

# Gary Morava Nature Preserve Ecological Management Schedule

**Site Description** Gary Morava Nature Preserve is 1.6 acre property that is owned by the Park District. Historically, the area was in agricultural use for decades until it was purchased by the Park District. Many invasive species of plants have been allowed to grow there, choking out desirable species. There is a meandering creek that is tributary to McDonald Creek, eventually emptying into the Slough and Hillcrest Lake wetland.

This is a Park District project. The project was just recently awarded a ComEd Green Regions grant administered through Openlands. The idea for the project was to create an interpretive nature park, providing ecological benefits and wildlife habitat while nurturing children's connection to nature through education. The parcel of land is adjacent to The Gary Morava Recreational Facility, which offers a variety of classes and programs, including preschool, after school care and summer day camp for elementary age school children. The area is easily accessible, across the street from the Prospect Heights Library and within walking distance of Eisenhower Elementary School.

Status: In the first year of restoration.

Work performed to date:

- Spent last winter removing invasive buckthorn.
- Planted 500 native plugs
- Seeded 5 pounds of native seed
- Managed invasive plants

Work scheduled for 2016-18

- Stabilize the shore line with native plugs.
- Create hiking trails.
- Continued planting and seeding of native plugs and seed.
- Install interpretative signage
- Install interpretative bridge
- Create interactive nature areas
- Create prairie area
- Plant native shrubs and trees
- Continued maintenance
  - Manage invasive plants.
  - Manage aesthetics.

**Location**

**Activity**

**Timeline**

**Crew**

**Notes**

	<p><b>Selectively cut non-native early successional species</b> Cut low quality, non-native and early successional species to make room for the high quality woodland plants. Cut low in the first year and then 1 ft or above once seedlings have started growing to provide them with a competitive edge</p>	<p><b>Sp, Su, Fa</b></p>	<p><b>Volunteers, Interns</b></p>	<p><b>Cut at about a foot</b> after the first year, consider plant biology when making cutting decision as to benefit perennials and discredit annuals</p>
<p><b>Location</b></p>	<p><b>Activity</b> <b>Remove invasive woody plants</b> Cut and herbicide or herbicide invasive woody species such as buckthorn (<i>Rhamnus</i> spp.), multiflora rose (<i>Rosa multiflora</i>), Asian honeysuckle (<i>Lonicera</i> spp.), smooth arrow-wood (<i>Viburnum recognitum</i>), Japanese barberry (<i>Berberis thunbergii</i>), honey locust (<i>Gleditsia triacanthos</i>), black locust (<i>Robinia pseudocacia</i>), white poplar (<i>Populus alba</i>), white mulberry (<i>Morus alba</i>), gray dogwood (<i>Cornus racemosa</i>), and winged euonymus (<i>Euonymus alatus</i>). Thin native trees including cottonwood (<i>Populus deltoides</i>), black cherry (<i>Prunus serotina</i>), ash (<i>Fraxinus</i> spp.), basswood (<i>Tilia americana</i>), hawthorn (<i>Crataegus</i> spp.), and elm (<i>Ulmus</i> spp.) Several herbicide treatments are appropriate depending on conditions:</p> <ol style="list-style-type: none"> <li>1. Cut stump: apply 20-30% triclopyr (Garlon 4, Element 4) in carrier oil to cut surface when temperature is &lt; 80°F (ester formulation can volatilize and damage non-target species)</li> <li>2. Cut stump: apply 50-100% triclopyr (Garlon 3A, Element 3A, Tahoe 3A) to cut surface when temperature is above freezing</li> <li>3. Cut stump: apply 50-100% glyphosate (Roundup, Rodeo, AquaNeat) to cut surface immediately after cutting when temperature is above freezing</li> <li>4. Basal bark: apply 20-30% triclopyr in carrier oil to the base of stems under 6" diameter in a thick band (do not apply in spring during sapflow) use this method for smaller white poplar and black locust</li> </ol>	<p><b>Timeline</b> <b>Fa, Wi</b> Dormant season is preferred; The ground should be dry or frozen and care should be taken to avoid negatively impacting native vegetation, herptiles, nesting birds, and disturbing soil (avoid brush cutting especially in April, May &amp; June). Multiflora rose and Japanese barberry may be cut year round</p>	<p><b>Crew</b> <b>Volunteers, Interns</b></p>	<p><b>Notes</b> <b>Burn brush piles, cut safely</b> Do not accumulate piles, burn no later than 1 week after cutting; cut stumps as low to the ground as possible; stack and burn brush away from wetlands and native ground layer vegetation</p>
	<p><b>Remove invasive woody seedlings and re-sprouts</b>  Apply herbicide to leaves of small invasive woody seedlings and re-</p>	<p><b>Sp, Su, Fa</b>  In spring when</p>	<p><b>Volunteers, Interns</b></p>	<p><b>Carefully apply herbicide</b>  Avoid overspray and off-</p>

	<p>sprouts; spraying is preferable to cutting for white poplar. Two treatments are appropriate:</p> <ol style="list-style-type: none"> <li>1. Apply 5-10% triclopyr (Garlon 3A, etc.) plus surfactant to leaves</li> <li>2. Apply 5-10% glyphosate (Roundup, etc.) plus surfactant to leaves; use this treatment option for honeysuckle</li> </ol>	resprouts have reached at least 6 in. Use care to prevent harming non target species. Fall maybe ideal when native plants are dormant	target damage
<b>Entire Site</b>	<p><b>Remove reed canary grass (RCG)</b></p> <p>Remove RCG (<i>Phalaris arundinacea</i>); Cut flower heads of RCG where necessary to prevent seed set; apply herbicide, several treatments may be appropriate depending on conditions:</p> <ol style="list-style-type: none"> <li>1. Apply 3% glyphosate (Roundup, Rodeo, Aqua Neat) plus surfactant to leaves during the growing season</li> </ol> <p><b>Remove reed canary grass (RCG) continued</b></p> <ol style="list-style-type: none"> <li>2. Apply 1-2% sethoxydim (Poast, a grass-specific UV-sensitive herbicide) plus surfactant to leaves when overcast but rain not forecasted</li> <li>3. Cut flower heads where necessary to prevent seed set</li> </ol>	<p><b>Sp, Su, Fa</b></p> <p>Preferred timing is in spring and fall</p>	<p><b>Volunteers, Interns</b></p> <p>RCG near water should be treated with an aquatic-approved herbicide and surfactant.</p>
	<p><b>Remove sweet clover</b></p> <p>Pull white and yellow sweet clover (<i>Melilotus</i> spp., annuals or biennials) by hand before flowering (typically beginning May-June); cut, bag, and remove flowering plants to prevent seed set. Pull first year plants any time ground not frozen; compost debris on site</p>	<b>Sp, Su, Fa</b>	<b>Volunteers, Interns</b>
	<p><b>Remove lily-of-the-valley and orange day lily</b></p> <p>Apply 3-5% glyphosate (Roundup) plus surfactant to leaves of lily-of-the-valley (<i>Convallaria majalis</i>, flowers in May) and orange day lily (<i>Hemerocallis fulva</i>, flowers in June and July)</p>	<b>Sp, Su, Fa</b>	<p><b>Volunteers, Interns</b></p> <p><b>Waxy leaves</b></p> <p>Surfactant helps herbicide penetrate the waxy leaf cuticle</p>
	<p><b>Remove wild parsnip</b></p> <p>Remove wild parsnip (<i>Pastinaca sativa</i>, a monocarpic perennial);</p>	<b>Sp, Su, Fa</b>	<p><b>Volunteers, Interns</b></p> <p><b>Avoid skin contact</b></p> <p>Direct handling of this plant</p>

several treatments are appropriate:

1. Pull plants by (gloved) hand
2. Cut, bag, and remove mature flower and seed heads June-October
3. Apply 2-5% glyphosate (Roundup, etc.) plus surfactant to basal rosettes in spring

can cause rash and blistering

<b>Entire site</b>	<b>Remove teasel</b>	<b>Sp, Su, Fa</b>	<b>Volunteers, Interns</b>	
<b>primarily PR01</b>	<p>Cut stalks of bolting teasel plants (<i>Dipsacus spp.</i>, a biennial or monocarpic perennial) just before flowering (typically beginning July); cut, bag, and dispose of flower heads in bloom to prevent seed set. Where appropriate, apply herbicide to first year rosettes of teasel; several treatments are appropriate:</p> <ol style="list-style-type: none"> <li>1. Apply 0.25-0.5% clopyralid (Transline) plus surfactant</li> <li>2. Apply 2.5-5% triclopyr (Garlon 3A, etc.) plus surfactant</li> <li>3. Apply 0.25% aminopyralid (Milestone) plus surfactant</li> <li>4. Apply 2-4% glyphosate (Roundup) plus surfactant</li> </ol>			
	<p><b>Remove garlic mustard</b></p> <p>Pull garlic mustard (<i>Alliaria petiolata</i>, a biennial) by hand before seed set (typically late May-July); pull first year plants any time ground not frozen, compost piled waste in low-quality areas</p>	<b>Sp, Su, Fa</b>	<b>Volunteers, Interns</b>	<p><b>Avoid trampling</b></p> <p>Give good instruction to volunteers and spread out groups</p>
	<p><b>Collect and hand broadcast extant native seed</b></p> <p>Collect and distribute seeds of native plants near and within the site to improve colonization of cleared areas and bolster native populations; seed dispersal may be immediate, after a fall prescribed burn, or during the dormant season</p>	<b>Su, Fa</b>	<b>Volunteers</b>	<p><b>Seed source</b></p> <p>Try collecting in the nearby collections familiar to the comission</p>
<b>Entire site</b>	<p><b>Conduct prescribed burn</b></p> <p>The entire site should be burned frequently with one or few growing seasons in between fires. The nature preserve will be burned after it accomplishes a certain quality and good coverage of grasses that will</p>	<b>Late Fa, early Sp</b>	<b>Volunteers</b>	<p><b>Volunteer assistance</b></p> <p>Trained volunteers are welcome to help</p>

carry a fire

**Note:** All ecological management schedule activities are subject to monitoring and supervision by the Prospect Heights Natural Areas Commission. Timing of treatments may change slightly depending on weather and phenology. All ecological management activities should follow best management practices and be acknowledged and approved by PHNRC