Monitoring Impacts of Road Salt

Milwaukee Riverkeeper volunteers have been monitoring the impacts of road salt on local rivers since 2010. Road salt runoff contains high levels of chloride, which can be toxic to aquatic organisms. Elevated levels of chloride can disrupt an organism’s ability to maintain an internal water balance, which can lead to impaired survival, growth, and/or reproduction. When we test water samples for chloride, we generally look at two levels of concentration—acute and chronic toxicity levels. Acute chloride criteria recognize that high levels of chloride can be acutely or instantly toxic to fish. Chronic chloride criteria recognize that lower levels of conductivity over a longer period of time can be just as toxic.

In past years, volunteers tested the rivers for “acute” chloride pollution (860 mg/L), which required conductivity monitoring and water sample collection at high conductivity levels after snow melt events. One “high” sample was sufficient to establish that the waterway experienced salt levels high enough to kill off aquatic organisms. While this winter testing requires Wisconsin hardiness and even busting through thin ice at times (and at short notice), with acute level testing, volunteers only had to monitor “thaw” events once.

This winter, our partners at WDNR, the United States Geological Survey, and the University of Wisconsin-Extension asked that volunteers monitor for chronic chloride pollution or lower.

Senators Attempting to "Water Down" Aquatic Invasive Species Protections Again

Milwaukee Riverkeeper and 29 other Waterkeeper organizations signed onto a letter to U.S. Senators in opposition to the Vessel Incidental Discharge Act (S 373). This Act was recycled from last year, and, if adopted, would eliminate the long-standing ability of States to protect our waters from shipping-mediated pollution, the introduction and spread of non-native species, and their associated deleterious economic, human health, and ecological impacts. Ballast water discharge from ships is widely recognized as one of the primary sources for the introduction and spread of aquatic invasive species, and yet this bill would take us backward and remove regulation of ballast water from Clean Water Act.

In particular, States like Wisconsin, which have adopted a ballast water inspection program to protect our local waters and mitigate billions of dollars in damage from invasive species, would be penalized by this legislation. S 373 prohibits states from adopting or enforcing all new, and likely most existing, state laws or programs to control ship discharges despite significant geographical differences (between Alaska and Milwaukee, for example).

The bill would impose a weak standard ensuring that ballast water standards will never get stronger despite improvements in available technology. It would also eliminate water quality based standards, monitoring, and reporting requirements. S 373 would force taxpayers to continue to pay the economic burden associated with invasive species instead of shifting it to the industry responsible for bringing those species to our nation’s waters.

The new law represents a dramatic departure from the protections currently in place and is weaker than the standards imposed on every other industry. Please urge your Senator (and Representatives) to vote against S 373 and other companion bills that put our waters at risk from aquatic invasive species. Read our comments online at: http://www.milwaukeeriverkeeper.org/content/senators-attempting-water-down-aquatic-invasive-species-protections-again.
Volunteer Stream Monitoring 2015

As we gear up for another year of volunteer stream monitoring, Milwaukee Riverkeeper hopes to expand its scope, both in areal extent and breadth of parameters monitored.

Historically, the majority of our volunteer stream monitors reside in Milwaukee and the near suburbs, but the Milwaukee River Basin extends north into the predominantly rural counties of Sheboygan and Fond du Lac. This year, in an attempt to make monitoring these areas easier, we have field verified several access points where there is safe parking and access to the stream. We are always looking for new and existing volunteers to help monitor these more remote areas of the Basin.

In addition, Wisconsin Department of Natural Resources biologists have asked that local volunteer stream monitoring programs emphasize the collection of macroinvertebrate and streamflow data to supplement basic parameters such as dissolved oxygen, pH, turbidity, water temperature and phosphorus concentrations. This additional data gives us a more complete assessment of water quality.

Milwaukee Riverkeeper will again co-host its introductory stream monitor training with Riveredge Nature Center. The training will be held at Riveredge Nature Center near Newburg, WI on Saturday, May 2nd from 9:00 am to 3:00 pm. We typically have a morning classroom session to discuss some basics of stream ecology and demonstrate proper water quality monitoring techniques, followed by a BYOBL (bring your own bag lunch), capped by some time in the stream to practice our monitoring techniques.

Training for advanced monitors will be held Saturday, April 25th at Elm Grove Village Hall for those existing volunteers who wish to get back into macroinvertebrate and streamflow monitoring. This training will be announced shortly and be held in either late April or early May.

There is still time to RSVP for the stream monitor training at Riveredge Nature Center, especially if you are interested in monitoring some of our northern reaches. Simply send an email to Joe Rath at Milwaukee Riverkeeper: joe_rath@milwaukeeriverkeeper.org and he will get you squared away.

Meet Our Monitors

Kelly Fleming (Thundercloud)

Where do you monitor? Menomonee River at Lime Kiln Park.
How long have you been monitoring? Since the 2014 season.
Why do you monitor? Rivers are the blood of the earth. I will do anything and everything I can to ensure that they are healthy and happy.
What is the craziest or most interesting thing you have seen when monitoring? (The craziest most interesting thing I DID): When I was monitoring in West Bend, I actually went swimming in water over my head to get samples for biotic index and I LOVED IT! (The most interesting thing I’ve SEEN): The awesome limestone beds at Lime Kiln Park!!!!!
Any other comments? Most people usually assume I am doing it for a class in college, but I am proud to say I do it just because I care so much about our water.
Spring is in the air!

The snow has melted, the trees are budding, songbirds are returning and the rivers are flowing. At Milwaukee Riverkeeper these perennial signs mean that it's time to get back into our rivers! We are busy training our volunteer water quality monitors, planning paddle events, preparing for river restoration projects, pulling our patrol boat out of storage and, most of all, organizing our biggest event of the year: The Annual Spring River Cleanup! This year marks the 20th anniversary this community-wide event – one of the largest volunteer events in the state. On April 18th over 3,500 volunteers, neighbors and Milwaukeeans will gather on the riverbanks to help restore and renew our rivers.

The significance of this event is awe-inspiring and a true example of people acting as stewards of the rivers. It's about neighborhoods connecting through the rivers that snake throughout our city in a common goal to make our city and rivers better. It's fun to imagine the connectedness of so many different people. We have over 50 sites throughout the watershed from Kewaskum and Cedarburg to Lincoln and Estabrook Parks on the Milwaukee River, to the Menomonee Valley and Rotary Park on the Menomonee River, as well as all over the main stem of the Kinnickinnic River. Together, our impact is great.

The timing is perfect, too. Our city can use some TLC after the long harsh winter. Now that the snow is gone, litter and trash seem to line many streets and parks. Much of that trash migrates into our waterways either through gravity, wind or storm sewers. We think this year is going to be our biggest cleanup yet. Please join us! You can find more information about the cleanup and how to join a cleanup site in this newsletter or on our website.

While we are hard at work organizing thousands, we are also hard at work on a larger river restoration project: removal of the Estabrook Dam. In late February, the County's policy on the Dam switched from removal to repair. Unfortunately, this was not done through an above-the-board debate and vote on the issue. Instead, it was quietly slipped into a "must pass" finance package for all other capital projects. However, we still have a trial coming up in July where a judge will decide whether removal or repair will abate the public nuisance that is the Estabrook Dam. The option that, without a doubt, is the best for the environment, for lessening flood risk, for reducing flood insurance premiums, and the least expensive for all County taxpayers is removal. This is also the option that the majority of the public supports. It is time for the County Board to start acting in the interests of the majority instead of being controlled by a vocal and emotional minority. It is unfortunate that we cannot come together as a community on this issue the same way we do when we restore the river during the cleanup.

Please stay tuned. We will be contacting you in the very near future about a community action platform with specific action items and things you can do to help.

Here's to a successful 20th anniversary river cleanup!

Happy Earth Month!

Jennifer Bolger Breceda
Executive Director
Come be a part of the 20th Annual Spring River Cleanup!

**When:** Saturday, April 18th, 2015 from 9:00am-Noon

**Where:** Choose one of our 50 sites throughout the Milwaukee River Basin. See our list of sites or a map on our website (www.milwaukeeriverkeeper.org/rivercleanup).

**How:** We provide the bags, gloves, and FREE T-SHIRTS and YOU provide the hands and energy to pick up the interesting and sometimes bizarre pieces of garbage that find their way into our beautiful river system. Grab a bag and let’s clean some river! Bring a water bottle!

**Register:** Visit www.milwaukeeriverkeeper.org/rivercleanup.

**Cash for Trash:** On April 18th you help cleanup our rivers, but we need your help to continue this work all year long. We are asking you to collect pledges for every bag of trash you collect during the cleanup! Send your collected pledges (pledge form) or self donation and personal contact information to Milwaukee Riverkeeper by May 2nd, 2015. If you raise or give over $100 you will be entered to win a ride on the Milwaukee Riverkeeper boat for you and five of your friends with your own tour guide, Riverkeeper Cheryl Nenn! Together we are working to ensure a future where all people in the Milwaukee River Basin can enjoy clean drinking water and fishable, swimmable rivers.

**Trash Bash**

Celebrate the success of the cleanup with drinks, raffle prizes, food, and more. This year, we will have locations on all three rivers from 12:00 pm - 2:00 pm!

- Milwaukee River: Estabrook Park - Picnic Area 5 near the Beer Garden.
- Menomonee River: Jacobus Park - Picnic Area 2 inside the pavilion on the lower level.
- Kinnickinnic River: 6th and Cleveland - where the concrete channel meets the naturalized portion of the River. At 11:50 am and 12:15 pm UW-Madison Limnologist Peter Levi and his team will be dyeing the river red for scientific studies!
2015 Cleanup Sites

**Kinnickinnic River**

**Baran Park** – South of Lincoln Ave. and East of 1st Street on the KK River Trail.

**The Horny Goat** - Meet at the Horny Goat (2011 S. 1st St. MUST PREREGISTER)

**Jackson Park (Milwaukee)** – Meet at the boathouse between 35th and 43rd Street near the pond.

**Jackson Parkway** - Meet at 5100 W. Jackson Park Drive, Milwaukee.

**Lyons Park** - Meet at the Lyons Park Pavilion

**Kinnickinnic River Trail (Rosedale Ave.)** - Cleanup along the Kinnickinnic River Trail west of S. Chase Ave. along W. Rosedale Ave.

**Modrzejewski Park** – Meet in front of the clubhouse building right in the middle of the park.

**St. Luke's Medical Center** – Meet at picnic tables.

**Menomonee River**

**Hart Park** – Meet at the Park Administrative Building.

**Honey Creek** – Meet at the CH2M Hill parking lot off of I-94/84th St. exit in the Honey Creek Corporate Center.

**Hoyt Park/Hansen Park Golf Course** – Meet at picnic area #1 in the TOSA Pool parking lot.

**Jacobus Park** – Meet behind the pavilion near the flag pole, just off of 68th St.

**Krueger Park** – Meet in the parking lot.

**Little Menomonee River Parkway** – Meet at the intersection of 91st St. and Good Hope Rd, across the street from Walgreens. Parking is available at Vincent High School on Granville Rd and Calumet Rd.

**Menomonee River Pkwy/Burleigh St** – Meet at the intersection of Menomonee River Pkwy & Burleigh St.

**Menomonee River Parkway (Capitol to Hampton)** - Meet at W Congress St. near the Oak Leaf Trail.

**Menomonee River Pkwy/North Ave.** – Meet at the intersection of Menomonee River Pkwy and North Ave.

**Rotary Park, Menomonee Falls** – Meet by the pavilion building near the parking lot.

**Menomonee Valley & Hank Aaron State Trail**

**Hank Aaron State Trail 68th St.** – Meet at the intersection of 68th St. and Dickinson St., just south of Main St. and between 70th St. and Hawley Rd.

**Hank Aaron State Trail Extension 2** – Stretch of HAST from 121st St. and Bluemound Ave. to Underwood Creek.

**Lakeshore State Park** – Meet at the west side of Discovery World by the flagpoles.

**Miller Park** – Meet just south of the Klements Sausage Haus, east of the stadium.

**Menomonee Valley Stormwater Park** – Meet just east of Charter Wire and just west of the 35th St. Viaduct in the Community Park.

**Milwaukee River**

**Brown Deer Road** – Meet at the intersection of Upper River Rd. and Brown Deer Rd. Paddle from Brown Deer Rd. to Kletzsch Park while picking up trash. NOTE: Canoe needed. MUST PREREGISTER.

**Estabrook Park** – Meet at the parking lot by picnic area #6.

**Gordon Park** - Meet at the parking lot by the pavilion building.

**Havenwoods State Forest** - Meet at the Havenwoods State Forest Nature Center.

**Hubbard Park** – Meet at the flag pole by the circle turnaround through the tunnel.

**Kern Park** – Park on the street along Humboldt Blvd. or Singer Circle then walk toward the center of the park and down the hill. Meet at the tree line of the bluff on the river.

**Kletzsch Park** – Meet at the pavilion on the east side of the Parkway.

**Lincoln Creek** – Meet in the green space lot at the corner of Green Bay Ave. and Lawn Street on the east side of Green Bay Avenue across from Eastbrook Church at 5385 N. Green Bay Ave.

**Lincoln Park** – Lincoln Park – Participants meet at the Blatz Pavilion, 1301 W. Hampton Ave.

**North Avenue East** – Meet at the intersection of North Ave. & Cambridge Ave. by the Cambridge Commons Residence Hall.

**Pleasant Valley Park** - Meet at the Friends Meeting House parking lot. Additional parking in Gaenslen School lot.

**Riverside High School** - Meet at the Riverside High School Baseball Diamond (1615 E. Locust St.)

**Riverview Residence Hall** – Meet at the intersection of North Ave. & Humboldt Blvd.

**UWM Park & Ride Lot** – Meet in the parking lot on Humboldt Ave., off of Capitol Dr. behind WTMJ building.

**Northern Watershed**

**Lime Kiln Park, Grafton** – Meet at the top parking lot in Lime Kiln Park.

**River Hill Park, Kewaskum** – Meet at the pavilion building in River Hill Park

**Rotary Park, Menomonee Falls** – Meet by the pavilion building near the parking lot.

**Need More Information?**
Visit milwaukeeriverkeeper.org or call 414-287-0207.
• With snow melt and spring runoff, comes phone calls into our office from concerned citizens about unusual happenings around our waterways. In mid-February, we received a call about a yellow discharge entering the Root River at 68th and Rawson from Vulcan Quarry. We worked with WDNR staff, who visited the quarry and reviewed its non-metallic mining permit requirements with the quarry engineers. WDNR has requested some changes in operations, and will conduct compliance checks at the facility this spring. It’s always important to keep those eyes and ears open! We appreciate hearing from you and having your help protecting our waters, so keep it up!

• In late March, we received a call about a slug of brown sediment that discolored Honey Creek downstream of I-94 construction. We first thought the problem was from WisDOT’s Zoo Interchange work, which has been challenging due to complete reconstruction of several culverts that run under the highway near State Fair that “connect” the creek. It turned out that the problem was from a broken water main in West Allis. We again notified WDNR staff who responded to ensure repairs were made in a timely manner. Much of the Zoo Interchange Work is now shifting to the area near Underwood Creek (e.g., Krueger Park area). Please let us know if you see any discoloration or concerns related to this work.

• In March, we also received a call of people cutting down trees on the west bank of the Milwaukee River south of Locust, as well as cutting bike trails into a sensitive woodland north of Locust with rare plant species. There is a Forestry Preservation Ordinance that finally passed late last year, which sets forth an approval process for, and requires mitigation for, any tree removal within the Milwaukee River Greenway in the City of Milwaukee (from North Avenue to Silver Spring). We are working with the City of Milwaukee and the Milwaukee River Greenway Coalition to help publicize and enforce this ordinance.

• Riverkeeper signed onto letters as part of the Healing Our Waters Coalition to the House and Senate Appropriations Committees in support of raising the fiscal year 2016 appropriations for the Great Lakes Restoration Initiative to $300 million and maintaining funding for the Clean Water State Revolving Fund.

• We also met with Senator Baldwin’s staff this week along with State and Regional partners, to continue to urge support for the Waters of the US Bill. This bill essentially maintains existing protections for the nation’s waters under the Clean Water Act, which includes ephemeral streams, headwater streams, and wetlands. Several Supreme Court Cases have created confusion as to whether waterways without a “significant nexus” to navigable waters were covered or protected under Clean Water Act Protections. There have also been a lot of misconceptions that this bill is aiming to regulate the agricultural sector, including drainage ditches and ponds, which is simply not true. This vote is going to be very close, so if you can encourage your Senators and Representatives to support clean water and protection of waters that provide 1 in 3 people in this country with drinking water, please do so soon!!

• Riverkeeper and 23 other organizations submitted comments on proposed revisions to fish consumption guidance or “Advice About Eating Fish” from the FDA/ EPA. We are concerned the revisions would put at risk low-income pregnant women, young children and high fish consumption populations, including communities of color. The proposed advice states that pregnant women and children should “eat 8 to 12 ounces of a variety of fish [and shellfish] each week from choices that are lower in mercury.” In summary, although it is important to promote increased fish consumption for pregnant women and children, it is important to do so in a way that incorporates the latest science which affirms that we should all reduce the ingestion of mercury and methylmercury. This fish advisory does not provide enough guidance. It must include promoting consumption of commonly available low-cost, high-nutrition fish species, such as sardines, salmon, and selected mackerel species. Consumption of canned, frozen and fresh tuna and other higher mercury fish species should be discouraged because they pose a significant health threat, if eaten weekly. To read more, check out our website at: milwaukeeriverkeeper.org/content/advice-about-eating-fish.
levels of road salt contamination that could pose risks to aquatic health over a longer period of time. In this instance, “chronic” chloride pollution means that chloride levels exceed the EPA’s recommended chronic chloride criteria level (230 mg/L) for 4 continuous days. This required sampling over an extended period of time at several sites.

It was also logistically tough to monitor the impacts of road salt on our local streams this winter. Consistently cold temperatures kept our streams frozen for much of January and February. For the most part, this prevented road salt and salty runoff into streams until the big melt in early March. It also meant that almost all of our samples were taken in March.

With the help of UWM School of Freshwater Sciences graduate student Brad Lukasz, and student interns Ceasar Galvan and Monica Bane, Milwaukee Riverkeeper monitored the conductivity (a proxy indicator of salt content that is easier to monitor) of Ulao Creek near Cedarburg, Pigeon Creek near Mequon, Willow Creek near Germantown, Lily Creek in Menomonee Falls, as well as Lincoln Creek, and the Little Menomonee and Kinnickinnic Rivers in Milwaukee. When high conductivity levels suggested the stream was in danger of exceeding chronic chloride criteria, water samples were collected for four days in a row and sent to the State Lab of Hygiene in Madison to be analyzed for chloride.

In sum, those sites on streams in more rural and suburban areas fared better than those locations in urban and residential areas. Early indications show that the Kinnickinnic River and Ulao Creek may indeed be chronically impaired for chloride. Further consideration by the WDNR may be necessary to place these streams on the Impaired Waters List, ensuring additional future protections from this pollutant.

Below is a graph depicting 4 consecutive days of monitoring Ulao Creek and the Kinnickinnic River for total chloride. Ulao was monitored from March 4th through the 7th and the Kinnickinnic from March 9th through the 12th.

We will continue to monitor conductivity and chloride in creeks where our testing has shown to be sensitive to road salt, and plan to expand this monitoring to many of our other regular monitoring sites in the future.
Meet Our Site Captains!

Our Spring River Cleanup on **Saturday, April 18th** would not be possible without all of our volunteer site captains. THANK YOU! Like us on Facebook or follow us on Twitter to see more reasons our Site Captains participate in the cleanup and our unusual trash finds over the years! #MRK20

**David Thomas & Sharon Szatalowicz**  
Lincoln Park  
First year as Site Captains  
“We participate because we love the earth, hence caring for the water.”

**John Schneider**  
Gordan Park  
Site Captain for 5 years!  
“I started as a site captain as a school project, but have continued because I recreate along the Milwaukee River, and enjoy taking part in community events/promoting Milwaukee’s Urban Parks.”

**Rosemary Wehnes**  
Hart Park  
Site Captain for 5 years!  
“Making a difference is not just about volunteering, it is about having a vision and looking at possibilities.”

**Eric Platenberg**  
Kinnickinnic River Parkway  
First year as a Site Captain  
“It is a great activity to raise awareness about the environmental issues that threaten our rivers and streams”

**David Thomas & Sharon Szatalowicz**  
Lincoln Park  
First year as Site Captains  
“We participate because we love the earth, hence caring for the water.”

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