

Ebb and Flow

The Buffalo River's road to rebirth.

By: Brienne Westfall

Western New York's Buffalo River has long been at the center of the City of Buffalo's growth, decline, and revitalization. After decades of being exploited by the chemical and shipping industries the river was listed an Area of Concern by the U.S. Environmental Protection Agency and remains so for the last 36 years. Recently, however, efforts have been made to better this polluted area. Delisting this Area of Concern involves removing the nine Beneficial Use Impairments that were identified on the river, then going through the administrative and public affirmation process of delisting.

The River runs from south of the City of Buffalo, to its confluence in the Buffalo Harbor at Lake Erie, one of the five Great Lakes. Restoration projects such as the wildlife rehabilitation efforts along the river at various pocket parks like Red Jacket and Seneca Bluffs Park, have been a part of slowly removing the Beneficial Use Impairments. These impairments are specific environmental impacts to the safe use of the water. Government agencies, including U.S. Army Corps of Engineers, the New York Department of Environmental Conservation, and U.S. Environmental Protection Agency, along with not-for-profit organizations like Buffalo Niagara Water Keeper, and numerous others, have diligently worked together to make progress on the River. According to Joanna Panasiewicz, the Erie County Watershed Coordinator, "The Waterkeepers have been instrumental in the cleaning up of the Area of Concern."

Currently, three of the nine Beneficial Use Impairments have been removed, and the river grows closer and closer towards being delisted. Three more are on track to be removed

throughout 2023. According to the Environmental Protection Agency and Buffalo Niagara Waterkeeper, their hope is that delisting will be complete by 2026.

Unlike the popular idea of water pollution being oil slicks visible on the surface of a waterway; the Buffalo River's water pollution remains mostly hidden within the contaminated sediment at the bottom of the river. The visible pollution of the river comes from human garbage. According to The Environmental Protection Agency the most damaging pollutants from Buffalo's past riverside industries were legacy contaminants that made their way into the sediment. These include cyanide, lead, pesticides, and other chemicals. Municipal waste and human litter also continue to be an issue for the waterway. These contaminants have had negative short- and long-term effects on water quality and wildlife.

Dave Gianturco, the Chair of the Buffalo River Remedial Advisory Committee, working with Buffalo Niagara Waterkeeper, explained: - "As long as there was active industry that was actively polluting, or people just using the river even if they weren't polluting it to the extent they were before, nothing was going to happen," to improve the water's quality.

Today municipal waste and human litter are ongoing contributors to contamination of the river. According to Robert Coady, Project Coordinator for Community Engagement with Buffalo Niagara Waterkeeper, 78 percent of litter picked up in their 2022 Spring Sweep event was plastic.

Municipal waste is a historic, as well as present day contributor to pollution of the River. David Denk, the Department of Environmental Conservation Regional Permit Administrator, explained "For the Buffalo Sewer Authority, a lot of that infrastructure is really old and is overwhelmed by stormwater and I'm not sure if it was designed well in general."

As well as stormwater infrastructure being an issue, combined sewer overflow problems are another major municipal waste contributor. According to Melanie Stein, Professional Environmental Engineer for the Division of Water for the Department of Environmental Conservation, “Sewer overflows are not always maintained well.”

To combat the continuing issues of municipal waste from sewer systems, government agencies like the Department of Environmental Conservation and Buffalo Sewer Authority have worked together to make these systems better and more efficient to prevent overflows and other infrastructure issues from impacting the River’s water quality.

Denk stated, “There has certainly been a lot of money spent to upgrade waste water treatment plants and upgrade sewers to reduce storm water getting into and overwhelming the sewage treatment system and I think that has led to an increase in water quality.”

According to Wendy Paterson, Senior Manager of Community Engagement for Buffalo Niagara Water Keeper, the volume of combined sewer overflow discharge has been reduced by 73 percent and there are hopes that continued projects on the sewer systems will significantly decrease the number of annual overflows.

With continuing projects and communication improving among these agencies and organizations, there has been positive progress, but extreme weather events caused by climate change has now led to new issues in the same realm.

As explained by Claudia Rosen, the Project Manager for Community Engagement with Buffalo Niagara Waterkeeper, “Combined sewer overflows were always an issue in the past, but is definitely worsened by climate change and the amounts of runoff.”

Additionally, according to Stein, the irregular freeze and thaw Buffalo now experiences due to changing weather conditions has increased the amount of constant runoff from roadways into the waterway leading to more pollution from municipal point and non-point sources.

To combat these ongoing pollution events, beneficial restrictive measures have been put in place for new construction along the river's edge. These measures are a result of the Buffalo Green Code, which mandates that any new construction along the Buffalo River must be 100 feet from the water and must have a vegetative buffer between it and the water to counteract pollution and damage caused by runoff and flooding, according to Wendy Paterson, Senior Manager of Community Engagement for Buffalo Niagara Water Keeper.

The removal and pending removal of the majority of beneficial use impairments is evidence of the collaboration and diligence of the government agencies, not for profit organizations and the community to remediate the past abuse of the river and a commitment to more sustainable practices and development.

As the water quality improves, the attraction to return to the waterfront grows. Vacant decrepit factories, grain silos and elevators are being repurposed and surrounded by new development. Housing projects, bars, and other entertainment businesses are filling in along the river's edge making it a highlight and attraction for many.

Long time resident of Western New York, Dave Gianturco explained, "As industry left, it also left an opportunity to do something with it." Businesses like Riverworks, a bar/restaurant and entertainment complex, is one of the newer hot spots on the river. It hosts events like roller derby, curling, and concerts, as well as outdoor adventures such as ziplining between silos, and amusement park style entertainment, including a Ferris wheel. Riverworks has transformed a

once unusable space into a popular attraction and source of increased tax base for the City of Buffalo. The operation repurposed the concrete industrial shoreline to include docks where boaters can tie up for a day and evening of entertainment.

Environmentally friendly businesses like kayak rentals and paddle bike boat tours have popped up among the voids left by the deterioration of a once thriving industrial corridor.

Gianturco said, “When I was a kid, you didn’t go near Lake Erie because of phosphates and stink and dead fish. It was awful.” This outdated impression of Buffalo is receding. People now want to not only visit the river, they want to live alongside it, a trend that is only going to increase due to New York State subsidized affordable housing construction projects rehabilitating former industrial buildings, and other similar commercial mixed-use developments among the ruins.

The waterway has become a beacon for people and businesses alike, and the water seems to be sustaining its improvements with this renaissance of life. Gianturco noted, “The commercial people do their own thing and have been great about the projects along the river and keeping their stuff cleaned up and even if they don’t own it, keep the shoreline clean because now it’s clean enough to take care of.”

On a bitterly cold and blustery January day in a community park in Buffalo’s First Ward neighborhood along the river’s edge, birds are chirping as adults and children gather around Department of Environmental Conservation Wildlife Biologist Intern, Victoria Miller, as she points out invasive species. The turnout is evidence of the community outreach, events, and education being done by various different agencies and organizations.

People are coming out to learn how to protect their communities and neighborhoods along the water. Coady from Buffalo Niagara Water Keeper reflected, “The programs help people to form a connection to the water...it’s inspiring for them.”

Community engagement and action go hand in hand and have had a significant impact on the river’s evolution. Buffalo Niagara Water Keeper representative, Claudia Rosen, stated they are “winding up public engagement, as we are winding down the on-ground Area of Concern work because we have met our goals.”

Education and community engagement is the way these organizations preserve stewardship for the future. “Since the beginning, it’s been a passion project for people,” said Coady. Rosen explained, “In the ‘80’s’ there was anger, a lot of anger, around the environmental issues.” With progress, anger has turned into happiness, enjoyment and a commitment to promoting a clean and livable environment for wildlife, and for the people who thrive in this formerly blighted community now restored.

Fish, deer, and birds, and other wildlife are returning to the area because of rehabilitation projects that targeted water quality and habitat restoration. “As soon as you increase the water quality, all the species start to do better,” said Miller. Habitat restoration has included projects like new plantings, habitat construction such as erosion weirs, habitat pools, and stability berms.

After completion of many habitat restoration projects, 20,622 linear feet, almost four miles, of habitat has been restored along the Buffalo River according to Buffalo Niagara Water Keeper Wendy Paterson. Restoration projects by Erie County, Buffalo Niagara Water Keeper and partners, U.S. Army Corps of Engineers, and the Environmental Protection Agency’s Legacy Act, which provides funding for sediment remediation for Areas of Concern, have made this

effort a reality. Their restoration efforts are visible though the parks and various sites along the water's edge.

According to Mary Beth Giancarlo of the Environmental Protection Agency, the agency set up projects that would target the Beneficial Use Impairment's removal standards and would work to remove these impairments.

Compared to the other Areas of Concern around the U.S., Giancarlo said, "The Buffalo River is doing really well." The Remedial Advisory Chair Gianturco noted, "Nobody really expected anything to happen but slowly the projects did happen...A boat launch and a few pocket parks started to take shape,"

Raptors are back on the water due to more available food. A variety of other water fowl are now also commonly seen on the river feeding.

Fish also seem to have made a comeback. Fish that aren't able to survive in polluted water, like the spotted sucker, have been caught and seen in the river according to Paterson.

Unexpectedly, wildlife adapting to the healthier water environment, have made new homes in abandoned industrial structures. Victoria Miller reported, "There was actually a falcon on top of the condemned ADM grain elevator." Apparently, peregrine falcons use the abandoned silos nesting areas because they make their homes in cliffs and these industrial structures mimic their natural habitats.

Wendy Paterson has said the river now has a connected healthy habitat which is aiding in positive growth. Paterson expounded, "The habitat is now resilient. It can now handle changes that might come due to extreme weather events and other things that might impact these coastal habitats."

Until recently, kayaking, tubing, paddle boarding, sailing, and water biking were some of the activities people would have avoided on the Buffalo River, due to extreme contamination from industrial pollution and municipal waste. With the improvement of water quality and environment, people have flocked back to the river. Claudia Rosen reported “More people are coming to the river...kayaking, boating, fishing,” These activities are now commonplace and encouraged.

Organizations like Buffalo Niagara Waterkeeper and businesses set up along the shorelines of the river have been instrumental in encouraging people to be connected with the waterway. Projects like the Buffalo Blueway, which promotes sites on and off the water, and around the waterway; and the Riverline project which is reintroducing natural environments along the shorelines with native plantings and habitat pools, along with new walking paths, are all ways in which people are connecting with the water and surrounding environments.

“I’m happy that the community has taken over,” said Gianturco. He explained that people are taking ownership of the efforts and are turning the waterway into their space and making it a priority and a highlight of Buffalo.

The future of the Buffalo River and surrounding area is looking bright, but there are still some concerns about the safety of the river to its users. Gianturco reflected, “If I look at it now; Is it incredible? Yes, it is. In a way I’m scared because I don’t know that the river is anywhere near as safe as the way that it is getting used, and I worry about that a lot.”

The fear of people going into areas that aren’t quite as safe as areas that have been restored, as well as issues related to the remaining Beneficial Use Impairments are a concern for many who have worked on the river’s projects over the years. Gianturco expressed concern

about the fish quality, stating, “Immigrants that don’t read the pollution signs and think that it fine and they eat the fish anyway; so, there is still a really long way to go.”

Despite these fears, people are still out, on and around the river. Whether it’s socializing at local bar restaurants on the waterfront, walking through a park watching kayakers paddle past old grain silos, or heading out to Lake Erie for a day of boating, people are back and ready for where the Buffalo River is headed next: Delistment and a future full of people and an environment coexisting and benefitting one another.

Project Link: <https://youtu.be/aTtBDsdQEns>

Interview Log:

June 6th 2022: David Denk, NYSDEC

June 8th 2022: Joanna Panasiewicz. Erie County

June 24th 2022: Melanie Stein, NYSDEC

July 11th 2022: Claudia Rosen and Robert Coady, BNW

August 3rd 2022: Claudia Rosen, BNW

August 5th 2022: Mary Beth Giancarlo, U.S. EPA

August 18th 2022: BUI Removal Meeting

September 13th 2022: RAC Meeting, BNW, U.S. EPA, NYSDEC, U.S. ACE...

November 11th 2022: Dave Gianturco, RAC Chair

November 21st 2022: Dave Gianturco, RAC Chair

December 9th 2022: RAC Meeting, BNW, U.S. EPA, NYSDEC, U.S. ACE...

February 18th 2023: Riverline Winter Fun Day, BNW, NYSDEC, Western NY Land Conservancy.

March 31st 2023: RAC Meeting, BNW, U.S. EPA, NYSDEC, U.S. ACE...