



## Prairie Moraine County Park Vegetation Management Plan July 2019

### 1. Public-Use Statement

The park is divided in half by two primary use areas, separated by a fence: an off-leash dog exercise area to the south and a more primitive Ice Age Trail hiking corridor to the north, the latter of which requires dogs to be kept on-leash.

The dog exercise area is heavily used for walking and off-leash dog exercise and contains an extensive system of trails that wind through natural areas at the base and side slope of the terminal moraine. The undulating topography, natural vegetation, wildlife viewing opportunities, and overall natural feel of this dog exercise area are highly valued by park users as most other dog exercise areas in the area are on flat ground with mowed grass and contain very few natural elements. There is growing interest among users of the dog exercise area to control exotic and noxious species and to restore native vegetation on this side of the park.

The Ice Age Trail side of the park is used primarily for hiking, wildlife viewing, enjoying views of the surrounding landscape, and ecological restoration activities conducted primarily by volunteers which includes such tasks as tree and brush removal, brush pile burning, invasive weed control, prescribed burning, and seeding/planting. This side of the park includes the moraine itself, providing park users dramatic views of the landscape and an opportunity to observe and appreciate this prominent glacial feature.

### 2. Broad vegetation goals, describing the desired physical/biological appearance of the site upon completion.

- Park will include three primary natural communities (Prairie, Oak Savanna/Opening, Oak Woodland) in accordance with the Prairie Moraine Master Plan (2002). Communities will transition naturally into each other providing a seamless landscape that is biologically diverse and offers a varied experience for the park user. Figure 1 provides a map of target vegetation community types. Table 1 provides a brief summary of each community. Appendices 1-3 provide detailed descriptions of each community.
- Exotic/invasive species will be controlled in accordance with the Prairie Moraine Master Plan (2002). Table 2 lists common exotic/invasive species that occur at Prairie Moraine.
- Vegetation will allow views of significant geologic features, underlying terrain, and scenic vistas.
- Vegetation will assist in the prevention of soil erosion to protect geologic features and biological resources.
- Vegetation will provide habitat for wildlife and viewing opportunities for park visitors, including rare and sensitive species that have been declining regionally.
- Shade and specimen trees will remain at periodic locations along trails and gathering points to provide shelter for park users and dogs.

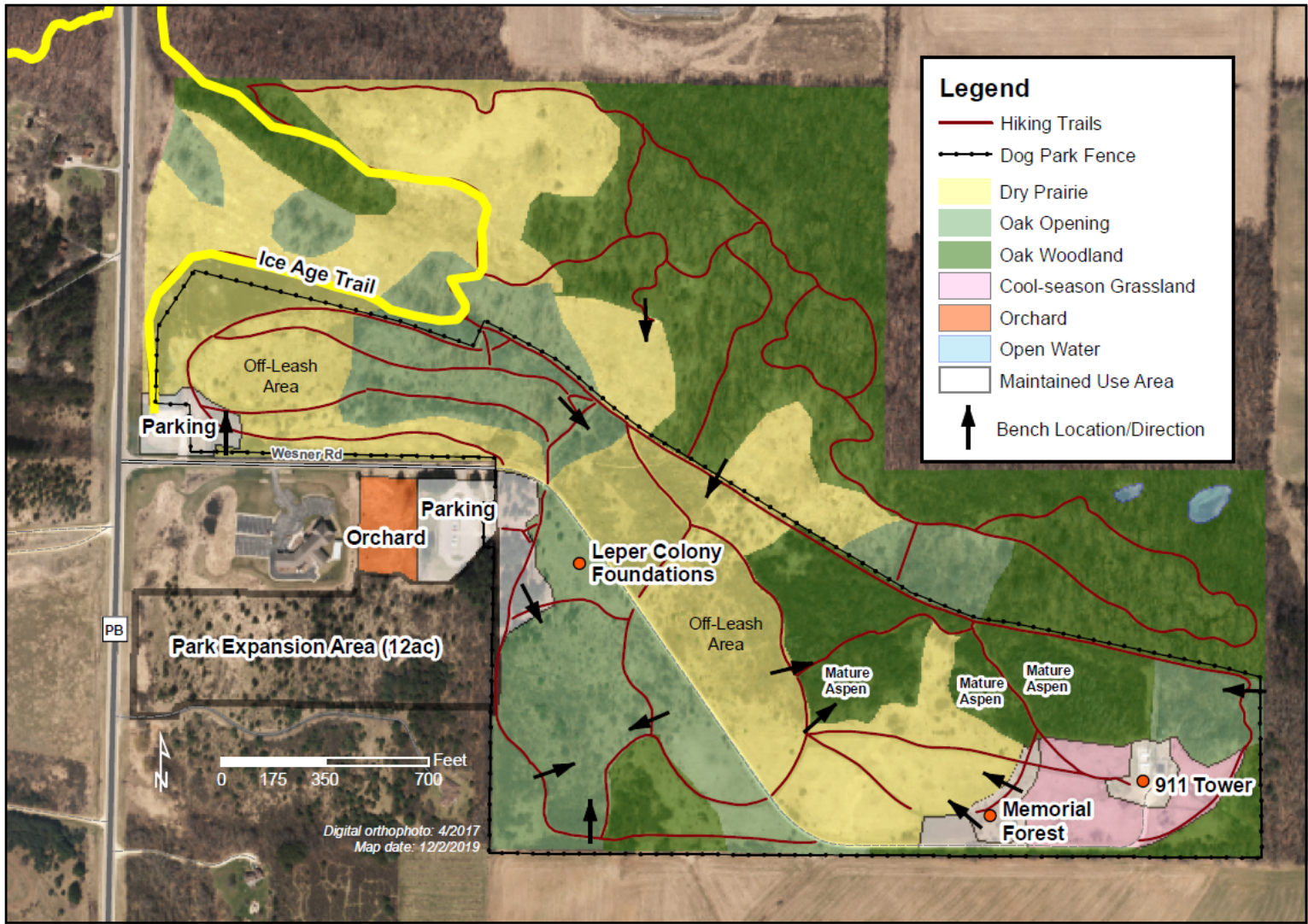


Figure 1. Target Vegetation Community Types at Prairie Moraine County Park

Table 1. Summary of characteristics and common native species in dry prairies, oak savanna/opening, and oak woodlands.

<b>Dry Prairie</b>	<b>Oak Savanna/Opening</b>	<b>Oak Woodland</b>
<i>Short to medium stature grasses with a variety of flowers</i>	<i>Wide-spaced oaks, at least 1 tree/acre but less than 50% canopy cover by trees</i>	<i>Oak dominated, 50-95% canopy cover with shade tolerant flowers and grasses</i>
Common Native Species: <ul style="list-style-type: none"> <li>• Little bluestem</li> <li>• Side-oats grama</li> <li>• Prairie dropseed</li> <li>• Lead plant</li> <li>• Pasque flower</li> <li>• Bird’s-foot violet</li> <li>• Silky aster</li> <li>• Heath aster</li> <li>• Flowering spurge</li> <li>• Purple prairie clover</li> </ul>	Common Native Species: <ul style="list-style-type: none"> <li>• Bur oak</li> <li>• White oak</li> <li>• Black oak</li> <li>• Shagbark hickory</li> <li>• American hazelnut</li> <li>• New Jersey Tea</li> <li>• Lead plant</li> <li>• Big bluestem</li> <li>• Wild bergamot</li> <li>• Shooting stars</li> </ul>	Common Native Species: <ul style="list-style-type: none"> <li>• White oak</li> <li>• Bur oak</li> <li>• Red oak</li> <li>• Shagbark hickory</li> <li>• Figwort giant hyssop</li> <li>• Poke milkweed</li> <li>• American bellflower</li> <li>• Purple Joe-Pye-weed</li> <li>• Solomon’s seal</li> <li>• Yellow pimpernel</li> </ul>

Table 2. Summary of common exotic, invasive, or adventitious native species found at Prairie Moraine County Park requiring management. E=Eradiate; R=Reduce

<b>Herbaceous plants:</b>	<b>Shrubs:</b>	<b>Trees</b>
<ul style="list-style-type: none"> <li>• Bidens (R)</li> <li>• Bird’s foot trefoil (E)</li> <li>• Burdock (E)</li> <li>• Canada thistle (E)</li> <li>• Exotic biennial thistles (E)</li> <li>• Garlic mustard (E)</li> <li>• Greater celandine (E)</li> <li>• Leafy spurge (E)</li> <li>• Reed Canary Grass (E)</li> <li>• Stickseed (R)</li> <li>• Teasels (E)</li> <li>• Wild Parsnip (E)</li> <li>• Yellow and white sweet clover (E)</li> </ul>	<ul style="list-style-type: none"> <li>• Aspen sprouts (E)—retain mature trees</li> <li>• Autumn and Russian Olives</li> <li>• Burning Bush (E)</li> <li>• Bush Honeysuckles (E)</li> <li>• Common Buckthorn (E)</li> <li>• Gray dogwood (R)</li> <li>• Multiflora Rose (E)</li> <li>• Staghorn and smooth sumac (R)</li> </ul>	<ul style="list-style-type: none"> <li>• Apple (R)—retain scattered specimen trees along trails</li> <li>• Bitternut hickory (R)</li> <li>• Black cherry (R)</li> <li>• Boxelder (R)</li> <li>• Elms (R)</li> <li>• Green or white ash (R)</li> <li>• Red Cedar (R)</li> <li>• Shagbark hickory (R)</li> <li>• White Mulberry (E)</li> </ul>

3. Identify and describe noteworthy resources and unique opportunities.

- Dry prairie remnants with rare and sensitive vegetation present on site.
- Highly restorable prairie and oak communities.

- Extraordinary geologic features including terminal moraine and outwash gorges.
- Multiple scenic vistas and views of geologic features and the surrounding landscape.
- Unique and popular off-leash dog exercise area occurring within a natural area.
- Ice Age Trail corridor.
- Excellent wildlife viewing opportunities including rare grassland and oak opening birds such as meadowlark, red-headed woodpecker, and eastern bluebird.
- Historic location of leper colony containing remnants of building foundations.

4. Identify threats/concerns that are likely to be impediments to success.

- Encroachment of woody vegetation and invasive shrubs in all communities.
- Obstruction of scenic vistas by tall woody vegetation and invasive shrubs.
- Invasion of aggressive exotic weeds in all communities.
- Poor natural recruitment of oaks in areas with dense invasive species and heavy shade.
- Unsustainable trails and soil erosion.
- Conflicts and safety concerns between vegetation management activities and park users/dogs.

5. Priority management recommendations

Management of prairie, oak opening, and oak woodland communities

- Cut, treat, pile, and burn trees and invasive shrubs that are not compatible with the target natural community. Table 1 summarizes the dominant desirable species for each community and Table 2 lists common weeds, shrubs and trees that should be eradicated or reduced.
- Utilize fire as a management tool to suppress invasive weeds and woody growth and encourage recruitment of native vegetation.
- Stack and burn or remove previously cut brush, firewood, and storm damage (heavy fuels) along trail sides to help ensure safe and effective breaks for prescribed burning. Heavy fuels toward the interior of the unit should also be reduced.
- Control and suppress invasive weeds through multiple methods (hand weeding, selective herbicide applications, and mowing/cutting) focusing on garlic mustard, celandine, sweet clover, wild parsnip, teasels, and birds-foot trefoil. Care should be taken that control methods do not damage sensitive and rare vegetation. Special efforts should be made to ensure birds-foot trefoil and teasels are surveyed for and treated annually.
- Prioritize invasive weed control efforts by focusing on the protection of key resources and/or starting control on scattered individuals at the leading edge of the invasion and working in towards the most established part of the population.
- Do not remove or encourage mature aspen in woodland units indicated on map of Figure 1. Saplings or aspen extending beyond trail boundaries or into adjacent natural communities should be removed.
- Scatter native seeds and plant trees or shrubs to increase diversity and habitat quality.
- Maintain dead snags and dead limbs for wildlife where safety to trail users and prescribed burning operations is not a concern.

#### Scenic vistas and geology

- Maintain scenic vistas identified on the map by removing species that are not core components of the target natural community, especially invasive shrubs.
- Maintain ability of park user to appreciate the geological significance of the park by removing dense trees and brush that obscure views of prominent features and obscure visibility of the terrain.

#### Management of soil erosion

- Remove dense cover of invasive shrubs that prohibits the growth of low-growing native grasses and forbs, which act to slow runoff and limit erosion.
- Seed or plant low-growing native grasses and forbs when necessary.
- Ensure trail system is sustainable, minimizing stormwater channelization and soil erosion.

#### Wildlife habitat management

- Remove invasive trees and brush and invasive weeds to promote healthy and diverse natural communities.
- Seed or plant a diversity of native wildflowers to provide floral resources for pollinators.
- Protect snags and dead wood, where safe and appropriate, to promote species that require dead standing and fallen wood.

#### Shade and specimen trees

- Identify and mark desirable trees to be preserved for shade and enjoyment by trail users.
- Specimen trees must NOT be species listed for eradication in Table 2 or are otherwise known to be invasive.
- Retain conifers in maintained use area east of parking lot but do not allow conifers to expand into surrounding natural communities.
- Do not remove or encourage mature aspen in woodland units indicated in Figure 1. Saplings or aspen extending beyond trail boundaries or into adjacent natural communities should be removed.

#### Ensuring safety to park users and dogs

- Volunteers should observe policies and procedures identified in the Dane County Parks Natural Areas Volunteer Handbook including section on work in dog exercise areas. Handbook contains guidance on use of herbicides, power tools, driving on trails, and working safely in groups.
- Dog exercise area should be closed when applying herbicides.
- Stumps should be cut close to the ground to minimize risk to dogs.
- When power tools are being used, sign should be placed at entrance of park notifying park users to location of activities.
- Park users must maintain control of their dogs at all times and have dogs under voice control.
- Lead volunteers should obtain Land Steward Certification as described in the Natural Areas Volunteer Handbook.
- Install fence and open to the public twelve acres of new park land on the southwest side of the park to disperse visitors over a larger area.

6. Coordination and approval of volunteer activities

- Volunteer activities should be consistent with the Prairie Moraine County Park Master Plan and the Vegetation Management Plan.
- Volunteers should observe policies and procedures identified in the Dane County Parks Natural Areas Volunteer Handbook including section on work in dog exercise areas.
- Volunteers should develop a work plan every year in coordination with Dane County Parks Natural Areas staff, who will be responsible for review and approval. Plans outside of the scope of the work plan should be discussed with staff beforehand. Volunteers are encouraged to check in with staff regularly or when questions arise.

7. Implementation, methods, and site maintenance

A proposed cycle of vegetation management activities is provided in Table 3, detailing how projects will be completed and maintained. The table includes method of completing tasks, including equipment involved and entity completing the task.

Table 3. Propose cycle of vegetation management activities

<b>Activity</b>	<b>Timeframe</b>	<b>Entity</b>	<b>Method</b>
Tree and shrub removal	October-March	Volunteers and/or staff	Volunteers and staff: chainsaw, brushcutter (spot treating stumps w/ herbicide); Staff: mowers, skid loader
Prescribed burning	March-May; August-November	Staff led, volunteer supported	Burn crew with fire-fighting equipment (hand tools, water cans, UTVs, trucks)
Weed control	April-July	Volunteers and/or staff	Volunteers: Shovels, brushcutters, small mowers, herbicides Staff: mowers, herbicides
Native Seed collection	August-October	Staff led, volunteer supported	Hand collect seed from several parks in the system during regular county parks hosted workdays
Seed processing and packaging	September-December	Staff led, volunteer supported	Clean, weigh, and package seed for planting in parks throughout the county
Planting seeds	November-March	Volunteers	Hand scatter seeds in project areas
Plant trees and shrubs	October-November; April-June	Volunteers	Plant county-grown or nursery purchased container plants
Water and maintain container plants	May-September	Volunteers	Provide water to container plants, maintain caging, remove weeds

8. Identify potential partners /collaborators.

- Friends of Prairie Moraine County Park
- Blue Bird Society
- Madison Audubon Society
- Ice Age Trail Alliance
- Verona Area Historical Society
- Madison Area Permaculture Guild

Appendix 1. Dry Prairie Community Description

Appendix 2. Oak Savanna/Opening Community Description

Appendix 3. Oak Woodland Community Description