

Slough and Hillcrest Lake Ecological Management Schedule 2016-2017

Site Description The Slough and Hillcrest Lake are a wetland located in the City of Prospect Heights that is partially owned by the Park District and partially the City of Prospect Heights. The wetland was formed by glacial retreat thousands of years ago and is on the original land surveys maps prior to heavy human settlement as one wetland. Sometime after 1938, Willow Rd was constructed through the wetland, now delineating it into the Northern “Hillcrest Lake” and the Southern “Slough”. Decades of neglect and lack of natural areas management have allowed invasive plants to choke out the native plant community that was here prior to settlement. The PHNRC has been managing the area known as the “Slough” since 2014. Restoration efforts have already resulted in many species of conservative plants to reappear, such as the Michigan Lily. These plants were dormant for decades and are coming back with restoration activity.

Despite the history of neglect, the Slough and Hillcrest Lake wetland supports a diverse assemblage of native species that are being conserved through ecological restoration work. These efforts are focused on the removal of invasive species and on conducting regular prescribed burns to restore ecosystem processes and conditions under which the wetland evolved.

The plan for development of the Slough was presented at the PHNRC regular June 2016 board meeting and is attached as Appendix A. The Hillcrest Lake area would be scheduled to have the same type of restoration as the Slough but **no work will be scheduled there until the MWRD road project is completed.**

Status: In the second year of restoration

Work performed to date:

- Spent 1 1/2 years removing invasive buckthorn.

- Planted 7,206 native plant plugs representing 70 + species. See addendum B

- Seeded 25 pounds of native grasses

- Managed invasive plants

- Burned the west Marion / Maple corridor.

Work scheduled for 2016-17

- Removal of 8 acres of turf grass and nonnative species replace with Riparian buffers.

- Create Mow paths and hiking trails.

- Continued planting and seeding of native plugs and seed.

- Continued maintenance

 - Prescribed burns in the fall 2016 and spring 2017.

 - Manage invasive plants.

 - Manage aesthetics.

Location	<p>Activity</p> <p>Selectively cut non-native grasses and other early successional species</p> <p>Cut low quality, non-native and early successional species to make room for the high quality wetland, woodland and prairie 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>	Timeline	Crew	Notes
		Sp, Su, Fa		Volunteers, Interns
				Cut at about a foot after the first year, consider plant biology when making cutting decision as to benefit perennials and discredit annuals
Location	<p>Activity</p> <p>Remove invasive woody plants</p> <p>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.)</p> <p>Several herbicide treatments are appropriate depending on conditions:</p> <ol style="list-style-type: none"> 1. Cut stump: apply 20-30% triclopyr (Garlon 4, Element 4) in carrier oil to cut surface when temperature is < 80°F (ester formulation can volatilize and damage non-target species) <p>Slough ans</p> <ol style="list-style-type: none"> 2. Cut stump: apply 50-100% triclopyr (Garlon 3A, Element 3A, Tahoe 3A) to cut surface when temperature is above freezing 3. Cut stump: apply 50-100% glyphosate (Roundup, Rodeo, AquaNeat) to cut surface immediately after cutting when temperature is above freezing 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 	Timeline	Crew	Notes
		Fa, Wi		Volunteers, Interns
		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 & June). Multiflora rose and Japanese barberry may be cut year round		Burn brush piles, cut safely
				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
	Remove invasive woody seedlings and re-sprouts	Sp, Su, Fa		Volunteers, Interns
				Carefully apply herbicide

	<p>Apply herbicide to leaves of small invasive woody seedlings and re-sprouts; spraying is preferable to cutting for white poplar. Two treatments are appropriate:</p> <ol style="list-style-type: none"> 1. Apply 5-10% triclopyr (Garlon 3A, etc.) plus surfactant to leaves 2. Apply 5-10% glyphosate (Roundup, etc.) plus surfactant to leaves; use this treatment option for honeysuckle 	In spring when re-sprouts have reached at least 6 in. Use care to prevent harming non target species. Fall maybe ideal when native plants are dormant	Avoid overspray and off-target damage	
Entire Site	<p>Remove reed canary grass (RCG)</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"> 1. Apply 3% glyphosate (Roundup, Rodeo, Aqua Neat) plus surfactant to leaves during the growing season <p>Remove reed canary grass (RCG) continued</p> <ol style="list-style-type: none"> 2. Apply 1-2% sethoxydim (Poast, a grass-specific UV-sensitive herbicide) plus surfactant to leaves when overcast but rain not forecasted 3. Cut flower heads where necessary to prevent seed set 	Sp, Su, Fa	Volunteers, Interns	Use appropriate herbicide
		Preferred timing is in spring and fall		RCG near water should be treated with an aquatic-approved herbicide and surfactant.
	<p>Remove sweet clover</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>	Sp, Su, Fa	Volunteers, Interns	
	<p>Remove lily-of-the-valley and orange day lily</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>	Sp, Su, Fa	Volunteers, Interns	Waxy leaves
		Treatment most effective during flowering		Surfactant helps herbicide penetrate the waxy leaf cuticle
	<p>Remove wild parsnip</p>	Sp, Su, Fa	Volunteers, Interns	Avoid skin contact

Remove wild parsnip (*Pastinaca sativa*, a monocarpic perennial); 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

Direct handling of this plant can cause rash and blistering

Entire site

Remove teasel

Sp, Su, Fa

Volunteers,
Interns

Cut stalks of bolting teasel plants (*Dipsacus spp.*, 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:

1. Apply 0.25-0.5% clopyralid (Transline) plus surfactant
2. Apply 2.5-5% triclopyr (Garlon 3A, etc.) plus surfactant
3. Apply 0.25% aminopyralid (Milestone) plus surfactant
4. Apply 2-4% glyphosate (Roundup) plus surfactant

Remove garlic mustard

Sp, Su, Fa

Volunteers,
Interns

Avoid trampling

Pull garlic mustard (*Alliaria petiolata*, 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

Give good instruction to volunteers and spread out groups

Collect and hand broadcast extant native seed

Su, Fa

Volunteers

Seed source

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

Try collecting in the nearby collections familiar to the commission

Entire site

Conduct prescribed burn

Late Fa, early Sp

Volunteers

Volunteer assistance

The entire site should be burned frequently with one or few growing seasons in between fires. The wetland will be burned after it

Trained volunteers are welcome to help

accomplishes a certain quality and good coverage of grasses that will 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