



FACT SHEET

October 2019

Seneca Bluffs Restoration, Buffalo, NY Interagency Agreement with U.S. EPA

Location

- The Seneca Bluffs Natural Habitat Park is located along the Buffalo River in Buffalo, NY.

Project Description

- This project will result in the restoration of 3,100 linear feet of shoreline along the Buffalo River and meet the goals of a wide array of project partners
- Design will focus on bioengineering techniques to reduce shoreline erosion, restore valued habitat along the Buffalo River, and manage invasive species
- This project will consist of Detailed Design for a habitat restoration project, followed by contract award and oversight of project implementation

Importance

- This project has been identified by the Buffalo River Remedial Advisory Committee as a priority management action required for delisting of the Area of Concern
- Seneca Bluffs is a rare example of aquatic and nearshore habitat in the urban core.

Consequences

- Without this project, Seneca Bluffs will continue to suffer from the severe erosion, degraded habitat value, and loss of park space
- Without this project, local stakeholders and the EPA will be unable to meet their shared goal of delisting the Buffalo River Area of Concern

Project Phase	FY19 Requirement	FY19 Budget	FY20 Requirement	FY20 Budget	FY21 Requirement	FY21 Budget
Design and Implementation	\$258k	\$258k	\$50k	\$50k	\$25k	\$25k

Project Sponsor/Customer

- U.S. Environmental Protection Agency

Congressional Interests

- Representative Brian Higgins D-NY-26
- Senator Charles Schumer D-NY
- Senator Kirsten Gillibrand D-NY

Current Status

- Final planting of additional wetland plugs completed in May 2019.
- Year 4 Invasive Species Treatments and Monitoring completed in Q4, FY19.
- Year 5 Invasive Species Treatments and Monitoring in Q4, FY20

Issues

- No project issues at this time.

Seneca Bluffs Ecosystem Restoration

Project Background:

Historic development and industrialization has substantially altered the lower Buffalo River through shoreline hardening, floodplain filling, and channel realignment. These factors limit the quality and availability of habitat for wildlife in the Buffalo River system. At Seneca Bluffs, severe riverbank erosion and invasive species were reducing the already limited habitat and the public's accessibility to parkland. The project partners developed and implemented a plan to reduce erosion, improve habitat, and restore natural ecological function to the Seneca Bluffs park. This project was made possible through a partnership of Erie County, the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, and the Buffalo River Remedial Action Committee, with funding provided by the Great Lakes Restoration Initiative.

Floodplain Habitat Restoration:

- Stabilize the eroding banks of the Buffalo River while reconnecting the floodplain and reestablishing a native plant community.
- Reduce cover of invasive common reed and Japanese knotweed.
 - Contour riverbank areas to reduce severe erosion and encourage floodplain connectivity.
 - Plant native grasses, shrubs, and trees to establish native riparian communities.
 - Maintain some downed trees to provide habitat cover for mink, beaver, and other riparian mammals.

Nearshore Aquatic Habitat Enhancement:

- Measures to enhance nearshore aquatic habitat include the installation of locked logs, single stone bendway weirs, and root wads.
- Enhance fish habitat by diversifying flows to build in-channel structure and complexity.
 - Improve habitat for substrate dwelling organisms and fish such as walleye, northern pike, and bass by providing in-stream cover.
 - Protect stream banks and shoreline areas from scouring flows and resultant sedimentation.
 - Act as resistive and redirective structures to reduce impact of ice on riparian habitat.

Floodplain Wetland Creation:

- A 0.2 acre emergent wetland was created to accept floodwaters from the Buffalo River during high water events.
- Provides wetland habitat that is scarce in the lower Buffalo River watershed.
 - Serves as habitat for multiple amphibian, bird, and reptile species.
 - Designed to receive and retain floodwaters and lessen the impacts of flooding events.
 - Water retained in the wetland will be naturally filtered and released as groundwater, resulting in improved water quality.

Floodplain Bench Creation:

- A floodplain bench was created along the park's upstream island to increase the size of the Buffalo River floodplain.
- Designed to regularly flood during high water events.
 - Functions to slow floodwaters and reduce the amount of erosive force that is exerted on the riverbank.
 - The expansion of the floodplain will lessen the downstream impacts of flooding events.
 - Frequent flooding and associated scour will help maintain a higher level of riparian vegetative diversity and habitat quality.

