



FALL 2021

RIVER CURRENTS

A PUBLICATION OF MILWAUKEE RIVERKEEPER



The Time to Act on Climate is Now

New intergovernmental report urges climate action

In August, the Intergovernmental Panel on Climate Change (IPCC) published their latest report. The UN Chief captured worldwide headlines calling current climate trends a “code red for humanity.” That isn’t hyperbolic. The Earth has warmed about 1.1° F since the second industrial revolution. Add “more frequent and intense” language before mention of heatwaves, droughts, floods, and hurricanes, and you’ll be right every time about the consequences of a warming planet. What’s worse is every projection in the report has average temperatures rising above the 1.5°C threshold by 2040. You may be wondering, “what’s so special about 1.5° C?” Once the earth warms above 1.5° C, or 2.7° F, we will reach a tipping point, where scientists predict

some of the climate impacts we already see today will begin to go from bad to worse.

Aside from the potentially irreversible damage to our natural systems, according to the National Oceanic and Atmospheric Administration, the inflation-adjusted costs of disaster weather events in the U.S. more than doubles if you compare average annual costs from 1980-2015 (\$5.2 billion) to costs from 2011-2015 (\$10.8 billion).

In the Milwaukee River Basin, we’ve matched the trend of record heat seen across the country. The last decade was the warmest and wettest in Wisconsin history. Projections suggest this pattern--
continued on page 3

INSIDE THIS ISSUE

Feature Story:

Protecting Our Waters

Page 4

Riverkeeper Watch

Page 6

Finding Our Way

Page 7

Advocacy in Action: The largest threat to clean water in Milwaukee

Page 7

Message from the Executive Director



Dear Friend of the Waters,

As the summer season comes to a close, I can't help but reflect on the triumphant return to the river our team and our community had this river season. While this year was once again filled with new and unexpected challenges, we cautiously prepared for a full river season of in-person and online programming. And what a busy and successful season it turned out to be!

I'm proud of our work to restore our rivers after a long time apart. Milwaukee Riverkeeper was able to once again rally the community to clean up our waterways this spring and throughout the summer. For the first time, we partnered with 7 communities around the Great Lakes to make a record-breaking impact. Together, covering over 4,000 acres of lakefront, and removing over 70,000lbs of trash.

The rise in single use plastic, to-go containers and medical waste we've seen

in and along our waterways has kept us busy all season. We leaned heavily on our amazing Adopt-A-River volunteers to help restore our rivers, but there's more to do and we are always looking for more volunteers and partners.

At the same time, our team of volunteer Water Quality monitors collected critical data that we use to advocate for informed policy changes. Our Water Quality team has also been busy monitoring for bacteria from different stormwater outfalls for municipalities. The more we understand about our water infrastructure, the more resilient our communities can be as we face the most critical decade of our lives in terms of climate change.

The end of the year is a busy time on the advocacy side of things. The publication of our next edition of our Annual Report Card on water quality means we'll be pushing for strong protections for our waterways. This year, we've focused out attention locally advocating for smart development of the I-94 expansion project, regulations of PFAs and other chemicals and several projects related to Milwaukee's Area of Concern. To read more about our advocacy work see pages 6-7.

As the season changes over, we will say goodbye to a number of dedicated team members who concluded a term of service through Marshfield Clinic's Americorps, Marquette Trinity Fellowship programs. It's bittersweet to watch these future change makers move on, but our rivers remind us that the beauty is in the journey. On the other hand, I'm excited to share that our two-year

AmeriCorps member, Allie Mendez, will join us in a full-time capacity, and our Public Ally, Cesar Castillo, will remain in a part-time role this fall. We also welcome a new Operations Manager, Alison Brodersen, and a cohort of new service members and interns, beginning their own journey to help protect and restore our waterways and strengthen our community.

If you want to join us in our journey toward swimmable, fishable, drinkable waterways, for the Milwaukee River Basin please get involved, share our work, take up a new habit to care for our waterways and donate to Milwaukee Riverkeeper today.

To free flowing rivers,

Jennifer Bolger Breceda
Executive Director

P.S. We're recruiting new board members. If you're ready to make a difference learn more at the link below!



PICTURE YOURSELF HERE!
www.milwaukeeiverkeeper.org/board

BOARD OF DIRECTORS

- | | | | | |
|-------------------------------|--------------------------------|---------------------------------|----------------------------------|---------------------------------|
| Brian Spahn
President | Catherine Mercuri
Treasurer | Michael Bork
Joseph Cincotta | Christian Keen
William Morley | Peter Thornquist
Matt Wolter |
| Juan Alsace
Vice President | Patti McNair
Secretary | Beth Handle | | |

JOIN OUR BOARD!

continued from cover --will continue, which makes sense — warmer weather leads to more evaporation and heavier rainfalls, since the atmosphere can hold more water at warmer temperatures. More evaporation and heavy precipitation also means drier soils. During a downpour, heavy precipitation often runs off the land rather than soaking into the soil which leads to flooding and erosion.

Runoff from agriculture can be especially harmful to our rivers because manure and fertilizer contain nitrogen and phosphorus. Rain carries these nutrients to our waterways, leading to an increase in algae blooms and aquatic plant growth, which in turn, leads to low oxygen levels, impacting aquatic life. As our region gets warmer, we can expect more runoff.

With extreme heat comes disproportionate harm to low-income Milwaukeeans and communities of color. Heat waves are deadlier for those that struggle to afford air conditioning. Milwaukee is not used to high temperatures, and fewer homes and schools are ready for the hotter future. The urban heat-island effect makes matters even worse. Summers are on average 1.4° F higher in Milwaukee than nearby rural areas, and the difference will only grow larger as temperatures continue to rise.

CLIMATE RESILIENCY

To avoid the worst impacts to our waters, it's time to prepare for the consequences of a warmer world, even as we try to reduce greenhouse gas emissions and keep temperatures from rising above 1.5° C.

Wetlands are native infrastructure that provide climate resiliency naturally. Wetlands can hold thousands of gallons of excess rainwater and release it slowly into the watershed over time. Wetlands not only limit flooding downstream, they also reduce pollutants in the watershed.

Protecting vegetated floodplains and enhancing the connectivity of floodplains

to streams will minimize flooding impacts to our cities and farms and build stronger, natural climate resiliency.

Soils, too, need to be restored because they can be an ally against flooding, erosion, and greenhouse emissions. Rich soils retain more water, and, are thus, more resilient to severe weather. More water infiltration into land keeps more pollution out of our rivers.

Milwaukee's outdated water infrastructure is part of the waterway system and to build resiliency, it needs to be restored. In the last few years, we've seen an uptick in Combined Sewer Overflows from increasingly common, extreme wet weather events. Combined Sewer Systems collect both surface runoff and waste from homes and industry in the same sewer system and route it to a wastewater treatment plant.

During heavy storms, combined sewer overflows send sewage along with stormwater as partially treated waste into our rivers and Lake Michigan. This untreated discharge can also contain industrial waste as well as nutrients like phosphorus and nitrogen that can cause algal blooms and other issues. Bacteria, viruses, and pathogens from untreated waste can also make it dangerous to swim and paddle after an overflow. As big storms become more frequent and severe, infrastructure investment can't be delayed any longer.

Green infrastructure, like rain gardens, greenroofs, and bioswales, can keep runoff out of our sewers, while also protecting the water quality of our rivers. Fixing and replacing "leaky" private lateral sewer pipes and disconnecting house foundation drains can also help us become more resilient to sewer overflows caused by extreme storms.

WHO'S RESPONSIBLE?

We can't expect politicians to make the climate policy changes we need if we don't hold them accountable for inaction.



FLOODPLAIN INFILTRATION PROJECT
ELM GROVE, WI

Everyone must vote with the future of humanity in mind. We must contact our elected representatives at all levels and ask them to fund climate action now. Moreover, cultural influencers should be called out for dangerous mis- or dis-information about climate change. On some level, we are all responsible for the situation we are in, and for the resolution going forward. Even though solutions to climate change seem daunting and complex ignoring the problem is not an answer.

WHAT CAN WE DO?

It's easy to feel powerless when facing a massive issue like climate change, but the IPCC report shows that human actions still have potential to determine the future course of climate. There is still time to act to prevent the worst case scenarios from happening.

As you work for a healthier planet, remember to make time for your own healing. To sustain the world we must first sustain ourselves. But then get up and fight for the planet--our future and that of our rivers depend on it. Starting small, in your own community and with every day practices, is the first step.

STAFF

- | | | | |
|---|---|---|--|
| Jennifer Bolger Breceda, J.D.
Executive Director | Leah Holloway
Program Manager | Allie Mendez
Cleanup & Events Coordinator | Nicole Chavez*
Sustainability Coordinator |
| Cheryl Nenn, M.S.
Riverkeeper | Alison Broderson
Operations Manager | Cesar Castillo
Water & Outreach Progam Assistant | Sonya Ponzi*
Water Quality Assistant |
| Anne Michalski
Communications Manager | Katie Rademacher
Water Quality Manager | Shirley Aspinall*
Communications Coordinator | <i>*Marshfield Clinic Americorps Service Members</i> |



2020 REPORT CARD PREVIEW

Last year presented significant challenges, but that didn't stop our volunteers from heading into the field to collect critical data on water quality in the Milwaukee River Basin. While we haven't yet finalized our full report, we can share the Milwaukee River Basin scored a C- in 2020, an overall improvement for river health from 2019. The Basin continued to struggle to meet standards for total phosphorus, conductivity and bacteria, but significant improvements were seen in turbidity, or the measurement of how cloudy or murky water is due to suspended sediment and particles. One reason for the improved grade is likely that 2020 was significantly drier than the prior two years, both of which broke records for rainfall in Southeast Wisconsin.

Our world rapidly changed during the onset of the COVID-19 pandemic, which meant the water monitoring season was delayed for safety reasons across the state. Thankfully, with safety precautions in place, monitors were able to resume data collection in late June. The drier conditions and missing spring data were both important factors in the nearly 4% grade improvement in overall river health. We owe a tremendous amount of gratitude for the patience, flexibility, and dedication that our volunteer monitors displayed last year.



ROAD SALT MONITORING

Chloride, the key ingredient in road salt and many deicing products, runs off into our streams. It has immediate and longstanding impacts on the health of our rivers and the critters that call them home. During the early months of 2021, Road Salt Monitors hit the stream following snow melting events to see if instream chloride concentrations were reaching dangerous levels. Despite limitations due to the pandemic, 25+ sites were monitored by returning volunteers earlier this winter.

BASELINE WATER QUALITY MONITORING

The beginning of the 2021 monitoring season resumed as normal after a shortened season in 2020. New volunteers were trained using a combination of online resources and in-person workshops on the main branch of the Milwaukee River at Riveredge Nature Center. Twenty-one new volunteers were trained, and are now in the field monitoring water quality. In total, 80+ volunteers monitored 100 sites throughout the Milwaukee River Basin in 2021.

EMERGING CONTAMINANTS MONITORING

So far, volunteers collected samples in spring and summer. Samples are analyzed for prescription medications, antibiotics, recreational drugs and much more. Want to join in on the fun? Help us turn Black Friday blue! Opt outside and collect a water sample the day after Thanksgiving. Join the interest list: clearmke.org



Thank You — volunteers



PREPARING FOR WINTER

You can play an important role in protecting our waters by preparing your home for winter. A little planning makes a big difference.

1. Check your Drainage

Look for areas around your foundation where water could pool during winter months. If you find a low spot fill it in, if possible. Then check your downspouts; make sure water moves away from your home and away from your driveway or walkways where it could cause icy conditions. Addressing drainage problems will help prevent icy patches once winter arrives.

Tip: Move your downspout into your rain garden or flower bed, helping to divert water from the stormdrain AND avoiding icy patches in the winter. At your business, consider closing off under-used or unused pavement areas in the winter, like back walkways, or unused portions of parking lots. Then, don't salt those surfaces.

2. Clean your gutters

As the leaves fall, it's time to clean those gutters. This helps prevent water from backing up and overflowing onto paved surfaces, as well as preventing ice dams from forming in winter.

3. Prepare your lawn for winter; set it up for a great spring

Mulch your leaves as you mow, and ensure any excess leaves don't end up in the road or in storm drains. Leaves are a major source of phosphorus to our waterways. Too much phosphorus can cause nuisance algae, and contribute to poor water quality conditions for aquatic life.

4. Pack up rain barrels

Disconnecting your rain barrel during winter helps avoid damage and preserves it for next year. Empty it out, wash it and store upside down in a protected location.

5. Prepare your winter tools (Invest in a good snow shovel)

Pull out the snow blower and inspect your snow shovels. Owning a good, sharp snow shovel helps break up ice and clear snow close to the pavement, which minimizes ice accumulation.

Tip: make sure to have a mug and broom handy. One mug's worth of salt is all you need for 10 sidewalk squares or most urban driveways, and a broom can be used to sweep up and reuse any excess salt.

Riverkeeper Watch



Federal Policy Updates

In early August, the U.S. Senate passed a bipartisan infrastructure agreement, H.R. 3684—the “Infrastructure Investment and Jobs Act” –that provides \$1.2 trillion in federal investment in infrastructure. That bill has \$1 billion in additional funding for the Great Lakes Restoration Initiative, as well as \$55 billion in new water infrastructure funding. Over five years, the bill appropriates \$19.9 billion for sewage treatment infrastructure through the Clean Water State Revolving Fund and \$17.3 billion for drinking water infrastructure under the Drinking Water State Revolving Fund.

The Biden Administration originally proposed enough funding to replace every lead water pipe in the country, but the Senate passed bill included \$15 billion, which is well short of that goal. The bill includes \$10 billion to address emerging contaminants, and \$1.9 billion for the Army Corps aquatic ecosystem restoration projects, like the Honey Creek aquatic restoration project. The bill also reauthorizes several key water infrastructure programs for an additional five years. The House still needs to pass this bill, and there are a lot of questions regarding whether this bill will pass as a “stand alone” bill, or be required to pass in sync with an additional, larger “Build Back Better” bill.

Over the last few presidential administrations, there has been a lot of controversy and litigation over defining which “Waters of the United States”

or WOTUS should be protected under the Clean Water Act from pollution, as well as activities such as filling and dredging. This followed several Supreme Court rulings that spurred confusion over which waters would be protected at the federal level. In early September, a U.S. District Court in Arizona vacated the Trump Administration’s Navigable Waters Protection Rule, which would have removed protection for roughly half of the wetlands and 1 in 3 streams in the US, saying that there was possibility of “serious environmental damage” if the rule was left in place. While this is good news, legal challenges will likely continue for some time.

Milwaukee Riverkeeper signed onto comments from Waterkeeper Alliance and the Healing our Waters Coalition. These comments largely urge the EPA and the Army Corps to vacate the Trump Administration Definition, and begin new rulemaking efforts that would establish a science-based definition of “Waters of the United States” and protect wetlands, ephemeral and headwater streams, and other water resources that are imperative to protecting downstream waters and drinking water supplies. We also testified at 1 of EPA’s public hearings on this issue, focusing on significant impacts to Wisconsin’s waters from the Trump rule, especially as state wetland rules have been rolled back.

State Policy Updates

In July, Governor Evers signed a State Budget that didn’t include most of his conservation or other legislative priorities, stating that failure to pass the Republican approved budget would have put billions in education funding from the federal government at risk. The budget included a 50% cut in transit funding for Milwaukee and Madison, and provided full funding for the I-94 expansion, which we advocated against. That said, our Coalition for More Responsible Transportation met with leaders from the Federal Highway Administration earlier in summer, who ordered the Wisconsin Department of Transportation (WisDOT) to conduct a Supplemental Environmental

Impact Statement (EIS) for the proposed expansion, expected to be complete in summer 2022. This will allow for more public input, as well as incorporation of more recent information—like increased rainfall and decreased traffic/highway use—since the last draft EIS was completed 7 years ago.

We oppose highway expansion because increases in impervious surfaces would send more stormwater runoff to the Menomonee River and its tributaries, increasing pollution and flood risk. We support reconstruction of I-94 in its existing footprint, as well as consideration of targeted opportunities for deconstruction of highway 175 to minimize environmental impacts and better connect the community.

Local Policy Updates

Along with several other partners, we requested that WDNR complete an Environmental Impact Statement for a proposed expansion of the Orchard Ridge Landfill in Menomonee Falls, which would involve excavation of a closed Superfund Site, rerouting and enclosing a stretch of a small tributary to the Menomonee River, and filling several small wetlands, among other impacts. WDNR denied this request, and in late August approved the Feasibility Study for this project and made a final determination that their application was complete.

Waste Management still needs to provide a detailed plan of operation before excavation of the Superfund site could occur, and the site could be cleaned up and lined to take residential waste in the future. These operation plans are generally not available to the public, but we continue to assess our options to ensure that our creeks and local neighbors are protected from impacts from this project.

To learn more about our latest statements and sign on letters visit:

<https://milwaukeekeeper.org/take-action/signonletters/>

Finding Our Way

Since Milwaukee Riverkeeper began over 25 years ago, it’s been our goal to protect and improve our waterways for future generations to enjoy. We’ve always had the communities of the Milwaukee River Basin at the forefront of our minds and hearts as we passionately pursue our vision of a swimmable, fishable, drinkable future for our rivers and Great Lake. While this vision has always powered our work, we also understand that more transparency into our practices will ensure we’re meeting the needs of our entire community, especially those most impacted by environmental injustice and climate change. Historically, our rivers were used as a means to divide us, but they should be a means to bring us together.

As our year winds down, our plans to be intentional with our work are only heating up. We look to the year ahead with purpose. Our plans include re-evaluating our programs and offerings, finding additional ways to invest in our team, actively working to diversify our Board of Directors (interested in joining? Email board@milwaukeekeeper.org) and making good on our promises in our new Diversity, Equity, and Inclusivity Statement:

WATER UNITES US: *Our rivers flow through, and unite, a myriad of communities. Milwaukee Riverkeeper is committed to celebrating this diversity of our people, ensuring inclusion for all, and working towards equity in all we do to protect, restore, connect with, and advocate for our waterways.*

Diversity of our organization, like the diverse nature, ecology and geography of our rivers, is fundamental to enriching our impact on conservation for all.

Inclusion in our organization is how we ensure our diversity works well together, and encourages the involvement, experiences and perspectives of all persons and groups. Just as our rivers embrace their many influences, so too must we be curious, have empathy and broaden our understanding of others so we can move forward smoothly and as one.

Equity practiced by our organization will ensure that everyone has access, and the right to a safe, beautiful, and environmentally sustainable river system, and the responsibility to maintain it.

We hope you’ll join us in this vision for unity around our water. As part of this approach, we want to hear from you. We’re launching a new survey to better guide our work (milwaukeekeeper.org/survey-21).

Your comments will help us find new opportunities, fill gaps, and ultimately better meet community needs. If you have any other thoughts you’d like to share about our work, we’re listening: info@milwaukeekeeper.org.

Advocacy in Action: Increases in rainfall threaten river health

The Greater Milwaukee Area has a combined sewer system, which collects untreated wastewater, rainwater, and industrial wastewater in one pipe. The combined wastewater goes to MMSD’s sewer system. When heavy rain exceeds the capacity of MMSD’s system, discharges of this combined waste can be sent to local waterways to avoid sewage backups into homes. These are combined sewer overflows (CSOs), and MMSD is permitted up to 6 per year. Since the Deep Tunnel went into operation in 1994, MMSD has reduced CSOs from 50-60 per year to 2-3 per year, significantly decreasing untreated waste discharges to local rivers.

Each inch of rain falling on MMSD’s service area equates to over 7 billion gallons of water that needs to be treated. Average Milwaukee rainfall from 1980-2020 was 34.8 inches per NOAA, and recent National Weather Service datasets show an average of 35.17 inches from 2000-2021. In Milwaukee, 2018 beat rainfall records for wettest year (since late 1890s) with 45.08 inches of rainfall; and 2019 beat that with 46.01 inches. 2020 did not beat records, but still had above average rainfall at 41.6 inches. 2021 is below average.

So, how did this rain impact CSOs? In 2018, MMSD had CSOs totaling 1.27 billion gallons; in 2019, CSOs totaled 563 million gallons; in 2020, CSOS totaled 2.12 billion gallons; and so far in 2021, 380 million gallons were discharged following an intense rain event on August 8th.

Milwaukee (like most of the U.S.) has aging, leaky infrastructure causing more water to enter the sewer system. As a region, over \$4 billion has been spent to upgrade our sewage infrastructure, and without these investments, it’s clear that CSOs would be much worse. MMSD plans to invest \$1.5 billion on sewage and green infrastructure and flood management through 2025, which is good news. Cities are also doing their part, but most are averaging a 1% replacement rate for grey sewer infrastructure, and funds cannot keep up with the need.

While we should be proud of great progress made in our region to reduce sewage overflows in the past few decades, it’s important not to take the foot off the gas. Upgrading grey sewer infrastructure while investing in green infrastructure will slow, infiltrate, and treat stormwater runoff.

What can you do to help?

- Contact your local, state, and federal representatives and urge them to invest funds from anticipated federal infrastructure bills in local water infrastructure, including grey and green infrastructure.
- Plant a rain garden, install a rain barrel, and disconnect your downspouts.
- Disconnect your home foundation drain (if you have one), and inspect and fix your sanitary sewer lateral pipe. Find financial and contractor resources on MMSD’s Pipe Check Program website: <https://www.mmsd.com/what-you-can-do/managing-water-on-your-property/pipe-check>.
- Hold off on doing dishes or laundry during heavy storms. Text WATERDROP to 414-296-4422 to be notified when overflows are occurring and when to reduce water use.
- Take climate friendly actions: reduce energy use; use public transportation; bike and walk more; eat less meat; plant a tree; reduce single-use plastics.



Collaborative Office Space:

600 E. Greenfield Avenue
Milwaukee, WI 53204

www.milwaukeekeeper.org

Nonprofit
Organization
U.S. Postage
PAID
Milwaukee, WI
Permit # 3679

JOIN US FOR AN EVENT!

For more information, registration and other events visit:
milwaukeekeeper.org/connect/events

OCT
11

ROAD SALT & OUR RIVERS KAYAK TOUR

Learn about the threat of road salt and our waterways while you paddle. **5:00pm | \$30**

OCT
16

FISHING THE MILWAUKEE RIVER

GREENWAY Fish with the pros! Learn the best tips and tricks to up your fly fishing game. **9:30am | \$35**

OCT
17

PHOTOGRAPHING THE MILWAUKEE RIVER

Hike the Milwaukee River Greenway and learn tips from the pros on how to best capture our rivers
10:00am | Free

NOV
10

A FLOWING TRADITION: ANNUAL MEMBER GATHERING

Join us for our virtual gathering featuring keynote speaker Seth Seigel
5:30pm | Free

APR
23

SAVE THE DATE

27TH ANNUAL MILWAUKEE RIVERKEEPER SPRING CLEANUP

Get ready to celebrate Earth Month with an epic community-wide cleanup of our waterways

