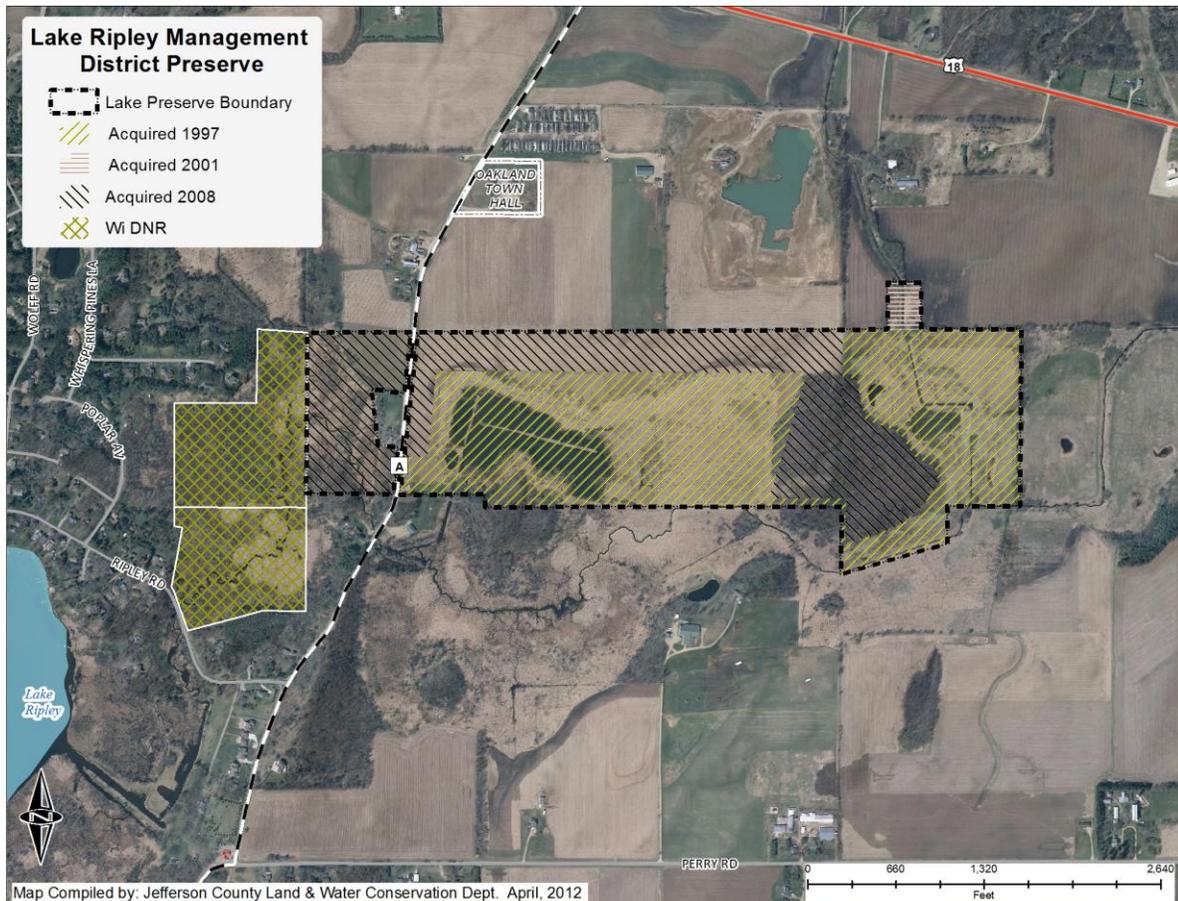
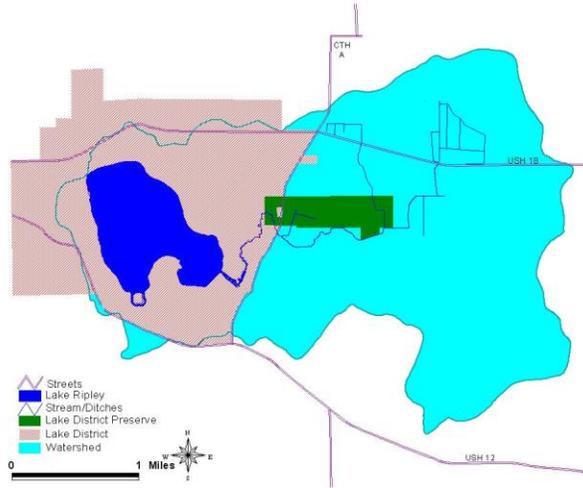


# Lake District Preserve 20-Year Management Plan (2012-2032)



## **Introduction**

This plan provides guidance on recommended tasks and estimated budgets for managing the 167-acre Lake District Preserve over a 20-year period. It is designed as an adaptive management tool that can evolve as site conditions, restoration priorities, and available financial resources change over time.

The plan is divided into the following sections:

- Purpose of Plan
- Lake District Goals, Objectives and Public-Use Priorities
- Management Zones
- Task Descriptions
- Other Considerations
- Appendix
- Budget and Planning Spreadsheet

## **Purpose of Plan**

The purpose of this plan is to provide both short- and long-range vision associated with the land-management needs of the Lake District Preserve. It is intended to provide consistent guidance related to implementation methods, timing, and estimated budget impacts of recommended tasks.

Development of a long-range plan demonstrates that the District is committed to sustaining land-stewardship activities over the long term. The District will be better positioned to schedule tasks and forecast cost requirements for planning and budgeting purposes. Preparation of a long-range plan is also useful in the pursuit of certain grant awards that can help fund implementation.

## **Lake District Goals, Objectives and Public Use Priorities**

Preserve lands were originally acquired due to their potential ability to protect the lake's only inlet tributary, and thus for their potential to improve and protect the water quality of Lake Ripley. Management of these lands will aid in the reduction of stormwater runoff and soil loss through the establishment of dense, herbaceous, native plant covers. Resulting water quality improvements will, in turn, benefit the fish and wildlife associated with Lake Ripley.

The following mission statement was developed by a Board-authorized citizen advisory committee (2007) to guide the future management and improvement of the Preserve:

***MISSION: “To enhance Lake District Preserve wetland function, native habitat quality, and low-impact public access and educational opportunities to (1) protect the health and condition of Lake Ripley, and (2) to promote community awareness of watershed-conservation issues through exploration of restored natural areas.”***

For purposes of developing this 20-year plan, the Lake District Board of Directors adopted a set of guiding principles at its October 15, 2011, meeting:

## **GUIDING PRINCIPLES**

### **Main Purpose or Goal of Preserve**

To protect Lake Ripley and its water quality by conserving critical headwater areas

### **Secondary Goals**

- Watershed and natural resource education
- Habitat, especially for grassland/wetland-dependent wildlife
- Non-intrusive access for low-impact uses (hiking, birding, nature exploration, etc.)

NOTE: The purchase or acquisition of additional lands, while not discounted as a future possibility, is not currently identified as a major goal or objective of this planning effort.

### **Primary Management Objective**

Perform management activities that maximize wetland hydrologic functions to improve the quality and modulate the volume of water flowing to Lake Ripley. This includes improving the water-absorption/filtration capacity of the wetlands and adjoining uplands.

NOTE: Complete restoration of habitat types to pristine, pre-settlement conditions is not a primary objective due to budget constraints. Instead, efforts would be focused mainly on controlling or containing invasive pests in a priority-driven manner within identified management zones.

### **“Encouraged” Uses**

- Quiet, trail-based exploration (hiking, bird watching, etc.)
- Natural resource education
- Scientific research

### **“Permitted” Uses**

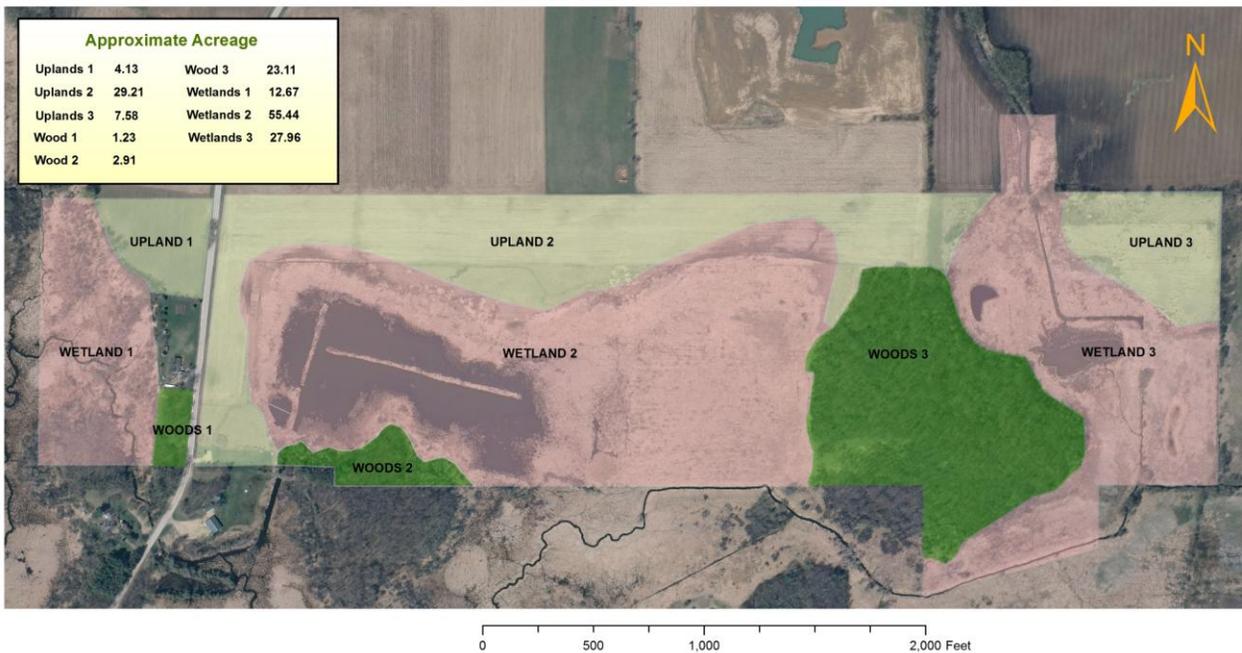
- Hunting and trapping (condition of grants used to purchase the property)
- Leashed dogs on trails

### **“Discouraged” Uses**

- Off-trail use by dogs or people that could disturb nesting wildlife or restored lands
- Biking or motorized vehicle use of any kind

# Land Management Zones

## Management Zones



Source: Jefferson County Land and Water Conservation-2008

Jeanne Scherer-UWW Geography Dept., 2012

### *Upland Prairie Zone 1*

**Goal:** Maintain restored prairie conditions to maximize rainfall infiltration and minimize the potential for soil erosion. This prairie zone acts as an upslope buffer that protects Wetland Zone 1 from adjoining agricultural runoff.

This small, four-acre prairie, located west of County Road A, was purchased in late 2008. It had previously been used as cropland before the area was seeded with a native tall-grass seed mix in June of 2009 (see seed mix in appendix). Annual weeds have been subsequently managed through mowing, and perennial weeds through spot herbicide applications. The prairie was mowed twice in 2009, with a mowed buffer maintained along the perimeter to serve as a future fire break and to control the encroachment of reed canary grass.

### *Upland Prairie Zone 2*

**Goal:** Maintain restored prairie conditions to maximize rainfall infiltration and minimize the potential for soil erosion. This prairie zone acts as an upslope buffer that protects Wetland Zone 2 from adjoining agricultural runoff.

This approximately 29-acre upland prairie area was purchased in two phases. Roughly 10 acres were included as part of the original acquisition in late 1997, and an additional 23 acres were added in late 2008. The entire area had been previously used as cropland. The most recent seeding occurred in early spring of 2011 using a native tall-grass prairie seed mix (see seed mix in appendix).

Prior to seeding, periodic gully formation historically occurred about 650 feet east of County Road A. The gully ran for 500 feet, north to south, originating from the neighboring farm property to the north. A grass waterway was installed in 2010 as an erosion-control measure to protect the down-slope wetlands. This area should be inspected annually to verify soil erosion is not re-occurring.

### *Upland Prairie Zone 3*

**Goal:** Control invasive/woody species in order to maintain dense grassland cover to minimize soil erosion. This prairie zone acts as an upslope buffer that protects Wetland Zone 3 from adjoining agricultural runoff.

This nearly eight-acre prairie area is part of the original, late 1997 Preserve purchase. It has received little attention due to access challenges, and is currently compromised by invading brush and some invasive species. The encroaching shrub layer will need to be controlled through periodic prescribed burns.

### *Wetland Zone 1*

**Goal:** Keep invasive species and woody canopies to a minimum. Maintain dense grassland cover to maximize infiltration, soil-holding and sediment-trapping abilities of this wetland through which the inlet creek meanders.

This nearly 13-acre wetland was purchased in late 2008 and is located west of County Road A. Dominant species currently include reed canary grass (RCG), hybrid cattail, buckthorn, sandbar willow, dogwood, cottonwood, and boxelder. Although there is a large amount of invasive species present, the site is currently achieving water quality goals due to a dense covering of RCG. However, woody vegetation is becoming dense and maturing rapidly.

In an effort to maintain a dense grassland cover, periodic burning is recommended to insure that the dense canopy created by woody brush does not shade out the herbaceous layer below. Burning will not control RCG or hybrid cattail, but it will control young buckhorn, sandbar willow, red cedar, honeysuckle, cottonwood and boxelder. Older specimens which are not controlled through prescribed fire operations will have to be cut down and stump treated with herbicide.

Since this land abuts DNR-owned property, and because both properties have similar vegetation, it does not make sense to attempt to control RCG at this time. Should the District want to restore this wetland at some point in the future, it is recommended that this be accomplished through a partnership with DNR.

## *Wetland Zone 2*

**Goal:** Maintain the quality and functional values of this wetland complex that borders the inlet creek to Lake Ripley.

This approximately 55-acre wetland and wet prairie have been the focal point of the Preserve since its inception, playing a prominent role in protecting water quality in the inlet creek to Lake Ripley. It was previously ditched and had been farmed in dryer years. The whole area (which included Upland Prairie Zone 2) was seeded to dry, mesic and wet prairie in June of 1998 (see seed mixes in appendix and below). This was done to take advantage of the existing soybean cover, absence of aggressive weeds, and friable soil conditions. Hydrologic characteristics were later restored as a result of a ditch plug in 1999, forming about a 17-acre pool of up to one foot deep.

Mesic Prairie seed mix: big bluestem, Indian grass, switch grass, black-eyed susan, purple coneflower, and purple prairie clover. In addition, the Wisconsin DNR provided 90 PLS (Pure Live Seed) pounds of seed to supplement the mix.

Wet Prairie seed mix: Bluejoint grass, cord grass, stiff goldenrod, big bluestem, switchgrass, New England aster, Culver's root, prairie Blazingstar, rosinweed, and bergamot. Due to the wetness of the ground, this seed was planted entirely by hand broadcasting.

Planted areas were mowed in August of 1998 during the initial growing season. Mower blades were set at 8 inches to cut the taller weeds and allow sunlight to reach the sprouting prairie vegetation. Planted areas were mowed again during the spring of 1999. At that time, mower blades were set at 6 inches. Periodic prescribed burns have subsequently been used to suppress weed growth.

The northern edge of the wet prairie has since experienced an inundation of willow species. The encroachment of willow colonies into this area is diminishing the ability of herbaceous grasses to grow and protect the soil. This area will be addressed through forestry mowing planned for the winter of 2012-2013 (see Request for Proposals: Invasive Woody Species Eradication in the appendix). It will then be monitored through regular meander surveys so that new willow shoots can be promptly addressed.

## *Wetland Zone 3*

**Goal:** Control invasive species and woody canopies. Maintain a dense grassland cover to maximize the infiltration, soil-holding and sediment-trapping abilities of this wetland through which the inlet creek meanders.

All but two acres of this approximately 28-acre wetland was purchased in late 1997. An additional two acres were acquired at the north property line for purposes of installing a ditch plug. Prior restoration activities included the installation of two, half-acre wetland scrapes in 1998, followed by the ditch plug in 2001. Although the scrapes are not considered “true” wetland restorations, these features provide excellent spring wildlife habitat and can help trap sediment from upland runoff. The two scrapes were excavated to a depth of 12” to 24” in the middle, with spoils placed on the adjacent uplands. Wetland vegetation was not planted since it was assumed that there was still a viable seed bank present in the soil.

The current landscape contains an encroaching shrub layer as well as stands of reed canary grass and giant ragweed.

### *Woodland Zone 1*

**Goal:** Eradicate invasive species and promote the natural recovery of native herbaceous and shrub species.

This small, roughly 1.5-acre woodland was purchased in late 2008. It was most likely an oak savannah ecosystem prior to European settlement. While small, the woodland does contain a good amount of valuable tree species (i.e. bur oak, white oak, black oak, green ash, red maple, cottonwood and boxelder). There is also a fairly robust population of invasive woody species, including buckthorn and honeysuckle. The woodland should be managed to remove existing woody invasive species and potential herbaceous invasive species (i.e. garlic mustard and Dame’s rocket). It is possible that this area could be restored through volunteer efforts and occasional prescribed fire operations.

### *Woodland Zone 2*

**Goal:** Control invasive species and promote an herbaceous understory covering to maintain soil-holding capacity.

This small, almost three-acre woodlot is upland and adjacent to Wetland Zone 2. It is located north of the adjoining Oakland Conservation Club property and is somewhat difficult to access. It was purchased in late 1997, and represents a small section of a larger woodlot owned by the Club. Small numbers of desirable trees are present, including green ash, black oak, and hickory. Also present are populations of invasive buckthorn and honeysuckle. Extensive restoration efforts are not recommended given its small size and connection with adjoining woodlands. This site represents a good location for volunteer restoration efforts. Occasional prescribed fire operations may be of benefit

when conditions present the opportunity. Any restoration activities should be coordinated in partnership with the Oakland Conservation Club.

### ***Woodland Zone 3***

**Goal:** Manage as an oak-hickory savannah with an herbaceous, native plant understory.

At approximately 23 acres, this is the largest contiguous woodland located within the Preserve. It was purchased in late 2008. Prior to European settlement, this area was represented by a mixture of oak savanna and oak-dominated forest. These ecosystems are ideal for protecting soils and providing sound wildlife habitat. They were maintained over several thousand years, primarily as a result of regularly occurring wildfires.

Currently, the oak savannah is converting to more of a central hardwoods ecosystem due to various disturbances and natural fire suppression occurring over the past two hundred or more years. The dominant tree species are currently red maple, American elm, white oak, black oak, bur oak, basswood, shagbark and bitternut hickory, black cherry, aspen, boxelder and white mulberry. Invasive species include buckthorn, honeysuckle, garlic mustard, dame's rocket, barberry, gooseberry, and multi-flora rose.

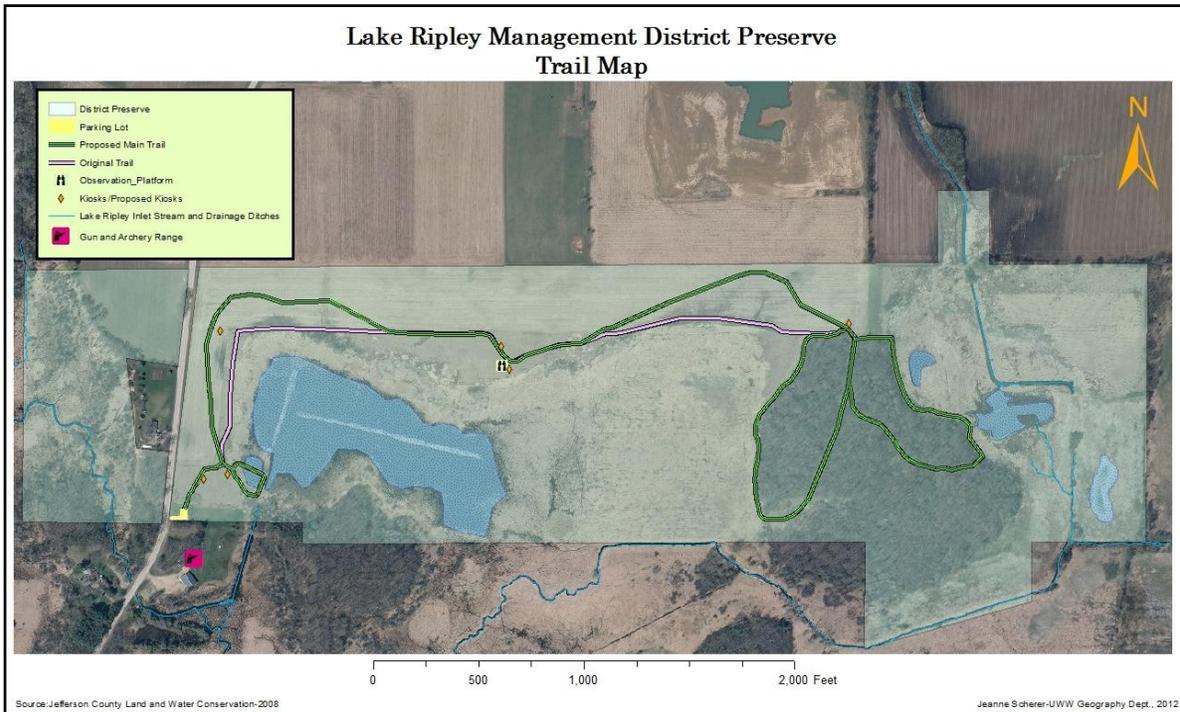
There is a remnant skid trail system that will eventually become part of an established trail system, linking to a planned fire break/walking trail along the perimeter. Improvements to this trail system will be achieved during woody invasive species control efforts proposed for 2012-2013 (see Request for Proposals: Invasive Woody Species Eradication in the appendix). Forestry mowing is recommended not only to remove woody invasive species, but to aid in the eradication of garlic mustard and dame's rocket which are also present. This area is ideal for a firewood collection program in an effort to reduce the amount of downed timber on the property.

### ***All Zones -- Public Access Improvements***

**Goal:** Maintain and improve low-impact public access and educational signage. Avoid over-development of access facilities as the Preserve is not intended to be a park.

A small, gravel parking lot was installed east and adjacent to County Road A in 1998. The parking lot provides safe access to and from the Preserve, and allows enough room for school bus parking. A split-rail fence demarcates the parking area and precludes vehicle access to the Oakland Conservation Club property and the Preserve's natural areas. The Oakland Conservation Club holds a lease to park vehicles on the site during two or three annual fundraising events.

Also in 1998, a welcome sign and information kiosk were first erected near the parking area at the main entrance. The welcome sign identified the site and acknowledged major donors at the time. Both were replaced in 2009 following a successful expansion of the



Preserve. The trailhead kiosk includes a site map, user rules, and some basic background information about the Preserve. Several interpretive signs were installed along the existing nature trail in 2005, mainly to enhance the educational value of the site. The 18x24-inch, pedestal-style signs feature pictures, information about prairie and wetland ecology, and the unique flora and fauna that inhabit the Preserve. New display materials were designed and installed in 2011-2012.

Other access amenities include an elevated boardwalk that spans a wetland scrape and connects to a gravel loop trail located at the west ditch plug. The boardwalk and gravel trail were constructed in 2003, and link to a five-foot-wide, ¾-mile-long grass walking trail. At this time, the boardwalk is in a state of decline, and will soon require significant maintenance or replacement.

The grass trail was established in 1999, and currently ends at the large woodlot. The trail was originally planted with a mix of side oats grama, hairy grama and Pennsylvania sedge. It leads visitors to a hillside nature-viewing platform, constructed in 2007, overlooking the marsh (Wetland Zone 2). Re-routing of the trail to higher ground is recommended now that the adjoining uplands have been acquired. Future trails should be located on 0-5% slopes whenever possible and constructed according to Wisconsin DNR trail construction guidelines. In addition, short stretches of boardwalk may be constructed into saturated or seasonally saturated areas to provide some additional access to wetland areas. Any such construction would likely require special permit approval since the activity would take place near or within wetlands. Low-impact construction and non-hazardous materials will be utilized to minimize any adverse effects these structures may have on wetland plants and hydrologic conditions.

## **Land Management Task Descriptions**

### ***Deadwood Removal from Woodlots (firewood collection)***

Removal of deadwood is not something that must happen every year, and the forest floor does not have to be kept clean of downed timber. However, removal of deadwood facilitates the restoration processes by improving access for buckthorn and garlic mustard eradication. In some situations, prescribed fire can be used to efficiently achieve this goal. This task is often accomplished by allowing people or organizations to remove the deadwood for firewood. It may be desirable to develop a permit program for firewood collection.

### ***Forestry Mowing – Control of Woody Invasive Species***

Forestry mowing operations employ a device capable of cutting or grinding down woody vegetation to ground level. It is desirable for this machine to have the capability of grinding the plant into small pieces which can be dispersed across the forest floor. This machine is often carried upon a vehicle such as a skid loader. It is strongly recommended that this machine travel on tracks, and that work be carried out during frozen ground conditions. For more information, see Request for Proposals: Invasive Woody Species Eradication in the appendix.

Preparation for forestry mowing insures that operations can be carried out as efficiently as possible. Tasks include:

- Establish and prepare adequate parking for equipment.
- Take down portions of split rail fence to avoid conflict with equipment.
- Insure that the parking lot remains adequately plowed.
- Survey and mark all borders associated with the project.
- Flag any sensitive areas to be off limits to operations.
- Obtain and review any necessary permits.

### ***Garlic Mustard Control***

Garlic mustard control can be achieved in a number of different ways. As the landscape is monitored through professional meander surveys, the best method of eradication will be recommended based upon need. Methods include:

- Prescribed fire - The use of fire within woodlands is a beneficial tool as it reduces the amount of woody invasive species within the woodlot while controlling garlic mustard crowns. Fire mainly controls garlic mustard that is actively growing, and does not necessarily reduce the existing seed bank.

- Spot herbicide applications - Selective herbicides are applied to specific plants in an effort to control their growth and spread. Particular attention is paid to avoid desirable native plants in an effort to preserve them.
- Hand pulling - Hand pulling is a very low-impact way of controlling garlic mustard and is conducive to volunteer participation.

### *Hand Removal of Woody Invasive Species*

As with any weed species, it is possible to hand pull woody invasive species, such as buckthorn and honeysuckle. This is done when plants are small and do not have substantial root systems. As this process does disturb soil, it may be necessary to tamp down the area from which the plant was pulled to minimize the potential for erosion. If large areas of disturbance are created during hand-pulling operations, it may be necessary to seed a fast-germinating annual cover crop over the area to insure soil stabilization. A product called ReGreen is effective for this application as it does not require mowing to prevent the crop from self-seeding.

Hand removal operations may require the cutting of larger specimens which cannot be pulled out by hand. In this situation, cut stumps should be treated with Garlon-4 at the time of cutting. Stump treatment will kill the roots and prevent the stump from re-sprouting. Cut wood debris can then be stacked and burned, or simply left in place to rot or burn. Hand removal of woody species is a good project for volunteers. Substantial areas of invasive species can be controlled by a decent crew of volunteers.

### *Inter-seeding*

Inter-seeding is at times needed to enhance an existing planting. It is most appropriate when large areas of invasive species are eradicated at one time, leaving soils unprotected due to gaps in plant cover. There may also be situations where restored areas are simply lacking in the amount of native species present. In most native restorations where herbaceous native species are being restored, it is common to expect to see 70% vegetative cover by native species. Inter-seeding is most effective after a spring burn. Methods can range from drill seeding, to hand-broadcasting, to mechanical broadcast seeding (based upon need and site conditions).

### *Land Acquisitions*

Lake Ripley Management District is not currently planning to acquire more public property as of the writing of this plan. This decision is based on present economic conditions, budgets, potential for future grant awards, and the status of identified critical areas.

### ***Litter and Debris Cleanup***

Litter and debris cleanup should be performed at least once per growing season. Such efforts help keep the Preserve lands healthy and devoid of trash, improving the natural aesthetics of the property while protecting wildlife.

Debris removal efforts are currently underway in Woodland Zone 3. In spring of 2012, the last of the material will be collected and hauled off site. Annual spring inspections can help locate missed debris that may have been screened by vegetation, or that was brought to the soil surface due to freezing and thawing action.

The Preserve as a whole should be walked by volunteers on at least an annual basis, preferably in early spring after snowmelt and before leaf-out hides debris. This is also a good time to look for garlic mustard, dame's rocket and woody invasive species.

### ***Meander Survey***

This is a walking survey carried out by a trained professional, or a knowledgeable volunteer or staff person. It is a tool used to monitor and address weed growth. The land is transected in a somewhat orderly fashion to facilitate the viewing of all areas of the landscape being surveyed. These surveys are usually carried out in early spring when garlic mustard, dame's rocket and woody invasive species are being reviewed. Otherwise, the survey should occur during the growing season to insure that a good growth of herbaceous species is present. In some situations, two or even three surveys may need to be conducted throughout a particular growing season.

Upon completion, a written documentation of the survey is provided to the landowner. This document describes the overall health of the landscape and offers guidance for any maintenance activities that should occur. Good follow-up will keep maintenance tasks manageable and reduce the size and complexity of maintenance activities.

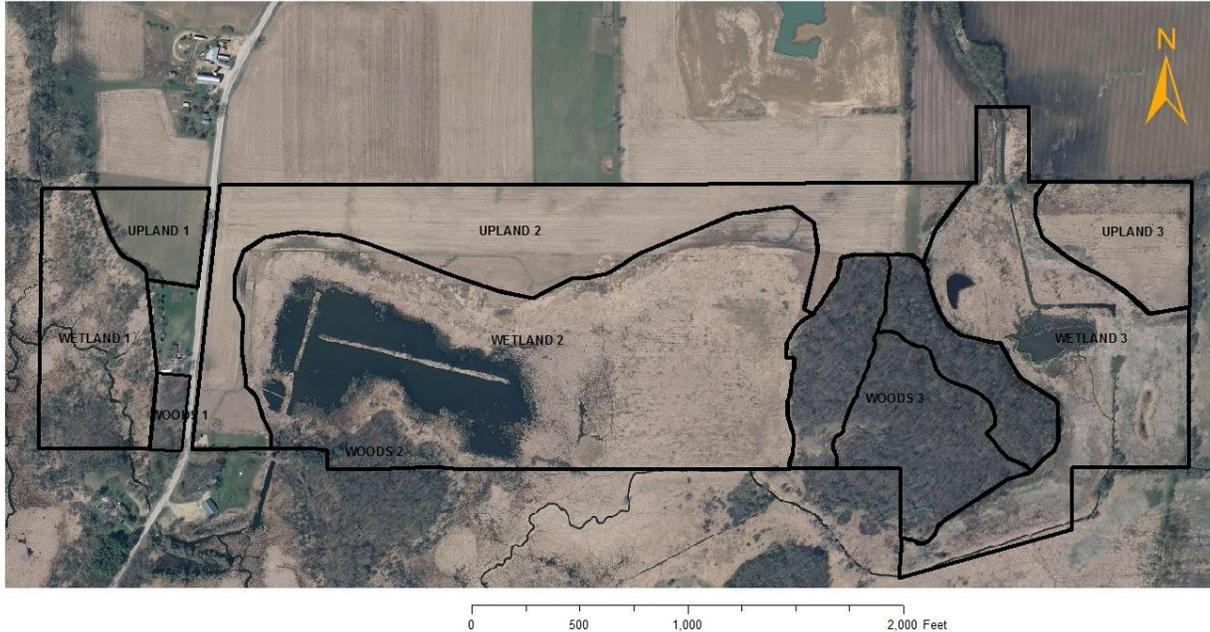
### ***Mowing of Fire Breaks and Trails***

Mowing of fire breaks and trails is a multifaceted task, and through proper timing and design, can achieve multiple objectives. Fire breaks and trails are essentially one in the same when it comes to mowing operations. In trail situations, the path is mowed to maintain green grass suitable for regular foot traffic. This may require mowing on a weekly or biweekly basis. Fire breaks are intended to be green as well, but do not have to support foot traffic.

Fire breaks should be mowed at least three times each season. In wet areas, fire breaks can be mowed down during the winter months, or by killing off the vegetation to create a

soil or wet line (depending on moisture levels). In wooded areas, fire breaks are developed by moving deadwood and raking the duff layer into the fire zone.

### Firebreaks



Source: Jefferson County Land and Water Conservation-2008

Jeanne Scherer-UWW Geography Dept., 2012

### *Nesting Structure Repair, Replacement or Additions*

Nesting structures are used to help attract wildlife to the area. Currently, the Preserve has an array of nesting structures which are maintained annually or semi-annually as opportunity allows. As nesting structures are added, additional maintenance will be required so that they continue to function as designed. This offers a great opportunity to involve and educate volunteers, particularly interested school groups.

All nesting structures require periodic cleaning and should be accessed outside of the nesting season. This means some maintenance should be done in the winter months. Structures erected upon tall posts should be constructed with a break down system. This allows the nesting structure to be tipped to the ground for cleaning and maintenance.

### *Prairie Mowing*

Prairie mowing is designed to control the spread of annual weeds. It does this by cutting the seed heads produced by annual weeds, preventing them from producing viable seed. Mowing also allows light to reach the young prairie plants, giving them an advantage while the recently mowed weeds recover from the shock sustained from mowing.

New prairie seeding should be mowed as needed to control annual weeds, which is often two or three times per growing season for the first two seasons. Subsequently, spot mowing or cutting with a hand held trimmer can be utilized as determined by meander surveys. Mowing operations are often not needed beyond year two or three of a new prairie seeding unless determined necessary by a professional meander survey.

### ***Prescribed Burning***

Prescribed burning should only be carried out by a trained and experienced crew of professionals. It is best to follow the judgment of the burn crew when considering timelines and methods.

As burns are carried out within each management zone, note that different ecosystems may require different methods and timelines for burning, with decisions based on prevailing field conditions. Creating a timeline for burns is very important, particularly since it is not generally advisable to burn too much of the Preserve in any one season. This allows for the preservation of nesting cover and other sanctuaries for wildlife. Burns should be carried out on a 3-7-year cycle, depending on the needs of the landscape.

### ***Professional Operation Oversight***

Proper oversight often involves the hiring of an experienced professional to closely monitor complex restoration activities. This includes visiting the work site to verify that work orders are being followed in a satisfactory manner. It also involves fielding questions from the contractor with regard to any concerns they may have about expected accomplishments, and facilitating change orders as necessary. Finally, professional oversight can help confirm the accuracy of all invoicing submitted by the contractor.

### ***Public Access Improvement/Maintenance***

Public-access facilities help create a safe, educational and accessible area for visitors.

Tasks include:

- Repairing or replacing the existing boardwalk.
- Adding new boardwalk sections to increase access and educational opportunities in wetland areas.
- Replacing faded and worn out signage.
- Maintaining the parking lot by adding gravel, snow plowing in the winter, and repairing or replacing the split-rail fence.
- Maintaining the observation deck.
- Maintaining the welcome sign and informational kiosks.

Some of this work could be accomplished by volunteers or District staff.

### ***Spot Herbicide Applications***

Spot herbicide applications are used to target specific, non-desirable species found growing within restored areas. Herbicides are specifically chosen based upon the targeted species, surrounding plant community, and location within the landscape. Spot herbicide applications should be carried out by trained personnel who are certified by the Wisconsin Department of Agriculture, Trade & Consumer Protection.

Spot herbicide applications will occur when appropriate to gain the greatest amount of control of targeted species. This timeline will be decided based upon the results of professional meander surveys.

### ***Trail Maintenance***

Trail maintenance includes tasks that go beyond mowing. Tasks include:

- Pruning of encroaching brush.
- Pruning of low hanging branches.
- Removing fallen trees.
- Repairing any ruts or soil disturbance that could lead to erosion or safety risks.

These smaller-scale projects are ideal for volunteers and District Staff.

### ***Trail Signage Development and Placement***

Trail signage will be developed as new trails are established. Content and placement will be at the discretion of District staff and board members.

## **Other Considerations**

### ***Annual Field Review by Board of Directors***

The District's Board of Directors should review Preserve lands in person at least once per year. This tour could coincide with a monthly board meeting. The objective is to give board members a firsthand look at the progress of restoration activities within each management unit, and to help identify future needs.

### ***Marking of Property Boundaries***

All boundaries of the Lake District Preserve should eventually be surveyed and adequately marked. Marking of the property boundary should be done in a similar fashion to what was done on the north property line (along the north boundary of Upland Prairie #1 and Upland Prairie #2). The objective is to avoid conflict with neighboring landowners, and to insure that district boundaries will not be encroached upon as time passes. A high-quality marking barrier should be installed to reduce continued maintenance over time and prevent manipulation by others.

### ***Forester Assessment of Woodlands***

As restoration progresses, the District may wish to have a qualified forester assess the logging potential of the woodlands. This activity should be considered as we approach the year 2020.

A consulting forester should assess the property prior to contracting with a logger. The consulting forester is working on your behalf. He or she will insure the qualities of the District lands are protected, and that the value of any logging operation is maximized.

### ***Development of Restoration Plan***

As recently restored lands are stabilized, the District may want to turn its attention to other management zones that have not been the subject of such efforts. Restoration planning can be carried out by District staff or outside consultants, or a combination thereof. Timelines can be based upon available funds or funding sources. Having a plan in place may improve grant eligibility and open up funding opportunities for the District.

Any restoration plan should consist of the following: Existing Conditions; Restoration Area Map; Restoration Plan; Timeline; and Budget.

### *Ditch Plugging*

Potential ditch-plugging options may still be available within or in close proximity to the Lake District Preserve. Ditch plugging operations should always include a hydrologic analysis, as well as engineering services to design a plug that will meet set standards. A hydrologic analysis, topographical survey and engineering services are estimated to cost approximately \$8,000.00.

### *Funding Opportunities*

The following is an abbreviated listing of current funding sources that may apply to Preserve activities: Cambridge Foundation; WEEB and C.D. Besadny Grants; U.S. Fish and Wildlife Service; Ducks Unlimited; Pheasants Forever; Friends of the Preserve; DNR Stewardship Grants; Jefferson County; Alliant Energy; Enbridge; and WHIP Funding.

## Appendix

### Common Weed Species and Recommended Herbicides

#### *Common Buckthorn*

(*Rhamnus cathartica*)

**Description:** Small trees or large shrubs that can reach a height of 20-25 feet. Most often grows as a shrub, where it may send out several shoots. The outer bark is dark gray or brown, and when cut, the inner bark is brown, red, or orange. Buckthorn has separate male and female plants; the latter are often easy to recognize because they produce copious amounts of deep purple berries. It is especially important to remove the berry-producing plants to control their spread.



**Status:** #3 Invasive plant species in Wisconsin. Infests tree lines and small woodlots, and is considered a strong invader of Oak and Hickory savannas.

**Action Recommended:** Eradication. If the plants are small, physical removal can be an effective method. Soils disturbed during removal should be tamped back into place. For larger plants, cutting and removal followed by stump treatment with Triclopyr is recommended. For more information, see the IPAW website.

## ***Boxelder***

*(Acer negundo)*

**Description:** Leaves are compound and opposite, and are often composed of 5 leaflets. Less prosperous trees often have 3 leaflets, causing them to be mistaken for poison ivy which has alternate leaves. Twigs are usually purple or green, and when young are heavily glaucous. As the twigs age, this glaucous covering is lost. Winter buds are covered by a dense growth of whitish hairs. Trees are highly prone to sprouting along the trunk where damaged, and the stumps of cut trees resprout vigorously resulting in a multiple-stemmed growth habit.



**Status:** Box elder is a native species in Wisconsin. It used to be largely restricted to wet, deciduous forests in the southern portion of the state before European settlement. It is still very common there, perhaps because it is well adapted to highly-disturbed forests presently found in that part of the state. It has also become a common invader of a wide variety of disturbed upland sites, including abandoned fields, vacant city lots, rights-of-way, and fence rows.

**Action Recommended:** This species is a food source for many birds and mammals. However, if the species becomes aggressive, it may shade out desirable understory species. In these cases, mechanical removal is recommended. Once cut, the stump should be treated with Triclopyr or Glyphosphate. Stump removal is a viable option if there is a preference to avoid herbicides.

## ***Garlic Mustard***

*(Alliaria petiolata)*

**Description:** Triangular, heart-shaped leaves which are sharply toothed. Plant grows 1-2' tall, and has a distinct garlic odor.



**Status:** #2 invasive plant and considered a major threat to Wisconsin woodlands. This noxious weed crowds and shades out native woodland herbaceous plants.

**Action Recommended:** Small infestations can be readily controlled by hand-pulling second year plants. The best time to pull plants is when they have just started flowering, but before any seeds have been made. Large infestations are best controlled by spraying with the glyphosate. Because garlic mustard begins growth early in the spring, before native flowering plants are growing, spraying at this time should not cause too much damage to desirable species. Glyphosate should be used at a concentration of 1-2% active ingredient.

***Giant Ragweed***  
(*Ambrosia trifida*)

**Description:** An annual plant in the aster family that is native throughout much of North America. Its flowers are green and pollinated by wind rather than insects. The pollen is one of the main causes of late summer hay fever. Flowers are borne from midsummer through early fall. This species can grow to over 9' tall.



**Status:** Giant Ragweed is one of the most competitive weeds found in North America. This species, when allowed to flower, can cause allergic reactions.

**Action Recommended:** It is very difficult to control Giant Ragweed through removal by mechanical means or herbicides, but it does **not** tolerate mowing. Mowing or clipping the plants near the ground will eventually eradicate the stand. Monitoring is imperative as this species will germinate from the existing seed bank over a period of years.

## *Honeysuckle*

(*Lonicera tatarica*)

**Description:** Exotic bush honeysuckles are dense, upright, deciduous shrubs (3-10' in height) with shallow roots; opposite, simple, and oval or oblong leaves; and yellow, orange or red berries. Tartarian honeysuckle has smooth, hairless, bluish-green leaves. Morrow's honeysuckle has downy leaves, while bella honeysuckle is a hybrid between the Tartarian and Morrow's varieties. The shaggy-barked older stems and branches of the shrubs are often hollow. Flowering occurs during May and June, and produces fragrant, tubular flowers arranged in pairs. Flowers of Tartarian are generally pink to crimson. Flowers of the other bush honeysuckle species are white and become yellow as they age.



**Status:** #10 invasive plant species and a major threat to Wisconsin woodlands.

**Action Recommended:** Honeysuckles can be controlled by cutting stems at the base. Stumps should be treated with a 20% glyphosate solution using a low-pressure, hand-held sprayer, sponge applicator, or contact solution bottle. Cut first in early spring followed by a second cutting in early autumn. Triclopyr formulated for water dilution is not effective on this species. Triclopyr formulated for dilution in diesel fuel can be used for applications throughout the year, with winter being most effective. If stump treatment is not immediately performed, foliage on the resprouts may be sprayed. Herbicide applications may not be necessary if the plants are cut with a forestry mower. Where burning is not possible, a 1.5% glyphosate solution can be sprayed on the foliage. Spraying after the plant blooms may kill mature and seedling plants. Spraying prior to the emergence of native shrubs and ground flora is the safest time to spray without impacting native species. In wetlands, glyphosate formulated for use over water must be used. Both mechanical and chemical control methods must be repeated for at least three to five years in order to stop new plants emerging from the seed bank.

## *Reed Canary Grass*

(*Phalaris arundinacea* - RCG)

**Description:** A perennial, cool-season, rhizomatous grass that grows successfully in northern latitudes. Its creeping rhizomes often form a thick sod layer which can exclude all other plants.



**Status:** #1 invasive plant in Wisconsin.

**Action Recommended:** Multiple options for eradication are available depending on site characteristics. For the Preserve, mowing of the area and spraying with Plateau, Vantage or Glyphosphate (RoundUp) is recommended. Solarization is another option for this site. More options can be reviewed at the IPAW website:

[http://www.ipaw.org/invaders/reed\\_canary\\_grass/index.htm](http://www.ipaw.org/invaders/reed_canary_grass/index.htm)

## *Summary of Approved Herbicides*

The table below summarizes the characteristics of seven herbicides commonly used for the control of invasive plants and noxious weeds in prairie restoration activities.

<b>Herbicide</b>	<b>Trade names</b>	<b>Target species</b>	<b>Unaffected species</b>	<b>Environmental characteristics</b>	<b>Label Info</b>
2,4-D	Generic	Broadleaf herbaceous plants	Most monocots, including grasses	Half-life in soil 7-10 days; safe for aquatic uses	<a href="#">AgriSolutions, PDF file</a>
Glyphosate	Generic	Nonselective; grasses, forbs, vines, trees, shrubs	None	Half-life in soil several weeks; is inactivated by soil particles	<a href="#">Generic-glyphosate, PDF file</a>
Sethoxydim	Vantage	Grasses	Broadleaf herbs, sedges, woody plants	Half-life in soil 4-5 days	
Triclopyr	Garlon	Broadleaf herbs and woody plants	Most monocots, including grasses	Half-life in soil 30 days	<a href="#">Dow AgroSciences, PDF file</a>
Clopyralid	Transline	Broadleaf weeds	Grasses	Half-life in soil 40 days	<a href="#">Dow AgroSciences, PDF file</a>
Fosamine	Krenite	Woody plants	Herbaceous plants less affected	Rapid degradation and high binding to soil particles	
Imazapic	Plateau	Grasses; some broadleaf species	Many broadleaf species	Half-life in soil several months	<a href="#">USDA, PDF file</a>

*For all herbicides, the label should be read and followed!* Herbicides should be used as part of a total management system. As the above table illustrates, none of these herbicides is completely specific. Care must be taken to ensure that sensitive, non-target species are not treated.

Wisconsin DNR web page on herbicide use and certification:  
<http://dnr.wi.gov/forestry/FH/weeds/herbicides.htm>

## Native Seed Mixes

Upland Prairie Zone 2 (2011 early-spring seeding)

Art Kitchen Native Grass Prairie - <b>SetterTech</b>		
Common Name	Genus Species	LBS/ Oz per Acre
<b>Grasses</b>		
Big Bluestem	Andropogon gerardii	1 lbs
Canada Wild Rye	Elymus Canadensis	1 lbs
Switchgrass	Panicum virgatum	.5 lbs
Little Bluestem	Schizachyrium scoparium	.73 lbs
	<b>Total Pounds per Acre</b>	<b>3.23 Lbs</b>
<b>Forbs</b>		
Canada Milk Vetch	Astragalus canadensis	1.00 oz
Bergamot	Monarda fistulosa	.73 oz
False Sunflower	Heliopsis helianthoides	1.00 oz
Pale Purple Coneflower	Echinacea pallida	1.00 oz
Yellow-headed Coneflower	Ratibida pinnata	1.00 oz
Brown-eyed Susan	Rudbeckia triloba	.39 oz
Black-eyed Susan	Rudbeckia hirta	.73 oz
Rattlesnake Master	Eryngium yuccifolium	.73 oz
Golden Alexander	Zizia Aurea	1.00 oz
Spiderwort	Tradescantia ohioensis	1.00 oz
Evening Primrose	Oenothera biennis	.39 oz
Purple Prairie Clover	Dalea purpurea	1.00 oz
Stiff Goldenrod	Solidago rigida	.50 oz
Round-headed Bushclover	Lespedeza capitata	.39 oz
Pale Indian Plantain	Cacalia Atriplicifolia	.73 oz
Hoary Vervain	Verbena stricta	.73 oz
Prairie Coreopsis	Coreopsis palmata	.73 oz
Prairie Cinquefoil	Potentilla arguta	.39 oz
Sky-blue Aster	Aster asureus	.73 oz
Cup Plant	Silphium perfoliatum	.50 oz
Large Flower Penstemon	Penstemon grandiflorus	.50 oz
	<b>Total Ounces per Acre</b>	<b>15.67 oz</b>
This seed mix was used to seed the 26 Acre prairie which was seeded in late winter of 2011		
		<b>SetterTech</b>
	<b>4.21 Lbs per Acre</b>	

Upland Prairie Zone 1 (2009 seeding)

Tall Grass Prairie - Common - SetterTech		
Common Name	Genus Species	%of Mix
<b>Grasses</b>		
Big Bluestem	Andropogon gerardii	24.00%
Prairie Brome	Bromus Kalmii	12.00%
Switchgrass	Panicum virgatum	4.00%
Little Bluestem	Schizachyrium scoparium	20.00%
Indiangrass	Sorghastrum nutans	20.00%
	<b>Total Percent Grasses</b>	<b>80.00%</b>
<b>Forbs</b>		
Lead Plant	Amorpha canescens	0.80%
Sky Blue Aster	Aster azureus	1.40%
Smooth Blue Aster	Aster laevis	0.80%
White Wild Indigo	Baptisia albe	1.60%
Prairie Coreopsis	Coreopsis palmata	0.40%
White Prairie Clover	Dalea candidum	2.40%
Purple Prairie Clover	Dalea purpurea	2.40%
Rattlesnake Master	Eryngium vuccifolium	1.00%
Ox-eye Sunflower	Heliosis helianthoides	0.60%
Wild Bergamot	Monarda fistulosa	1.00%
Spotted Bee Balm	Monarda punctata	0.40%
Foxglove Beardtounge	Penstemon digitalis	0.60%
Yellow Coneflower	Ratibida pinnata	2.40%
Black-eyed Susan	Rudbeckia hirta	2.40%
Compass Plant	Silphium laciniatum	0.40%
Stiff Goldenrod	Solidago rigida	0.40%
Hoary Vervain	Verbena stricta	1.00%
	<b>Total Percent Forbs</b>	<b>20.00%</b>
This seed mix was used to seed the 5 Acre prairie which was seeded in spring of 2009		
		SetterTech
	<b>10 PLS Pounds Per Acre</b>	

Upland Prairie Zone 2 & Wetland Zone 2 (1998 seeding)

**Mesic Prairie 45 Acre Preserve - SetterTech**

Common Name	Genus Species	Amount
<b>Grasses</b>		
Big Bluestem	Andropogon gerardii	3 lbs / Acre
Indiangrass	Sorghastrum nutans	2 lbs / Acre
Switchgrass	Panicum virgatum	1 lbs / Acre
<b>Forbs</b>		
Black-eyed Susan	Elymus canadensis	2 oz / Acre
Purple Coneflower	Elymus virginicus	2 oz / Acre
Purple Prairie Clover	Sporobolus aspera	2 oz / Acre
	<b>Total before DNR additional seed</b>	<b>6 lbs 6 oz / Acre</b>
22 Different Native Species provided by DNR in a quantity of 90 PLS pounds to aid in seeding the 45 Acre Area		
		SetterTech

**Wet Prairie 10 Acre Preserve - SetterTech**

Common Name	Genus Species	Amount
<b>Grasses</b>		
Big Bluestem	Andropogon gerardii	Unknown
Blue Joint Grass	Calamagrostis canadensis	Unknown
Switchgrass	Panicum virgatum	Unknown
Prairie Cordgrass	Spartina pectinata	Unknown
<b>Forbs</b>		
New England Aster	Aster novae-angliae	Unknown
Culver's Root	Veronicastrum virginicum	Unknown
Prairie Blazing Star	Liatris pycnostachya	Unknown
Rosinweed	Silphium integrifolium	Unknown
Bergamot	Monarda fistulosa	Unknown
	<b>Total</b>	<b>Unknown</b>
		SetterTech

# **RFP: Invasive Woody Species Eradication 2012-2013**

## **REQUEST FOR PROPOSAL**

**Lake Ripley Management District (LRMD)**

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**RFP ID** Invasive Woody Species Eradication 2012-2013

**ISSUE DATE** March 9, 2012

**SUBMIT BID TO** Paul Dearlove  
Lake Ripley Management District  
N4450 County Road A  
Cambridge, WI 53523  
608-423-4537  
[ripley@oaklandtown.com](mailto:ripley@oaklandtown.com)

**PURPOSE** The purpose of this RFP is to solicit bids from responsive and responsible bidders to provide service for the control of woody species at the Lake District Preserve site in the Town of Oakland, Cambridge, Wisconsin.

**SPECIAL INSTRUCTIONS** All bidders shall review site conditions prior to submitting a proposal. Bidders must check in at the LRMD office before entering the site.

**DEADLINE FOR SUBMISSIONS** 4:00 p.m., April 13, 2012  
Late or unsigned bids will be rejected

**PLEASE DIRECT ALL INQUIRIES TO** Jay Settersten  
SetterTech, LLC  
608-712-6302  
[settertech@frontier.com](mailto:settertech@frontier.com)

### **THIS RFP IS COMPRISED OF:**

Part 1 – General Guidelines and Information

Part 2 – Detailed Specifications

Part 3 – Bid Forms

### **RESPONSE CHECKLIST:**

Signed Affidavit – Completed Bid

Submit original bid and one copy

Label the bid with RFP ID (above)

## **Part 1 – General Guidelines and Information**

### **1. Introduction Scope:**

Lake Ripley Management District (LRMD) invites bids for the scope of services outlined on Part 2 - Detailed Specifications. LRMD, represented by Jay Settersten and Paul Dearlove, intends to use the results of this process to award the contract.

### **2. Note to Bidders:**

Bidders are reminded to carefully examine this RFP and its related specifications and requirements upon receipt. Any questions must be submitted in writing by mail or email at least five (5) working days prior to the bidding deadline. Requests submitted after that time will not be considered. (See cover page for contact person)

In the event that it becomes necessary to provide additional clarifying data or information, or to revise any part of this RFP, such revisions, amendments and/or supplements will be provided to all potential bidders. LRMD has the sole authority to formulate modifications to this scope of work and specifications.

REMINDER: All bidders must conduct at least one site visit prior to submitting a bid. Bidders must check in at the LRMD office prior to making their site visit.

### **3. Project / Contract administration:**

LRMD will administer the contract with the selected vendor while SetterTech LLC will oversee field operations and coordinate work activities.

### **4. Acceptance:**

Bid shall remain fixed and valid for acceptance for sixty (60) days starting on the due date of the bid.

LRMD reserves the right to accept any part of this bid deemed to be in its best interest. LRMD also retains the right to accept or reject any or all bids.

### **5. Pricing:**

The price quoted shall include all labor, materials, equipment and other costs necessary to fully complete the services in accordance with RFP specifications. All prices, costs, and conditions outlined in the bid shall remain fixed.

## **6. Invoicing and Payment:**

As this is a long-term project – All invoices shall contain complete and accurate information depicting specifics tasks and volumes of tasks that were completed in the billing cycle. Contractor shall submit monthly invoices for services rendered. All invoices shall be sent to Lake Ripley Management District c/o Paul Dearlove (see address on cover page). All invoices will be reviewed and field confirmation of invoiced work will occur before payment is issued. If work is not confirmed, contractor will be requested to make a site visit with an LRMD representative or SetterTech LLC to review the invoice and provide clarification in the field. Under no circumstance shall the bidder invoice for more than is authorized by the LRMD on the accepted bid.

Miscellaneous service charges are not allowed to help the selected contractor cover fluctuating current and future costs, including, but not limited to: costs directly or indirectly related to the environment, energy issues, fuel charges, and service and delivery of goods and services, in addition to other miscellaneous costs incurred or that may be incurred in the future by the contractor.

The LRMD's normal payment terms are net 30 days.

State Sales Tax / Federal Excise Tax: Bids should not include Federal Excise and Wisconsin Sales Taxes as the Lake Ripley Management District is exempt from such taxes. The LRMD's CES number is 049631.

## **7. Award:**

Bids will be analyzed and awarded on a basis as set forth hereinafter. The contract will be awarded to the responsible bidder whose bid is most advantageous to the LRMD. In determining the most advantageous bid, the LRMD will consider criteria such as, but not limited to: cost, bidder's past performance, service reputation and capability, quality of the bidder's staff or services, customer satisfaction, extent to which the bidder's staff or services meet the LRMD's needs, bidder's past relationship with LRMD, total long-term cost to the LRMD, and any other relevant criteria listed elsewhere in this solicitation. The LRMD may opt to establish alternate selection criteria to protect its best interest or meet performance or operational standards.

## **8. Additions to Contract:**

LRMD reserves the right to add new items in accordance with the following procedure:

The LRMD will send the contractor a letter requesting pricing for the item(s) to be added. The Contractor, within three working days, should respond in writing and include the bid identification (located on cover page), contract period, and the price for each item or

service to be provided. Upon receipt, LRMD shall issue a Change Order adding the service or product(s) to the Contract. LRMD reserves the right to accept or reject prices and obtain bids on the open market for these add-ons.

LRMD reserves the right to reduce the scope of services during the term of the contract.

#### **9. Termination of Contract:**

If for any reason the successful contractor fails to fulfill the requirements of the contract, LRMD shall have the right to cancel the contract at any time and negotiate for the services with another contractor.

#### **10. Contracting Assignment:**

This contract and any part thereof shall not be subcontracted or assigned to another Contractor without prior written permission of the LRMD.

The Contractor shall be directly responsible for any subcontractor's performance and work quality when used by the Contractor to carry out the scope of the job. Subcontractors must abide by all terms and conditions under the Contract.

#### **11. Permits, Licenses:**

The selected Contractor shall be required to obtain the necessary permits (possible county shoreland zoning permit due to proximity to a navigable stream) and licenses prior to performing any work under this contract. The Contractor is required to demonstrate valid possession of appropriate licenses which shall remain in effect for the term of the contract.

Contractor is financially responsible for obtaining required permits and licenses to comply with pertinent municipal, county, State of Wisconsin and Federal laws and regulations.

#### **12. Insurance:**

The successful contractor is required to submit to the LRMD a Certificate of Business Liability Insurance prior to performing any work under this contract. Certificate of insurance showing at least \$1 million in liability coverage is required prior to issuance of accepted contract.

#### **13. Satisfactory Work:**

Any work found to be in any way defective or unsatisfactory shall be corrected by the Contractor at its own expense at the order of the LRMD. LRMD also reserves the right to contract out services not satisfactorily completed and to purchase substitute services elsewhere. LRMD reserves the right to charge the Contractor with any or all costs incurred, or retain/deduct the amount of such costs from any monies due or which may become due under this contract.

#### **14. Proven Experience / Qualifications:**

Bidder must provide information with their bid that will certify that they are experienced with or meet the requirements of the specification to be eligible for the contract award.

#### **DEFINITIONS**

1. **SPECIFICATIONS:** The specifications in this request are the minimum acceptable. When specific terms and procedures are used, they are used to establish a design, type of process, quality, functional capability or performance level desired.
2. **DEVIATIONS AND EXCEPTIONS:** Deviations and exceptions from terms, conditions, or specifications shall be described fully, on the vendor's letterhead, signed, and attached to the bid. In the absence of such statement, the bid shall be accepted as in strict compliance with all terms, conditions, and specifications, and vendor shall be held liable for injury resulting from any deviation.
3. **QUALITY:** Unless otherwise indicated in the request, all material shall be first quality.
4. **ACCEPTANCE – REJECTION:** LRMD reserves the right to accept or reject any or all bids, to waive any technicality in any bid submitted, and to accept any part of a bid as deemed to be in its best interest. Submission of a proposal constitutes the making of an offer to contract, and gives the LRMD an option valid for 60 days after the date of submission.
5. **METHOD OF AWARD / ACCEPTANCE:** Award shall be made to the most appropriate Contractor based on aforementioned terms and conditions. Written notice of award to the contractor in the form of a purchase order mailed or delivered to the address shown on the bid will be considered sufficient notice of acceptance of bid.
6. **MATERIAL SAFETY DATA SHEET:** If any items brought to the site are hazardous chemicals, as defined under 29 CFR 1910.1200, provide one (1) copy of the Material Safety Data Sheet for each item prior to bringing items to the site.

7. **WARRANTY:** Unless specifically expressed otherwise in writing, goods and services provided will be warranted to be of quality for one year after service is performed or product is applied.
8. **CANCELLATION:** LRMD reserves the right to terminate any Agreement due to non-appropriation of funds or failure of performance by the Contractor. This paragraph shall not relieve the LRMD of its responsibility to pay for services or goods provided prior to the effective date of termination.

## Part 2 – Detailed Specifications

### LAKE RIPLEY MANAGEMENT DISTRICT LAKE RIPLEY PRESERVE INVASIVE WOODY SPECIES ERADICATION 2012-2013

1. **Location:** Section 9 (NE ¼), Township 6N, Range 13E, Town of Oakland, Jefferson County. See location map and aerial photos attached.
2. **Summary of project:** The wooded lands within the Lake District Preserve have slowly been invaded with woody invasive species mainly consisting of Common Buckthorn (*Rhamnus cathartica*), Honeysuckle (*Lonicera tatarica*), Box Elder (*Acer negundo*), Red Maple (*Acer rubrum*), White Mulberry (*Morus alba*), Elm (*Ulmus* spp), Black Cherry (*Prunus serotia*) of poor quality, Sandbar Willow (*Salix interior*) and an occasional Multiflora Rose (*Rosa rugosa*). The understory is also experiencing the pressures of Garlic Mustard, but this issue will be dealt with once the woody invasive species have been controlled. The purpose of this project is to eradicate woody invasive species from the wooded and willow areas, depicted on the attached map, through methods described in the scope of services below. Heavy mechanical work will be completed upon frozen ground to avoid damaging existing desirable native species.
3. **Scope of Services:**
  - Contractor will mechanically remove existing woody invasive species 6” DBH or less through the use of a tracked forestry mower or equivalent. A tracked machine is required for this process. This process will take place in the winter months during frozen ground conditions. The resulting stumps will not have to be treated with herbicide due to the reduced ability of the stump to re-sprout after forestry mowing operations.
  - As not all areas will allow for access with forestry mowing equipment, hand cutting will be necessary to avoid unnecessary damage to desirable species. The resulting stumps will be treated with Element 4, Garlon 4 or LRMD-approved equivalent immediately after cutting to prevent re-sprouts from occurring. Cut brush from this process will be left on site and will not have to be hauled away. All brush will be scattered over a large area to prevent the smothering of understory species in the area. It is not acceptable to construct and or burn brush piles on this site. It is expected that removed material will be shredded with the forestry mowing equipment and there will be very little cut material to handle.
  - Woody invasive species that are over 6” DBH will be girdled and treated with Element 4, Garlon 4 or LRMD-approved equivalent.
  - Downed trees and large branches that may impede forestry mowing operations can be cut and stacked on site or cut and dropped to the ground to allow equipment access.

- In July of the summer following forestry mowing operations, contractor will perform an herbicide application to all re-sprouts, seedlings and small specimens that were not cut during forestry mowing or hand cutting. This herbicide application will be made with Glyphosate or other herbicide as deemed appropriate by LRMD. All herbicide applicators will heed strong caution to prevent overspray / drift from this herbicide activity from affecting neighboring, non-targeted species. Applicators will pay attention to wind speed and general weather patterns before administering applications of herbicide.
- LRMD will be notified at least 48 hours prior to this herbicide application being made. Upon this 48 hour notification, the herbicide label and MSDS sheets for the herbicide being used will be provided to LRMD.
- All persons applying herbicides will be certified and licensed to apply herbicides by Wisconsin DATCP.
- A prescribed burn will take place only in the woodland areas (not the willow removal areas), no earlier than one year after woody invasive species removal, and when the contractor believes the site is ready to be burned. The burn will be conducted within three (3) years from the completion of forestry mowing services. The expected date of this burn will be spring of 2014. The reason for this delay is to insure that remaining wood chips and debris created during forestry mowing and hand cutting operations have had time to dry and aid in carrying fire. This delay also allows time for seedling development so fire will be a tool in the eradication of invasive seedlings. If the contractor feels there are inadequate fuels present to carry a fire, the contractor can provide a plan which will show methods necessary to increase fuel loads for LRMD approval. All burn activities will be conducted in a way that best protects existing desirable native species. It is expected that the entire wooded area will be burned in the same season, if appropriate.
- Prescribed burn crews must be insured for prescribed burn activities. Proof of insurance must be on site while conducting any burns.
- Appropriate personal protection equipment must be provided to all burn crew members.
- Burn crew leaders must have adequate NWCG (National Wildfire Coordinating Group) training.
- Adequate fire breaks must be installed prior to starting any burns.
- A complete burn plan will be in place and reviewed by LRMD, local officials and Wisconsin DNR before the prescribed burn can take place. Items of note in the burn plan will include:
  - Local ordinance for prescribed fire
  - Traffic Control
  - Smoke Management
  - Air Quality
  - Public Safety
  - Public Awareness
  - Communication with local officials

Communication with all other contractors that may be on site  
Burn Breaks  
Escape Routes

**4. Timeline of services:**

December 2012 - March 2013: Mechanical Removal of Woody Invasive Species  
July 2013: Herbicide Application to Re-sprouts, Seedlings and Small Specimens  
Fall 2013: Fire Breaks Installed  
Spring 2014: Prescribed Burn

5. **Completion Date:** Project will be considered complete upon the completion of a successful woodland burn. Please note that the areas of willow abatement, from the wet prairie area, will not be burned as part of this contract.

**6. Site Contact Persons:**

Paul Dearlove, Lake Ripley Management District Manager  
N4450 County Road A  
Cambridge, WI 53523  
608-423-4537; [ripley@oaklandtown.com](mailto:ripley@oaklandtown.com)

Jay Settersten, SetterTech, LLC  
P.O. Box 301  
Cambridge, WI 53523  
608-712-6302; [settertech@frontier.com](mailto:settertech@frontier.com)

7. **Description of Site:** The brush consists primarily of buckthorn and honeysuckle, and is variously scattered and clumped across the site. Willow abatement areas are densely growing in a wet prairie area. The topography of the woodland areas is rolling although grades should not affect the performance of machinery.
8. **Pre-Bid Site Review:** All parties must view the site at least once prior to submitting a proposal. Site visits will be confirmed at the Lake Ripley Management District Office listed above.
9. **Review of Submittals:** The following items are required for bid consideration:
- **Signature Affidavit**
  - **Price Proposal**
  - **Reference Data Sheet**
  - **Questionnaire**
10. **Open Records Requests:** All bids will be made available for public inspection following the close of the bidding process and selection of a contractor.

Location Map:Lake Ripley Management District Preserve  
Jefferson County, WI-2011



Source Jefferson County Land and Water Conservation-2008

Jeanne Scherer-UWW Geography Dept., 2011

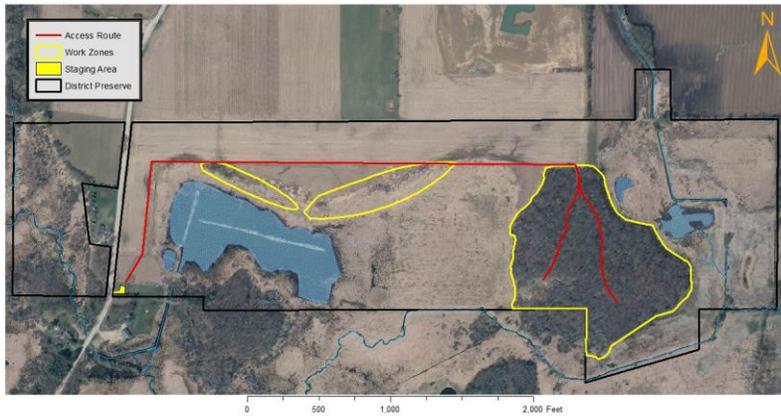
Location Map:LMRD Office and District Preserve  
2011 Boundary



Source Jefferson County Land and Water Conservation-2008

Jeanne Scherer-UWW Geography Dept., 2011

Lake Ripley Management District Preserve  
Work Zone Map



Source Jefferson County Land and Water Conservation-2008

Jeanne Scherer-UWW Geography Dept., 2011