

Ecological Management Schedule

Site	Hidden Pond Woods	Date	2017 - 2019
Site Number	3204	Prepared	2017
Site Steward	Mary Busch	Regional Ecologist	Kristin Pink
<p>Overview: Hidden Pond Woods is a 150-acre natural area near Hickory Hills. The namesake is a former farm pond <i>hidden</i> from view of bordering roads. The preserve is located primarily on the Tinley Moraine within the greater Palos-Sag Valley Preserve Complex. The southern portion of the site sustains remnant dry-mesic oak woodland and freshwater marsh. The northern portion is a mosaic of mesic prairie, dry-mesic woodland, freshwater marsh, and reforestation. For nearly 3 decades, volunteers lead by the late Roger Keller diligently restored much of the site. His legacy endures both through the rich biotic community present and the continued work of devoted Palos Restoration Project stewards mentored by Roger.</p>			
<p>Site Conditions: Much of Hidden Pond Woods supports remnant habitat, though continued land management work is needed to mitigate disturbances. The impact of past grazing, cultivation, and fire protection is apparent. Early attempts at remediation included a reforestation planting by the FPCC in what was likely savanna prior to European settlement (UW02). Wetlands were ditched by settlers, the degrading effects of which extend into adjacent uplands. In exceedingly unfortunate circumstances, a farm ditch that pre-dates FPCC ownership was dredged in 2017 by the Metropolitan Water Reclamation District to alleviate flooding in the adjacent neighborhood and on Kean Avenue. Repeated dredging will likely occur each time the wetland returns to its natural condition (that is, without a drainage channel running through it). Invasive brush is another ongoing challenge; conducting prescribed burning necessary to limit nonnative brush invasion is difficult in this narrow preserve bordered by residences and well-traveled roads.</p>			
<p>Goals: Stewardship of Hidden Pond Woods is focused on removal of nonnative species, selective thinning of native trees, and prescribed burning across the site. Seed collection and dispersal may be important to restore areas with a history of disturbance. Reconstruction of cultural communities (UW01, UW02) is a lower priority. Wetlands repeatedly disturbed by unstable, sediment-laden flows and the influence of cultural features may not be fully restorable (MA01, MA03, etc.).</p>			
<p>Alignment of Resources: Recent restoration efforts include invasive brush removal around PR02 and treatment of reed canary grass in MA02, MA03, and PR02. Currently, approximately 80 acres of the site are under management with prescribed fire.</p>			
Overall Goals:	<p>A. Restore community structure and function B. Expand existing native plant communities C. Reduce invasive species populations</p>		

Unit	Management Objective	Activity	Notes	Crew
PR01, PR02	Restore prairie natural communities	Remove nonnative trees, shrubs, and vines by cutting; targets include Asian bush honeysuckle (<i>Lonicera</i> spp.), Japanese barberry (<i>Berberis thunbergii</i>), common buckthorn (<i>Rhamnus cathartica</i>), multiflora rose (<i>Rosa multiflora</i>), and Oriental bittersweet (<i>Celastrus orbiculatus</i>); stack and burn debris or scatter where appropriate; apply herbicide to cut stumps; consider flagging native shrubs in green to prevent accidental removal	Late Su, Fa, Wi (firm or dry ground)	Volunteers, Corps
		Treat brush resprouts with foliar herbicide	Sp, Su (after full leaf expansion)	Volunteers, Corps
		Remove herbaceous invasive plants using best practices; targets include reed canary grass (<i>Phalaris arundinacea</i>), nonnative thistle (<i>Cirsium</i> spp.), sweet clover (<i>Melilotus</i> spp.), teasel (<i>Dipsacus</i> spp.), purple loosestrife (<i>Lythrum salicaria</i>), and crown vetch (<i>Coronilla varia</i>)	Sp, Su, Fa	Volunteers, Corps
		Collect and scatter seed sourced from Hidden Pond Woods (first preference), Spears Woods (second preference), or the Palos Region (second preference); plans to introduce species not previously known to occur at the site should be discussed with the ecologist; seed collection from other sites should be coordinated with the corresponding site steward; report to the ecologist the species, source, and location where distributed of any seed originating outside Hidden Pond Woods*	Sp, Su, Fa	Volunteers, Corps
		Conduct prescribed burn	Dormant season	Staff, Contractors

WO01, WO02, UW02	Restore woodland and savanna natural communities	Remove nonnative trees, shrubs, and vines by cutting; stack and burn debris or scatter where appropriate; apply herbicide to cut stumps; consider flagging native shrubs in green to prevent accidental removal	Late Su, Fa, Wi (firm or dry ground)	Volunteers, Corps
		Treat brush resprouts with foliar herbicide	Sp, Su (after full leaf expansion)	Volunteers, Corps
		Remove herbaceous invasive plants using best practices; targets include reed canary grass, nonnative thistle, and garlic mustard (<i>Alliaria petiolata</i>)	Sp, Su, Fa	Volunteers, Corps
		Thin native trees by cutting where necessary to bolster native ground layer vegetation; stack and burn debris or leave on ground where not ecologically sensitive; plans to remove trees >12" diameter should be reviewed with the ecologist	Wi (firm or dry ground)	Volunteers, Corps
		Collect and scatter seed sourced from within Hidden Pond Woods (first preference), Spears Woods (second preference), or the Palos Region (third preference); plans to introduce species not previously known to occur at the site should be discussed with the ecologist; seed collection from other sites should be coordinated with the corresponding site steward; report to the ecologist the species, source, and location where distributed of any seed originating outside Hidden Pond Woods*	Sp, Su, Fa	Volunteers, Corps
	Conduct prescribed burn	Dormant season	Staff, Contractors	

MA01-MA07, SM01	Restore marsh and sedge meadow natural communities	Remove nonnative trees, shrubs, and vines by cutting; stack and burn debris or scatter where appropriate; apply herbicide to cut stumps; consider flagging native shrubs in green to prevent accidental removal	Late Su, Fa, Wi	Volunteers, Corps
		Treat brush resprouts with foliar herbicide	Sp, Su	Volunteers, Corps
		Remove herbaceous invasive plants using best practices; targets include reed canary grass and common reed (<i>Phragmites australis</i> subsp. <i>australis</i>)	Sp, Su, Fa	Volunteers, Corps
		Conduct prescribed burn	Dormant season	Staff, Contractors

**Please report offsite seed to the FPCC ecologist on an annual basis to help us build our seed documentation. At a minimum provide a species list, seed source or sources, and seeding location (preferred at the management unit or as detailed as possible). Information on amount or collection date also welcome if available.*

All management schedule activities are subject to monitoring or supervision by the Forest Preserve District of Cook County. Additional invasive treatments may be appropriate; consult with the regional ecologist for approval. Notify the regional ecologist of additional invasive species, if found.

Site Steward Signature _____

Date _____

Approved via email on
12/21/2017

Regional Ecologist Signature _____

Date _____

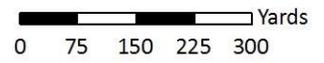
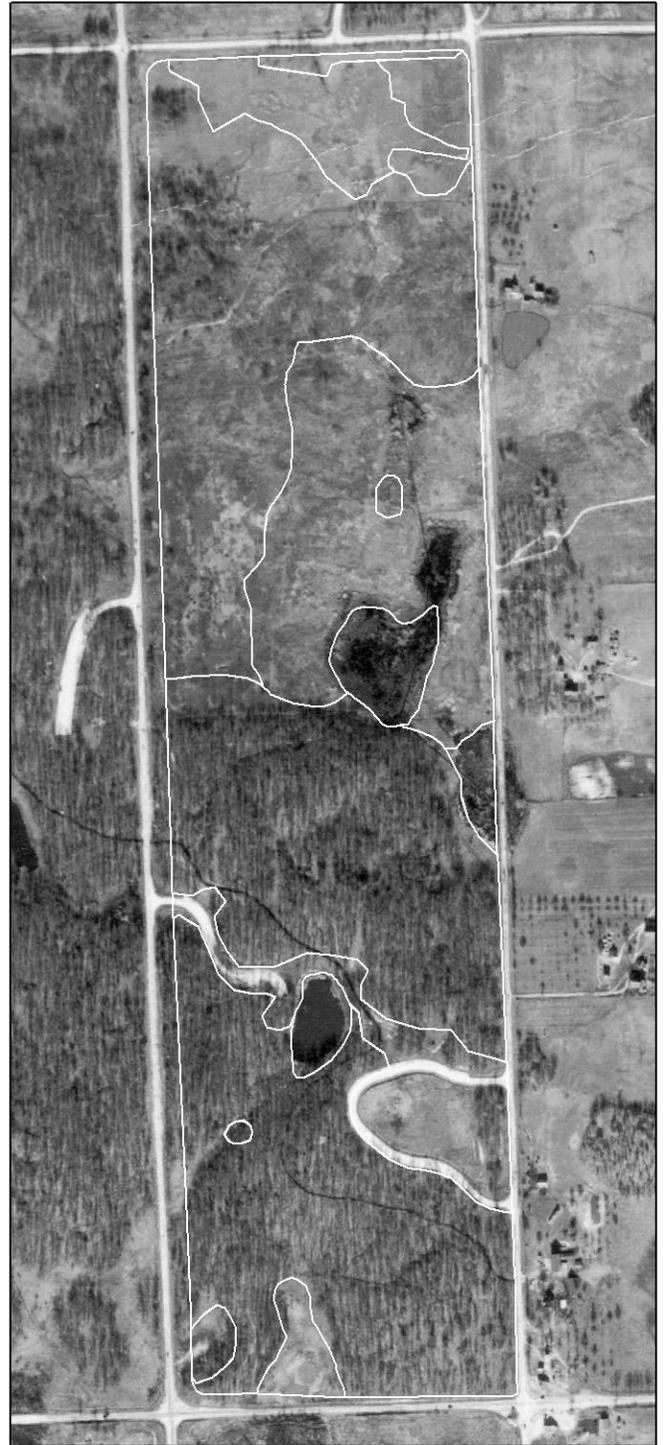
**Forest Preserves of Cook County
Herbicide Guidelines**

Commonly Used Herbicides & Adjuvants				
Brand Name	Generic Names	Main Chemical	Notes	
Roundup Pro	Razor Pro, Ranger Pro	Glyphosate	Already includes surfactant	
Rodeo	Aquaneat, Glypro, Accord	Glyphosate (aquatic approved)	Use a non-ionic surfactant labeled for use over water	
Garlon 3A	Tahoe 3A, Element 3A	Triclopyr	Must use surfactant. Also now aquatic approved.	
Garlon 4	Tahoe 4, Element 4	Triclopyr	Mix with basal oil (Ax-it) for stump treatment, no water added. Primarily for stump treatment. Should not be used in hot temperatures.	
Poast Plus	Vantage Grass	Sethoxydim	Grass specific herbicide. Does not include surfactant, mix with MSO, then water. Highly sensitive to UV light (apply on cloudy days), not aquatic approved	
Transline		Clopyralid	surfactant, use .64 oz per gallon, do not use with rapid permeability soil (e.g. Sandy soils). Upland use only.	
Milestone		Aminopyralid		
Target Species	Herbicide Name	% Solution	Oz. per G	Additional Information
Cut Woody Stumps or Chemical Basal Bark Treatments				
*	Garlon 4 (Triclopyr)	20%	25	Must be mixed with basal oil (Ax-it), NO WATER IS ADDED
*	Rounup Pro (Glyphosate)	20-50%		Cut-stump only (no basal bark treatment). Mix w/water. Treat as soon as possible after cutting. In cold weather may freeze.
* Target species includes but are not limited to Buckthorn, Black Cherry, Maple, Basswood, Tree of Heaven, White Poplar, Green Ash, Box Elder, Barberry, Locusts, Dogwoods, and Poison Ivy. Must use Glyphosate on Honeysuckles				
Foliar Application of Woody Plants*				
Buckthorns	Garlon 3A (Triclopyr)	5-10%	6.5 - 13	Garlon 3A is mixed w/ water & surfactant
Barberry	Garlon 3A (Triclopyr)	3-5%	5	
Black Locust	Transline (Clopyralid)	0.50%	0.64	
Dogwoods	Garlon 3A (Triclopyr)	5%	6.5	
Multiflora Rose	Garlon 3A (Triclopyr)	3-5%	4 - 6.5	
Oriental Bittersweet	Garlon 3A (Triclopyr)	5-10%	6.5 - 13	
Honeysuckles	Aquaneat (Glyphosate)	5-10%	6.5 - 13	
*All woody species above can also be treated with 5-10% Glyphosate(mix w/water) but this is a non-selective herbicide so great care is needed in sensitive areas				
Foliar Application of Herbaceous Species				
Bird's foot Trefoil	Milestone or Transline	0.25% -- 0.5%	0.32 0.64	
Burdock	Garlon 3A or Rodeo	2.50%	3	
Bull Thistle	Milestone or Transline	0.25% -- 0.5%	0.32 0.64	
Canada Thistle	Milestone or Transline	0.25% -- 0.5%	0.32 0.64	
Cattails	Rodeo	3%	4	
Crown Vetch	Milestone or Transline	0.25% -- 0.5%	0.32 0.64	
Day Lily	Rodeo	2-3%	3 to 4	Gyphosate only
Garlic Mustard	Garlon 3A	3%	3	Can be sprayed in areas without sensitive vegetation or hand pull & bag
Lesser Celandine	Rodeo	4%	5.12	Mix w/non-ionic surfactant. Up to 50% flowering
Lily of the Valley	Rodeo	2-3%	3 to 4	Glyphosate only
Leafy Spurge	Rodeo	10%	13	Difficult to kill. Contact Resource Management if found
Wild Parsnip	Garlon 3A	3%	4	
Phragmites	Rodeo	3%	4	
Purple Loosestrife	Rodeo or Garlon 3A	3%	4	
Reed Canary Grass	Rodeo	3%	4	
Reed Canary Grass	Poast Plus w/MSO (don't apply in standing water)	2%	3	1st mix with oil (MSO) then add water. Best when grass is <8" tall
Spotted Knapweed	Milestone or Transline	0.50%	0.64	
Sweet Clover	Not applicable			Hand pull & bag
Teasels	Milestone or Transline	0.25% -- 0.5%	0.32 0.64	Apply @ flowering, bolting or rosette stage
	Rodeo	2.50%	3	Apply only rosette stage or use Transline
Yellow Iris	Rodeo	5%	6.5	Use surfactant

Hidden Pond - Natural Communities



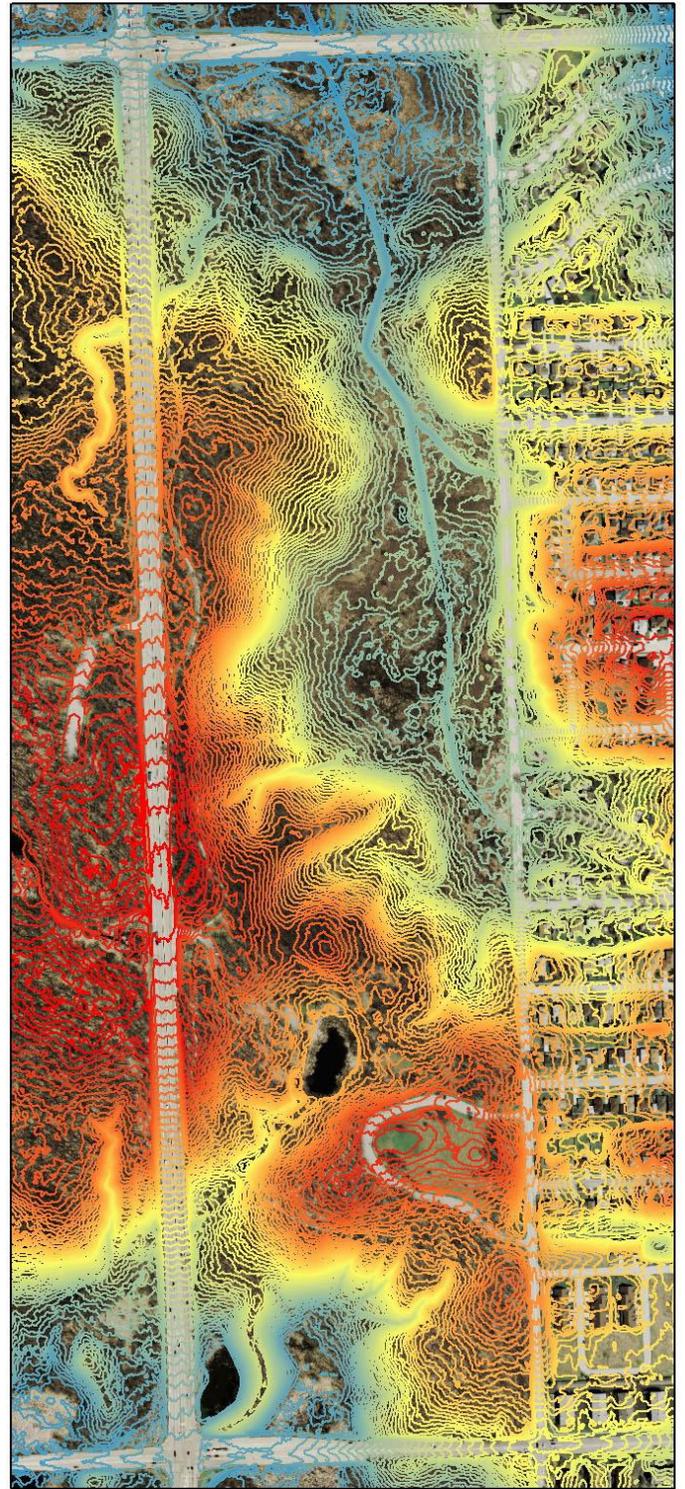
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Hidden Pond - Soils



Topography



0 75 150 225 300 Yards