

RIVER CURRENTS

A Quarterly Publication of Milwaukee Riverkeeper

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Photocredit: Pat A. Robinson / Milwaukee Journal Sentinel

OUR 2015 MILWAUKEE RIVER BASIN REPORT CARD IS HERE!

FIND OUT IF WE MADE THE GRADE!

To help evaluate the health of the Milwaukee River Basin, Milwaukee Riverkeeper releases an **Annual River Report Card** each year. This report analyzes water quality data collected by our **volunteer water quality monitors**, the Milwaukee Metropolitan Sewage District (MMSD), and the Wisconsin Department of Natural Resources (WDNR). We compare all of this data to **state and federal water quality standards** and then assign letter grades based on whether or not our watersheds meet these standards.

One of the most **notable pollutants** that we analyzed in our 2015 River Report Card was **phosphorus**. Phosphorus is an essential nutrient required for growth by all living things. Although essential, in **excess levels** phosphorus can cause rapid growth of algae populations. These **algae "blooms"** can result in nasty odors, reduced oxygen levels, and large kills of fish populations in extreme cases. Certain species of freshwater algae can even be **toxic** to humans and pets if ingested!

Unfortunately, high phosphorus levels continue to be a **major problem** within the Milwaukee River Basin. In our 2015 River Report Card, the Milwaukee River Basin received a **failing grade** for phosphorus. This is because **only 52%**

The Milwaukee River Basin received an overall C-grade for 2015.

of the phosphorus samples collected in 2015 **passed state water quality standards**. This is not a new problem. The Milwaukee River Basin has received a **failing grade** for phosphorus in almost all of our Annual River Report Cards for the past **5 years**. The one exception was in 2013 when the basin **received a D grade**, which is still nothing to brag about.

So where is this phosphorus pollution coming from? Within rural areas of the Milwaukee River Basin, **commercial fertilizers** and **manure** are considered to be major sources of phosphorus pollution to rivers and streams. Once applied or left behind by grazing livestock, these phosphorus rich compounds can make their way into rivers and streams during **rain events**.

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WELCOME!



Jennifer Bolger Breceda | Executive Director

As we “fall” into another Wisconsin winter, I’m taking a moment to reflect on the past year and all of the accomplishments by my incredible staff and to share my gratitude for all they do to succeed at pushing our mission forward. I am fortunate to have such a talented group to work with. It certainly does not go without saying that none of our accomplishments would be possible without the support of our dedicated volunteers, members, and community partners. I cannot help but take note that this year, in particular, has been a year of great transition for Milwaukee Riverkeeper. We’ve grown our water quality monitoring program in size and in scope, hosted more summer events than ever before, and almost doubled our staff size. As I look to the year ahead, I’m encouraged to know these big changes will help us to better protect, restore and connect with our three beautiful rivers.

Better Protection

This year, 10 of our returning water quality volunteers moved into our advanced level monitoring program and 25 new water quality volunteers joined our team to monitor 95 river stations

throughout the Milwaukee River Basin. We added phosphorus sampling to six new monitoring stations, and for the first time, we trained 35 volunteers to monitor conductance and chloride during summer months. We also engaged 3,300 people in our advocacy efforts, like our campaign to remove the Estabrook Dam and let the Milwaukee River flow free.

Better Restoration

Our multi-year fish passage efforts on the Menomonee River also continued to move forward. We worked with community partners to finish removing 30 woody debris barriers, four low-flow barriers, and 2,700 feet of concrete to open more than 32 miles of stream for recreational fishing. Our 21st Annual Spring River Cleanup was a huge success with 3,600 volunteers removing 75,000 pounds of trash from 50 locations along our three rivers in one day—the most volunteers we have ever had register in advance.

Better Connection

This summer, we hosted over 20 events for people to explore, learn about, and connect with our three rivers. We worked with our partners to host paddles, educational workshops, cleanups and even some guided day hikes along our Milwaukee River.

Undergoing change is a defining characteristic of rivers. In fact, flowing and moving forward is the only way a river stays healthy. As a river lover and water advocate, we need your help to keep us moving forward!

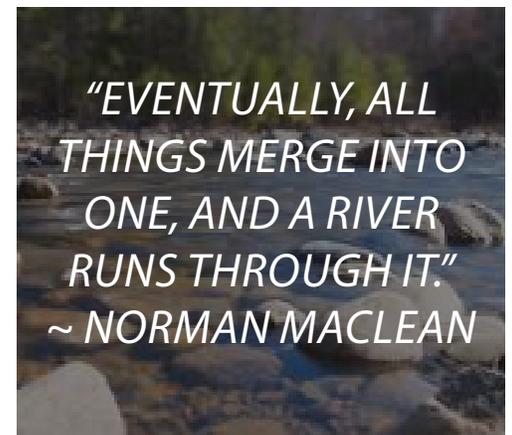
Donate:

- **\$1,000** to help us engage **1,000** more river lovers in issues that are important to them,
- **\$500** to recruit **500** more volunteers for our 22nd Annual Spring River Cleanup,
- **\$75** to remove the more than **75** remaining barriers to fish passage in the Menomonee River,
- **\$50** to help us connect **50** more people to our waterways next summer,
- **\$35** to become a member and support swimmable, fishable rivers all year round!

To healthy, flowing rivers,

Jennifer Bolger Breceda
Executive Director

P.S. Please consider giving as generously as you can to achieve swimmable, fishable rivers for future generations!



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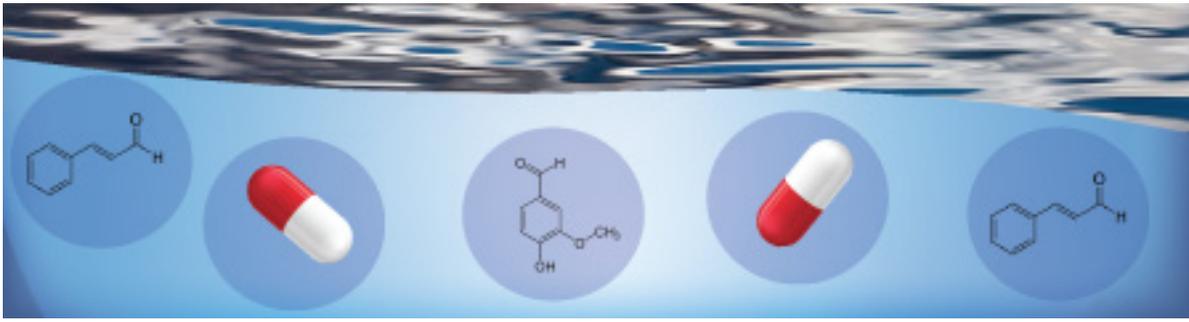
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SUGAR, SPICE, AND SOME THINGS A LITTLE LESS NICE

EMERGING CONTAMINANTS WATER MONITORING PROJECT LOOKS FOR HOLIDAY SPICES AS INDICATOR OF HARMFUL CONTAMINANTS

You may think finding common holiday spices in our waterways is a ‘sweet’ surprise, but their presence actually represents a growing concern in water quality management: **emerging contaminants**. When we use holiday spices, such as **cinnamon and vanilla**, in our homes, they eventually make their way into our local waterways through **illicit discharges, septic systems, failing infrastructure,** or **treated wastewater**.

While kitchen spices are not necessarily harmful to aquatic life, they can be indicators of other more harmful contaminants that are likely entering our rivers after **human consumption or use**, such as acetaminophen and other pharmaceuticals and household products. We suspect many of these emerging contaminants are harming water quality and wildlife, and they are becoming **increasingly important to monitor**.

Emerging contaminants are anything in our rivers and lakes that we don’t typically monitor, but could adversely impact the health of our water and the human and aquatic life that depends on it.

In response, Milwaukee Riverkeeper is working in partnership with **Carroll University, the Urban Ecology Center, the University of Wisconsin-Milwaukee’s School of Freshwater Sciences and School of Public Health** to start a new water quality monitoring project to study these emerging contaminants in our Milwaukee River Basin. And our first step was to monitor for these spices

around the **Thanksgiving holiday!** Fourteen dedicated volunteers went out to sample water on **all three of our rivers** the Saturday after the Thanksgiving holiday and researchers at the University of Wisconsin-Milwaukee School’s of Freshwater Sciences and School of Public Health will test the samples for emerging contaminants, particularly holiday spices. **We plan to have results back in mid- to late-December, so stay tuned!**

RIVERKEEPER WATCH



RIVERKEEPER WATCH

Our Riverkeeper does a lot of work throughout the Milwaukee River Basin. Riverkeeper Watch is how we keep you up to date on our most recent activities, findings, and fun events!

LET’S PLAY “WHAT’S THAT NASTY STUFF COMING OUT OF THAT PIPE”?

Riverkeeper receives many calls about weird things coming out of stormwater pipes and into rivers. Here is a sampling of a few calls from the last few months!

In late September, we received a tip about “soylent green” coming out of a stormwater pipe on the south bank of the Menomonee River at Hawley Avenue via Facebook. The City of Wauwatosa conducted sewer dyeing near N. 60th Street (north of Wells), which discharged to this location. Normally, bright green “dye” is sewer dye or diagnostic dye used to find cracks and problems in the sewers. Often storm sewers are flushed with green dye and then technicians assess whether the dye is leaking into sanitary sewers (or vice versa).

(picture on page 4)

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Chloride Educator

RIVERKEEPER WATCH (CONT.)



[Click for more](#)

Also, Zac and Jason from our staff found an oily sheen coming out of an outfall north of Howard Avenue (at Van Beck), discharging into Wilson Park Creek on several occasions during our routine stormwater monitoring for bacteria. We alerted the City of Milwaukee. This outfall drains 260 acres, and it is possible that the oil was due to road runoff. We will continue to monitor this pipe.



Over the last month, a weird discharge was reported coming out of a stormwater pipe near 65th and Wells into a tributary in Jacobus Park. The City of Wauwatosa sent out inspectors and is trying to find the source of the problem, which is likely from a private property.



2 AMERICORPS MEMBERS, 1 YEAR OF SERVICE

This year, we are so excited to welcome **two new Americorps Members** to the Milwaukee Riverkeeper team. Our new **Event Coordinator**, Aviva Glassman, comes to us from **Public Allies**, an organization committed to creating a just and equitable society and the diverse leadership to sustain it. Our new **Water Quality Assistant**, Kelly Ostrenga, comes to us from the **Marshfield Clinic's Volunteer Wisconsin** program which helps to promote and strengthen volunteerism throughout our state.

MEET AVIVA



Aviva joined Milwaukee Riverkeeper through **Public Allies**. Preceding this, she spent five summers on **staff at a summer camp** in northern Wisconsin, the place that initially sparked her **passion for the outdoors** when she attended as a camper. This extensive experience working in outdoor spaces has instilled in her a goal of **inspiring others** to invest in and **commit to the environment**. As a Public Ally, she serves Milwaukee Riverkeeper by building capacity through **events and cleanups** that engage the community.



MEET KELLY



Kelly graduated in 2014 from UW-Milwaukee with a bachelor's degree in **Global Studies-Security**. She focused on BIG environmental problems: global **climate change** and international **water wars**. A language-lover, Kelly also studied Spanish and Portuguese. She started serving the Milwaukee Riverkeeper team in the fall of 2016 as a **Marshfield Clinic AmeriCorps** member and will continue to serve until the summer of 2017. If you can't find Kelly in the office, try looking for her, donning a pair of hip waders, in **any local creek or river**.



WE COULDN'T DO IT WITHOUT YOU

Thank you to all of our members for helping us work for swimmable, fishable rivers! Becoming a member ensures we have the resources we need to do our job and that's why we make sure your membership counts. Every dollar you donate to Milwaukee Riverkeeper goes directly to our work of restoring streams, identifying pollution, and fighting for strong policies and enforcement of laws to keep our water clean.

Thank you!

5 WAYS TO REDUCE YOUR WINTER ROAD SALT USE

RIVERKEEPER WATCH (CONT.)

In early November, a dirty sheen was reported coming out of a pipe downstream of the 68th Street Bridge coming into the Menomonee River. Wauwatosa was notified. The source was a water pipe break, and the City was doing emergency repairs on Wisconsin Avenue, which was the source of the plume.



LACK OF ESTABROOK DAM DEBRIS REMOVAL LEADS RIVER TO CHANGE COURSE

As of August, the debris pile behind the Estabrook Dam "dragon's teeth," which catch debris before it can enter the dam gates, was so high there was a foot long hydraulic drop at that location, and water began to become impounded or back up. This was likely impairing fish migration as observed in October and November. On November 4th, water levels got so high from rain and from the debris that the river eventually "switched sides" and started to head over the spillway section (the rock "waterfall"). WDNR issued a Notice of Noncompliance to the County, as their existing Order to Repair or Abandon states "that the owner shall inspect the

AND WHY IT MATTERS

Salt spread on streets, parking lots and sidewalks to reduce freezing of water can **negatively impact fish** and other aquatic life when it travels in storm runoff into local waterways. **Chloride, in north U.S. Waterways**, including large tributaries to the Milwaukee River, has **accumulated substantially** in the past two decades, and levels often exceed US Environmental Protection Agency (EPA) guidance. Salt from **private parking lots and driveways** can contribute **up to 50% of the salt load!**

Milwaukee Riverkeeper volunteers have been monitoring the impacts of road salt on local rivers since the winter of 2010/2011, with initial guidance from **University of Wisconsin-Extension, Wisconsin Department of Natural Resources**, and **USGS**. Volunteers test water samples for **specific conductance** (or conductivity), and when levels are high, water samples are sent to the State Lab of Hygiene to be tested for chloride. **Conductivity** is a **good proxy for road salt**, as it tests for levels of charged particles, which in urban areas, generally includes chloride (as well as other contaminants). When we test water samples for chloride, we generally look at two levels of concentration--**acute and chronic toxicity levels**. Past monitoring results have identified several sites exceeding acute and chronic toxicity goals, and over 25 miles of river in Southeast Wisconsin are listed as impaired by chlorides.

SALT FROM PRIVATE PARKING LOTS AND DRIVEWAYS CAN CONTRIBUTE UP TO 50% OF THE SALT LOAD IN SOME WATERSHEDS

1 Shovel early & often.

Remove as much snow as you can *during* a storm, if possible. Deicers work best when there is only a thin layer of snow or ice to melt.



3 Apply salt sparingly.

More salt does not mean ice will melt fast. Use only the recommended application rate. For sodium chloride that is one handful per square yard. Calcium chloride works at much colder temperatures and you need a lot less so use about one handful per three square yards.



2 Check the label.

Check the package closely to see what you're buying—choose calcium chloride over sodium chloride when you can.



4 Use sand or bird seed.

Kitty litter and ashes may provide some traction, but sand is cheaper and easier to sweep up. Bird seed is an even better alternative, especially for residential property owners (though be aware this may attract rodents).



5 Avoid urea products.

Urea is a form of nitrogen, a fertilizer that encourages growth of nuisance vegetation and further contributes to poor water quality.



Chronic
230 mg Cl/L
Chronic chloride criteria recognize that lower levels of conductivity over a longer period of time can be just as toxic.

Acute Toxicity Level
800 mg Cl/L
Acute chloride criteria recognize that high levels of chloride can be acutely or instantly toxic to fish.

INFOGRAPHIC created by Milwaukee Riverkeeper www.milwaukeekeeper.org
Adapted from UW Extension's Low Salt Diet for Driveways and Roads

Interested in volunteering as a road salt monitor this winter?

Email Zac Driscoll at zac@milwaukeekeeper.org

NOT A MEMBER YET? JOIN TODAY!

INDIVIDUAL MEMBERSHIPS

Become an individual member to start receiving special discounts at local businesses, a Milwaukee Riverkeeper t-shirt, and more!

BECOME A SUSTAINING MEMBER

A Sustaining Membership is an unrestricted monthly gift. Each month, we charge your credit or debit card or make a withdrawal from your checking account for an amount you specify. Convenient for you, great for fishable, swimmable rivers!

Visit www.milwaukeekeeper.org/donate today to discover all of the great benefits that come with being a Milwaukee Riverkeeper member!

RIVERKEEPER WATCH (CONT.)

dam on a daily basis to ensure that no additional materials to obstruct flow are placed in the structure, and shall promptly remove any such obstructions found." The County was ordered to remove the debris behind the "sharks teeth" by the end of November, which they have done.



OUR MILWAUKEE RIVERKEEPER ANNUAL LEVEL 1 WATER QUALITY MONITORING TRAINING AT RIVEREDGE NATURE CENTER.

Within urban areas, **polluted "stormwater"** is a major source of phosphorus to rivers and streams. Because of the large amount of **impervious surfaces**, rainwater that falls on the land is free to runoff directly into river systems untreated. This stormwater carries with it anything that was present on the land, including phosphorus containing materials. Likewise, **permitted discharges** by wastewater treatment plants also contribute a large amount of phosphorus in urban areas. In addition, Milwaukee and several other municipalities add phosphorus compounds to drinking water to **minimize corrosion of lead pipes**. Much of this water is discharged back to river via discharges from industries as cooling water, but residents can also have an impact through

ordinary activities like **washing our cars or watering lawns**.

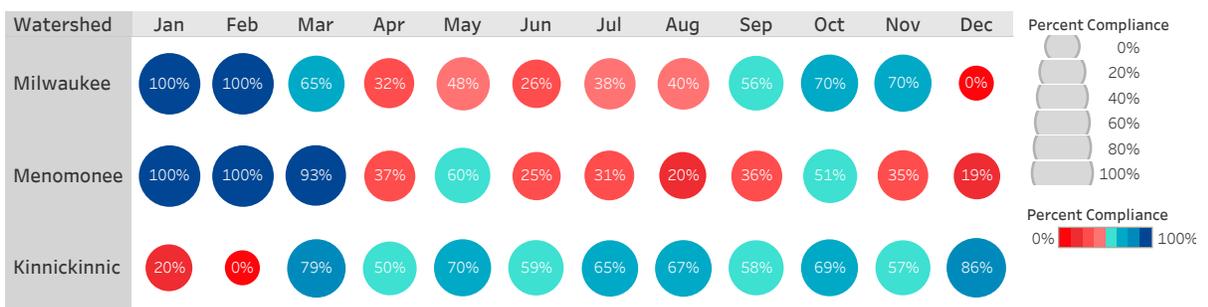
Recently, the Wisconsin Department of Natural Resources recently proposed "Total Maximum Daily Loads" (TMDL's) for phosphorus discharges to the Milwaukee River Basin. If approved, these **TMDL's could ratchet down the amount of phosphorus** that permitted dischargers will be allowed to release into the Milwaukee River Basin. Though implementing the TMDL's will be a long process, effective implementation could be a **big step** in helping to reduce phosphorus pollution within the Milwaukee River Basin.

To learn more about water quality in the Milwaukee River Basin check out our 2015 Annual River Report Card!

WDNR CONDUCTS STORM WATER INSPECTION AT PORT OF MILWAUKEE

In early September, Milwaukee Riverkeeper along with several other community partners became concerned about some coal bottom ash piles growing at the Port (near MMSD) and how it was being stored in the Port of Milwaukee. It was being managed by Kinder Morgan on behalf of a client. We were also discussing poor containment of several of the salt piles along the Port. The DNR conducted an inspection of the site in late September, and there have been some visual improvements in material storage of both the bottom ash and salt piles since then. We have also worked with DNR about our concerns with dewatering of the former coal pile site adjacent to the School

2015 PHOSPHOROUS COMPLIANCE CHART



BECOME A BUSINESS MEMBER, TODAY!

Business members receive special recognition and acknowledgment of your support on our website, our quarterly newsletter, social media and more!



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ADVOCACY IN ACTION

HOW YOU CAN HELP REMOVE THE ESTABROOK DAM!

We Need You To Continue To Show Up & Speak Up To See This Through To The End.

What has happened so far? There is a plan in place for REMOVAL.

On October 3, 2016, Milwaukee Metropolitan Sewerage District, Milwaukee County, and the City of Milwaukee announced a plan to temporarily transfer the land Estabrook Dam sits on to MMSD, for the purpose of removing the dam. This is a multi-step process and our officials need continued support to make this happen.

Is there anything else you can do? Yes, continue to SHOW UP & SPEAK UP.

We've been making great progress in our efforts

to remove the dam, and your continued support has made this possible. Collectively, you've written thousands of letters, made hundreds of phone calls, and repeatedly shown up to public hearings, meetings and information sessions. We need you to continue to do all of those things until the dam is removed once and for all.

How will you know when to act? Keep in touch with MILWAUKEE RIVERKEEPER.

As one of our most dedicated supporters, we'll be asking you to take action repeatedly as this process moves forward. We will be calling, emailing, and posting across our social media channels in order to keep you informed and up to date on all of the latest developments. Follow us online or give us a call anytime!

RIVERKEEPER WATCH (CONT.)

of Freshwater Sciences. The site was being dewatered into the Kinnickinnic River and WDNR ordered a stop to that earlier this year. It now appears that the site will be dewatered to MMSD soon.



WDNR CONDUCTS STORM WATER INSPECTION AT PORT OF MILWAUKEE

In early November, our staff encountered a chemical barrel—apparently empty—in the Menomonee River at Jacobus Park. DNR staff were notified and the site was investigated.



SIGN UP TO RECEIVE MILWAUKEE RIVERKEEPER ACTION ALERTS

Sign up and stay up to date with all of the important issues that affect our waterways! You'll receive emails from our staff members letting you know the best action to take and when, so together we can make a difference in the protection of our waters. Take action to help Milwaukee Riverkeeper ensure a future where all people can enjoy clean drinking water and fishable, swimmable rivers. Email abby@milwaukeekeeper.org to sign up!

STAY ALERT!

When you see our Take Action Now logo, you know it's time to ACT!



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