



PLANT NATIVE WITH
**RESTORATIVE
LANDSCAPES**

Land Management Plan for
Amberley Green Prairie
7801 Ridge Avenue
Cincinnati, OH 45237

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SUMMARY

The following document serves as a guide for maintaining and managing recently installed native habitat. This includes 6 acres of native tallgrass prairie and transplanted landscape trees. Covered subjects include:

- What to expect
- Annual prairie maintenance
- Invasive plant id and removal
- Watering and when it's needed
- Pruning and other tree support

WHAT TO EXPECT

The first growing season of your prairie will occur in summer of 2024. For dormant season (i.e. freeze/thaw) plantings, the seeds are currently receiving waves of temperature fluctuations and moisture levels. This natural process is crucial for many native germinating seeds. While this prairie was planted from stratified (storage system that mimicked natural cycles) seed, many species require several seasons of freeze/thaw/moisture before germinating.

If the seeding was successful, we expect some growth around June or July depending on temperature and moisture levels. This is one of the most crucial times in the future success of your prairie. The recommended maintenance will seem counterintuitive as there may be some flowering natives present, but the most important thing for the prairie at this stage is to *prevent further spread of weedy and invasive species*.

ANNUAL PRAIRIE MAINTENANCE

Year One: First year expectations should be minimal. Plan for some native grass germination (Virginia Wild Rye is usually prominent) and the presence of a few annual or perennial flowers early in the season. This is a season for observation and maintenance of invasive species. Due to established seed quantities already in the soil, the goal this year is to keep any weed germination from going to seed. ***For every time the prairie reaches 12 inches in height, it should be mowed to 6-8 inches.*** In our experience, this will be two to three times depending on the aggression of species present. We cannot emphasize enough the importance of this practice. Please reach out with photos and/or other descriptions if you are unsure about whether it's time to mow or now. Use this sparse growing season as a chance to continue removing invasive species surrounding the area and within the prairie. *Species of concern this season: Poison Hemlock & Callery Pear (see below for identification).*

Year Two: More plants should germinate in this growing season. This will allow us to better identify any areas that may need more seeding or other interventions. This year, plan to mow the prairie once during the early growth period – June. This timing allows the removal of any remaining annual weedy species and provides increased sunlight to germinating natives. Depending on how the seed bank has responded to the previous year of maintenance, you may need one more subsequent mow. Base this off the presence of known invasive plants. Again, please reach out if you are unsure. *Species of concern this season: Canada Thistle & Callery Pear.*

Year Three & Beyond: Depending on how previous years concluded, year three and beyond should be about plant maturation and diversity. Continue to monitor for pests and weed species. Unless otherwise instructed, proceed with a single annual mow. The best time for this is late spring after temperatures have steadily reached 50 degrees and overwintering pollinators have had a chance to emerge. This is typically April or May. A spring mow allows for optimal habitat all year long while returning vegetative biomass to the ground level where it recycles nutrients and mulches existing plants. You should start to see a change in the texture and diversity of your prairies. Mature prairies include growing densities of more coarsely textured plants such as goldenrod and rattlesnake master, and extended bloom times. *Species of concern this season: Canada Thistle, Honeysuckle, & Teasel*

	May	June	July	Aug	Sept	Oct
Year One		Mow		Mow		Mow
Year Two		Mow				
Year & Three +	Mow	<i>or</i>			Mow	

INVASIVE PLANTS ID & REMOVAL GUIDE

Attached is a separate guide into the specifics of what species should be removed if found on-site and the methods for doing so. From our work the following species should be the main priority.

- Callery Pear (*Pyrus calleryana*) – woody species, cut stump method is best.
- Poison Hemlock* (*Conium maculatum*) – herbaceous species, foliar spray before seeding with glyphosate or triclopyr.
- Canada Thistle (*Cirsium arvense*) – herbaceous species, foliar spray before seeding with glyphosate or triclopyr.
- Common Teasel (*Dipsacus lacinatus* and *fullonum*) – herbaceous biennial species, foliar spray basal leaves before flowering.
- Amur Honeysuckle (*Lonicera maackii*) – woody species, cut stump method is best.

*Poison Hemlock is toxic to humans if ingested or inhaled. For this reason, please exercise caution when removing and never mow it if possible.

TREE CARE & WATERING GUIDE

As part of this project, CNC planted 2 new trees and 4 shrubs within the landscaping on-site. These included 2 Red Oak (*Quercus rubra*) and 4 Bottlebrush Buckeye (*Aesculus parviflora*).

The trees were planted at a size of 1.75"-2" caliper (trunk diameter). At this size, the trees are mostly mature but in order to relocate them, the roots have been significantly cut back. This is a standard practice; however, it means that keeping them watered during the first growing season is imperative to future health. We recommend the use of 'gator bags' or something similar that will require less work from volunteers and will continually drip water at a slow rate. This helps the cut roots repair and take hold. Do not be concerned if flowering does not occur or is less than envisioned during this year. The trees are putting energy into the root systems and to do so, may skip out on some other displays of energy source. Any caging or ties directly on the tree should be removed before it has a chance to constrict growth (approx. 3 years).

The Bottlebrush Buckeyes are grown in a native climate and should already be acclimated to the conditions present on site. These 3-gallon plants are expected to put extensive growth into their root systems in the next year. As a full shade tolerant plant, Bottlebrush Buckeyes are slower growers. However, they sucker and can be trimmed into hedges/walls that will provide a beautiful backdrop for the benches once matured.

Sincerely,



Carolyn Ramseur
Natural Areas Project Coordinator
Cincinnati Nature Center

Invasive Species Removal Guide

SPECIES	PHOTO	METHOD	HERBICIDE	RATE*	TIMING	NOTES
Amur Honeysuckle <i>Lonicera Maackii</i> Photo: Jeff Mancini		Mow			Any time of year	Mowing will encourage sprouting. Method should be followed with continuous mowing or herbicide application.
		Removal			Any time of year	Pull or dig up with roots.
		Foliar Spray	Glyphosate w/ surfactant	1.25% + 0.5 oz/gallon surfactant	Apply when target is actively growing and fully leafed out	
		Cut/Stump	Glyphosate	18-25%	Temps above freezing	
		Cut/Stump	Triclopyr	20-30%	Any time of year	
Japanese Honeysuckle <i>Lonicera japonica</i>		Removal			Any time of year	Seedlings and small-sized honeysuckles can be controlled by pulling or digging plants as long as the rhizomes and roots are removed.
		Foliar Spray	Glyphosate w/ surfactant	1.25% + 0.5 oz/gallon surfactant	Apply when target is actively growing and fully leafed out	
		Cut/Stump	Glyphosate	18-25%	Apply when temperature is above 40 degrees	
Teasel <i>Dipsacus fullonum</i>		Mow			After plant has bloomed but before seeds mature June/July	
		Removal			First year plants (no flowers) can be pulled during growing season	Seedlings can be easily pulled from the ground. Rosettes should be dug up with a long tool to ensure removal of taproot.
		Foliar Spray	Triclopyr w/ surfactant	2% + 0.5 oz/gallon surfactant	Spring, when rosette is growing	Rosette should be coated but not dripping
Creeping/Canada Thistle <i>Cirsium arvense</i>		Mow			While plant is actively growing	Mow when plant has produced flower buds. Then mow a second time when plant again produces flower buds. Mowing when plants are drought stressed can increase effectiveness. This suppresses growth, but does not control it.
		Removal			Remove when buds are fully developed and repeat at four-week intervals	Pulling or cutting when plant is drought stressed can increase effectiveness.
		Foliar Spray	Glyphosate w/ surfactant	1-2% + 0.5 oz/gallon surfactant	Apply during flower bud to early flowering stage or to rosettes in the fall	
Lesser Celandine <i>Ficaria verna</i>		Removal			Spring, when target is actively growing	Effective with small patches. Dig up completely with bulbets, roots and tubers. Dispose of entire plant in a sealed bag, do not compost, this plant can and will reroot.
		Foliar Spray	Glyphosate w/ surfactant	3% + 1 oz/gallon surfactant	Spring, apply when target is actively growing and fully leafed out	
		Smother			Spring, when target is actively growing	Effective with small patches. Smother with tarp or cardboard.
Oriental Bittersweet <i>Celastrus orbiculatus</i>		Removal			Any time of year	Small plants and small infestations can be manually removed with root system.
		Cut/Stump	Glyphosate	25%	Apply when temperature is above 40 degrees	
		Cut/Stump	Triclopyr	25%	Any time of year	
Wintercreeper <i>Euonymus fortunei</i> Photo: Jeff Mancini		Removal			Any time of year	Small plants and small infestations can be manually removed with root system.
		Cut/Stump	Glyphosate	25%	Apply when temperature is above 40 degrees	
		Cut/Stump	Triclopyr	25%	Any time of year	
Stilt Grass <i>Microstegium vimineum</i>		Mow			Anytime target is actively growing	
		Removal			Anytime target is actively growing	Grass pulls easily from wet ground in entirety, this will require repeat actions.
		Foliar Spray	Glyphosate w/ surfactant	1.5% + 0.5 oz/gallon surfactant	Anytime target is actively growing	Due to the extensive seed distribution of stilt grass, repeat actions will be necessary.

*Follow all manufacturer instructions for mixing and safety precautions.

SPECIES	PHOTO	METHOD	HERBICIDE	RATE*	TIMING	NOTES
Garlic Mustard <i>Alliaria petiolata</i> Photo: Jeff Mancini		Mow			Before plant flowers	May need to mow multiple times during season.
		Removal			Spring (April, May, June)	Second year sprouts are easiest to pull. Pull before seeds are ripe (pods turn dark and brown).
		Foliar Spray	Glyphosate w/ surfactant	1-3% + 0.5 oz/gallon surfactant	Spring or fall	Use higher rates when air or soil temps drop below 40 degrees. Apply to rosettes in fall or spring, bolting or flowering plants.
		Foliar Spray	Triclopyr w/ surfactant	1-2% + 0.5 oz/gallon surfactant	Spring or fall	Fall applications will only control rosettes.
Tree of Heaven <i>Alianthus altissima</i>		Removal			Anytime	
		Foliar Spray	Glyphosate w/ surfactant	1.5% + 0.5 oz/gallon surfactant	Spring-Late Summer	
		Cut/Stump	Glyphosate	20%	Anytime	
		Cut/Stump	Triclopyr	20%	Anytime	
Autumn Olive <i>Elaeagnus umbellata</i> Photo: Jeff Mancini		Mow			Any time of year	Mowing will encourage sprouting. Method should be followed with continuous mowing or herbicide application.
		Removal			Any time of year	Small plants are easily pulled from moist soil with roots.
		Foliar Spray	Glyphosate w/ surfactant	2% + 0.5 oz/gallon surfactant	Apply when target is actively growing and fully leafed out	
		Cut/Stump	Glyphosate	20%	Apply when temperature is above 40 degrees	
		Cut/Stump	Triclopyr	25%	Any time of year	
		Basal bark	Triclopyr	25-30%	Any time of year	
Privet <i>Ligustrum sinense</i>		Removal			Any time of year	
		Foliar Spray			Apply when temperature is above 40 degrees	
		Cut/Stump	Glyphosate	20%	Anytime	
		Cut/Stump	Triclopyr	20%	Anytime	
Callery Pear <i>Pyrus calleryana</i>		Foliar Spray	Glyphosate or triclopyr w/surfactant	1.5% + 0.5 oz/gallon surfactant	Mid-summer	
		Cut/Stump	Glyphosate	25%	Apply when temperature is above 40 degrees	
		Cut/Stump	Triclopyr	25%	Any time of year	
Multiflora Rose <i>Rosa multiflora</i> Photo: Jeff Mancini		Mow			Any time of year	Mowing will not kill the plant. Spraying with herbicide after it's mowed will control this plant.
		Foliar Spray	Glyphosate w/ surfactant	1-2% + 0.5 oz/gallon surfactant	Apply when target is actively growing and fully leafed out	
		Cut/Stump	Glyphosate	20-30%	Apply when temperature is above 40 degrees	
		Cut/Stump	Triclopyr	20-30%	Any time of year	
Burning Bush <i>Euonymous alatus</i> Photo: Jeff Mancini		Removal			Any time of year	Seedlings with root can be pulled by hand.
		Foliar Spray	Glyphosate w/ surfactant	2% + 0.5 oz/gallon surfactant	Apply when target is actively growing and fully leafed out	
		Cut/Stump	Glyphosate	25%	Apply when temperature is above 40 degrees	
		Cut/Stump	Triclopyr	25%	Any time of year	
Poison Hemlock <i>Conium maculatum</i>		Foliar Spray	Triclopyr or Glyphosate	1.5% + 0.5 oz/gallon surfactant	Apply before plant flowers	
		Cut/Stump			Remove the flowers to prevent future seeding, if seed are present, bag them.	Due to the poisonous tendencies of this plant, please exercise caution. Do not inhale, ingest, or make contact with exposed nasal passageways and eyes. Mowing is only recommended in when plant is very young due to the aerosolization of the toxins within.
Wild Parsnip <i>Pastinaca sativa</i>		Foliar Spray	Triclopyr or Glyphosate	1.5% + 0.5 oz/gallon surfactant	Apply before plant flowers	
		Cut/Stump			Remove the flowers to prevent future seeding, if seed are present, bag them.	Due to the poisonous/corrosive tendencies of this plant, please exercise EXTREME caution. Do not inhale, ingest, or TOUCH with uncovered skin. Large blisters will result from contact with skin. Use extra protective measures and read about the plant.

*Follow all manufacturer instructions for mixing and safety precautions.