

Launching

The Journey to Resource Recovery



NEW Water
The brand of the Green Bay
Metropolitan Sewerage District

2015 ANNUAL REPORT



Mission:

Leading water quality improvements for the bay of Green Bay through operational excellence, resource recovery, education, and watershed management.

NEW Water Leadership



Commission

Row one, left to right:

Kathryn Hasselblad, President, Term End: 12/31/16

James Blumreich, Secretary, Term End: 12/31/19

Tom Meinz, Vice President, Term End: 12/31/18

Mark Tumpach, Vice President, Term End: 12/31/20

Lee Hoffmann, Vice President, Term End: 12/31/17

Executive Team

Row two, left to right:

Paul Kaster, JD, MBA, Director of Business Services

Nathan Qualls, P.E., Director of Technical Services

Patrick Wescott, Director of Operations

William Hafs, Director of Environmental Programs

Cover photo: R2E2 construction launch event in August 2015.



A Message from the Executive Director

This year marked an important milestone for NEW Water: the launch of the journey to resource recovery. After five years of analysis, planning, and working with stakeholder advisory groups in search of the best solution to an aging solids handling facility, construction began of the facility, R2E2 (Resource Recovery & Electrical Energy). The innovative design couples anaerobic digestion and fluidized bed incineration, and will treat incoming waters as a valuable resource stream to be mined. From this stream energy and fertilizer can be recovered, all the while reducing costs, bringing in new revenue, and meeting permit requirements.

Operational resiliency is more important than ever. In December, NEW Water experienced unusually heavy rains, hiking up average inflow from 38 million gallons to 150 million gallons in a single day. This event called upon NEW Water to operate at full capacity, and this excellent teamwork ensured nonstop service throughout.

These dedicated efforts were recognized by industry peers this year as well: NEW Water received the NACWA Utility Management Award, in addition to achieving 100% permit compliance for the 13th consecutive year.

As NEW Water celebrates its 85th year serving Northeast Wisconsin, it is this dedication to excellence that will propel the organization into this new chapter of resource recovery. To aid in this journey, a new Strategic Plan was completed which solicited input from stakeholders and staff. This document will serve as a roadmap to guide NEW Water to become a Utility of the Future: one that looks to serve the economic, social, and environmental needs of its community.



Vision:

Protecting our most valuable resource, water.

Resource Recovery & Electrical Energy

In 2015, NEW Water began its journey to resource recovery, with the groundbreaking of construction for the new solids handling facility, R2E2. The innovative project will reduce NEW Water's carbon footprint, result in a cost savings, and enable continued high-quality service for the community.

Construction of the new facility is expected to be completed in 2018. The project will use anaerobic digestion, which will produce energy in the absence of oxygen. This is back to the future for NEW Water, since anaerobic digesters were used from the 1930s through the 1970s when NEW Water began accepting industrial waste from the paper mills. At that time, the combination of industrial and municipal waste was not conducive to anaerobic digestion.

With R2E2, NEW Water will be able to accept different wastes, such as dairy, sugar, and food processing, in addition to traditional waste, which will also boost energy production. The project will result in about a 50% annual reduction in purchased energy.



20,370
linear feet of steel piling supports placed for digester foundation



5,324
cubic yards of redi-mix concrete placed (665 concrete trucks)

663
tons of rebar for cast-in-place concrete

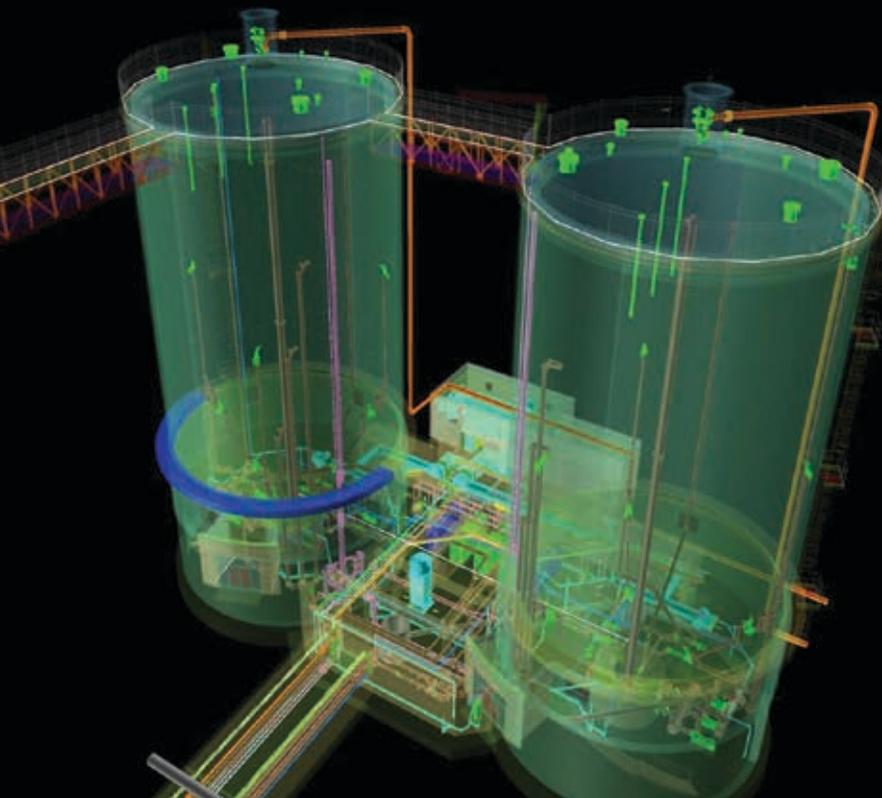


Photos top to bottom:

Operations Project Coordinator Craig Lawniczak gives staff a tour of the construction site.

The project will feature two anaerobic digesters, which will stand approximately 100 feet above ground. Here, the digester base construction is being prepped.

Stormwater retention ponds can help curb urban runoff into waterways. The pond will serve to filter out pollutants and debris from roadways before reaching area waters. Here, Project Manager Bill Angoli reviews construction for the pond installation.





Erin Wilcox, Water Resource Specialist, educates a community group on work being done in Silver Creek.

Partnering to Protect the Watershed

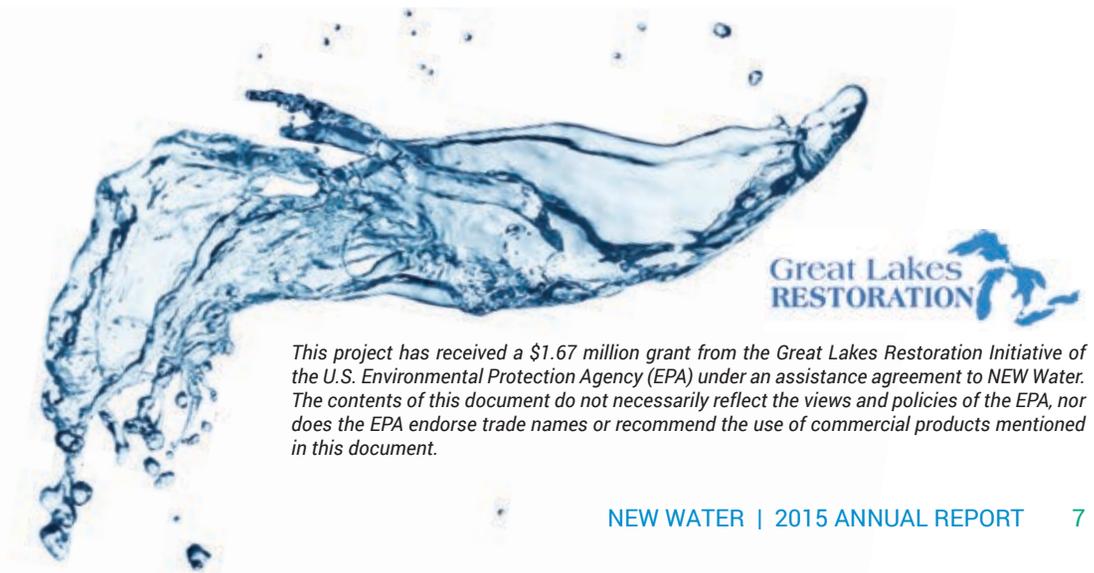
NEW Water continues to balance environmental, social, and financial stewardship, and its new foray into watershed work is an embodiment of this effort. The Silver Creek Pilot Project aims to evaluate nonpoint efforts toward new regulations to reduce the amount of phosphorus discharged to the river using a collaborative, community approach, rather than building a new facility to the tune of \$200–400 million. For a fraction of this cost, NEW Water has launched into Adaptive Management, and is starting small: The Silver Creek sub-watershed, a 4,800-acre, predominantly agricultural area. Partners include the Oneida Tribe of Indians, Brown and Outagamie Counties, The Nature Conservancy, the University of Wisconsin-Green Bay, and U.S. Fish and Wildlife Service. NEW Water was honored with grants in 2015 for work on Silver Creek from the Great Lakes Restoration Initiative, Ducks Unlimited, and the Fund for Lake Michigan. To net additional funding available for land conservation practices from the Natural Resources Conservation Service, the project team worked with landowners to submit applications, with great success: 80% of landowners applied, and 100% of those were awarded. Installation will begin in 2016.



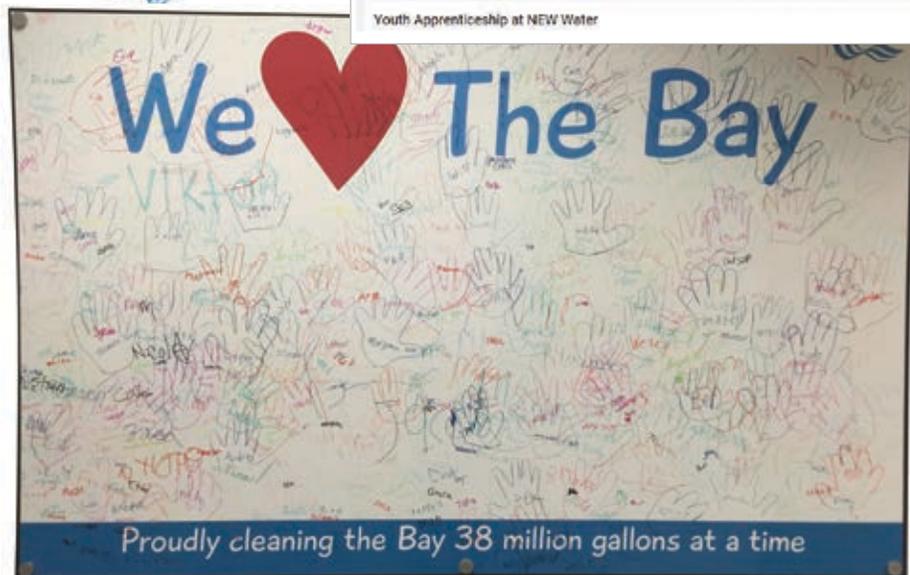
NEW Water initiated the “Silver Creek CREW” student monitoring program to complement the watershed project. Eighty students from Oneida and Bayport High Schools learned about the science behind water, the pilot project, and the importance of water to the community.



Partnering to improve water quality in Silver Creek is NEW Water’s first foray into Adaptive Management. With all the environmental improvements to the area, it is hoped that the Midland Painted Turtle, pictured here, will once again flourish in these waters.



This project has received a \$1.67 million grant from the Great Lakes Restoration Initiative of the U.S. Environmental Protection Agency (EPA) under an assistance agreement to NEW Water. The contents of this document do not necessarily reflect the views and policies of the EPA, nor does the EPA endorse trade names or recommend the use of commercial products mentioned in this document.



Celebrating Water Getting kids out into nature at an early age can instill a greater appreciation for the watershed – and Bay Beach Wildlife Sanctuary Director Mike Reed’s innovative 4K program does just that. Kids spend their school day outside – with their boots, in the ponds, picking up tadpoles and leaves, getting muddy, and having a blast. For his vision and drive to launch this nature-based program, Reed was named the 2015 NEW Watershed Champion by NEW Water and the Green Bay Water Utility.

The two water entities again partnered to commemorate World Water Day in March, a United Nations-designated day to call attention to global water issues. In Northeast Wisconsin, this date is leveraged to address local water issues, and to celebrate the efforts of those trying to improve local waterways.

“The Sanctuary’s nature-based kindergarten program is inspirational, and follows in the proud Wisconsin tradition of appreciation and conservation of natural resources,” said Tom Sigmund, Executive Director of NEW Water.

The 4K program is a collaboration between the Wildlife Sanctuary, the Green Bay Area School District, and the University of Wisconsin-Green Bay.

Community Citizenship Proudly serving Northeast Wisconsin nonstop for 85 years, NEW Water has often been called the “best kept secret in Green Bay,” quietly serving from inside its fence. Striving to become a Utility of the Future, however, NEW Water is fostering partnerships outside the fence to create a more sustainable community.

In 2015, NEW Water teamed up with local business, tech college, civic, and municipal entities to create The Dale Preston Memorial Bench at the Jack Day Environmental Educational Center. The innovative bench was designed by local college students, and produced with locally recycled materials (including cement from the Highway 41 project). To help educate, inform, and inspire future leaders, NEW Water partners with youth groups to rally around water. NEW Water teamed up with 50 area Girl Scouts to help them achieve their “Wonders of Water” badge, thousands of children and their families visited the NEW Water booth at the Einstein Science Expo, as well as the World Toilet Day display at the Brown County Library. NEW Water’s popular talks and tours program has expanded its reach, thanks to the 2015 launch of the Speakers Bureau: current and retired staff helping to tell the NEW Water story.

Photos, top to bottom:

Dale Preston Memorial Bench ribbon cutting ceremony, with “team bench”: NWTC, KI, Brown County Port & Resource Recovery, Habitat for Humanity, City of Green Bay, N.E.W. Plastics, and NEW Water.

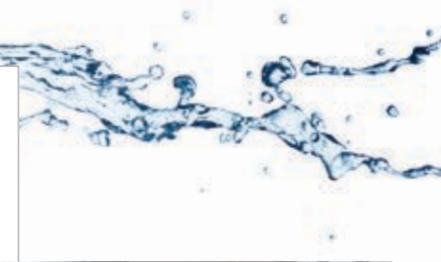
NEW Water’s Tom Sigmund, and Green Bay Water’s Nancy Quirk deliver the NEW Watershed Champion Award to Mike Reed.

Mike Reed, Center, with 4K students, and the extended 4K team.

Engineer Lisa Sarau of NEW Water helps Girl Scouts earn their “Wonders of Water” badge.

High School student Hannah Harmann is interviewed for a video to promote NEW Water’s Youth Apprentice Program, which was developed with the Green Bay Area Chamber of Commerce. Hannah intends to pursue a career in environmental engineering.

Visitors to NEW Water’s booth at the Einstein Science Expo pledged that they “heart” the Bay.



Working Smarter

- **REUSE & REPURPOSE!** NEW Water treats an average of 38 million gallons of water per day, and sends it back to the river. While that treated water, effluent, is not quite clean enough to drink, it is cleaner than receiving waters – and clean enough to be used for many purposes. In drought-stricken areas of the world, effluent is used for agricultural irrigation, car washes, or other industrial purposes. (In Sweden, wastewater is used to power buses.) NEW Water recycles an estimated 6.2 million gallons of effluent each day. This water is used to help keep pump seals cool, to prevent freezing in the clarifying basins in the winter, and for cleaning. This provides a significant cost savings each year, while helping conserve water.
- **LEAN PROJECTS.** NEW Water continues to implement Lean Management. To date, more than 30 Lean projects have been completed, representing over \$100,000 in project savings. More than a dozen staff have been certified in Lean project facilitation.
- **ENSURING CONTINUED RESILIENCY.** NEW Water launched an Interceptor System Master Plan, which involves a thorough assessment and analysis of the interceptor system, and inflow and infiltration. As part of the plan, a hydraulic modeling of the system will be conducted, and a 20-year Capitol Improvement Plan will be formulated to address future needs.

Educating the Community

Education is a key component of NEW Water's new strategic plan. In 2015, NEW Water proactively reached out to educate the community on the R2E2 project and its cost, collaborated with media to create public service announcements for "what not to flush," and convened a meeting of area neighbors to discuss NEW Water's R2E2 construction plans, efforts toward odor mitigation, and watershed improvement. Other outreach included R2E2 Open Houses, quarterly stakeholder meetings, and messaging through NEW Water's digital and social media channels.



Photos clockwise from top left:

Interim Operations Trainer Dave Hoppe displays NEW Water's award-winning effluent.

Mechanic Paul Schmitt is hard at work.

NEW Water hosted Rep. Reid Ribble on NEW Water's Bay Guardian workboat, to help educate him on phosphorus issues affecting the Bay.

Director of Operations Pat Wescott helms a neighborhood meeting at NEW Water.

Heavy rains in December pushed 150 million gallons of water in a single day, well over the average of 38 million gallons. Tom Sigmund took to local airwaves to explain the impact to NEW Water.

NEW Water proactively works to educate the community on not pouring things down the drains that don't belong.

Lab Manager Mike Urbancic demonstrates that some wipes labeled "flushable" do not easily disperse in water, which can cause backups in homes, and trouble for NEW Water's system.



NEW Water staff planted a symbolic Wisconsin Maple Tree in honor of the new journey toward resource recovery.

Sharing NEW Water's Expertise

In 2015, NEW Water launched a Speakers Bureau to expand outreach efforts. The Speakers Bureau includes three retirees – **Pat Rocheleau**, **Dan Busch**, and **John Kennedy**, who continue to share their valuable knowledge with the community.

New Hires

Casey Shaw – Lab Analyst I

Matthew Pamperin – WWTP Operator-in-Training

Corey Evers – WWTP Operator-in-Training

Bobby Zepnick – Mechanic Apprentice

Steven Vickman – Electrical & Instrumentation Technician

Joseph Watson – WWTP Operator-in-Training

Cory Marcott – WWTP Operator-in-Training

Annette Weissbach – Grant Specialist

Lana Vickman – Support Services Assistant

Stefanie Stainton – Communications & Education Specialist

Benjamin Chojnacki – Lab Analyst I

Brad Butterfield – Maintenance Manager

Jon Strandberg – WWTP Operator-in-Training

Tina Crevier – Payroll/HR Specialist

Retirements

Bonita Perrigoue – Lab Analyst I

Michael Erschnig – Maintenance Manager

Thomas Kujava – Mechanic

Job Changes

Jacob Kehring – WWTP Operator-in-Training to WWTP Operator

Corbin Magnin – WWTP Operator-in-Training to WWTP Operator

Rita Krause – Communications & Education Specialist to Administrative Assistant

Jacob Becken – Operations Trainer to Interim Treatment Leader

Dave Hoppe – WWTP Operator to Interim Operations Trainer

Craig Lawniczak – Treatment Leader to Operations Project Coordinator

NEW Water's #1 Asset: The Team

Achievements:

NEW Water was honored with the Excellence in Utility Management Award from NACWA

Tom Sigmund, Executive Director, was elected to the NACWA Board of Directors

Maridey Diaz, Accounting Manager, received the Lean Six Sigma Green Belt Certificate, from the University of Wisconsin-Madison's School of Business

Jeff Smudde, Watershed Programs Manager, was re-elected to the Wisconsin Wastewater Operators Association (WWOA) Board of Directors

Erin Wilcox, Water Resource Specialist, joined the Water Environment Federation's Toxics Subcommittee

Aaron Eichhorst, Treatment Leader, was elected to serve as the 2016 vice chair and 2017 chair of the Lake Michigan District of WWOA

Bill Oldenburg, Pretreatment Coordinator, received the 2015 Service Award from the Wisconsin Section of Central States Water Environment Association

Mike Murphy, Operator, competed in the Central States Operators Challenge

Operators **Jake Kehring**, **Bryan Thompson**, **Corbin Magnin**, and Mechanic Apprentice **Bobby Zepnick** competed for the Lake Michigan District's WWOA Annual Operator Competition. Additional NEW Water staff also served as judges and/or session moderators: Analytical Chemist **Holly Blazer**; **Jeff Smudde**; **Aaron Eichhorst**; Field Services Tech **Matt Schmidt**; Interim Treatment Leader **Jacob Becken**; and **Dave Hoppe**.

Peer Awards

Jim Harper, Mechanic, Jack Day Award of Accomplishment

Matt Schmidt, Field Services Tech, Peer Excellence Award

Helping the Community

NEW Water staff continued to support community needs outside the fence as well in 2015, in ways including: hosting American Red Cross Blood Drives, holding a United Way Campaign kick-off event; collecting bottles for Doty Elementary School to create ecosystems; collecting food for The Giving Tree's Staple Bag Food Drive; and collecting gifts and identified needed items for the Giving Tree Holiday Store.





Investing in the Community 2015 Financial Statement

This statement is presented in this report for informational purposes only and is not intended to represent full financial disclosures. Complete financial statements and related notes are available on NEW Water's website at www.newwater.us or available upon request.

	2015	2014
OPERATING REVENUES		
User fees - municipal waste	\$30,769,420	\$ 29,065,839
User fees - mill waste	1,241,092	1,344,805
Capital revenue - mills	1,246,166	1,124,235
Other revenues	2,965,036	2,464,172
Total operating revenues	36,221,714	33,999,051
OPERATING EXPENSES		
Salaries and wages	6,943,478	6,712,940
Fringe benefits	2,621,952	2,795,060
Employee development	108,638	114,595
Travel and meetings	60,756	49,088
Power	2,411,083	2,376,454
Natural gas and fuel oil	1,064,850	1,412,686
Chemicals	502,937	631,725
Maintenance - plant	1,506,683	1,256,578
Maintenance - interceptors	376,651	232,741
Contracted services	1,746,549	1,910,472
Insurance	200,413	203,472
Solid waste disposal	169,058	224,172
Office related expenses	432,598	345,878
Supplementary expenses	378,752	347,881
Subtotal	18,524,398	18,613,742
Depreciation	7,421,951	7,335,722
Total operating expenses	25,946,349	25,949,464
Operating income	\$10,275,365	\$ 8,049,587



Chris Thompson, Field Services Tech, works in NEW Water's 285-square-mile area to ensure continuous service to the community. In 2015, NEW Water collected and analyzed 4,918 samples from 27 metering sites. The analyses are used to calculate customer bills and to ensure permit compliance.

Serving the Community

285
square
miles

231,000
residents

18
municipal
customers





NEW Water

*The brand of the Green Bay
Metropolitan Sewerage District*



2231 North Quincy Street • Green Bay, WI 54302
Phone: 920.432.4893 • Fax: 920.432.4302 • www.newwater.us