)**Does this Project/Program involve another Agency?**

No

Please review your application prior to finalizing it. All fields with a red asterisk (*) must be completed. If you have any questions in regard to submitting your application, please contact Bredy Trombino (<mailto:btrombino@nacwa.org?subject=Application%20Questions%20-%20PreCompletion>) at 202.533.1820.

Narrative

Silver Creek Watershed Adaptive Management Pilot Project **www.newwater.us/projects/silver-creek** **(Northeast Wisconsin)**

NEW Water, the brand of the Green Bay Metropolitan Sewerage District, launched the Silver Creek Watershed Project in 2014 to pilot an alternative, less costly effluent discharge compliance strategy called Adaptive Management (AM). This project brought together agricultural landowners, growers, local land conservation offices, private agronomists, university researchers, the Oneida (Native American) Nation, and non-governmental entities to work together toward improving water quality, soil health, and agricultural land uses. These collaborative efforts focused on two primary objectives:

- 1) Implementing agricultural best management practices (BMPs) such as increased ground cover, structural land changes, residue and nutrient management, runoff control, wetland and stream channel improvements.
- 2) Monitoring, modelling, and data collection of soil chemistry, water quality conditions, aquatic invertebrates, edge-of-field monitoring at a rotational grazing field, and research of plant uptake of phosphorus.

The Project's primary goal was to demonstrate that working toward water quality improvements in a watershed would be a more cost-effective approach to meeting permit requirements, while also achieving greater environmental and community benefits.

Nearly ten years ago, NEW Water recognized the best way to address long-term environmental resiliency was to do it on a watershed level and created an Environmental Programs Division. Within it, the

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Watershed Program Department is dedicated to meet one of the biggest challenges facing the wastewater treatment industry today: **phosphorus**. Excess phosphorus has caused the Lower Fox River and the bay of Green Bay to be listed as an US EPA Great Lakes Area of Concern with updated and strict Total Maximum Daily Loads. To meet this new phosphorus standard NEW Water would have had to add costly upgrades to its existing facilities. Leading up to its permit renewal term, NEW Water chose to pilot AM strategies for five years. Dozens of agricultural landowners and growers were recruited to participate in this voluntary project to help evaluate and prove that water quality improvements in the field can be more cost-effective than end-of-pipe construction at the facility.

The Silver Creek Watershed is 4,800 acres in size with over 100 large properties predominately in agricultural use. It was an ideal size to evaluate the power of communication and innovation on improving water quality while also improving soil health and wildlife habitat. The Project's cornerstone was the diverse group of stakeholders and partnerships, including: The Oneida Nation, Brown County and Outagamie County Land Conservation Departments, Ducks Unlimited, The Nature Conservancy, US Fish and Wildlife Service, US Geological Survey, University of Wisconsin-Green Bay, Fox-Wolf Watershed Alliance, the Alliance for the Great Lakes, Tilth Agronomy, Jacobs Engineering, Mc Mahon Associates, and NEW Water. In addition, the US EPA Great Lakes Restoration Initiative (GLRI) supported the project with a \$1.6 million grant. The project maximized financial and technical resources to install conservation BMPs and brought additional technical expertise to the Silver Creek community.

An added twist in successful collaboration was Silver Creek's proximity to Austin Straubel International Airport (GRB) which led to additional partners joining the project – the Federal Aviation Administration, USDA-Wildlife Services, USDA Animal and Plant Health Inspection Service, and the US Army Corps of Engineers. Some unproductive agricultural lands near GRB were converted to treatment wetlands and

pollinator habitat. Water control structures and plans were put in place to limit waterfowl attraction as migratory bird and airplane interaction must be limited near airports.

The Silver Creek Project succeeded in achieving water quality awareness, environmental habitats, soil health, and simultaneously developed sustainable improvements in agricultural practices. Ongoing partnerships, a vast GIS database, modelling with US EPA's Spreadsheet Tool for Estimating Pollutant Loads (STEPL) and Wisconsin's Soil and the Nutrient Application Planner (SnapPlus), and many lessons learned became the template for an action plan for NEW Water's eventual 2021 approved effluent discharge permit.

Additionally, NEW Water worked with a consultant to develop a cost evaluation tool to use the actual costs from Silver Creek to project what a full scale, 20-year watershed adaptive management effort would cost in a watershed large enough to achieve future permit compliance for NEW Water. This cost evaluation tool took into account the time value of money and helped NEW Water determine if the watershed conservation approach was feasible. The tool demonstrated that for under \$40 million a watershed conservation approach could be successful in achieving permit compliance, as compared to approximately \$100 million for facility upgrades to meet future effluent permit requirements.

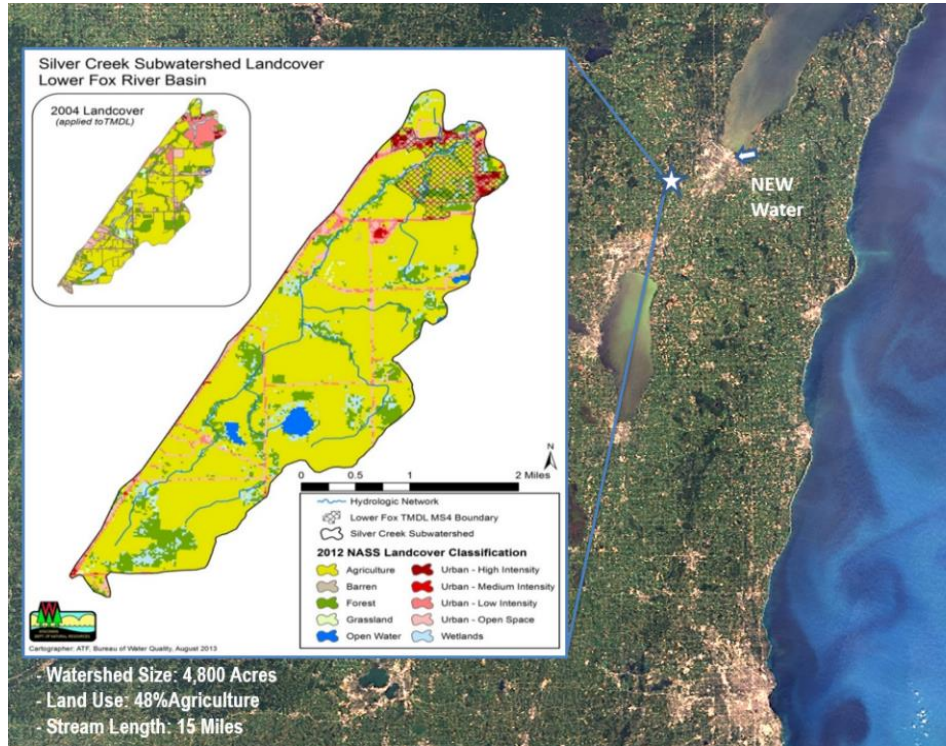
Five years of data had been accumulated by 2019 in a vast spatial GIS database that helped the pilot project collaborators demonstrate that environmental initiatives at the watershed level can significantly reduce phosphorus impacts to Silver Creek, and ultimately Green Bay and Lake Michigan. BMPs such as grassed waterways, critical area plantings, filters strips, wetland restorations, rotational grazing, cover crops, and no-till practices resulted in reductions of 3,000 pounds/year of phosphorus and 1,500 tons/year of total suspended solids to Silver Creek and its tributaries. Furthermore, landowners and growers

experienced a paradigm shift where they are now “doing good by doing well.” In other words, good deeds on the land can also help improve the bottom line.

Many in this agricultural community also have fields and operations in the adjacent and much larger Ashwaubenon Creek and Dutchman Creek watersheds that are now the focus of NEW Water’s alternative permit compliance effort. Agricultural neighbors talked with each other about the successes in Silver Creek, awareness of NEW Water and county technical assistance and monetary incentives spread quickly, and the importance of water quality protection took hold. In fact, so many new agricultural partners have lined up, that NEW Water is confident that its new Adaptive Management compliance strategy will become very successful over the 20-year permit life span. The Silver Creek Project proved to be an exemplary collaboration effort, resulting in a more cost-effective approach for permit compliance, as well as a win for agriculture and the environment. Through the power of partnerships, the Silver Creek Project demonstrates that we can better protect our most valuable resource, water.

Silver Creek Watershed Adaptive Management Pilot Project

The success of NEW Water's [Silver Creek Adaptive Management Project](#) that began in 2014 was piloted for NEW Water's [NEW Watershed Program](#) in Ashwaubenon Creek and Dutchman Creek (ACDC) a large-scale Adaptive Management Program.



The power in partnerships makes this all possible - routinely engaging stakeholders while learning and sharing best management practices efforts in the field.



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In early 2020, a ["Thank You, Farmers!"](#) video was produced to showcase the extraordinary work being done by agricultural partners in the [NEW Watershed Program](#) to protect our most valuable resource, water, now and in the future. The premiere was shown at Agricultural Landowners and Growers meeting to launch a large-scale effort in the watershed, seeking to collaborate with area stakeholders to achieve improved water quality.



The ["Water Knows No Boundaries"](#) video produced by NEW Water featured former U.S. Rep. Reid Ribble and illustrates how non-traditional partnerships can save money and achieve greater environmental benefit. In this photo, the video was showcased during a Silver Creek Project agricultural roundtable event. The video was used during Water Week in Washington, D.C. to encourage Congress to continue funding for the Great Lakes Restoration Initiative, and continues to be used by educational entities and other organizations looking to launch similar watershed efforts. Through his "Save the Bay" initiative, Congressman Ribble highlighted the Silver Creek Project as a success story of the power of partnerships to protect Wisconsin's waters.

Member Spotlight Document

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The Silver Creek Watershed is 4,800 acres in size with over 100 large properties predominately in agricultural use. It was an ideal size to evaluate the power of communication and innovation on improving water quality while also improving soil health and wildlife habitat. The Project's cornerstone was the diverse group of stakeholders and partnerships, including: The Oneida Nation, Brown County and Outagamie County Land Conservation Departments, Ducks Unlimited, The Nature Conservancy, US Fish and Wildlife Service, US Geological Survey, University of Wisconsin-Green Bay, Fox-Wolf Watershed Alliance, the Alliance for the Great Lakes, Tilth Agronomy, Jacobs Engineering, Mc Mahon Associates, and NEW Water. In addition, the US EPA Great Lakes Restoration Initiative (GLRI) supported the project with a \$1.6 million grant. The project maximized financial and technical resources to install conservation BMPs and brought additional technical expertise to the Silver Creek community.

Protecting our most valuable resource, water



Another benefit of the Silver Creek Project is that many in this agricultural community also have fields and operations in the adjacent and much larger Ashwaubenon Creek and Dutchman Creek watersheds that are now the focus of NEW Water's alternative permit compliance effort. Agricultural neighbors talked with each other about the successes in Silver Creek, awareness of NEW Water and county technical assistance and monetary incentives spread quickly, and the importance of water quality protection took hold. In fact, so many new agricultural partners have lined up, that NEW Water is confident that its new Adaptive Management compliance strategy will become very successful over the 20-year permit life span. The Silver Creek Project proved to be an exemplary collaboration effort, resulting in a more cost-effective approach for permit compliance, as well as a win for agriculture and the environment. Through the power of partnerships, the Silver Creek Project demonstrates that we can better protect our most valuable resource, water. Learn more about NEW Water's Adaptive Management efforts here:

<https://www.newwater.us/programs/watershed>.

