



Erie County
Environmental Management
Council
2019 Awards

Buffalo River

Remedial Advisory Committee

Buffalo Niagara Waterkeeper & Chair David Gianturco



HISTORICAL OVERVIEW

In 1969, the Buffalo River was declared biologically dead. De-oxygenation resulting from decades of industrial and municipal discharge into the river made the water uninhabitable for wildlife, and posed serious health risks for humans.

WHAT IS AN AOC?

Under the Great Lakes Water Quality Agreement, the Buffalo River was designated as one of 43 Great Lakes Areas of Concern (AOC). AOCs have experienced environmental degradation resulting in Beneficial Use Impairments (BUIs). Examples of these BUIs include restrictions on fish and wildlife consumption, degradation of fish and wildlife populations, and degradation of aesthetics.

HOW IS AN AOC RESTORED?

The restoration, or delisting of an AOC is a long, complex process. A Remedial Action Plan, or RAP, is developed and includes the management actions necessary for delisting. The RAP identifies the BUIs and the criteria to restore them, restoration actions, and a monitoring and evaluation program.

WHO IS INVOLVED IN THE RESTORATION?

The original Buffalo River RAP was developed in 1989 by a group of local citizens and the NYSDEC. In 2003 Buffalo Niagara Waterkeeper (formerly Friends of the Buffalo River) was designated by the USEPA as the RAP coordinator, a role previously served by the NYSDEC. Waterkeeper has brought together public and private partners*, as well as individuals, to secure funding and coordinate the massive clean-up effort.

*Partners include Erie County, U.S. EPA, Honeywell, New York State Department of Environmental Conservation, and the United States Army Corps of Engineers with funding by Great Lakes Restoration Initiative.

RESTORATION TIMELINE

- 1987 Buffalo River declared Area of Concern (AOC)
- 1989 First Remedial Action Plan (RAP) is published
- 1989 through 2003 Focus on clean up of hazardous waste sites adjacent to the river
- 2003 Buffalo Niagara Waterkeeper (BNW) designated as RAP Coordinator (Formerly NYSDEC)
- 2005 Dredging Feasibility Study agreement is signed between US Army Corps of Engineers and BNW
- 2005 Comprehensive sediment sampling of upper Buffalo River completed by NYSDEC
- 2007 Comprehensive sediment sampling of lower Buffalo River completed by NYSDEC
- 2008 RAP status report completed outlining results of studies and adopting of delisting criteria
- 2011 BNW receives Great Lakes Restoration Initiative funding to complete Riverbend riparian habitat restoration
- 2011 through 2012 US Army Corps of Engineers conducts dredging of contaminated sediment in the navigation channel
- 2013 through 2015 Legacy Act dredging is executed
- 2015 In-water habitat restoration begins
- 2017 Habitat restoration projects are implemented within AOC
- 2019 Start monitoring of restoration sites to confirm beneficial uses have been restored in accordance with RAP criteria
- 2022 (anticipated) Buffalo River to be removed from AOC list

BUFFALO RIVER AREA OF CONCERN RESTORATION



We protect and restore our water and surrounding ecosystems for the benefit of current and future generations.

We **PROTECT** clean water. We **RESTORE** the health of ecosystems. We **CONNECT** people to the water. We **INSPIRE** economic growth and community engagement.



LEWPA

Lake Erie Watershed Protection Alliance

Annual Report of the Lake Erie Watershed Protection Alliance—Year 1



The Lake Erie Watershed Protection Alliance (LEWPA) formed in 2012 as an alliance of municipal officials and concerned stakeholders working together within the Niagara River/Lake Erie Watershed including Cattaraugus, Chautauqua, and Erie counties. The mission of LEWPA is to foster collaboration and partnerships within the watershed to address regional water quality and quantity concerns, and in doing so, protect and enhance our Lake Erie resource.

The \$250,000 New York State Environmental Protection Fund investment in LEWPA leveraged \$762,763 additional funds resulting in over \$1 million in water quality improvements for Year 1.

Watershed Stabilization to Reduce Erosion (Sediment and Nutrient Pollution Reduction)

- Over 2,800 feet of road bank and stream bank were stabilized at 8 locations throughout the three counties.



Galen Hill Road (Cattaraugus County)



Slippery Rock Creek (Chautauqua County)



Cayuga Creek (Erie County)

- Over 13 acres were hydro-seeded.



Invasive Species Control

- Over 11 acres of invasive species removed from native trout stream headwaters.
- Invasive species were replaced with native plants at a local park.

Spring Brook Fen
Invasive Species Removal Project



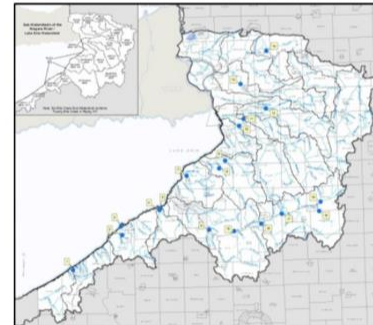
Village of Springville

Best Management Practice Implementation

- Stormwater control measures were put in place on a dairy farm to prevent bacteria from entering the Bourmes Creek watershed.
- A riparian buffer and green infrastructure including a rain garden were installed along Spring Brook in Springville to prevent runoff.

Outreach and Education

- Boaters were educated about aquatic invasive species prevention at Dunkirk Harbor during the summer of 2017.
- LEWPA tabled at several outreach events to inform the public about the issues and initiatives.



Water Quality Monitoring Locations

Water Quality Monitoring

- Worked with NYS Department of Environmental Conservation and US Geological Survey to begin nutrient monitoring at 19 sites throughout the watershed.
- Developed a Quality Assurance Project Plan for bacteria sampling at these 19 sites for year 2 in preparation of a source track down.

Technical Assistance

The following studies were funded to provide initial design for future grant proposals:

- Yorkshire Sewer System Feasibility Study to reduce septic system reliance in a rural area.
- Green Infrastructure Feasibility Study at Hamburg Town Park Beach to reduce stormwater pollution.
- Engineering Study for a constructed wetland at Wright Park Beach West to reduce beach closures.

WNY Youth Climate Action Summit



Buffalo Sewer Authority

RAIN CHECK 2.0

OPPORTUNITY REPORT

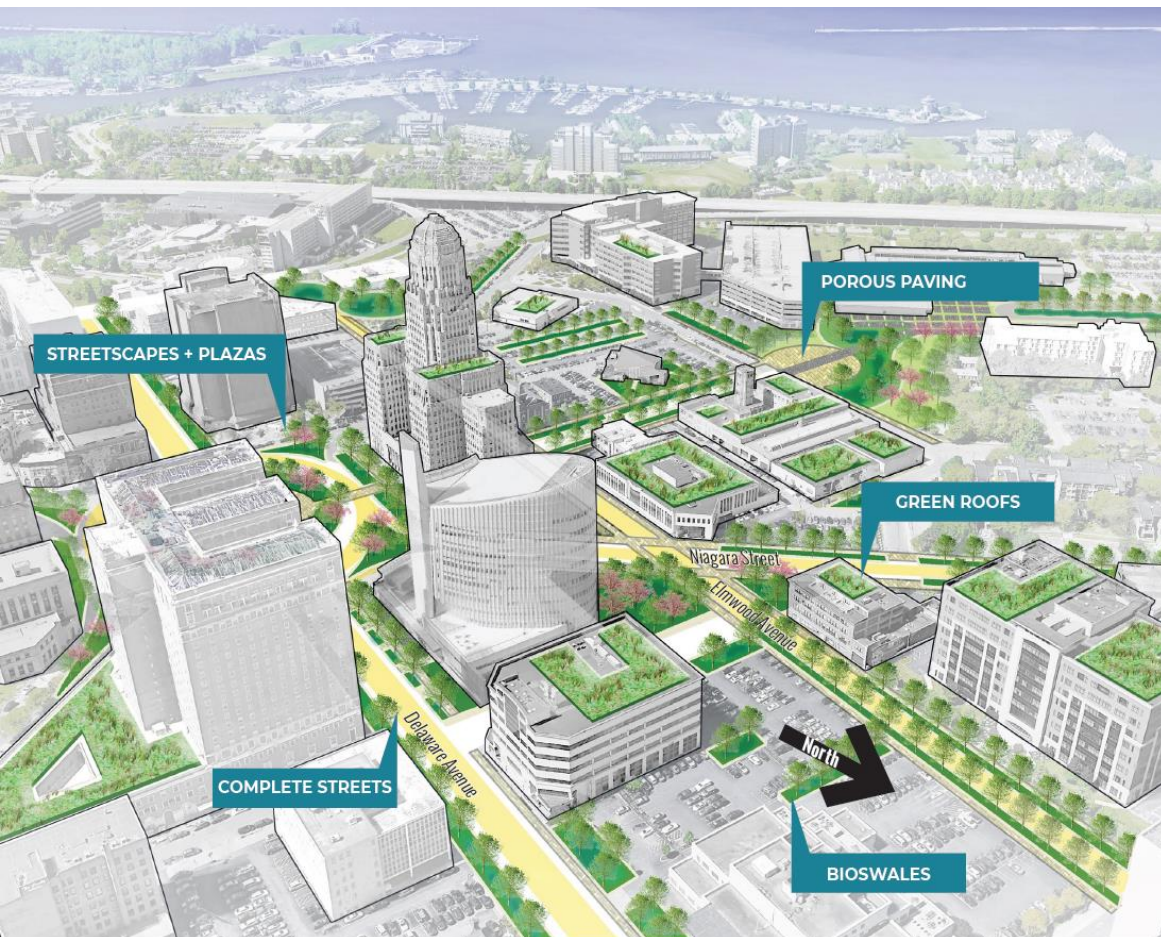


Figure 14.5: Downtown Buffalo Green Infrastructure Opportunities

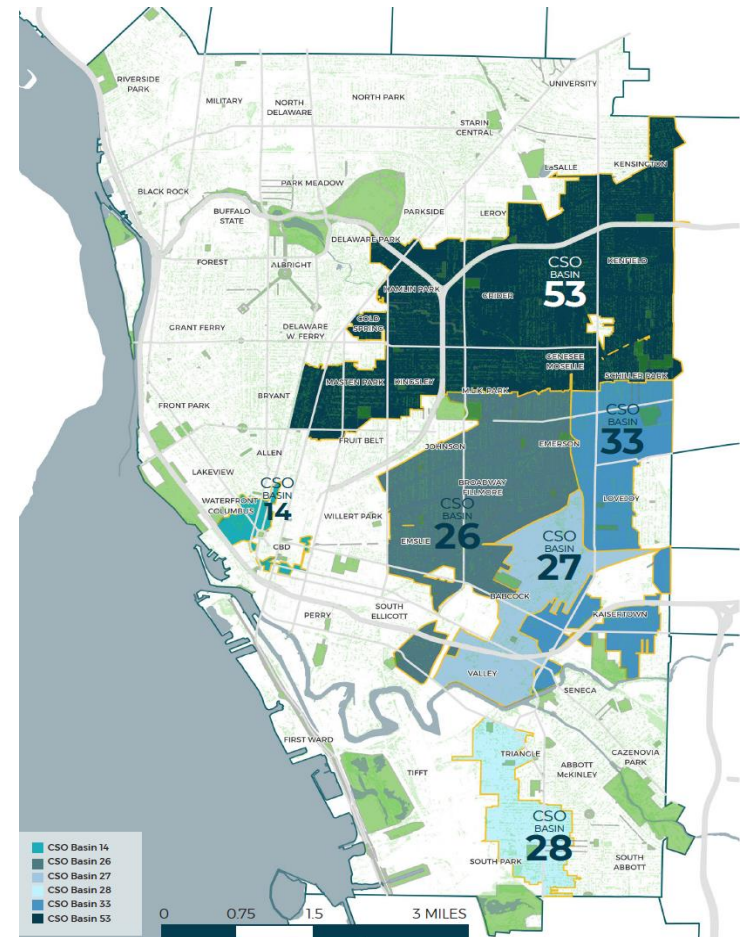


Figure 0.2: Map of Rain Check 2.0's six priority CSO Basins.