Restoration in the Niagara River Gorge







We protect over 6,000 acres of farmland, forest, and open space on more than 80 properties in Western New York

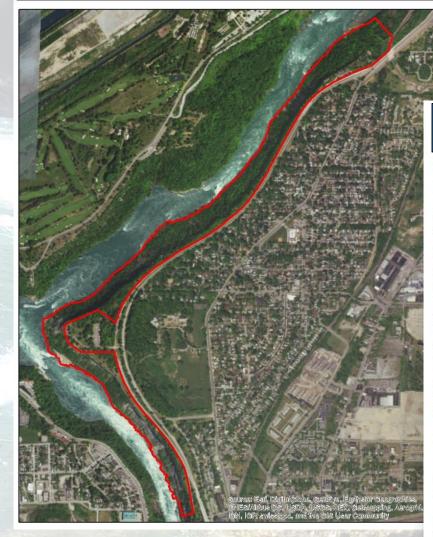




Project Team & Roles

Project Sponsor	Western New York Land Conservancy	
Land Owner	New York Power Authority New York State Parks	
Land Manager	New York State Parks	
Municipality	City of Niagara Falls, Town of Lewiston	
Consultant Team	Applied Ecological Services Landscapes of Place CC Environment & Planning Make Communities	
Parkway Removal	Empire State Development/Niagara USA	
Funding	Greenway Ecological Standing Committee Governor Cuomo's Buffalo Billion II ESD Yahoo! Community Fund for Niagara County New York State Sea Grant Small Grant Program	

Whirlpool Northern Project Area



198-acres: Whirlpool & Devil's Hole State Parks

5-acres: Findlay & Whirlpool

Findlay & Whirlpool Native Landscape



Discovery Center Southern Project Area



34-acres: New York Power Authority

Overview





- ~Two-Mile Corridor: Main St. to Findlay Dr.
 - Whirlpool Street: Cedar St. to Findlay Dr.
 - Third Street: Main St. to Cedar St
 - Other Streets/Facilities & Betterments
 - 2nd St, Walnut St, Discovery Way, Trolley Way, Spring St
 - State Park/City Parking Lots, Whirlpool Bridge area

Download Tonight's Materials

https://parks.ny.gov/inside-our-agency/public-documents.aspx

Scroll down to:

"Robert Moses Parkway - North Segment"







Findlay & Whirlpool Native Landscape





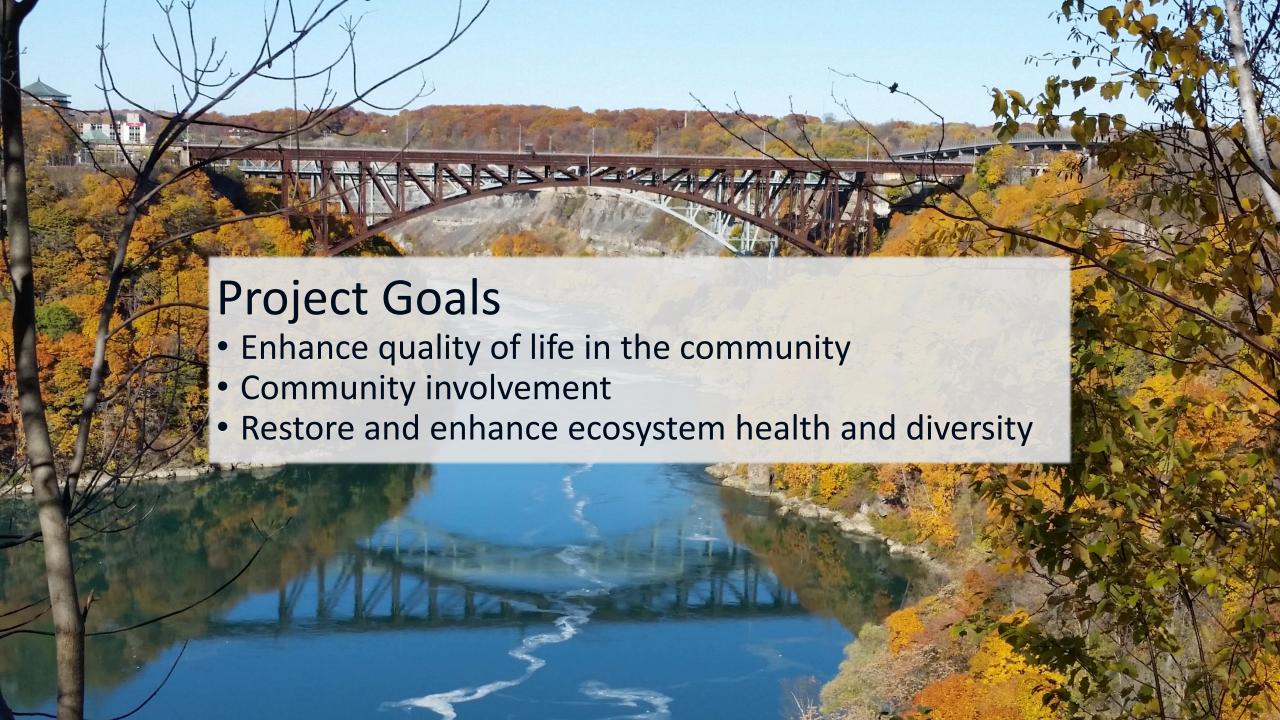
Legend
Findlay Grassland

Findlay & Whirlpool Native Landscape

- Site preparation to control non-natives
- Extensive herbaceous and woody plantings
- The Land Conservancy work closely with the Parkway Removal team, but is taking the lead on this site
- Nancy Aten and Darrel Morrison (Landscapes of Place) will design the site
- Locally collected seed will be planted and used to propagate plants the site







Working with the community

- Stakeholder Meetings (2017)
 - Ecological April
 - Niagara Falls Community May
 - Project Neighbors July
- Public Presentation Meeting Nov
- Gather community input and maintain stakeholder involvement throughout project
- Findlay Site Picnic June 2018



Community Hikes & Events



Past Events

 Importance of Native Plants by Doug Tallamy, author of Bringing Nature Home

Coming up

- Geology of the Gorge Hike July 22
- Native & Invasive Plants of the Gorge Hike – August 1

Visit wnylc.org to sign up!

Ecological Goals

- Restore and enhance ecosystem health and diversity
- Control non-native invasive species
- Plant native species of reference ecosystems
- Use locally-sourced seed/plants when possible
- Protect rare, threatened, and endangered species







Project Timeline

Project Area Timeline

Discovery Center Southern Project Area

Invasive Species Control

Native Plantings

Feb. 2018 - Dec. 2019 Spring & Falls 2018 – 2019

Whirlpool Northern Project Area **Invasive Species Control**

Native Plantings

June 2018 - June 2020 Spring & Falls 2018 – 2020

Findlay & Whirlpool Native Landscape

Site Preparation

Planting Installation

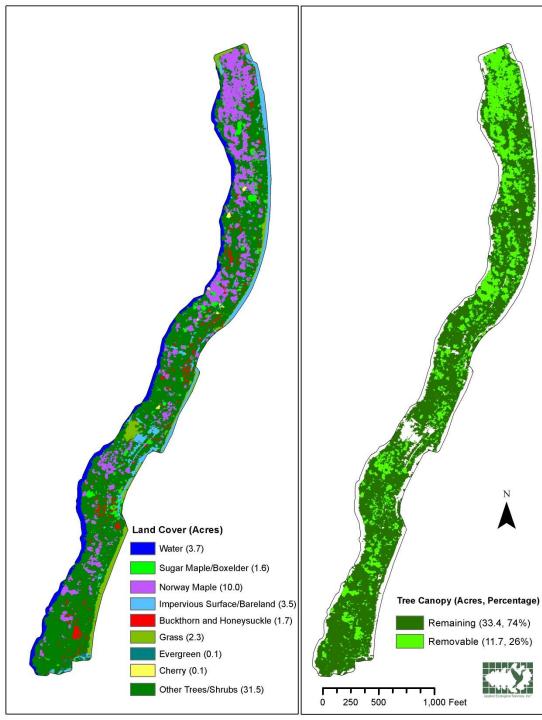
May 2018 - Sept. 2019 Spring 2020 (tentatively)



Invasive Species Control

Target Invasive Species

Scientific Name	Common Name		
Acer platanoides	Norway Maple		
Ailanthus altissima	Tree of Heaven		
Alliaria petiolata	Garlic Mustard		
Alnus glutinosa	European Black Alder		
Artimesia vulgaris	Common Mugwort		
Berberis thunbergii	Japanese Barberry		
Celastrus orbiculatus	Oriental Bittersweet		
Elaeagnus umbellata	Autumn olive		
Hedera helix	English Ivy		
Ligustrum vulgare	European privet		
Lonicera morrowii	Morrow's honeysuckle		
Lonicera tatarica	Tartarian honeysuckle		
Lythrum salicaria	Purple Loosestrife		
Phragmites australis	Common Reed		
Rhamnus cathartica	Common Buckthorn		
Rhamnus frangula	Glossy Buckthorn		
Robinia pseudoacacia	Black Locust		
Rosa multiflora	Multiflora rose		



Invasive Species Mapping

	Cover Type	Arces
	Norway Maple	10
	Tree of Heaven (est. from field data)	2.0
	Buckthorn and Honeysuckle	1.7
	Evergreen	0.12
	Cherry	0.13
	Sugar maple/Boxelder	1.62
	Other Trees/Shrubs	31.5
	Ash(est. from field data)	0.10
	Buckthorn and Honeysuckle Evergreen Cherry Sugar maple/Boxelder Other Trees/Shrubs	1.7 0.12 0.13 1.62 31.5

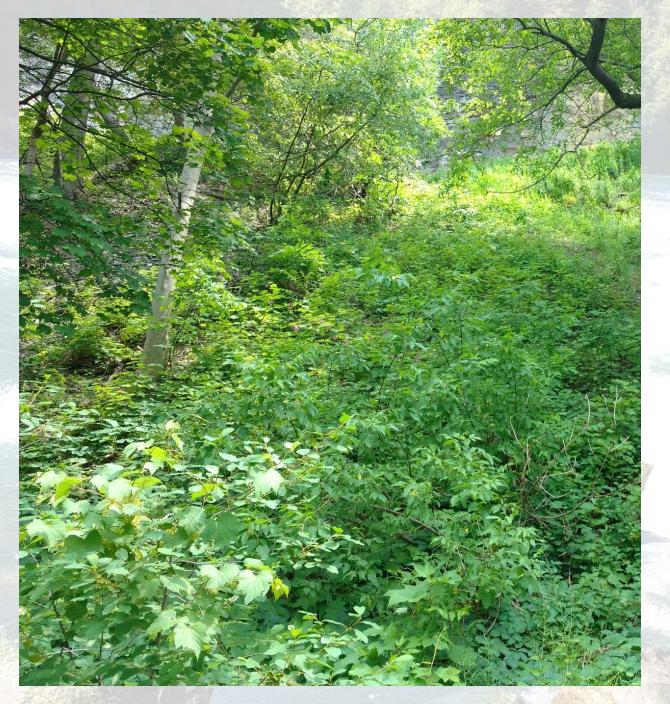












Planting Native Species

- Establish ground cover to stabilize slopes and create conditions to establish native plantings
- Diversity ground cover with grasses, flowers, shrubs & trees
- Species list, quantities, sizes, plant material are TBD
- Follow Parks Native Plant Policy
- Use locally sourced plant material when available will be used



New York Natural Heritage Program

625 Broadway, Albany, NY 12233-4757 (518) 402-8935 naturalheritage@dec.ny.gov



Report on Rare Animals, Rare Plants, and Significant Natural Communities

The following rare plants, rare animals, and significant natural communities** have been documented in the Natural Heritage database for the

	COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK*
Whirlpool Sta	te Park			
Plants	Slender Blazing-star	Liatris cylindracea	Endangered	S1
	Lesser Fringed Gentian	Gentianopsis virgata	Endangered	S1
	Sky-blue Aster	Symphyotrichum oolentangiense	Endangered	S1
	Mountain Death Camas	Anticlea elegans ssp. glaucus	Threatened	S2
	Elk Sedge	Carex garberi	Endangered	S1
	Smooth Cliff Brake	Pellaea glabella ssp. glabella	Threatened	S2
	+ Puttyroot (1865)	Aplectrum hyemale	Endangered	S1
	+ Yellow Giant-hyssop (pre-1888)	Agastache nepetoides	Threatened	S2S3
	+ Giant Pine-drops (pre-1888)	Pterospora andromedea	Endangered	S1
	+ Scarlet Indian-paintbrush (pre-1882)	Castilleja coccinea	Endangered	S1
Communities	Calcareous Cliff Community			S3
	Calcareous Talus Slope Woodla	and		S3



Few-headed Blazing Star Growth and Development

Habit: erect perennial forb/herb

•Height: 1' to 3'

•Leaves: rough linear leaves growing basally and on the stem, largest leaves are 3" to 9" and diminish in size up the stem

- ●Flowering: flower heads are a long raceme composed of 2 28 purple flower heads that appear in July September
- •Growing with: in the Niagara Gorge, this species can be found growing with other plants typical of open prairies such as butterfly weed (*Asclepias tuberosa*), wild bergamot (*Monarda fistulosa*), and big bluestem (*Andropogon gerardi*); areas with characteristic prairie vegetation should be examined closely for the presence of this species



Lesser Fringed Gentian



Gentianopsis virgata flower



Photo credits: Stephen M. Young

Scientific Name Gentianopsis virgata

(Raf.) Holub

Family Name

Gentianaceae Gentian Family

Did you know?

This beautiful gentian was first discovered in New York in 1833 in the Niagara Falls area and is still only known from there and a second location along the St. Lawrence River.





Smooth Cliff Brake



Pellaea glabella



Photo credits: Troy Weldy

Scientific Name

Pellaea glabella ssp. glabella

Family Name

Pteridaceae

Maidenhair-fern Family

Did you know?

Scattered throughout upstate New York in fewer than a dozen places, it is a mystery why this fern is so much more rare than it's closely related species Pellaea atropurpurea.





Sky-blue Aster

Symphyotrichum oolentangiense flowers







Scientific Name Symphyotrichum

oolentangiense (Riddell) Nesom

Family Name Asteraceae

Aster Family

Did you know?

This beautiful aster was originally described in 1835 by botanist John Leonard Riddell and named Aster oolentangiensis after the Olentangy River in Ohio where he found it near Worthington, Ohio. Riddell misspelled the river name with two Os and thus the species has that spelling. Its name was later changed to Aster azureus to reflect its sky blue flower color. When the genus was changed to Symphyotrichum the older species name had precedence.



