

Designing a Buffalo Creek Floodplain Reconnection in the Town of West Seneca (NY)

MARCH 28, 2022



WHO WE ARE

We are a science-based, community-focused, organization engaged in partnership building, planning, design, citizen education, and advocacy.

GUARDIANS PROFESSIONALS

Biologists

Planners

Landscape Architects

Construction Project Managers

Certified Kayak & Safety Instructors

Community Coordinators

Naturalists

Hydrologists

Attorneys

CONNECTORS

CATALYSTS



We **CONNECT**
people to the
water.



We **INSPIRE**
economic growth
and community
engagement.



We **RESTORE**
the health of
ecosystems.



We **PROTECT**
clean water.



**BUFFALO NIAGARA
WATERKEEPER**

PROTECT • RESTORE • CONNECT • INSPIRE





Designing a Buffalo Creek Floodplain Reconnection in the Town of West Seneca (NY)

Ultimate Objective – Reconnect Buffalo Creek to its floodplain to alleviate flooding in the Lexington Green Neighborhood.

Project Objective – Identify and verify opportunities for reconnecting Buffalo Creek to its floodplain and develop preliminary designs, metrics, and cost estimates.

Geographic Context

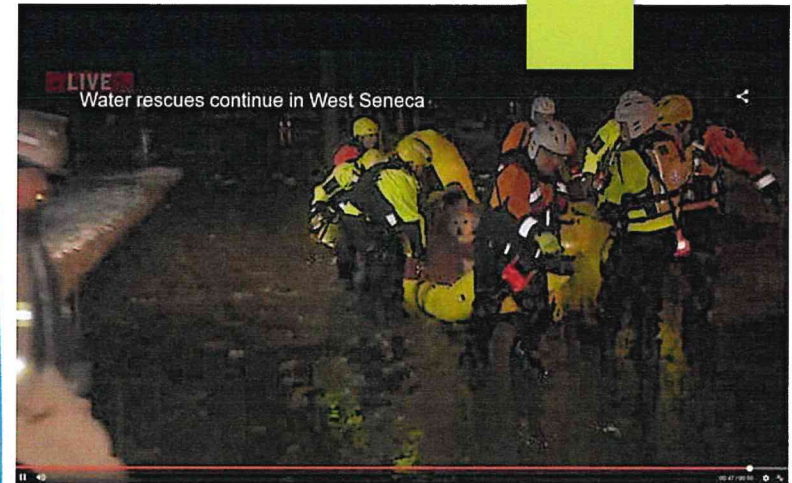
▶ Three 2nd order creeks flow through the Town and into the Buffalo River/Lake Erie.

▶ The Lexington Green neighborhood (90 homes) was developed in the 1960's on Buffalo Creek's floodplain.



Flooding History

- ▶ The first documented flooding in the Lexington Green neighborhood occurred in 1971. Mainly due to spring thaw events and ice jam flooding.
- ▶ 2014 (January 11th and February 21st) – Two, 100-year flood events with total damages amounting to \$1.2 million
- ▶ 2019 (February 4th and 5th) – Ice-jam flooding occurred that caused the evacuation of the School Street neighborhood along the south side of Buffalo Creek
- ▶ 2022 (February) – Ice-jam flooding leads to the evacuation of several households.



Flood Reports

1966, USACE “Flood Plain Information Buffalo Creek, New York in the Towns of Elma and West Seneca”

Report indicated that Buffalo Creek has a long history of flooding, but damages were moderate due to *relatively minor development in the floodplain*. The report suggested “**regulation of flood plain development**” to prevent further damage.

1979 – USACE “Flood Plain Management Planning Assistance for the Town of West Seneca New York: Buffalo Creek”

Report proposed **three hard engineering alternatives**: installation of a levee adjacent to the creek, installation of a large capacity storm sewer lift station, and lift station with the addition of floodproofing individual homes.

2016 – USACE “Federal Interest Determination: Lexington Green”

Examined such protection measures as levees, flood benches, ice control structures, early warning systems, and ice management. The project was terminated based on **lack of Federal interest** due to lack of economic efficiency.

Flood Reports

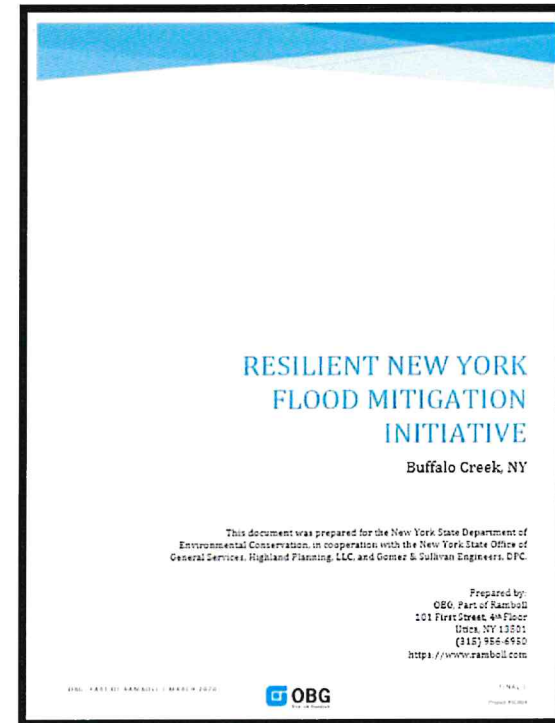
Resilient NY Initiative

2018

Overseen by New York State Department of Environmental Conservation and the Office of General Services

In response to devastating flooding in communities across NY State, high priority watershed were chosen to identify causes of flooding and make recommendations on effective and ecologically sustainable flood and ice jam mitigation projects.

The Buffalo Creek watershed was identified as a study site for this initiative



Flood Reports


Lexington Green was identified as a high-risk area within the Buffalo Creek watershed.

One of the alternatives presented in the report is the creation of a **flood plain bench upstream of the Lexington Green neighborhood** which would increase the cross-sectional flow and add storage area during times of high flows alleviating flooding downstream.

It is important to note that this report did not identify specific parcels on which to create the bench, parcel ownership, parcel conditions, or willingness from the property owners to allow for construction of a flood mitigation project on their land.



Current Effort



Buffalo Niagara Waterkeeper received funding from the National Fish and Wildlife Foundation's National Coastal Resilience Fund to progress the project.



Project Budget - \$75,000



Project Timeline - 6 months



Request for Proposals

RFP for the following Tasks was released on March 1, 2022

Proposals due on Thursday March 31, 2022

Task 01 – Kick-off Meeting

Task 02 – Background Review, Parcel Ownership, and Public Meeting

Task 03 – Site Reconnaissance, Preliminary Design, Metrics, and Cost Estimates



Questions?