



## **Best Practices for Native Plant Community Establishment, Enhancement, and Stewardship**

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Prepared by Erin Redding, Niagara River Habitat Specialist, New York Natural Heritage Trust

Contact Information: New York State Department of Environmental Conservation,  
erin.redding@dec.ny.gov; 716-851-7010

### **Purpose**

The Niagara River Greenway is a continuous corridor of places, parks and landscapes that celebrates and interprets the Niagara River watershed's unique natural heritage. The Niagara River Greenway Ecological Standing Committee (GESC) has developed this document to serve as a reference for practitioners working within the Niagara River Greenway. GESC asks that project sponsors that are applying for or receiving financial support from the Greenway Ecological Fund use this reference to inform ecological enhancement planting decisions.

The *Niagara River Greenway Ecological Standing Committee Best Practices for Native Plant Community Establishment, Enhancement, and Stewardship* will not replace existing or future federal, state, or local municipal regulations. When GESC approves funding for a project, it is still the responsibility of the project sponsor to acquire any necessary permits, and regulatory conditions will take precedent.

### **Development**

The *Niagara River Greenway Ecological Standing Committee Best Practices for Native Plant Community Establishment, Enhancement, and Stewardship* was developed by the GESC following discussions with scientists and practitioners with experience choosing, sourcing, growing, or installing plants throughout the Niagara River basin.

The GESC considers these practices consistent with the Niagara River Greenway Plan, particularly the principles of ecological integrity and authenticity in place and identity.

# Niagara River Greenway Ecological Standing Committee

## Best Practices for Native Plant Community Establishment, Enhancement, and Stewardship

### Practices

1. Proposed project planting plans should be site-specific and take into account as many of the following criteria as feasible:
  - Short and long-term goals of the planting effort;
  - Existing plants growing successfully at or adjacent to a project site;
  - Existing microhabitats on site;
  - Existing plants growing in ecologically similar reference communities;
  - Herbivore preferences and expected herbivory level;
  - Establishment and maintenance requirements;
  - Planned management and stewardship activities in the project vicinity;
  - Human interactions with a site, throughout the year;
  - Hosting pollinators in all seasons;
  - Plant availability;
  - Restoration timeline and funding timeline.
2. Plants species should be limited to species that are documented as native to the Niagara River Greenway region.

There are various resources that practitioners can consult to determine which species are native to the Niagara River Greenway, including but not limited to,

- a. New York Flora Atlas
- b. New York Natural Heritage Program ecological community descriptions<sup>1</sup>; and
- c. Indigenous knowledge, specific to the Niagara River region;

GESC recognizes that project sponsors may specifically propose species that are not yet considered native to the Niagara River Greenway but are expected to establish here due to climate change. If this is the case for a project, the project sponsor should provide GESC with an explanation of how climate change resilience models, such as the US Forest Service Climate Change Atlas<sup>2</sup>, were used to develop the project's planting plan.

GESC also recognizes that exceptions may be appropriate to meet unique project goals. If this is the case for a project, the project sponsor should provide GESC with an explanation of why a certain non-native species will be included.

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<sup>1</sup> New York Natural Heritage Program, Ecological Communities, available online at: <https://www.nynhp.org/ecological-communities/>

<sup>2</sup> US Forest Service Climate Change Atlas, Tree Atlas, available online at: <https://www.fs.usda.gov/nrs/atlas/tree/>

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3. Plants with native genotypes that have been responsibly grown in a nursery setting should be preferred to plants that are native species but were grown from material that was sourced outside of the Niagara River Greenway region. GESC acknowledges that exclusively sourcing plants of native genotypes may not be feasible or possible for all projects.
4. Plants should be responsibly grown in a nursery setting rather than sourced from wild populations. Seeds and cuttings that are sourced from wild populations will only be acceptable if they are sourced responsibly under the guidance of knowledgeable practitioners with all appropriate landowner permissions and permits.
5. Cultivars<sup>3</sup> should not be used.
6. Projects located on New York State lands or waters should only include Federally listed threatened or endangered, New York State Department of Environmental Conservation listed threatened or endangered, or New York State Natural Heritage Program S1, S2, and S3 plants<sup>4,5</sup> in planting plans, if,
  - a. the plants or seeds are responsibly sourced from a local genotype; *and*
  - b. restoration of a threatened or endangered species is defined as a primary goal of the project; *and*
  - c. the applicant has invited consultation with the New York Natural Heritage Program by sharing the project proposal with an New York Natural Heritage Program botanist or ecologist following the steps for consultation described in the Greenway Ecological Fund Standing Committee Award Guidelines & Application Requirements Section IV. Pre-Application Consultation and Section V.2 Application Requirements.<sup>6 7</sup>
7. Non-native invasive plant species will not be permitted, even if they have established values or uses. Plant species that have the potential to be non-native invasives should not be used.
8. Copies of planting plans and list of plant sources should be attached to final project reports.

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<sup>3</sup> A cultivar is a plant variety that has been produced by humans in cultivation by selective breeding.

<sup>4</sup> New York Natural Heritage Program rare plants list is available online through a link on the webpage: <https://www.nynhp.org/plants/>. The latest list as of November 2024 is Ring, Richard M. New York Rare Plant Status Lists. New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry, Albany, NY. December 2023. 108 pp., available online at: <https://www.nynhp.org/documents/5/rare-plant-status-lists-2023.pdf>.

<sup>5</sup> **S1** = Critically imperiled in New York State because of extreme rarity (5 or fewer sites or very few remaining individuals) or extremely vulnerable to extirpation from New York State due to biological or human factors. **S2** = Imperiled in New York State because of rarity (6 - 20 sites or few remaining individuals) or highly vulnerable to extirpation from New York State due to biological or human factors. **S3** = Vulnerable in New York State. At moderate risk of extinction or elimination due to very restricted range, very few populations (usually 21 - 35 extant sites), steep declines, or other factors (Ring, 2023).

<sup>6</sup> New York Natural Heritage Program is not a regulatory agency.

<sup>7</sup> This practice may not apply to projects located in territory of a sovereign Indigenous nation. The GESC will not expect Indigenous nations or their representatives to invite consultation with the New York Natural Heritage Program for projects taking place on sovereign territory.