Stewardship Plan of Natural Open Space

Approved, 3/27/23

MUNDELEIN PARK & RECREATION DISTRICT
Connecting Our Community

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EXECUTIVE SUMMARY

1.1 Background

The Mundelein Park & Recreation District is dedicated to preserving native plant communities, wildlife diversity, and water quality throughout the District. A Stewardship Plan of Naturalized Open Space was created to identify and plan for the management of District owned natural areas. In addition, this plan will serve as a tool to educate residents about the District's priorities over the next five years and District's natural resources management techniques. The priorities are dynamic based on staffing, funding, weather, and/or district-wide needs.

This plan will guide the District in the management of more than 90 acres of wetland, prairie buffer, and woodland areas. The District manages over 26 sites that contact natural areas. Descriptions of the different types of natural areas and included throughout the plan. These areas are some of Mundelein's greatest assets. These natural areas and wetlands help filter silt and contaminants from the water before it reaches our downstream neighbors. The natural areas also provide beauty, help manage flooding and control erosion within our own community.

To manage this expansive area is a huge responsibility for the District. Our Park and Facility Maintenance Department must balance the many needs of our parks and different amenities along with making positive steps toward the stewardship of our natural areas.

In 2022, the District retained Hey & Associates to assist with a stewardship plan specifically of natural areas to achieve specific goals and objectives, outline future options and direction, balance resources and staffing and address questions from the community.

1.2 Key Findings from Hey & Associates

The control of undesirable invasive species and the establishment of a desirable native plant community is the basis for every restoration. Priority should be given to controlling aggressive or invasive weeds and preventing further degradation of a site before introducing desirable species. It is much easier to control weeds when working around desirable species is not a concern. Desirable species can then be added and the hardy natives will compete for space, further suppressing weed growth. Attached is the Hey & Associates report. These guidelines will be considered dependent on staffing, resources, and funding.

1.3 Five-Year Plan (Action Steps)

1. Approve a maintenance agreement to assist in the control of undesirable plants in three parks in 2023: Kracklauer, Bob Lewandowski, and Wortham Parks.

Evaluate to expand agreement in 2024 to other parks: Asbury, Cardinal Terrace, Wilderness, Woodlands, Orchard View and Leo Leathers Parks.	**Overseeding at various recommended locations.**

2. Complete annual mowing of natural areas and banks in late fall, weather permitting.

First priority due to prior history: Kracklauer Park stream bank area, Cardinal Terrace Pond, Wortham Park Pond areas (select areas), Orchard Basin dry areas, and Cambridge Country Pond area.	**Second priority:** Leo Leathers Pond area, Wilderness south pond area, Robert Lewandowski hillside, Orchard View, and Longmeadow Pond, named Town and Country Homes Pond 2.

3. In-house removal of undesirable woody plants in natural areas and banks.

2023: Invasive weed control around Cambridge Country Pond	**2024:** Longmeadow Park	**2025:** Leo Leathers Park

4. In-house removal of buckthorn.

2023: Invasive weed control around Cambridge Country Pond	**2024:** Longmeadow Park	**2025:** Leo Leathers Park

5. Use of Volunteers

Promote, contact and utilize volunteers for tree planting and buckthorn removal.	**Promote stewardship and environmental education.**

6. Evaluate and Replace Trees

Remove invasive species (i.e., buckthorn) and diseased, damaged, or safety concerned trees.

- The District does not replant trees and/or bushes in locations previously occupied by invasive species (i.e., buckthorn) and/or undesirable woody plants.
- When a tree is removed, replacement trees are not necessarily planted in the same location and/or park. Each replacement is reviewed on a case-by-case basis.
- When a desirable tree is removed due to being diseased, damaged or safety related issue, the District will make an effort to replace it in a manageable location.

District and Donated replacement trees: Trees may be planted in a park that is not the same species as the same location of the original tree taken down. These trees are typically 2.5-to 3-inch DBH (diameter at breast height).	**Volunteer Projects:** In 2022, Girl Scouts planted 25 sapling trees on the boarder of a heavily used park. These trees will help the environment in countless ways for many years to come.

7. Prescribed Burning has been identified in the Plan as an option that may be used in the future if circumstances change.

At this time, District is not staffed and/or trained to use prescribed burning as a form of Natural Area maintenance.	Costs are prohibitive and mowing will be used as an alternative.

Hey and Associates, Inc.

Stewardship Guidelines of Naturalized Open Space Areas for

Mundelein Park and Recreation District

(Mundelein, Lake County, Illinois)

Project No. 21-0201

Prepared For:
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March, 2023

INTRODUCTION

This document is intended to be a guide to the naturalized vegetation management of the many Mundelein Park and Recreation District (MPRD) naturalized areas and associated open spaces. These features are located throughout thirty-two (32) parks within the district boundaries including:

1. Asbury Park
2. Barefoot Bay Rain Garden
3. Bob Lewandowski Park
4. Cambridge Country North Pond
5. Cambridge Country Park
6. Cardinal Terrace
7. Clearbrook Park
8. Clearbrook Park South
9. Community Park
10. Diamond Lake Beach
11. Diamond Lake Sports Complex
12. Gordon Ray Park
13. Hanrahan North Park
14. John Welch Park
15. Kracklauer Park
16. Leo Leathers Park
17. Lions Field
18. Longmeadow Estates
19. Longmeadow Park
20. Longmeadow Wooded Area
21. Maple Hill Path
22. Mundelein Crossings
23. Noll Retention Pond
24. Orchard Basin
25. Orchard View
26. Scott Brown Park
27. Town and Country Homes
28. Vickory Park
29. Wilderness Park
30. Wilderness Park South
31. Woodlands Park
32. Wortham Park

This Stewardship Plan (Plan) is based on experience gained from ecological restoration and long-term management needs at other similar landscape settings in the Chicagoland area.

In general, the most common needed and utilized in the management of naturalized stormwater ponds and open space areas include herbicide application to control invasive plant species, controlled burning, woody invasive species removal, mowing, and supplemental seed/plant installation. These tasks are designed to improve aesthetic appeal, wildlife habitat, biological function and ecological diversity. The primary goal is to create a naturalized area that provides a visually pleasing landscape and also facilitates appropriate wildlife usage and water quality benefits, while not compromising the stormwater storage functions. This Plan addresses management for the three major plant community types found at various sites which include wetland/pond, prairie buffer, and woodland.

NATURALIZED VEGETATION TYPES

Wetland/Pond Areas

The establishment of desirable native wetland vegetation including emergent marsh and floating-leaved species can provide improved water filtration as well as improved wildlife forage and habitat structure benefiting species such as wading birds and dragonflies. Depressional wetland sites receive nutrients in runoff from the surrounding areas which often fuels invasive weed growth. An invasive weed control program acts not only to control the degradation of the site, but also to relieve the competition that weeds exert on any existing native species.

The naturalized stormwater basins usually have water levels controlled by outlet structures. It is important to ensure that these structures do not become clogged and cause persistently raised water levels that may kill desired wetland buffer vegetation. It also reduces the stormwater storage capacity from the designed volume.

Stream/Stream Corridor

Stream corridors serve an important primary role of conveying water to allow for effective flood control during and after precipitation events. Given the erosive nature of flowing water, stabilization through vegetation, and sometimes rockwork or other hard surface features, it is critical to maintain stable aquatic ecosystems within or downstream of stream corridors. In urban settings, a stream corridor often suffers from disturbance-based weed populations due to an increased flow of water from impervious surface. Maintaining desirable vegetation can be challenging in an area that is constantly exposed to upstream weed seeds. Excessing woody growth is also a common occurrence in a stream corridor and can cause hinderance to flow.

Prairie Buffer Areas

The establishment of desirable native prairie vegetation can provide wildlife forage and habitat that benefits desirable species such as butterflies and songbirds. Establishment of deep-rooted perennial vegetation, consistent with that in a native prairie, provides an ideal root matrix for stormwater infiltration and nutrient absorption in prairies acting as wetland buffer. Prairies in urban settings often receive many disturbances such as mowing encroachment, chemicals from adjacent lawns and dumping of landscape waste. This often results in weed establishment, and a weed control program is beneficial to halt the degradation of the site and to relieve the competition that weeds exert on existing native species.

Wooded areas

The majority of the wooded sites in these naturalized open spaces are comprised of an over-story containing trees considered to be of lower quality such as box elder (*Acer negundo*), crack willow (*Salix fragilis*) and white mulberry (*Morus alba)*. The understory is typified by invasive shrubs such as bush honeysuckle (*Lonicera* spp.) and buckthorn (*Rhamnus* spp.) In the suburban setting, these types of degraded wooded communities are often treated differently than they would be in a more natural setting. The over-story trees are often tolerated to provide shade and or privacy screening between other

properties and they can provide habitat for many birds and mammals adapted to the suburban environment. The understory is more of a concern because the shrub species present have much more invasive potential and can more readily encroach upon the surrounding area. The degree of management desired in these areas can vary, but it is recommended that at a minimum the invasive shrub species be removed and invasive plants such as garlic mustard (*Alliaria petiolata*) found under the shrub layer be controlled. In contrast, there are higher quality wooded areas located in various parks that would benefit from a more traditional management scheme to create a healthy, late successional woodland/savanna. These areas are typically have an oak/hickory overstory and were mostly hardwoods prior to human use.

MANAGEMENT METHODS

Herbicide Application

Controlling undesirable weedy species through chemical treatment is often very effective. Spot application of appropriate herbicides with back-pack sprayers and other devices is a common way to accurately treat invasive plant populations while avoiding damage to desirable species. Different herbicides are used in different situations based on site wetness, species composition and species targeted for control. Selective herbicides, such as broad-leaf specific and grass specific, provide numerous options for controlling some species while sparing others. A monotypic stand of an aggressive invasive species such as common reed (*Phragmites australis*) may be treated with a non-selective herbicide. All herbicides used in wetlands or near ponds need to be aquatic-approved. Herbicide application performed in upland areas may be non-aquatic approved chemicals. Each site may require a different approach and a different herbicide for controlling the target species.

Controlled Burning

Whenever a controlled burn is considered, it is important to assess the safety of neighboring properties, as well as, those performing the burn. Decisions on whether appropriate plant fuel material exists to carry a burn to a degree that will achieve the desired results needs to be taken into account as well. A comprehensive burn plan should be developed, reviewed and approved before starting any burn. An IEPA burn permit and any locally required burn permits should be acquired prior to performing a controlled burn.

Controlled burning is an ecological management tool that can be used as a means of weed control. Fires can be timed to burn green vegetation if the target species grows earlier or later in the growing season than non-target species. Burns can also be effective in the suppression of woody species growth. Burning of monotypic stands of cattail has been shown to reduce above ground biomass, so that subsequent flooding for a long enough duration will drown them. Controlled burns also function to reduce sunlight competition allowing desirable seedlings to germinate by removing thatch that has accumulated. Burning of dead material may also serve to return nutrients to the soil. Early spring fires along with the aforementioned benefits, also serve to encourage the warming of the soil because in its blackened state the ground

absorbs more solar radiation. This can encourage germination as early as possible, giving longer time for growth of desirable species. A fire can also trigger vigorous subsequent growth of some undesirable species such as reed canary grass, making for an excellent time for follow-up treatment with herbicides.

Neighboring homes with wooden fences or storage sheds adjacent to some management units may pose concerns if these areas are planned on being burned. Utility boxes and poles can also be a major concern for certain burns. Controlled burning is highly dependent on weather conditions such as wind speed and direction, humidity and ventilation (dispersion) rate which should all be addressed in the approved burn plan. If one parameter is not acceptable, a burn should not be implemented. Smoke management is critical to not creating a dangerous situation or health nuisance to downwind areas.

For the purpose of this plan, we are providing general guidance for burning naturalized areas and not indicating site specific recommendations. For the most part, burning in urban areas can be problematic for the following reasons:

- Smoke can be problematic to asthma sufferers and visibility to local traffic.
- The heat produced by a controlled burn can be intense and nearby structures can easily be damaged (i.e bird houses, playground equipment, ornamental trees, etc).
- Public perception is usually good, but some landowners will inevitably not support burning activity.
- Weed Control: For constructed naturalized areas, effective control of undesirable species is essentially limited to woody growth. If fire intensity is high, woody species populations will be reduced. For the most park, fire has little effect on the control of non-native herbaceous species.

These considerations should be weighed in against the benefits of controlled burning.

Woody Removal

Burns may often provide adequate control for discouraging establishment of small woody vegetation in upland and wetland communities. However, it may be desirable at times to mechanically remove larger woody plants in areas where burning will not provide adequate control. Woody removal is typically performed in the fall and winter season. Invasive woody species are cut at the base and treated with an appropriate herbicide to reduce resprouts. Cut material may be left on-site, burned in piles, or chipped and removed. Brush pile burning also requires an IEPA open burn permit and should be done by qualified personnel. The location of brush piles to be burned should be carefully considered, to avoid damage to desirable vegetation.

Mowing

Mowing can be a helpful management tool, though it may be difficult to accomplish in a wetland due to water levels. Mowing may be used to suppress seed production in undesirable species. Before treating large stands of species such as common reed, it is often beneficial to mow the previous years' growth to allow access to new growth. This removal of dead standing material can also reduce competition for sunlight. These types of mowing applications may improve control of the target species. Small sections of undesirable plants can be managed using a hand operated "weed whip". The use of an ATV or tractor driven mower can be utilized in relatively flat areas. Care should be taken such that the thatch from mowing is not so thick that it suppresses germination and vegetation growth after mowing. Thatch may need to be raked and removed if this is the case.

Over-seeding

It is important to establish desirable native vegetation to replace vegetation removed during invasive weed management. Some sites are degraded to such a degree that even upon removing the aggressive and invasive weeds, little will inhabit the site but adventive weedy species. If little or no existing desirable vegetation or desirable seed bank exists it may be necessary to over-seed the site. Seed can be collected at other healthy wetlands owned by the MPRD or purchased from a native seed supplier. Seed collection can be an effective low cost way of distributing desirable species if sufficient quantities and species selection can be obtained and if volunteers are available for collection. If seed is purchased, care should be taken to ensure that it is appropriate for site conditions and of a local genotype (parent plant's genetics are from our region). On sites containing desirable vegetation, a simple broadcast application of seed onto soil exposed by mowing or burning is an acceptable installation method. This type of seed installation is often performed in the fall to take advantage of natural seed incorporation processes provided by ground freeze and thaw cycles during the winter.

Planting

Planting in this plan, refers to the installation of small live plants or plugs. It is generally not a cost effective means of native vegetation establishment in restorations with limited funds as it is more costly than seeding. However, there are species that do not establish well from seed, and planting is the only effective way to establish emergent marsh vegetation in standing water. Planting can be considered on a limited scale to provide initial stands of vegetation by which the planted emergent species will often spread through root growth. Plantings can also be done to provide aesthetic accents like blue flag iris (*Iris virginica shrevei)*, white water lilies (*Nymphaea tuberosa*) and yellow pond lilies (*Nuphar advena*) that add colorful blooms.

RESTRICTIVE COVENANTS

Restrictive covenants generally apply to the naturalized areas and the adjacent homeowners. The MPRD will need to be diligent in enforcing the provisions of these covenants. This can best be accomplished through routine reporting and discussion at regular association meetings followed up by generic or specific reminder mailings to homeowners abutting wetlands and other natural areas. Among other things, the following are prohibited in the wetland and natural areas:

1. All construction (sheds, fences, swing sets, other structures). These incursions typically occur with the passage of time as house/lot ownership changes.

2. Cutting and removal of vegetation (except that which is done in accordance with approved ecological management plans). This usually occurs in drier years when homeowners try to expand the open areas of their backyards at the expense of wetland or wetland buffer.

3. Dumping of wastes such as grass clippings, tree branches, leaves, construction rubble. Firewood storage also is a common wetland or buffer incursion that needs to be prevented.

4. Off road vehicle usage. ATVs and mini-bikes can be especially damaging to soil and native vegetation during the wet spring season or following heavy rainfall.

MANAGEMENT SUMMARY

The control of undesirable invasive species and the establishment of a desirable native plant community is the basis for every restoration. Priority should be given to controlling aggressive or invasive weeds and preventing further degradation of a site before introducing desirable species. It is much easier to control weeds when working around desirable species is not a concern. Desirable species can then be added and the hardy natives will compete for space, further suppressing weed growth.

A tear sheet has been prepared for each site considered in this plan that includes a map depicting management issues observed. Located on the back of each sheet is a recommended site management plan in table format that outlines the management objective, recommended management activities in priority order, and timing of management actions over a two-year period. A short narrative for each area is provided in this report which describes the overall existing conditions and management needs. In addition, management schedules, priorities and common invasive tear sheets are provided.

SITE SUMMARY

Asbury Park Pond 1

Asbury Park Pond 1 is a 12-acre park located on Harrison Avenue. Recreational uses for the park include a ball field, fishing, picnic area, playground and a walking/jogging path. The naturalized area of the park includes a 3.35-acre pond and associated buffer.

The naturalized pond, located within the park consists of a narrow, low-quality prairie buffer surrounding an open water community. The wetland fringe vegetation is also very narrow. However, native wetland species are inhabiting the wetland zone.

At a minimum, undesirable species in the prairie buffer should be controlled with appropriate measures. The following tasks can be considered to enhance both the prairie buffer and wetland fringe. Both tasks would also discourage nuisance geese.

1. Expand the existing buffer with a native prairie seeding (herbicide turf, seed and manage).
2. Plant the wetland fringe with additional species that provide more aesthetic and functional value. The wetland fringe has a shallow area (planting shelf) throughout most of the perimeter.

Asbury Park Pond 2

Asbury Park Pond 2 is a 0.4-acre naturalized pond located west of Midlothian Road and north of Shefield Avenue and is part of the Asbury Park complex.

The pond consists of a narrow, low-quality prairie buffer with a minimal wetland fringe surrounding an open water community.

Invasive species control is the only recommendation for this pond given the minimal ecological/functional benefit of enhancement. The location of the pond is also not in a prominent location for aesthetic improvements.

Barefoot Bay Rain Garden

Barefoot Bay Rain Garden is a parking lot bioswale totaling approximately 0.12-acre.

The overall quality of the naturalized mesic prairie community is very good. Native flowers dominate the rain garden. Encroachment of woody species, especially sandbar willow (*Salix interior*), is the only current threat to the desirable plant species.

Control of the undesirable woody species is the only management necessary to maintain the rain garden at this time. Canvassing for any new weed populations, herbaceous or woody, should continue in the future to ensure plant quality and diversity is maintained.

Bob Lewandowski Park

Bob Lewandowski Park is a 3-acre park located on the north side of Diamond Lake. Recreation uses of the park include fishing, a picnic area, a playground and a shelter. The naturalized area of the park includes an unmaintained slope (prairie) of the north side of the property totaling approximately 0.15-acre.

The prairie currently is dominated with undesirable vegetation, both herbaceous and woody with no evidence of any native planting or seeding occurring in the past. In addition to these typical weedy species, approximately one-third of the slope was dominated by tall non-native species called yellow-stemmed bamboo (*Phyllostachis aureosulcata*). This species should be eradicated as soon as possible as a top priority.

Given that the current vegetation is not desirable, a "start-over" is recommended to provide some aesthetic and ecological value to naturalized community. This includes the following tasks in chronological order:

- Mechanical and chemical removal of woody species
- Chemical removal of herbaceous species
- Overseeding with the installation of straw blanket to prevent erosion

Cambridge Country North Pond

The Cambridge Country North Pond is a 0.4-acre naturalized pond located west of Midlothian Road and south of Shefield Avenue.

The pond has a minimal prairie buffer with limited wetland vegetation along the fringe. On the northwest side of the site, the buffer heavily wooded.

Invasive species should be controlled within this pond and buffer. The wooded area should remain intact as a visual screen to adjacent homeowners and for stabilization to the narrow buffer. Additional enhancements are not recommended since the pond is not located in a prominent area.

Cambridge Country Park

Cambridge Country Park is an 11-acre park located on Crystal Street and Regent Drive. Recreational uses of the park include a walking path, fishing as well as a playground. The park also includes Regent Center, the Park District's hub for active adults. The naturalized area of the park is a 4.5-acre pond with an associated native buffer.

The prairie buffer of the pond is largely native with a heavy infestation of teasel (*Dipsacus* spp.). In addition to teasel, isolated populations woody species, crown vetch (*Cornilla varia*) and field thistle (*Cirsium arvense*) were also observed on-site. The shoreline has minimal wetland vegetation (no planting shelf).

Control of teasel and other weeds should be a priority for this park. The current population of teasel is heavy enough that chemical removal will cause significant areas that are devoid of vegetation. These areas should be seeded with native species and cover crop following the herbicide applications.

Cardinal Terrace

Cardinal Terrace is a 2.5-acre site located at Courtland St. and Pershing Ave. Recreational uses of the park include a walking trail. The naturalized area of the park is a 1-acre pond with an associated buffer.

At the time of the observation, approximately two-thirds of the buffer was mowed as a control measure for the undesirable woody species. In the mowed area, both native and non-native species were identified. The remainder of the buffer was dominated by woody vegetation.

Control of the woody species is the highest priority for this area. Continuation of the mechanical removal of undesirable woodies will help facilitate the growth of herbaceous species. After initial control is achieved, the buffer should be over-seeded with a native seed mix to provide erosion control, habitat for pollinators and aesthetic appeal.

Clearbrook Park

Clearbrook Park is a 23-acre park located on Clearbrook Park Drive, east of Route 45. Recreational uses of the park include a ballfield and playground. The naturalized area of the park is a wooded wetland, approximately 1-acre, that borders the west, south, and east side of the park.

The wooded wetland corridor is overgrown with woody species. The woody growth is blocking the view of the wetland area.

The priority for this park is removal of woody species along the wooded wetland corridor to provide a better view of the wetland area. Given the limited access, removal of woody species should only be performed where feasible (between mowed area and wetland). Access to trees and shrubs on the far side of the wetland would be very difficult. More desirable woody species identified in the wetland, such as black ash (*Fraxinus nigra*) and Ohio buckeye (*Aesculus glabra*), should be allowed to persist.

Clearbrook Park South

Clearbrook Park South is a 17-acre park located southeast of Shady Lane. There are no recreational uses for this property and access is very limited.

The property is primarily a wooded community with low quality, overgrown wooded areas (mesic) and a degraded sedge meadow that occupies approximately one-half of the site. There is also a drainage channel that intersects the site north to south. Common buckthorn dominates the drier areas of the site. These areas offer little ecological value. By contrast, the degraded sedge meadow has some ecological value potential given appropriate management measures.

Improvement of the degraded sedge meadow through weed control is the highest priority for cost effective results. Common reed, reed canary grass, creeping Jenny (*Lysmachia nummularia*) and purple loosestrife are threatening the future of the native sedges and associates. Given the isolated nature of this site, improvement would improve the ecological value and not be recognized firsthand by the public. Any type of woody clearing effort would not be cost effective given the constraints of access.

Community Park

Keith Mione Community Park is the center of many of the Mundelein Park District's activities. It is a 153-acre park located at 1461 N. Midlothian Road. Recreational uses of the park include a community garden, fishing, an ice rink, ball fields, picnic shelter, sled hill, tennis court/pickle ball and basketball court. The naturalized areas of the park include a wooded creek corridor and detention areas totaling approximately 9 acres.

Wooded Community

The wooded community follows a stream channel that generally spans from the northwest to the southeast of the park. For the purpose of this Plan, the wooded community is divided into two general sections divided by the roadway, West Woodland and East Woodland.

The West Woodland is largely overgrown with woody species. However, the overstory consists of bur oaks (*Quercus macrocarpa*) throughout much of the woodland indicating a remnant woodland/savanna. Given the overgrown understory, a thriving herbaceous layer is lacking in most of the woodland community.

Removal of the understory low-quality trees and shrubs would be a top priority for the enhancement of this area. Treatment of a particular invasive species, Japanese knotweed (*Polygonum cuspidatum*), located along Midlothian Road would also be crucial to prevent any distribution of this aggressive, nuisance species. Any type of overseeding is not recommended until woody and invasive control efforts are completed and existing seed banks are released.

The East Woodland is a lower quality wooded area that is comprised of medium to low quality species. No high quality trees were observed in this area. This woodland area generally has a less dense overstory and more herbaceous cover. Priorities in this woodland are as follows (highest to lowest):

1. Control of common reed (*Phragmites australis*) and teasel located throughout the area.
2. Control of other herbaceous species near the perimeter of the naturalized vegetation including crown vetch and thistle.
3. Removal of common buckthorn and other undesirable species throughout the area

Small Detention Basins

All of the detention areas have invasive species, woody and herbaceous, that inhabit the wetland and prairie buffer communities. One basin in particular, directly east of the splash park, is being negatively impacted by the constant mowing effort on the east slope.

Control of the woody and herbaceous species is critical for all detention basins

The detention areas are located in prominent areas and would benefit greatly from invasive species control. The mowing activities should cease in 2022. Overseeding, after effective weed control, would be beneficial in re-establishing native species.

East Lake

The Lake on the east side is well established in native prairie species on the south buffer. Any shoreline vegetation is minimal. The north buffer is mostly wooded with low quality species. A large population of reed canary grass (*Phalaris arundinacea*) dominates the herbaceous layer under the trees and shrubs.

The common reed population should be controlled on the west side of the pond. General weed control is recommended for the south prairie buffer. Also, mowing encroachment appears to be a problem on the east side. This activity should cease in the future. The priority for the north buffer is control of common buckthorn (*Rhamnus cathartica*) and other undesirable species. Broadscale control of reed canary grass may would require re-seeding and planting to limit areas devoid of vegetation.

Diamond Lake Beach

Diamond Lake Beach includes a 0.2-acre spillway (drainage channel) located on the northeast corner of Diamond Lake Road and Pleasure Drive.

The drainage channel is overgrown with woody vegetation. Herbaceous weeds such as thistle, purple loosestrife (*Lythrum salicaria*) and reed canary grass are also present on-site.

With exception to a few bur oak saplings, all woody vegetation should be mechanically removed as a priority. Herbaceous weeds such as field thistle and purple loosestrife should also be targeted with herbicide. Reed canary grass should be allowed to persist within the channel bottom and banks to provide stabilization.

Diamond Lake Sports Complex

Diamond Lake Sports Complex is 43-acre park located at the corner of Route 60 and N. Ridge Court. Recreational uses of the park include consisting of biking, bocce ball combination sports fields, horseshoe pit, hiking trails, a disc golf course, picnic shelter, scenic overlook, shuffleboard and snowmobiling. The naturalized areas of the park include a slough with a surrounding woodland totaling approximately 30 acres.

Slough Overlook/Slough

The Slough Overlook (southeast portion of the slough) includes a parking area and overlook deck facing the slough. The plant community is dominated by reed canary grass.

Establishment of showy native species near the overlook would be a worthwhile endeavor. Eradicating reed canary grass prior to plant installation will be beneficial for successful plant establishment. Species to be installed will provide a colorful mosaic that can be seen from the overlook and will attract pollinators. In addition, common reed should be controlled throughout the slough as a top priority.

Woodland Community

Previous clearing work has been performed in the woodland community. The overstory canopy is comprised of oaks (*Quercus* spp.) and hickories (*Carya* spp.) as well as black cherry (*Prunus serotina*) and other low-quality native species.

Woody species control should continue including follow-up in areas that were previously cleared. In addition to the ecological benefit of the clearing work, an effort should be made “open up” the view from the parking lot/pavilion and walking trail to the slough. This work should also be targeted towards the south and west side of the slough where park-goers can benefit.

Gordon Ray Park

Gordon Ray Park is a 4.5-acre park located at the northwest corner of Rays Lane and Ridge Avenue. Recreational uses of the park include ball fields, basketball courts, little free library, picnic area and shelter. The naturalized area of the park includes a woodland located at the northwest corner of the property totaling approximately 0.5-acre.

The overstory of the woodland has some good quality native tree species such as white oak (*Quercus alba*), red oak (*Quercus rubra*), bitternut hickory (*Carya cordiformis*) and American elm (*Ulmus americanus*). The understory is overgrown with buckthorn and other lower quality native species. The herbaceous layer is minimal due to the abundance of buckthorn and other woody species.

The highest priority for wooded area is the removal of the understory trees and shrubs to allow for more sunlight penetration to the ground surface. After control is achieved, an overseeding would help facilitate the establishment of a native herbaceous layer.

Hanrahan North Park

Hanrahan North Park is a 10-acre park located on East Noel Drive. Recreational uses of the park include ball fields, basketball courts, biking, fishing, a fitness trail and picnic area. The naturalized areas of the park include a wooded creek corridor and a naturalized pond totaling approximately 3.0-acres.

Previous woody clearing efforts were performed in the wooded creek corridor (primarily the woodland peninsula located south of the naturalized pond). This area consists of lower quality native trees with a sparsely vegetated ground cover. The naturalized pond has a narrow, low quality prairie buffer and a minimal wetland fringe zone.

Follow-up treatments of re-spouting woody vegetation should be performed in the previously cleared area. Treatment of herbaceous non-native vegetation should also be performed. After effective control is achieved, reseeding or planting can be considered to provide aesthetic improvements to this highly visible area. Any additional clearing to the area west of the woodland peninsula may not be appreciated by adjacent homeowners. Access to the channel corridor may be limited and would make additional clearing difficult. The naturalized pond has very few invasive species. However, prairie buffer expansion and wetland plug installation should be considered to provide a more functional and aesthetically appealing aquatic community.

John Wiech Park

John Wiech Park is a 0.25-acre park located on Diamond Lake and Route 60/83. The park is a wooded area that has no recreational uses. Access to the park is very limited to both residents and for management purposes.

The woodland community is generally low in quality. Overstory trees a generally low in quality, no oaks or hickories. The understory is dominated by overgrown woody species and non-native herbaceous species.

Given the limited access to this park, improvement to the woodland community is a low priority. However, if deemed beneficial, the area would benefit from the following in order of priority (highest to lowest):

- Removal of undesirable woody species to increase sunlight penetration to ground
- Herbaceous weed control
- Reseeding

Kracklauer Park

Kracklauer Park is a 2.6-acre park located on Seymour Avenue and Lake Street. Recreational uses of the park include a gazebo, picnic area, playgrounds, tennis courts and a walking path. The naturalized area of the park includes a stream corridor totaling approximately 0.30-acre.

The stream corridor consists of hard landscaping/engineering (rockwork) and native plantings within the buffer area. It is highly visible to all residents that visit the park. The native areas are weedy, both herbaceous and woody. However, desirable species can be found throughout the prairie buffer zone.

Weed control is the greatest priority for this area. After effective control of both herbaceous and woody areas, a live planting is recommended to create a more aesthetically-attractive plant community. Planting a few hundred colorful, native species can be a cost-effective improvement that would have rapid results.

Leo Leathers Park

Leo Leathers Park is a 21-acre park located on Buckingham Road and Manor Lane. Recreational uses of the park include ball fields, basketball, fishing, playground, nine-hole disc golf course and a walking/jogging path. The naturalized area of the park includes a naturalized pond, a wooded area and a stream/channel corridor totaling approximately 14.5-acres.

The central woodland area has an oak/hickory overstory and is largely overgrown with shrubs and small trees. The stream corridor runs along the walking path and is largely not visible to on-lookers. The stream corridor located west of the central woodland is comprised of undesirable woody growth and herbaceous weeds such as teasel, daylily (*Hemerocallis fulva*) and thistle. The pond on the east side consists of a prairie buffer and very limited wetland fringe. The design of the pond does not allow for wetland vegetation since there is no planting shelf. The prairie buffer is low in diversity and has extensive invasive herbaceous and undesirable woody populations.

Control of undesirable vegetation should be the focus on the stream corridor (not including the central woodland area) and the large east pond. Overseeding of treated areas would help to restabilize any bare ground as a result of the weed control efforts. The central woodland area would benefit greatly from a large clearing effort. However, access to this area is limited and the overall amount of material to be removed would make large equipment (i.e. forestry mowers) unusable.

Lions Field

Lions Field is a 2-acre park located on E. Noel Drive and Countryside Avenue. Recreational uses of the park include a skateboard park and the Mundelein Heritage Museum. The naturalized area of the park includes a naturalized stream totaling approximately 1-acre.

Previous work was conducted on the stream corridor. The sideslopes are comprised of a diverse assemblage of native species. However, weed infestations, both woody and herbaceous, are compromising the overall vegetative quality from the precious restoration efforts.

Invasive weed control is needed to protect the native species component. Woody species control should be performed throughout the corridor. Non-native herbaceous species, especially teasel and crown vetch, need to be treated throughout the growing season. Re-seeding of prairie species may be needed if significant areas of treatment are devoid of vegetation.

Longmeadow Estates

Longmeadow Estates includes a parcel of naturalized area located north of Kettering Road. The area has no recreational uses. The naturalized area of the park includes degraded wetland communities.

The small parcel contains a buckthorn dominated, low quality wooded area, cattail marsh and a reed canary grass-dominated buffer.

Given the low-quality existing vegetation and surrounding low-quality vegetative community, no management activities are recommended. In addition, this area is not highly visible by residents.

Longmeadow Park Pond 1

Longmeadow Park Pond 1 is a 49-acre park located north of Somerset Lane and Westfield Way. Recreational uses of the park include a walking/jogging path, ballfields, parking area, picnic shelter, soccer fields and a playground. The naturalized area of the park is a 1.5-acre pond with an associated native prairie buffer.

The prairie buffer of the pond has a large infestation of sandbar willow and reed canary grass. Native grasses, such as big bluestem (*Andropogon* gerardii), are well represented, especially on the north slope of the pond. The shoreline is dominated by cattail.

Control of sandbar willow should be a priority for this park. The woody cover remains low enough that shading out of other vegetation is not problematic at this time but will only get worse. Control of reed canary grass should only be implemented with the installation of native seed after management. The infestation is extensive enough that reed canary grass removal would cause large unvegetated areas susceptible to weeds and erosion.

Longmeadow Park Pond 2

Longmeadow Park Pond 2 is a 0.7-acre detention basin and associated buffer located behind homeowner lots east of Chadwick Way. The area has no recreational uses.

The detention basin has high water issues as evident by the vegetation. The entire buffer from water line to top of slope is dominated by a monoculture of cattail. The outlet structure may not be functioning properly or in disrepair causing the prolonged high water levels.

Prior to the consideration of any management activities for this area, water levels conducive to the establishment of desirable native vegetation are necessary. Repairing or modifying the stormwater outlet is a good first step to improving the function and appearance of the detention basin.

Longmeadow Wooded Area

The Longmeadow Wooded Area is an 8-acre Oak-hickory woodland. It is located in between Chadwick Way, Somerset Lane and Somerset Court. An asphalt trail and woodchip path allow for recreational uses including wildlife observation and general exercise.

The overstory trees consist primarily of bur oak and shagbark hickory (*Carya ovata*). Other tree species include white oak, black cherry, bitternut hickory and black walnut (*Juglans nigra*). The understory woody vegetation consists mostly of common buckthorn. Other less prominent species include elderberry (*Sambucus canadensis*), white mulberry (*Morus alba*), autumn olive (*Elaeagnus umbellate*) and gray dogwood (*Cornus racemosa*). No herbaceous understory was observed during the site visit. However, the presence of many woodland species is only evident throughout the early growing season.

The mature woodland would be a good candidate for a clearing effort to help promote a healthier understory and also assist with the establishment of future generations of desirable hardwood species. The woodland is well-suited for the use of cost-effective clearing equipment such as forestry mowers. The need for overseeding would only become apparent when the area is observed after clearing efforts.

Maple Hill Path

Maple Hill Path is a 0.75-acre parcel located behind townhomes north of Savannah Circle. Recreational uses include a biking/hiking path.

The area on the south side of the path is a no-mow fescue that appears to be managed inconsistently throughout its entirety (i.e. occasionally mowed, not mowed, possibly herbicided etc.). On the north side of the path, the parcel includes native prairie buffer that parallels a channel/stream. The western half of the buffer area is not wooded. Vegetation quality is decent with native species dominating the community. However, species such as teasel and common reed are prominent throughout the entire area. The eastern half of the site consists of mature trees with a buckthorn understory. Desirable native species are not present due to the heavy shady cover.

Recommendations for enhancement are divided into 3 regions to address the varying conditions of the corridor.

1. The no-mow fescue (south of path) should be managed consistently throughout its entirety. This community should be mowed two times a year and treated with broadleaf specific herbicide on occasion to ensure control of any non-grasses. This will provide a uniform landscape instead of a patchwork of differing plant communities.

2. The non-wooded area (western half) should be treated for invasive species such as teasel and common reed. Maintenance mowing should be performed as necessary if species such as sweet clover or Queen Anne's lace become problematic.

3. Invasive woody control, mostly buckthorn, should be implemented within the wooded area of the buffer (eastern half). After effective control, installation of shade-tolerant native seed mix will be beneficial for effective establishment of desirable species.

Mundelein Crossings

Mundelein Crossings is a new subdivision located west of Route 83 and east of Route 60. A wetland buffer (approximately 0.7-acre) has been established north of the playground located at Kessler Drive and Martini Street. No walking paths were established along the buffer. However, the buffer is highly visible from the playground area.

The wetland buffer is in its early stage of development. Some of the areas were seeded as recently as the fall of 2022 as evidenced by the erosion control blanket installation. It is not known whether these areas were seeded with native species or lawn.

Invasive species control is critical during the early restoration phase. Two species, teasel and reed canary grass, should be targeted with herbicide to prevent spread and the suppression of native seedlings. Teasel, in particular, is widespread due to the extensive population adjacent to this parcel. It should be a priority to target teasel to control its spread.

Noll Retention Pond (Maurice Noll Park)

Maurice Noll Park is a 12-acre park located on North Huntington Drive. Recreational uses of the park include ball fields, basketball, playground, tennis courts and a walking/jogging path. The naturalized area of the park includes a retention pond totaling approximately 3.3-acres.

The retention pond consists of wetland fringe consisting of mostly cattail and a significant common reed population. The wetland fringe and narrow prairie buffer community has a heavy infestation of undesirable woody species throughout at least one-half of the area. The prairie buffer community is low in vegetative quality.

The top priorities for vegetation management include control of common reed and teasel and removal of undesirable woody species. Removal of the other herbaceous species would also be important for the overall health of the retention basin. Expanding the buffer through turf removal and over-seeding can be considered in the future. However, only the south and west side of the basin is visible to the general public and therefore, offers only a modest aesthetic benefit.

Orchard Basin

Orchard Basin is approximately 2-acres basin located on Orchard Street. The park includes an overlook on the south side. The basin includes a cattail marsh, small wooded areas and a prairie buffer.

Access to the site is limited and public view is only possible from the overlook and from adjacent homeowners. The plant communities have significant weed infestations. The prairie community has a native componenet in localized areas.

The first priority is to control common reed and teasel throughout the entire site. Other invasive herbaceous species should be addressed as a second priority. Any removal of woody species would be difficult given the limited access from the south. This task would provide clear benefits if feasible.

Orchard View

Orchard View is located between Route 60 and Waverly Drive. Recreational uses of the park include a tot playground and walking path. The naturalized area of the park includes a cattail marsh and buffer totaling approximately 7.8- acres.

The cattail marsh is low in diversity. Isolated populations of purple loosestrife and common reed are also prevalent at various locations. The buffer surrounding the cattail marsh is generally narrow and low in diversity and quality. Significant woody invaders make up a large portion of the prairie buffer.

Management should focus on herbaceous and woody species control. In the marsh community, populations of common reed should be treated to limit the spread of this species. In the prairie buffer, non-native species and undesirable woody species should also be controlled throughout.

Scott Brown Park

Scott Brown Park is a 6-acre park located northwest of Southport Road and Summerhill Drive. Recreational uses of the park include a playground, ball fields, basketball, tennis and pickleball courts. The naturalized area of the park includes a small (3 to 8 feet wide) raingarden on the north side of the property.

The raingarden is very narrow and consists a mixture of native and non-native species.

Undesirable species, herbaceous and woody, should be controlled throughout the naturalized community. The following should be considered to direct future work at the park.

1. Create a wider raingarden that will help to maintain its native component. The current width of the raingarden suffers from mowing and turfgrass encroachment issues. Having a wider native community will help reduce the "edge" effect.
2. Abandon the rain garden and manage as turf grass since the current condition isn't benefitting the ecological or aesthetic aspect.

Town and Country Homes Pond 2

Town and Country Homes Pond 2 is a 1.5-acre detention basin and associated buffer. Native species are sparse throughout this basin. Teasel, sweet clover (*Melilotus* spp.) and reed canary grass are prevalent in the prairie buffer. Some moderate populations of sandbar willow are present as well.

Control of the non-native or undesirable species is the priority for the south pond. An overseeding can be considered after effective control of weedy vegetation is achieved.

Town and Country Homes Pond 3

Town and Country Homes Pond 3 is a 0.7-acre detention basin and associated buffer. It consists of a wetland fringe and wet prairie community, an open water community and a prairie buffer. This area has a native component, but also have a heavy infestation of both non-native herbaceous and undesirable woody species throughout all communities (with exception to the open water community).

Control of herbaceous and woody species is a top priority to maintain the native integrity of this basin. Herbaceous species such as teasel, thistle and crown vetch should be targeted during the growing season. Stands of sandbar willow should be controlled to limit its spread.

Town and Country Homes Pond 5

Town and Country Homes Pond 5 is a 0.15-acre detention basin located west of Tudor Drive. The pond borders four (4) single family homes and has limited access for maintenance.

The pond buffer is overgrown with mature low-quality tree species such as crack willow, buckthorn, box elder and white mulberry. Given the shady conditions, any herbaceous layer is largely absent. Understory vegetation is limited to low quality shrubs and saplings. Dead woody material litters the pond and adjacent buffer.

Removal of all the woody material is necessary for any type of improvement. Access will be difficult. There is a large amount of dead or dying limbs overhanging the open water that will eventually fall into the pond. This will pose a threat to the function of the basin if woody material blocks the weir. At a minimum, removal of overhanging limbs should be performed to ensure long-term function of the basin. If removal of all woody species is performed, the introduction of native species through seed installation would be required for long-term stabilization.

Town and Country Homes Pond 6

Town and Country Homes Pond 6 is a 0.70-acre detention basin located north of Chadwick Way. The basin is bordered to the south by a sidewalk (and roadway) and a single-family home to the west.

Approximately one-half of the buffer was mowed during the fall or winter, presumably for woody control. As a result, the overall condition of the mowed area is largely unknown. The northern buffer is heavily infested with common buckthorn. No herbaceous layer was observed in this area. Areas that were not mowed had some native species but were largely dominated by cool season grasses and sandbar willow. Also, the southeast corner of the buffer was infested by teasel, common reed and common burdock. The wetland edge was a monoculture of cattail. Water was bypassing the outlet (weir) due to the erosion over time.

The outlet structure should be inspected and repaired prior to any other corrective measures to ensure that water levels are maintained as designed. Woody control should be performed within the northern buffer. Cleared areas will require reseeding of native species to ensure long-term stabilization. Control of the localized populations of teasel, common reed and burdock should be performed to prevent future spread.

Vickory Park

Vickory Park is approximately 27-acres located east of Ambria Drive. The park is largely a cattail marsh with a minimal prairie buffer and a degraded woodland located by a small park on Ambria Drive.

The drier areas of the cattail marsh have reed canary grass infestations. The minimal prairie buffer is mostly bordered by neighborhood lots and is difficult to access. The degraded woodland comprised of buckthorn and low quality overstory trees is bordered by a chain link fence making access very difficult.

Given the access issues and low quality existing vegetation, no management activities are recommended.

Wilderness Park

Wilderness Park is a 12-acre park located on the northwest corner of Hillside Drive and Pershing Avenue. Recreational uses of the park include fishing, a playground and a walking/jogging path. The naturalized area of the park includes a marsh, open water community and surrounding buffer totaling approximately 11-acres.

All of the naturalized communities are low in vegetative quality. The prairie buffer is dominated by low-quality species. Significant populations of invasive woody species and non-native herbaceous species are widely dispersed throughout the buffer. Shoreline vegetation is non-existent throughout most of the park (along Hillside Drive and Pershing Avenue). The wetland area to the north is dominated by common reed and purple loosestrife.

Vegetation management should focus on areas that are visible to the public and are cost effective. Control of undesirable herbaceous and woody species is the highest priority. Areas that are difficult to access should be a lower priority. Given the walking/jogging path located along the south and east, over-seeding should be considered within the prairie buffer for on-lookers. The south and eastern shorelines are experiencing significant bank erosion and should be considered for remediation in the future. Some infrastructure could be at risk.

Wilderness Park South

Wilderness Park South is a 2-acre park located south of Hillside Drive and Hawthorne Boulevard. The entire park is a naturalized detention basin and surrounding buffer.

The basin has a rock shoreline (no wetland vegetation). The prairie buffer has some native species but also has significant undesirable woody species and non-native herbaceous species.

Management should include the control of undesirable vegetation, both woody and herbaceous, throughout the prairie buffer community. The prairie buffer would benefit from over-seeding (as a lower priority) to help increase overall diversity.

Woodlands Park Pond 1

Woodlands Park Pond 1 is a 0.30-acre detention basin and associated buffer located south of Kasting Lane. The pond is bordered by a sidewalk (and roadway) on the northside and a single-family home on the east side.

The buffer is low in quality and consists primarily of cool season grasses. Other herbaceous invasive species include teasel and reed canary grass. A few small saplings/shrubs are scattered throughout the buffer as well as a few larger trees. The wetland fringe is comprised entirely of a monoculture of cattail.

Management should include the control of undesirable vegetation, both woody and herbaceous, throughout the prairie buffer community. Cool season grasses should only be controlled if supplemental native seed is introduced into the buffer community as a replacement to ensure long-term stabilization.

Woodlands Park Pond 2

Woodlands Park Pond 2 is a 0.5-acre marsh/open water community located east of Kasting Lane in the middle of a large marsh complex.

No vegetation management is recommended for this area given the limited ecological improvements, difficulty in access and lack of any visibility to the public.

Woodlands Park Pond 3

Woodlands Park Pond 3 is a 1.25-acre detention basin and associated buffer located east of Kasting Lane. The pond is bordered by four (4) backyard lots on the west side and a mowed path on the east side.

The buffer is low in quality and consists primarily of low-quality species such as tall goldenrod, hairy aster, field thistle and reed canary grass. Undesirable woody species were prominent around the majority of prairie buffer area. The size and abundance were not significant enough to shade-out herbaceous vegetation. The wetland fringe is comprised entirely of a monoculture of cattail.

Management should include the control of undesirable vegetation, both woody and herbaceous, throughout the prairie buffer community. Supplemental seeding can be implemented after effective invasive species control is achieved.

Woodlands Park Pond 4

Woodlands Park Pond 4 is a 0.15-acre pond located southeast of Woodlands Park Pond 3 (east of Kasting Lane). The pond is visible from a mowed path located on the east and south side of Woodlands Park Pond 3.

The pond is an open water community and is part of a large marsh to the north and east. It is deep enough that it does not support the existence of emergent vegetation. Woody species, low-quality trees and shrubs including eastern cottonwood, silver maple (*Acer saccharinum*) and buckthorn, border the terrestrial areas not inundated with water.

Removal of the woody vegetation on the west side would allow for an improved view of the marsh complex to the east from the mowed walking path.

Woodlands Park Pond 5

Woodlands Park Pond 5 is a 0.15-acre detention basin and associated buffer located east of Kasting Lane. The pond is bordered by two (2) single family homes on the north and south side.

The buffer is minimal in size and low in quality consisting primarily of low-quality species such as reed canary grass and hairy aster. Undesirable woody species such as sandbar willow, calory pear, box elder are also encroaching the buffer area. The wetland fringe is comprised entirely of a monoculture of cattail.

Management should include the control of undesirable vegetation, both woody and herbaceous, throughout the prairie buffer community. Any further improvement should consider increasing the width of the buffer to help with the overall function and, also, improve the aesthetic appeal. Supplemental seeding and follow-up management can be implemented after effective invasive species control is achieved.

Woodlands Park Pond 6

Woodlands Park Pond 6 is a 0.25-acre detention basin and associated buffer located east of Kasting Lane. The pond is bordered by three (3) backyard lots on the south side and a woodland on the north and east side.

The buffer is low in quality and consists primarily of low-quality species such as field thistle, tall goldenrod, hairy aster, and reed canary grass. The reed canary grass infestation is extensive throughout the buffer area. Undesirable woody species are also well established. However, the size and abundance were not significant enough to shade-out herbaceous vegetation. The wetland fringe is comprised entirely of a monoculture of cattail.

Management should include the control of undesirable vegetation, both woody and herbaceous, throughout the prairie buffer community. Eradication of the reed canary grass will require supplemental seeding to ensure long-term stabilization.

Woodlands Pond 1

Woodlands Pond 1 is a 1-acre detention basin and associated buffer located northwest of Kasting Lane and south of Fieldcrest Drive. The pond is further bordered to the northwest and south by sidewalks and to the east by a single family home.

The buffer is largely non-existent or at least not discernable due to the large common reed infestation along the east and south side. In addition, the community on the west side was mowed in the fall. The mowed stubble indicates an area dominated by cattail.

Management priority should focus on control of common reed. At least one entire growing season should be dedicated to effectively remove this species. After successful eradication, the installation of native seed or plants will be necessary to help provide long-term stabilization.

Woodlands Pond 2

Woodlands Pond 2 is a 0.25-acre detention basin and associated buffer located south of Kasting Lane. The pond is bordered by a sidewalk (and roadway) on the south side and a single-family home on the west side and a woodland on the north and east side.

The buffer is low in quality and consists primarily of low-quality species such as hairy aster and tall goldenrod. Undesirable saplings/shrubs are scattered throughout the buffer as well as a few larger trees. The wetland fringe is comprised entirely of a monoculture of cattail.

Management should include the control of undesirable woody species throughout the prairie buffer community. Improvement with the prairie buffer should be limited to complete eradication of existing vegetation and reintroducing native species through seeding.

Wortham Park

Wortham Park is a 9-acre park located on Wortham Drive and Midlothian Road. Recreational uses of the park include ball fields, a playground, scenic nature views, a shaded picnic area, tennis courts and a walking/jogging path. The naturalized area of the park includes a pond and surrounding buffer totaling approximately 5.25-acre.

Overall, the naturalized plant communities are very good. The open water community is vegetated with water lilies throughout. The mesic prairie buffer is dominated by native species with minor invasive species populations throughout.

The recommendation for the naturalized area includes control of both undesirable woody species and herbaceous species to maintain plant diversity of the mesic prairie buffer. Another consideration for an additional task is the removal of overgrown woody species on the island to open up the view across the pond. This can be accomplished in the winter when the pond is frozen.

RESIDENT PERCEPTIONS AND EXPECTATIONS

The condition of naturalized areas often becomes controversial among residents living around them and utilizing the trails. This is often due to varying expectations of what the area “should” look like. Thus, it may be important for MPRD to help in educating the residents about management objectives and possibilities for each area. Managing these expectations will help to reduce some conflicts when it comes to management and stewardship of these areas. Many people are not used to an open space landscape that is not dominated by mowed turf grass and thus have difficulty accepting the native

vegetation. Residents could be steered toward a document published by the Wetlands Initiative entitled Living With Wetlands (www.wetlands-initiative.org/living-with-wetlands/) that provides useful perspectives on the benefits of native landscaping.

It is also helpful if the management and control of invasive plant species is regular and does not allow a substantial infestation that is both ecologically detrimental and provides a more negative aesthetic. If the areas are maintained regularly, and a certain aesthetic is consistent, it will reduce confusion.

It may also be helpful to be sure residents know the benefits of native vegetation. The native vegetation stabilizes the shorelines and improves water quality. The deep-rooted buffer vegetation provides for some infiltration of runoff into the soil. The vegetation provides better wildlife habitat than mowed turf and open water. It also provides habitat for pollinators and many other ecosystem benefits.

In the long term, these naturalized systems will likely be less costly to maintain, than mowed turf and riprap. However, most naturalized systems still require annual maintenance – a common misconception is that they do not require any regular maintenance. Being in an urban context with many invasive species in the surrounding landscape, these areas will always require some annual management tasks.

The management for each area should have clearly defined goals and objectives. Management of the woodlands, buffers and wetlands should all be a coordinated effort. The management of these areas must also be appropriately coordinated with the maintenance of the traditional manicured landscape around it. The MPRD will have to determine what is the best combination of retained staff and/or use of subcontractors to balance staff availability and budgeting constraints.

Scale:

0 85 Feet

Orientation:

Legend:

- Purple Loosestrife
- Thistle
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Managment Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Midlothian Rd & Cambridge Rd

Exhibit Title:

Asbury Park Pond 1

Project Number: 21-0201

Date: 10/27/2021

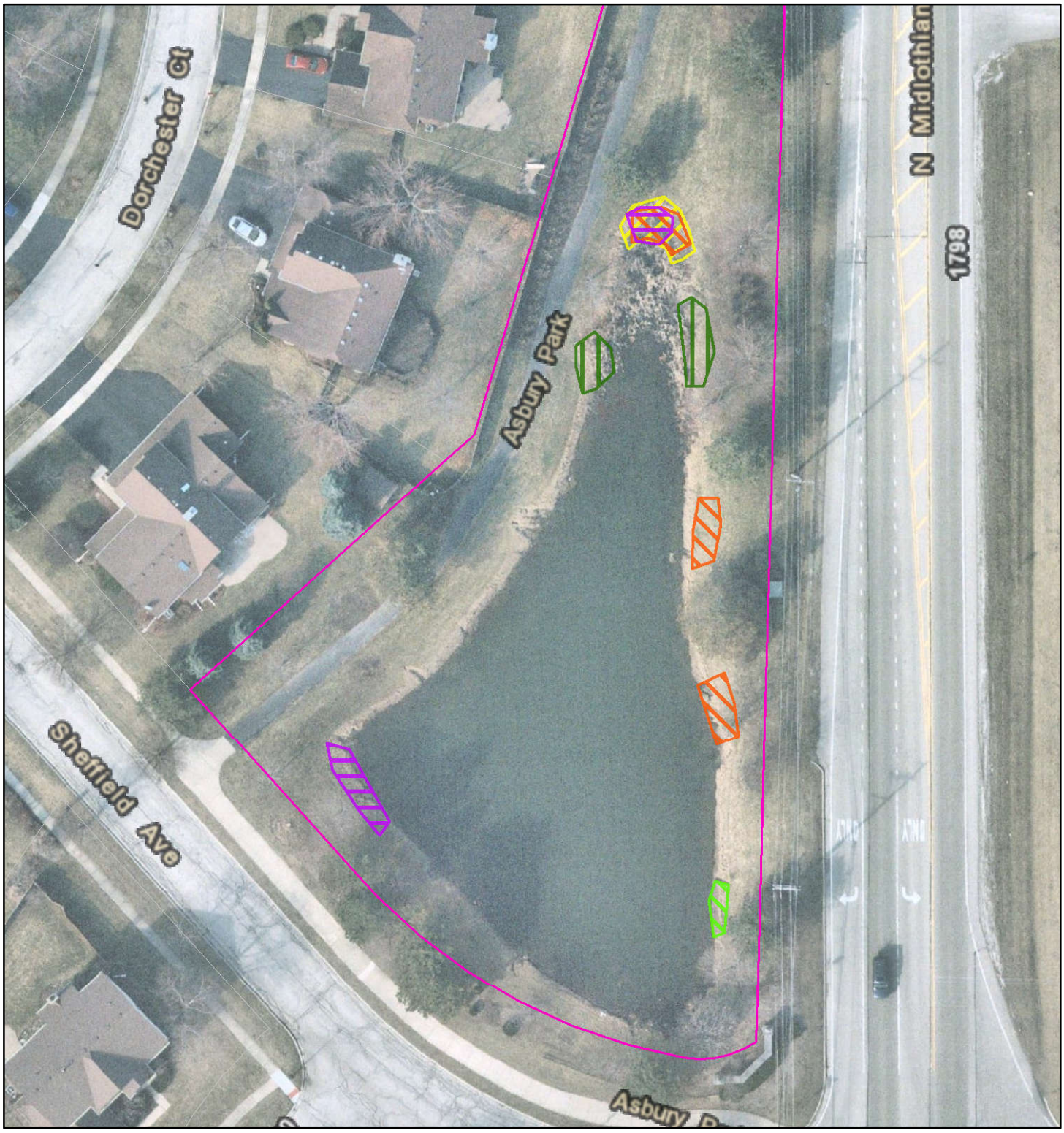
Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Asbury Park Pond 1

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	



Scale:

0 50 Feet

Orientation:

Legend:

- Purple Loosestrife
- Reed Canary Grass
- Riverbank Grape
- Teasel
- Thistle
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Ambria Dr & Sheffield Ave

Exhibit Title:

Asbury Park Pond 2

Project Number: 21-0201

Date: 10/27/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Asbury Park Pond 2

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	

Asbury Park Pond 2

Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*)	Decrease field thistle in spring and early summer to allow native seedlings to thrive.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	

Scale:

0 50 Feet

Orientation:

Legend:

- Sandbar Willow
- MPRD Parcels
- Tax Parcels

Project Number: 21-0201

Date: 10/27/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

1461 N Midlothian Rd

Exhibit Title:

Barefoot Bay Rain Garden

Barefoot Bay Rain Garden

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Sandbar Willow (*Salix interior*) Very common wetland shrub that is native but becomes invasive and grows into large clones up to 20' tall. Very long narrow leaves compared to all other willows.	Decrease willow shrub cover to allow native herbaceous vegetation to thrive.	Small young inviduals can be treated by spraying foliage with a glyphosate-based herbicide (Aquamaster) to stands with backpack sprayers and hand-wick individuals within good quality native vegetation. Larger stands will require cutting with hand tools/chain saws and then treating fresh-cut stumps wtih glyphosate based herbicide to reduce regrowth. However, this is a root suckering species that may require follow up foliar treatements.	June-September	

Scale:

0 50 Feet

Orientation:

Legend:

- Reed Canary Grass
- Thistle
- Undesirable Woody Species
- Yellow Bamboo
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Managment Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

534 S Prairie Ave

Exhibit Title:

Bob Lewandowski Park

Project Number: 21-0201

Date: 10/27/2021

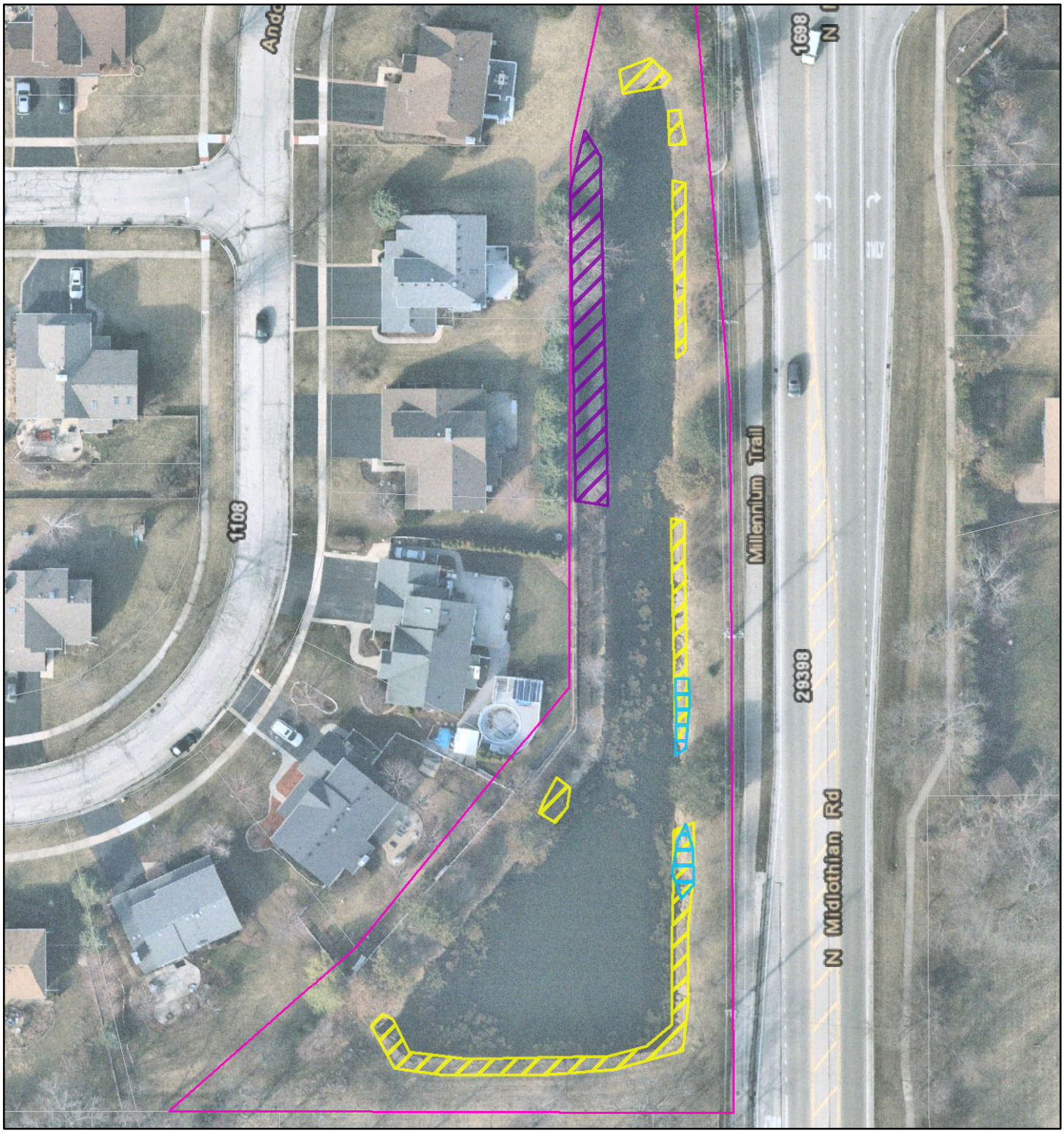
Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Bob Lewandowski Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	
Yellow Bamboo (*Phyllostachis aureosulcata*) A highly invasive running bamboo from China. Rare to the area.	Reduce cover to eventual eradication from the naturalized community.	Repeated selective treatments with Glyphosate. Can be used in conjunction with mowing to reduce biomass.	May-October	



Scale:

0 65 Feet

Orientation:

Legend:

- Bird's Foot Trefoil
- Reed Canary Grass
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Sheffeild Ave and N Midlothian Rd

Exhibit Title:

Cambridge Country North Pond

Project Number: 21-0201

Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Cambridge Country North Pond

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Bird's Foot Trefoil (*Lotus corniculatus*) Perennial non-native legume that forms dense stands in dry to moist soil. It has a yellow flowering structure blooming from June to frost.	Decrease bird's foot trefoil to allow for native species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-October	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native species to flourish.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Scale:

0 100 Feet

Orientation:

Legend:

- Crown Vetch
- Riverbank Grape
- Teasel
- Thistle
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Regent Dr and W Crystal St

Exhibit Title:
Cambridge Country Park

Project Number: 21-0201

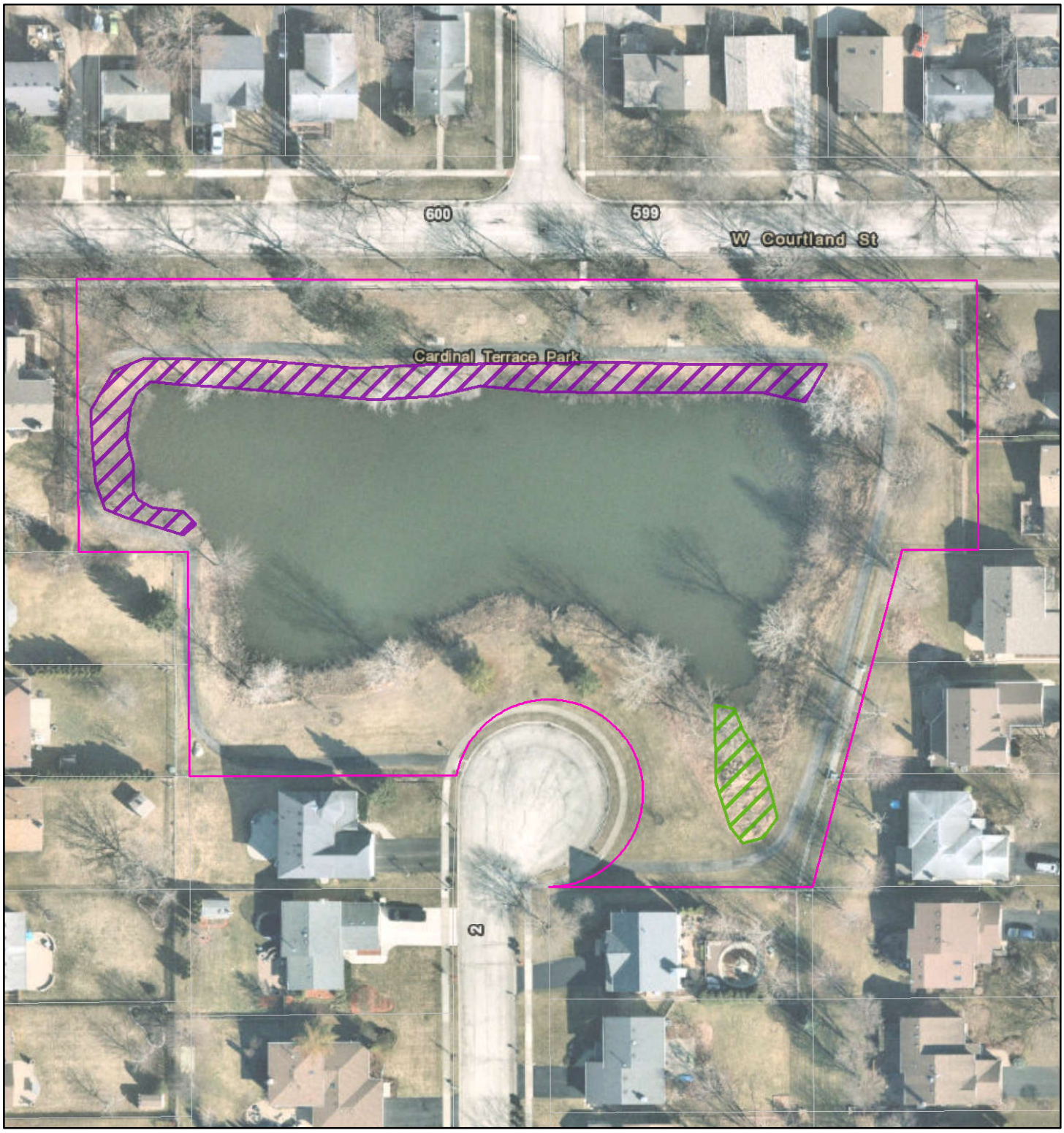
Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Cambridge Country Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Crown Vetch (*Coronilla varia*) Pink-flowered member of the legume or bean family formerly used as a slope stabilizing plant. Becomes very aggressive and produces tangled dense growth that reduces native plant diversity.	Eradicate crown vetch cover to allow native deep-rooted species to provide better slope stabilization and habitat value.	Treat with Aminopyralid (Milestone) using backpack sprayers. Alternatively, Clopyralid (Transline) can also be used effectively. These can only be used in dry areas.	June-October	
Riverbank Grape (*Vitis riparia*) A native perennial vine that can be very aggressive. Dark colored fruits can be found in the summer.	Treat for effective control to allow for higher quality native species.	Selectively foliar application during the growing season with Triclopyr (Garlon 4).	May-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	



Scale:

0 75 Feet

Orientation:

Legend:

- Cattail
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Courtland St and Pershing Ave

Exhibit Title:

Cardinal Terrace

Project Number: 21-0201

Date: 10/29/2021

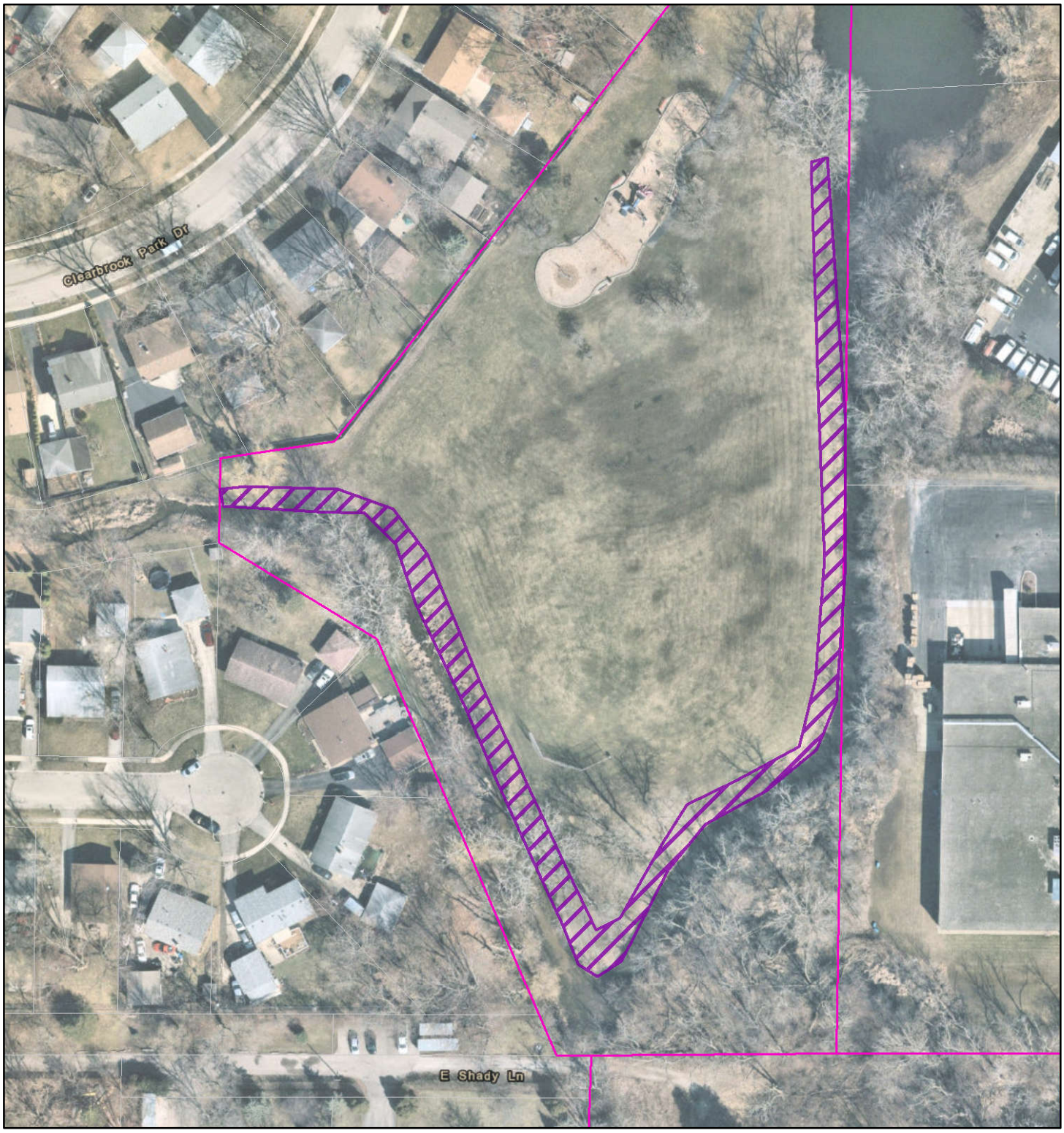
Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Cardinal Terrace Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Cattail (*Typha* spp) Very common wetland plant that colonizes shorelines and marshes. The narrow-leaved and hybrid species become problematic as they form dense stands and reduce native plant diversity. Tall, thin blade-like leaves with flowers that form dense dark brown, cigar-shape at the end of spikes.	Decrease cattail coverage to allow native vegetation growth. Allow some cattails to existing to perform water quality functions. Replace with more desirable emergent marsh species.	Apply a glyphosate-based herbicide (Aquamaster) to stands with backpack spayers and hand wick individuals within good quality native vegetation. Boom wicking can be used on larger monotypic stands.	June-September	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 100 Feet

Orientation:

Legend:

- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Project Number: 21-0201

Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Location:

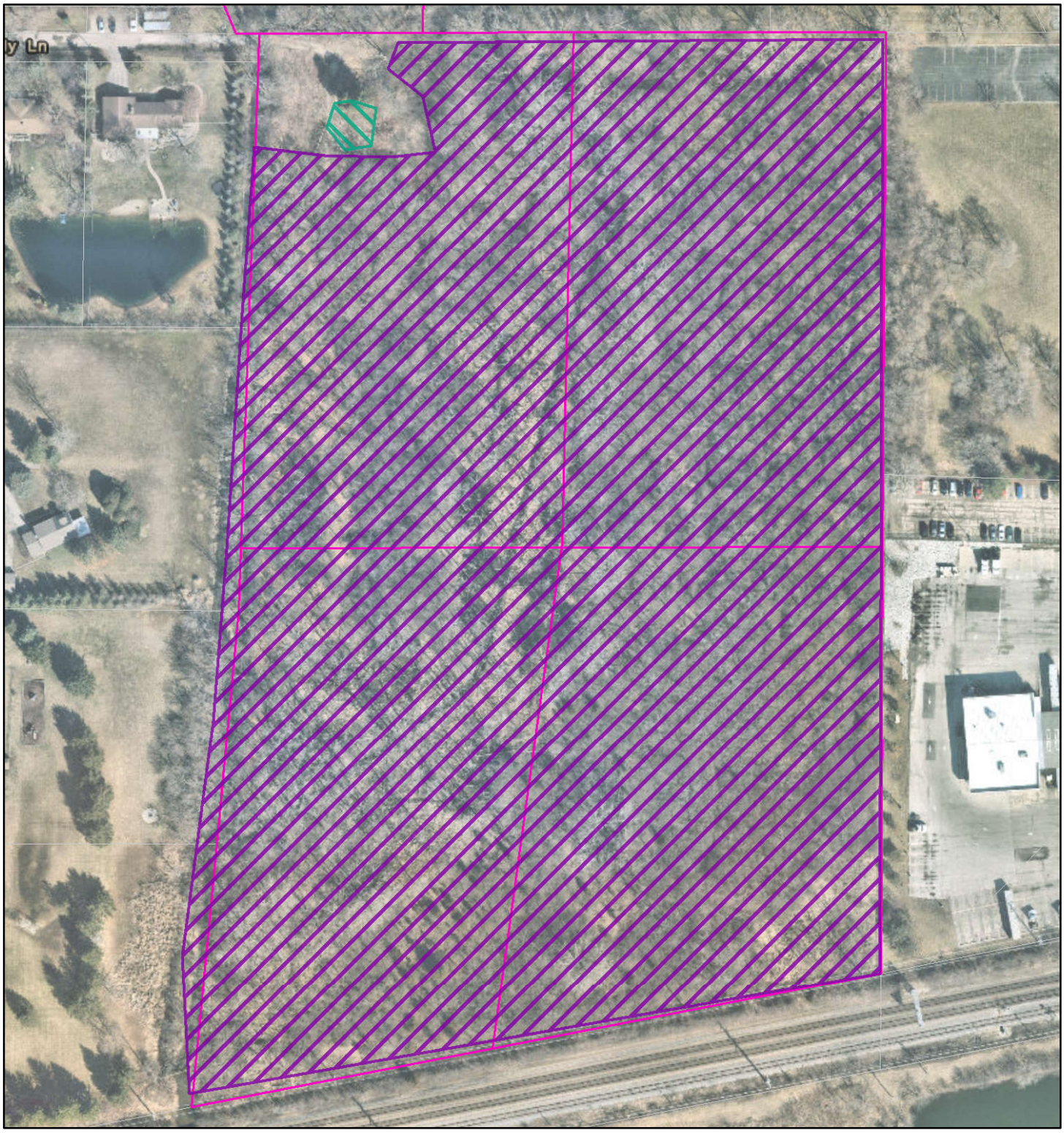
Clearbrook Park Dr

Exhibit Title:

Clearbrook Park

Clearbrook Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 150 Feet

Orientation:

Legend:

- Japanese Knotweed
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Shady Ln & Lake St

Exhibit Title:

Clearbrook Park South

Project Number: 21-0201

Date: 3/16/2022

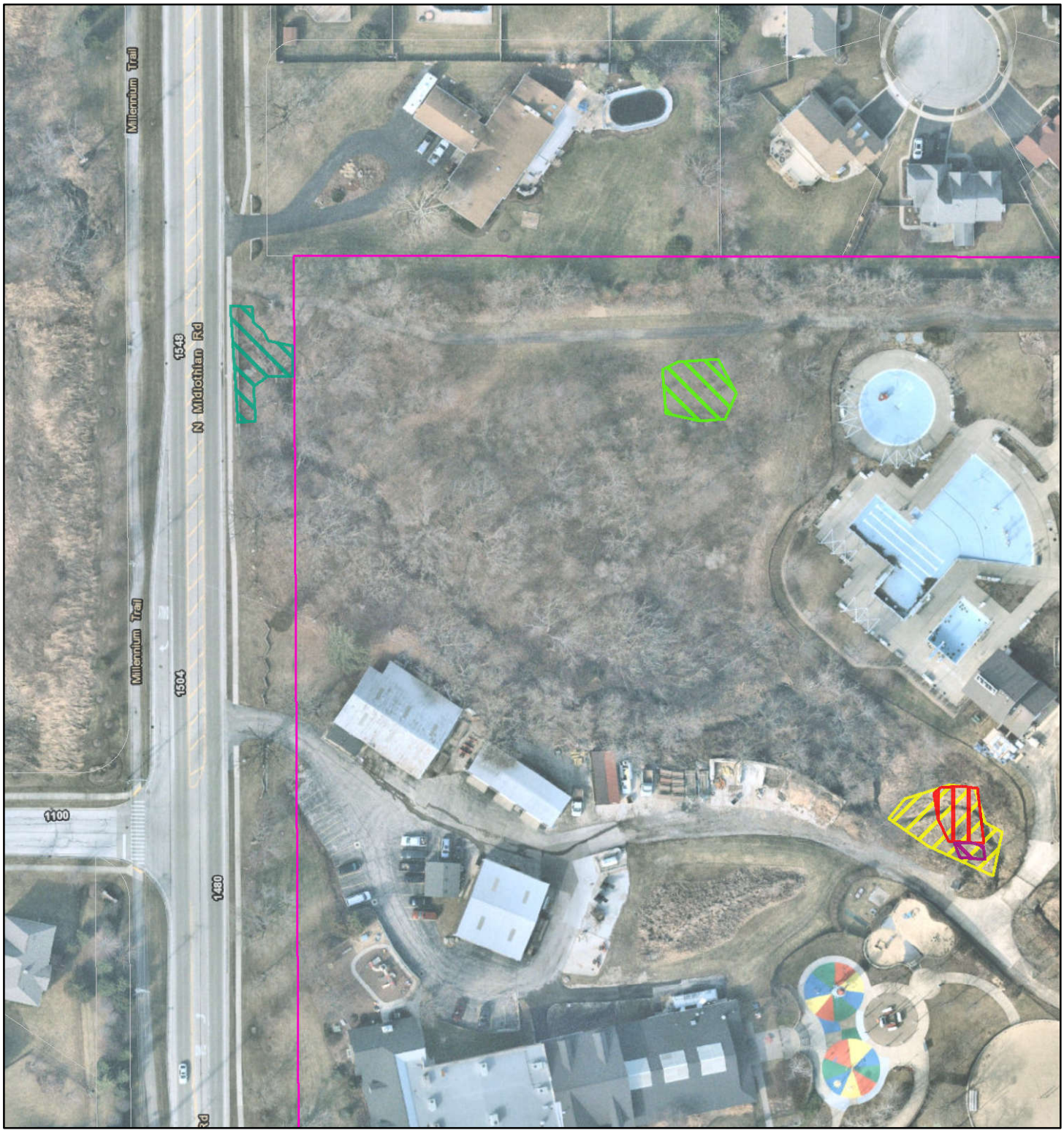
Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Clearbrook Park South

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 100 Feet

Orientation:

Legend:

- Common Reed
- Japanese Knotweed
- Reed Canary Grass
- Silver Grass
- Teasel
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
1401 N Midlothian Rd

Exhibit Title:
Community Park Site 1

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Community Park Site 1

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Japanese Knotweed (*Polygonum cuspidatum*) Not widespread in the area. Spreads slowly over time without control measures.	Reduce population over time to allow for more desirable vegetation.	Several applications of a glyphosate-based herbicide throughout the summer and early fall.	June -September	

Community Park Site 1

Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Silver Grass (*Miscanthus sinensis*) A densely bunched grass, originateing from ornamental plantings, that invades naturalized plant communities	Erdicate all populations to allow for the establishment of more desirable vegetation.	Selective herbicide application of Glyphosate-based herbicide in the late spring or fall.	May-June	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May/June & September/October	

Scale:

0 75 Feet

Orientation:

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Legend:

- Common Reed
- Crown Vetch
- Reed Canary Grass
- Teasel
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

1401 N Midlothian Rd

Exhibit Title:

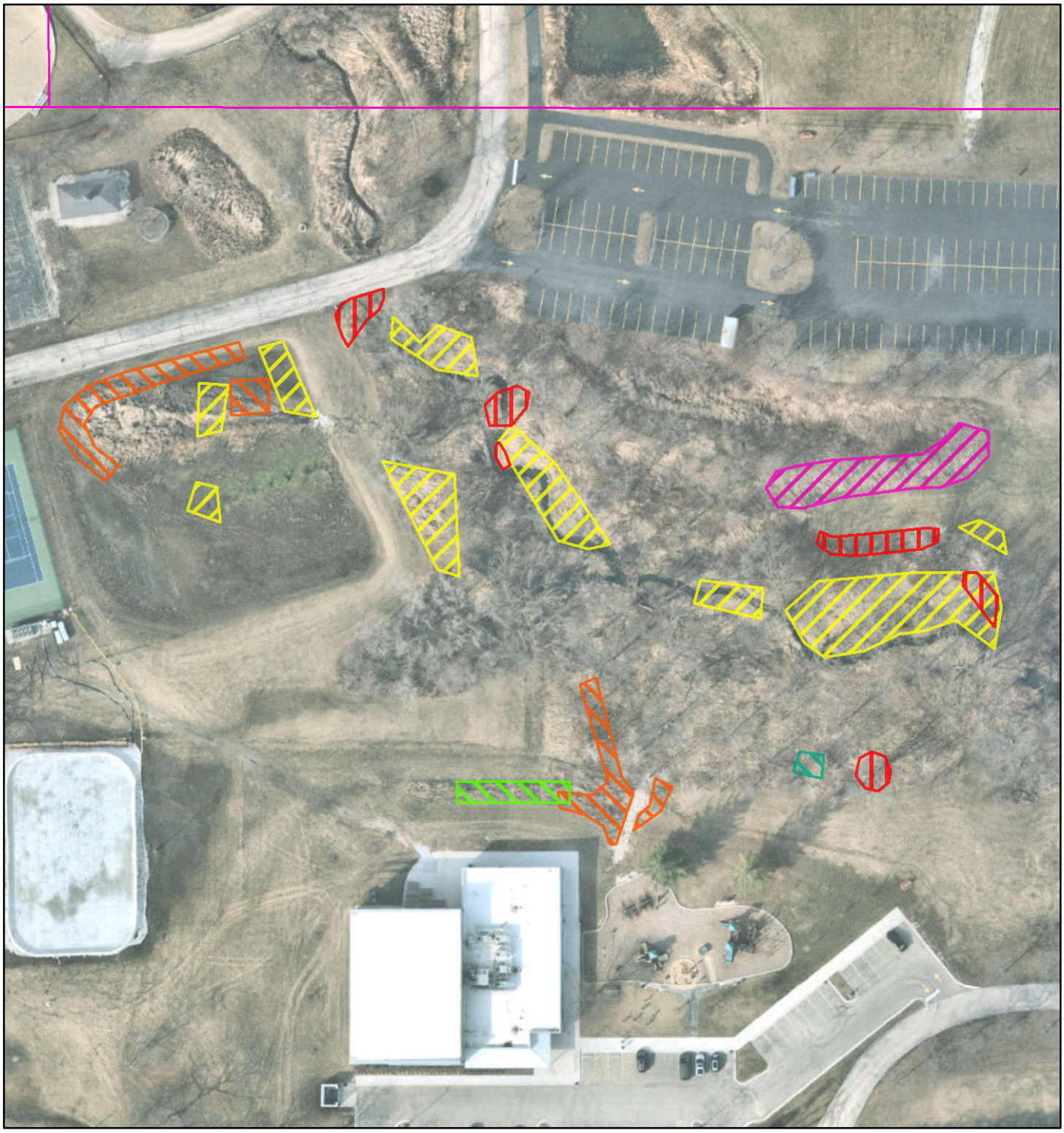
Community Park Site 2

Community Park Site 2

Weed Type (Priority ranking top to bottom)	Management Objectiv	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Crown Vetch (*Coronilla varia*) Pink-flowered member of the legume or bean family formerly used as a slope stabilizing plant. Becomes very aggressive and produces tangled dense growth that reduces native plant diversity.	Eradicate crown vetch cover to allow native deep-rooted species to provide better slope stabilization and habitat value.	Treat with Aminopyralid (Milestone) using backpack sprayers. Alternatively, Clopyralid (Transline) can also be used effectively. These can only be used in dry areas.	June-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	

Community Park Site 2

Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 90 Feet

Orientation:

Legend:

- Common Reed
- Crown Vetch
- Reed Canary Grass
- Silver Grass
- Teasel
- Thistle
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
1401 N Midlothian Rd

Exhibit Title:
Community Park Site 3

Project Number: 21-0201 Date: 11/1/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Community Park Site 3

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Crown Vetch (*Coronilla varia*) Pink-flowered member of the legume or bean family formerly used as a slope stabilizing plant. Becomes very aggressive and produces tangled dense growth that reduces native plant diversity.	Eradicate crown vetch cover to allow native deep-rooted species to provide better slope stabilization and habitat value.	Treat with Aminopyralid (Milestone) using backpack sprayers. Alternatively, Clopyralid (Transline) can also be used effectively. These can only be used in dry areas.	June-October	
Pennywort (*Hydrocotyle ranunculoides*) A perennial broad-leaf species growing in slow-moving or stagnant water.	Eradicate the one population to eliminate the threat of spreading.	Selectively treat with glyphosate-based herbicide early in the season. Hand-pulling can also help reduce the population.	April-June	Native and rare in southern IL. All other populations are considered introduced species of non-native genotype.

Community Park Site 3

Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Silver Grass (*Miscanthus sinensis*) A densely bunched grass, originateing from ornamental plantings, that invades naturalized plant communities	Erdicate all populations to allow for the establishment of more desirable vegetation.	Selective herbicide application of Glyphosate-based herbicide in the late spring or fall.	May-June	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	

Scale:

0 90 Feet

Orientation:

Legend:

- Common Reed
- Pennywort
- Reed Canary Grass
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

1401 N Midlothian Rd

Exhibit Title:

Community Park Site 4

Project Number: 21-0201

Date: 11/1/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Community Park Site 4

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Pennywort (*Hydrocotyle ranunculoides*) A perennial broad-leaf species growing in slow-moving or stagnant water.	Eradicate the one population to eliminate the threat of spreading.	Selectively treat with glyphosate-based herbicide early in the season. Hand-pulling can also help reduce the population.	April-June	Native and rare in southern IL. All other populations are considered introduced species of non-native genotype.
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Scale:

0 75 Feet

Orientation:

Legend:

- Reed Canary Grass
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Rays Ln and Diamond Lake Rd

Exhibit Title:

Diamond Lake Beach

Project Number: 21-0201

Date: 10/27/2021

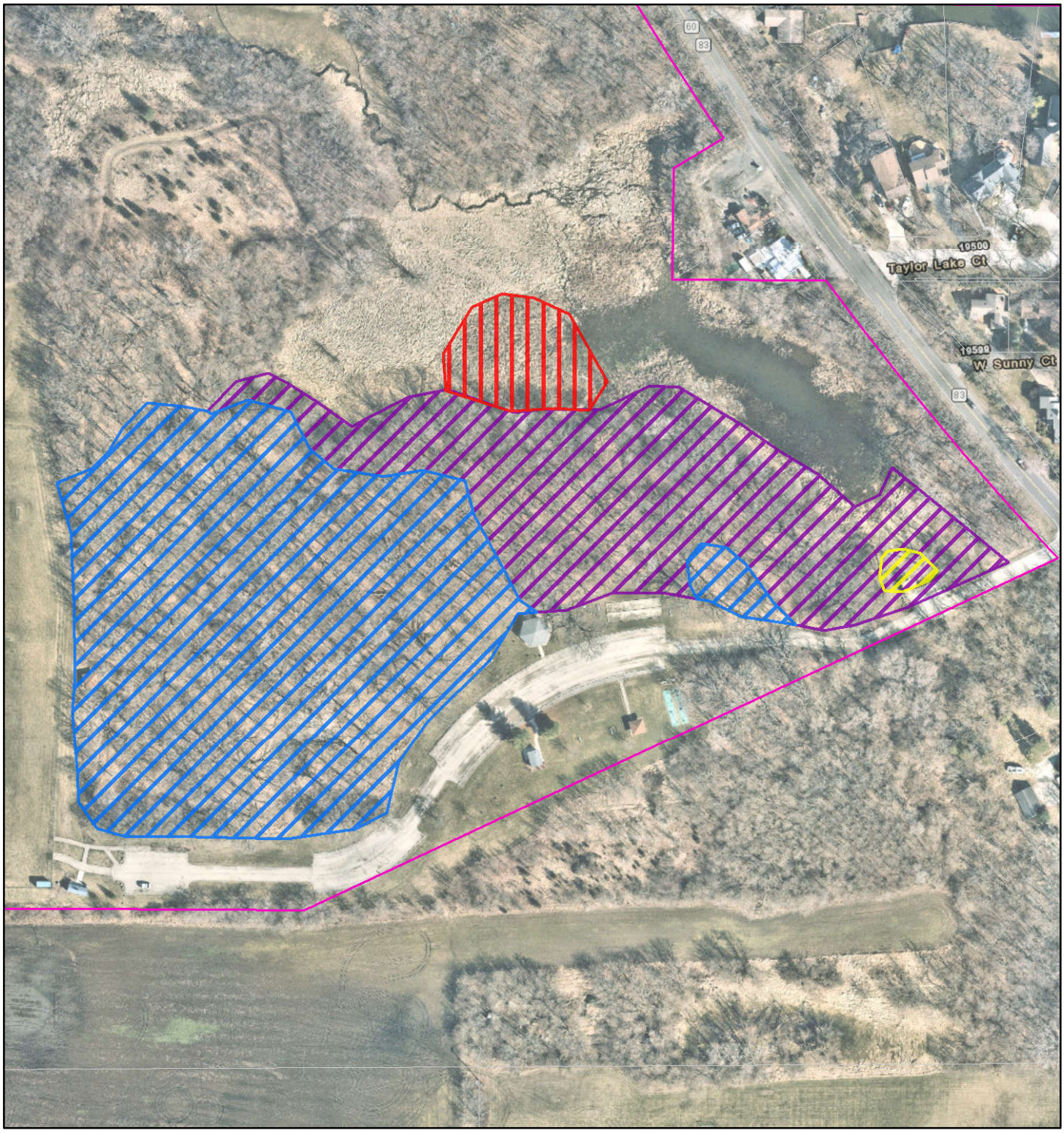
Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Diamond Lake Beach

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 200 Feet

Orientation:

Legend:

- Common Reed
- Reed Canary Grass
- Undesirable Woody Resprouts
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
N Ridge Ct

Exhibit Title:
Diamond Lake Sports Complex

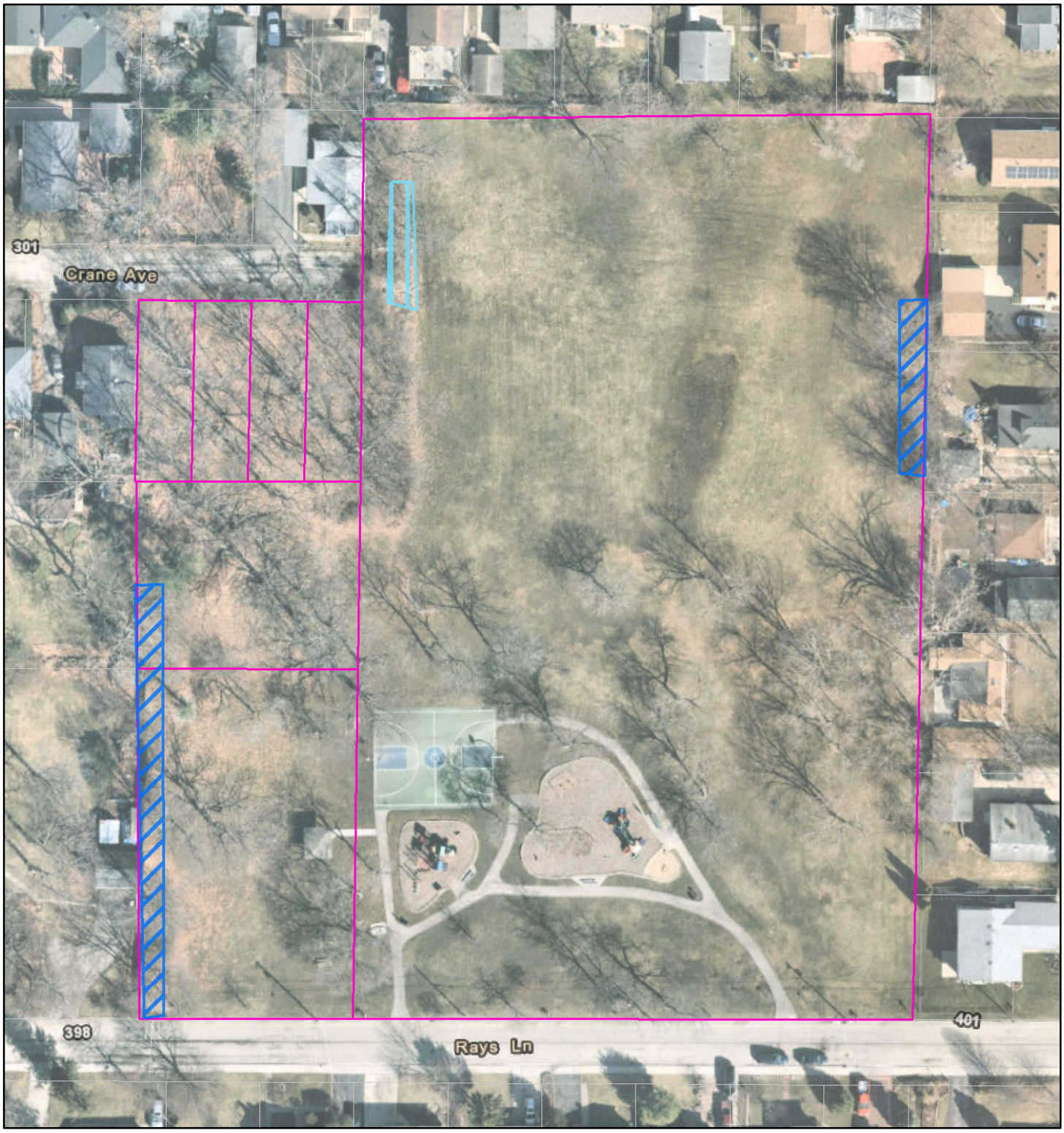
Project Number: 21-0201 Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Diamond Lake Sports Complex

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Undesireable Woody Resprouts	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 75 Feet

Orientation:

Legend:

- Buckthorn
- Burdock
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

358 Rays Ln

Exhibit Title:

Gordon Ray Park

Project Number: 21-0201

Date: 10/29/2021

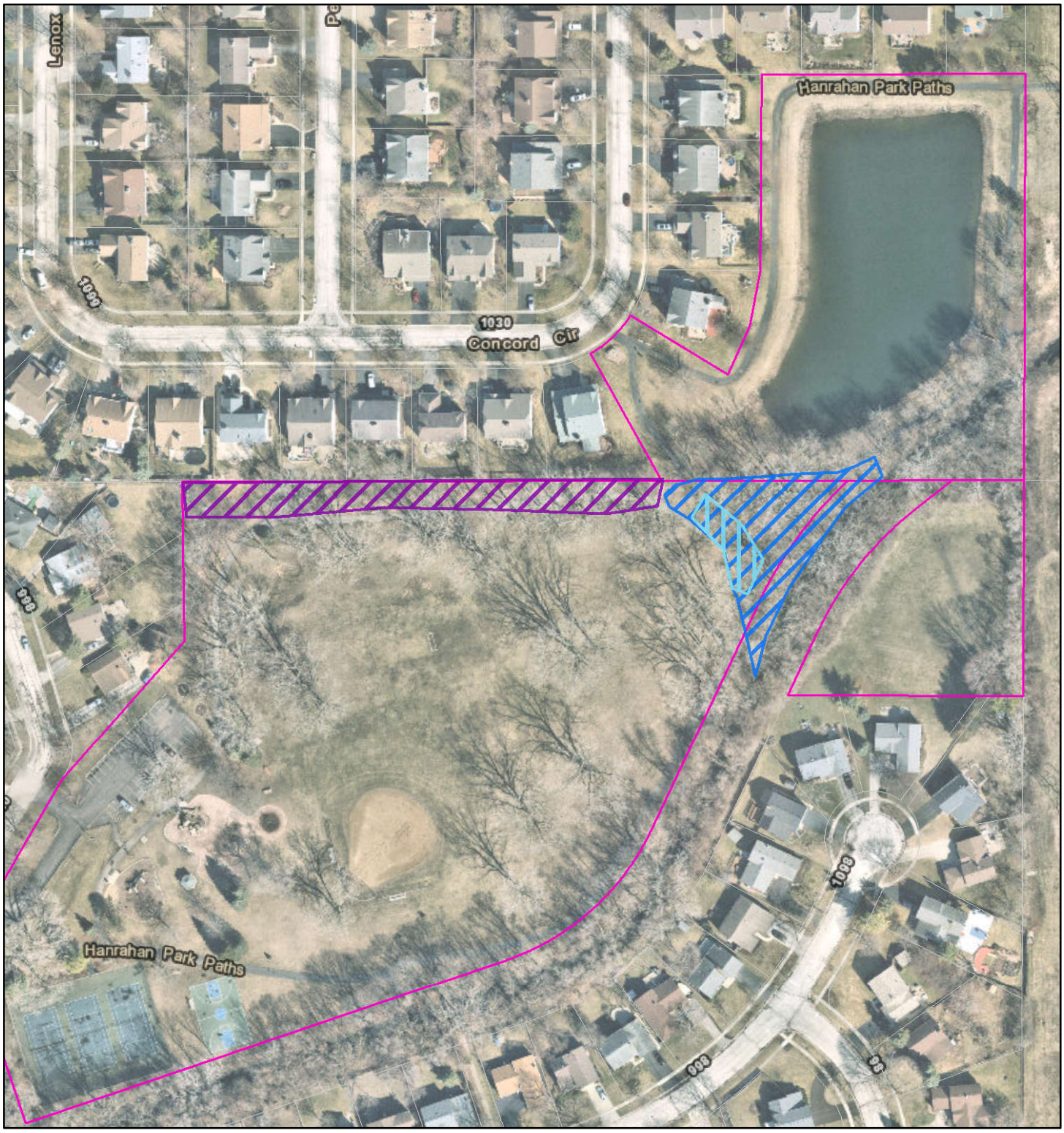
Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Gordon Ray Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Buckthorn (*Rhamnus* spp) Woody species that spreads rapidly, colonizing areas and shading out native species, leaving dead zones under canopy. Forms solid stands within woodlands and prairie. Produces sharp thorns on branches and black berries.	Reduce monoculture stands to encourage native vegetation growth.	Cut within 2" of ground and treat stumps with aquatic-approved herbicide (Aquamaster) IF over water. Chip cut material and haul off-site or burn on-site. Prescribed burning every 3-5 years	October-March October-March	
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	



Scale:

0 150 Feet

Orientation:

Legend:

- Burdock
- Undesirable Woody Resprouts
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Noel Dr and Countryside Hwy

Exhibit Title:

Hanrahan North Park

Project Number: 21-0201

Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Hanrahan North Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Undesireable Woody Resprouts	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Scale:

0 50 Feet

Orientation:

Legend:

- Common Reed
- Creeping Charlie
- Teasel
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Oak Shores Dr

Exhibit Title:
John Weich Park

Project Number: 21-0201 Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

John Weich Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Creeping Charlie (*Glechoma hederacea)* A perennial herb introduced from Europe. It can be very aggressive in shady locations.	Reduce large populations to allow for more desirable species.	Apply broadleaf specific herbicide2,4D to individuals with backpack sprayer, avoiding native plant species.	April-September	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Scale:

0 50 Feet

Orientation:

Legend:

- Crown Vetch
- Reed Canary Grass
- Teasel
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
116 N Lake St

Exhibit Title:
Kracklauer Park

Project Number: 21-0201 Date: 10/28/2021

Prepared by:

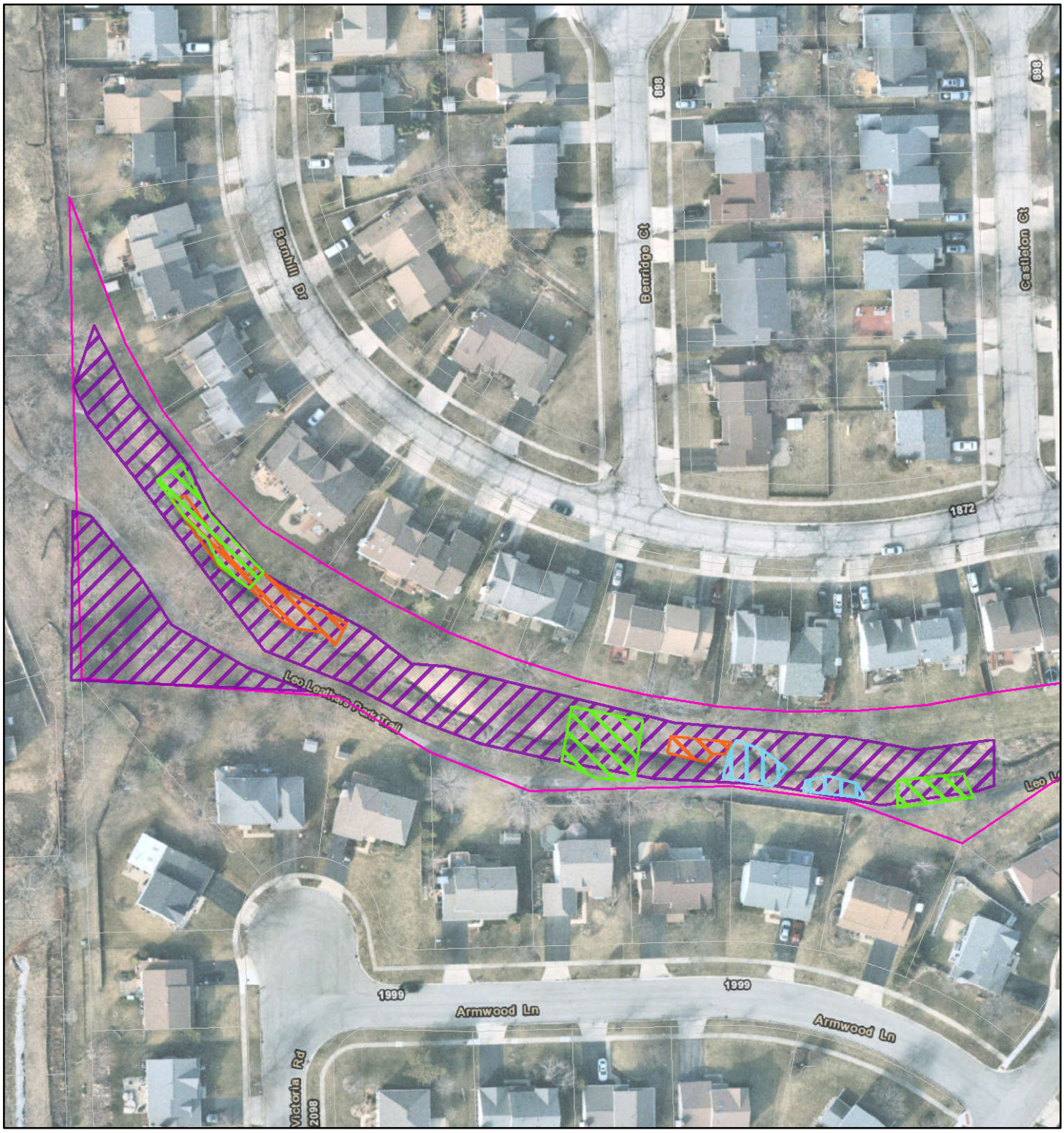
Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Kracklauer Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Crown Vetch (*Coronilla varia*) Pink-flowered member of the legume or bean family formerly used as a slope stabilizing plant. Becomes very aggressive and produces tangled dense growth that reduces native plant diversity.	Eradicate crown vetch cover to allow native deep-rooted species to provide better slope stabilization and habitat value.	Treat with Aminopyralid (Milestone) using backpack sprayers. Alternatively, Clopyralid (Transline) can also be used effectively. These can only be used in dry areas.	June-October	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	

Kracklauer Park

Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 100 Feet

Orientation:

Legend:

- Burdock
- Teasel
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Barnhill Dr & Buckingham Rd

Exhibit Title:
Leo Leathers West Trail Site 1

Project Number: 21-0201 Date: 11/1/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Leo Leathers West Trail Site 1

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Scale:

0 100 Feet

Orientation:

Legend:

- Burdock
- Day Lily
- Teasel
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Barnhill Dr & Buckingham Rd

Exhibit Title:
Leo Leathers West Trail Site 2

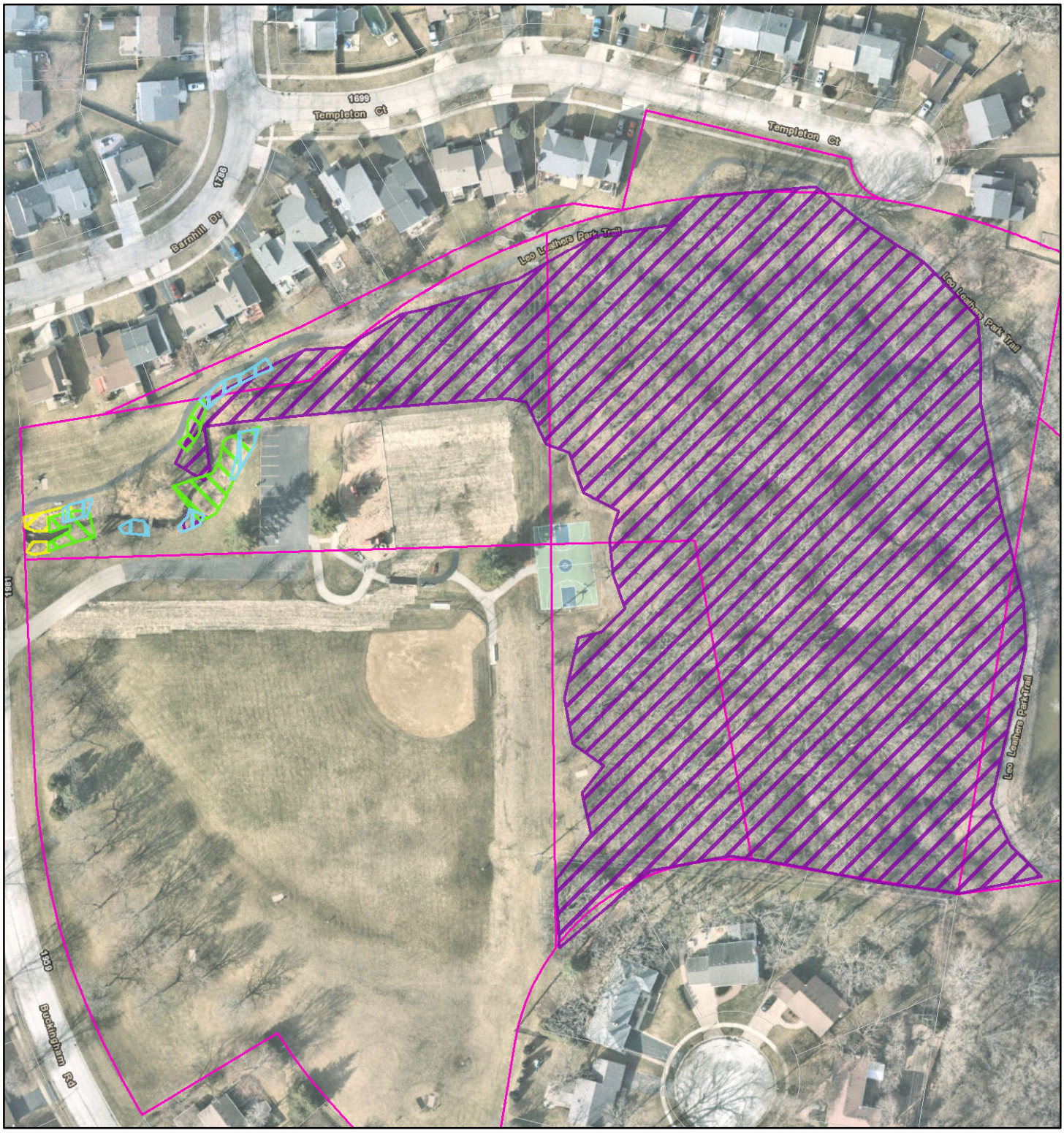
Project Number: 21-0201 Date: 11/1/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Leo Leathers West Trail Site 2

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Day Lily (*Hemerocallis fulva*) A perennial hybrid that is widely planted and ocassionally escapes from cultivation.	Reduce populations to allow for development of more desirable species.	Selectively treat with Glyphosate throughout the growing season.	June-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 125 Feet

Orientation:

Legend:

- Burdock
- Reed Canary Grass
- Teasel
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Barnhill Dr & Buckingham Rd

Exhibit Title:
Leo Leathers East Trail Site 1

Project Number: 21-0201 Date: 11/1/2021

Prepared by:

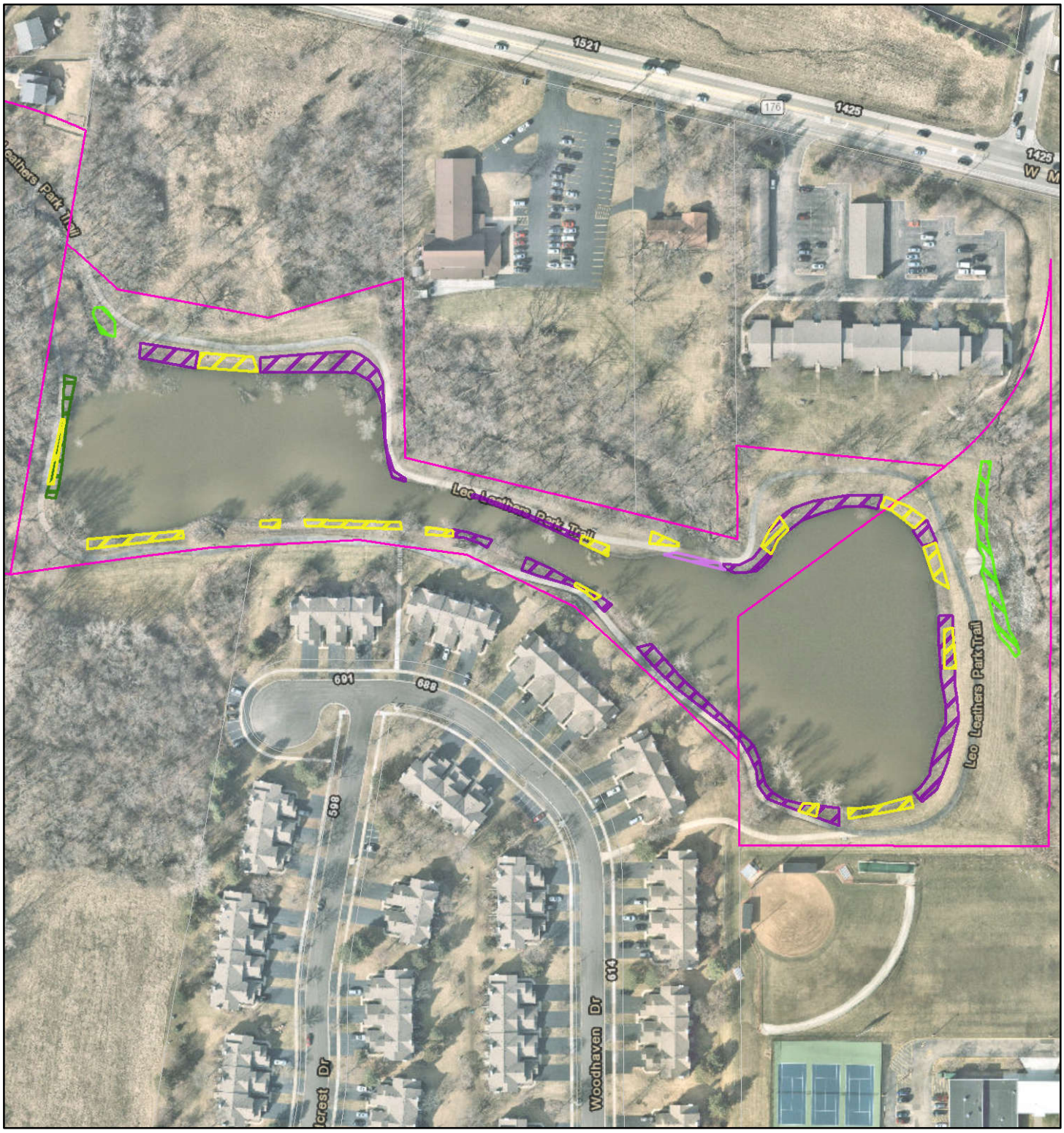
Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Leo Leathers East Trail Site 1

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Leo Leathers East Trail Site 2

Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 180 Feet

Orientation:

Legend:

- Giant Ragweed
- Purple Loosestrife
- Reed Canary Grass
- Teasel
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Barnhill Dr & Buckingham Rd

Exhibit Title:
Leo Leathers East Trail Site 2

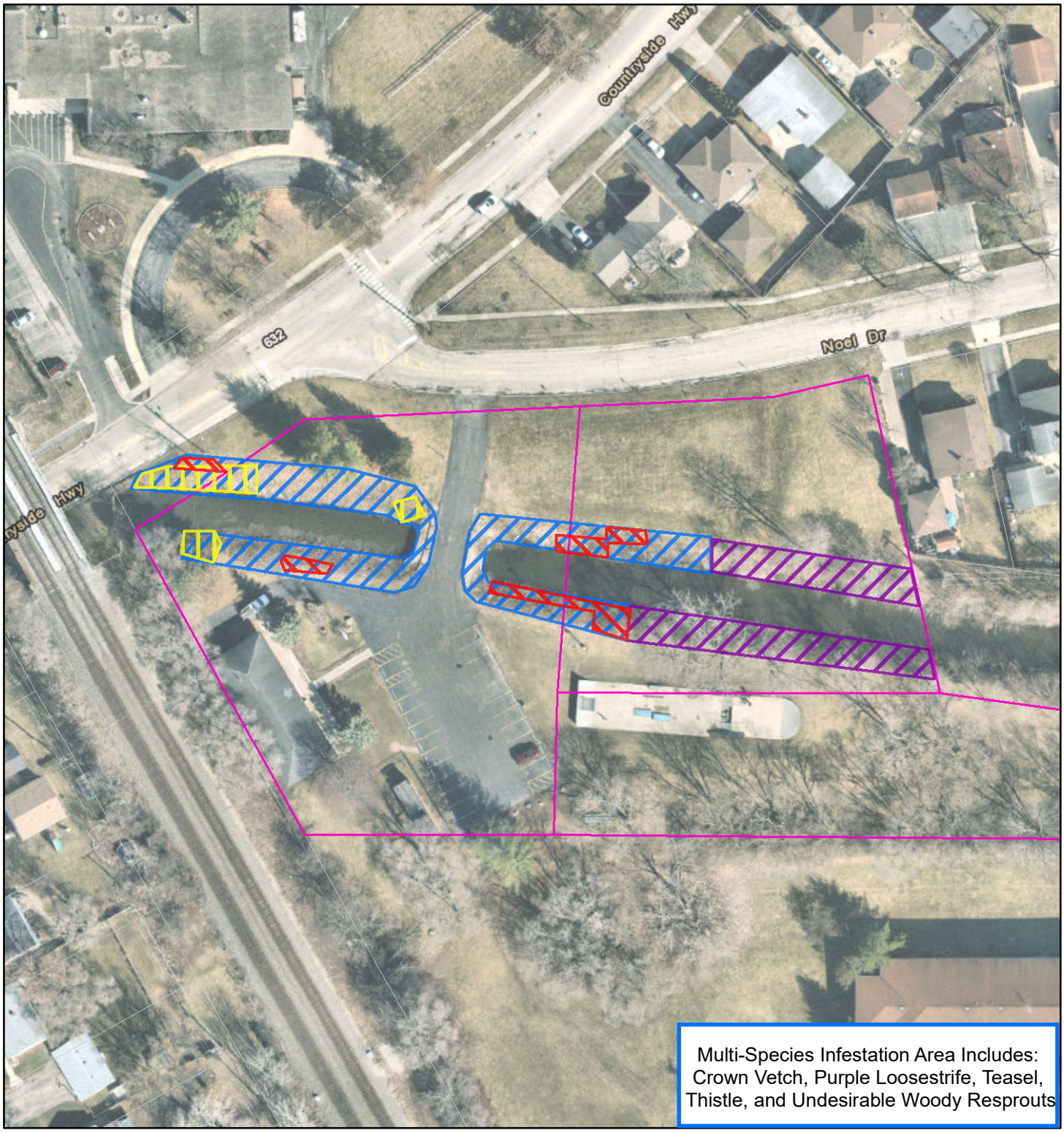
Project Number: 21-0201 Date: 11/1/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Leo Leathers East Trail Site 2

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Giant Ragweed (*Ambroasia trifida*) A fast-growing annual species that out-competes native vegetation by "shading-out"	Remove/reduce over time through mechanical control.	Mow several times during the growing season to reduce biomass and prevent seed production	June-August	Causes hayfever for allergy sufferers.
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	



Scale:

0 100 Feet

Orientation:

Legend:

- Day Lily
- Multi-Species Infestation
- Poison Hemlock
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

601 Noel Dr

Exhibit Title:

Lions Park and Field

Project Number: 21-0201 Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.

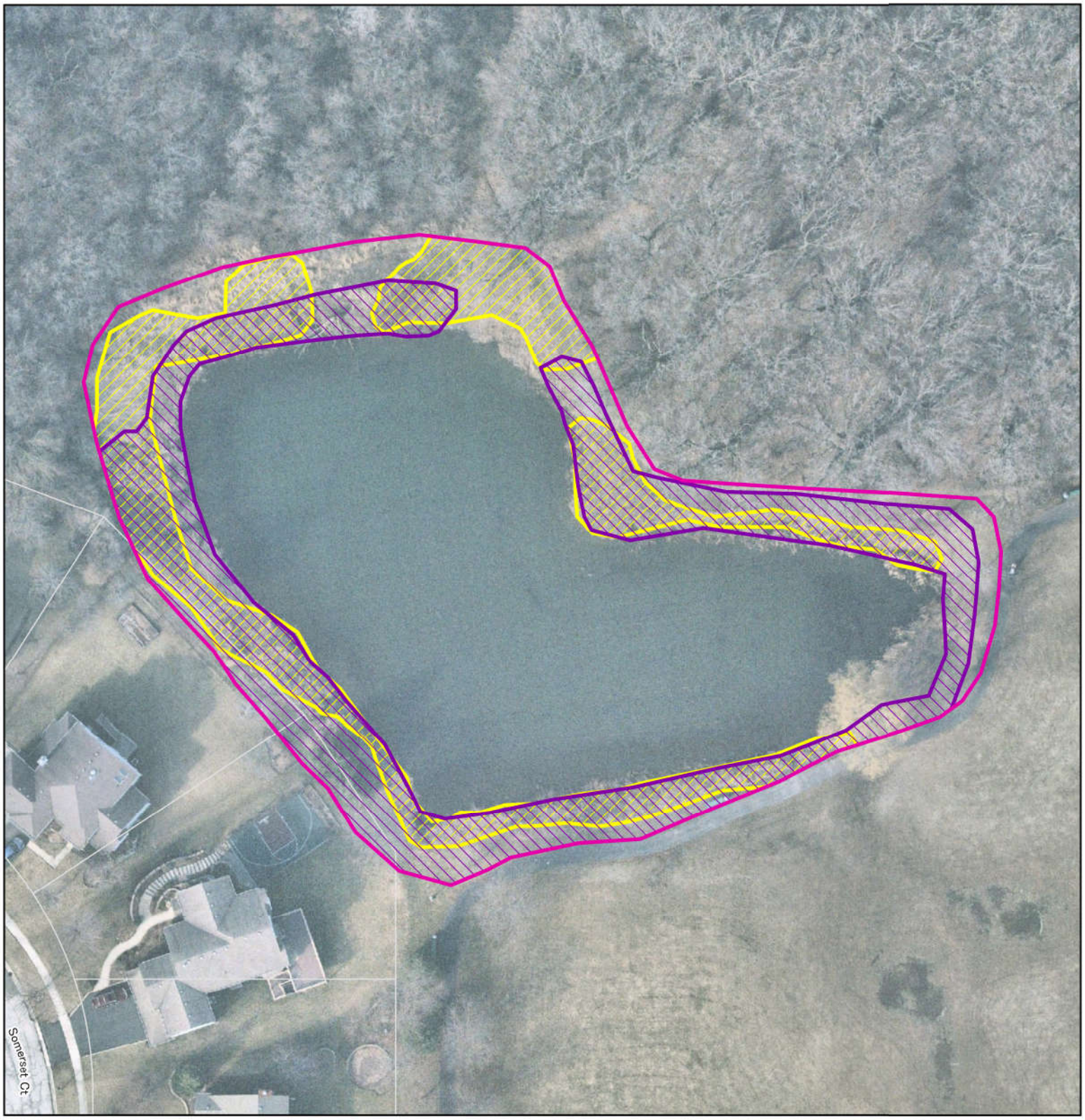
Engineering, Ecology and Landscape Architecture

Lions Park and Field

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Crown Vetch (*Coronilla varia*) Pink-flowered member of the legume or bean family formerly used as a slope stabilizing plant. Becomes very aggressive and produces tangled dense growth that reduces native plant diversity.	Eradicate crown vetch cover to allow native deep-rooted species to provide better slope stabilization and habitat value.	Treat with Aminopyralid (Milestone) using backpack sprayers. Alternatively, Clopyralid (Transline) can also be used effectively. These can only be used in dry areas.	June-October	
Day Lily (*Hemerocallis fulva*) A perennial hybrid that is widely planted and ocassionally escapes from cultivation.	Reduce populations to allow for development of more desirable species.	Selectively treat with Glyphosate throughout the growing season.	June-October	
Poison Hemlock (*Conium maculatum*) A herbaceous floweirng plant that is highly poinsonous. It is native to Europe and North Africa.	Reduce population to allow for native species to flourish.	Selectively treat with Glyphosate before flowering.	June-October	
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	

Lions Park and Field

Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Resprouts	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 60 Feet

N

Legend:

- MPRD Parcels
- Reed Canary Grass
- Undesirable Woody Species
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Project Number: 21-0201

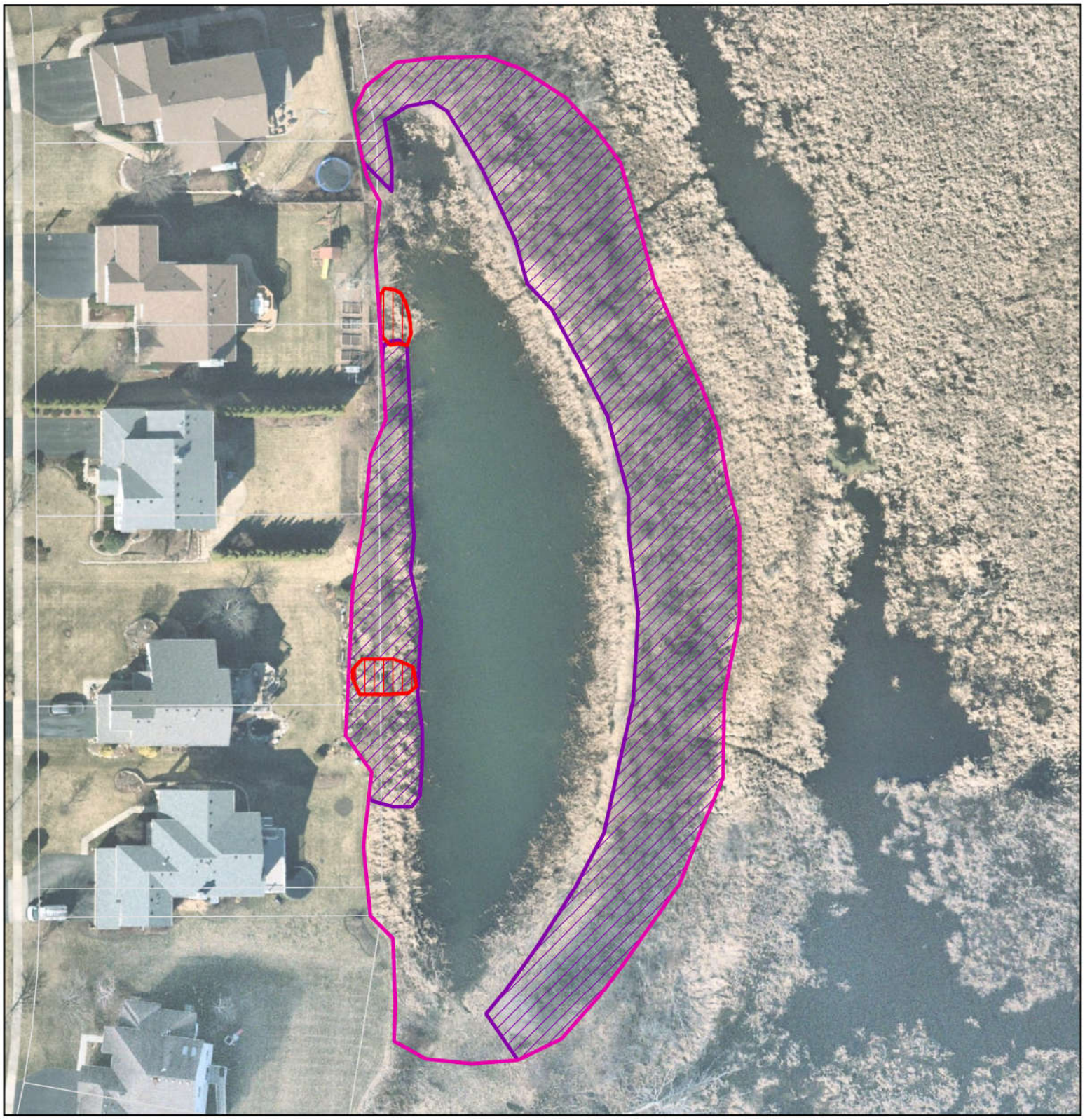
Date: 3/16/2023

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Exhibit Title:
Longmeadow Park Pond 1

Longmeadow Park Pond 1

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native species to flourish.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Sandbar Willow (*Salix interior*) Very common wetland shrub that is native but becomes invasive and grows into large clones up to 20' tall. Very long narrow leaves compared to all other willows.	Decrease willow shrub cover to allow native herbaceous vegetation to thrive.	Small young inviduals can be treated by spraying foliage with a glyphosate-based herbicide (Aquamaster) to stands with backpack sprayers and hand-wick individuals within good quality native vegetation. Larger stands will require cutting with hand tools/chain saws and then treating fresh-cut stumps wtih glyphosate based herbicide to reduce regrowth. However, this is a root suckering species that may require follow up foliar treatements.	June-September	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 60 Feet

N

Legend:

- MPRD Parcels
- Common Reed
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/16/2023

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

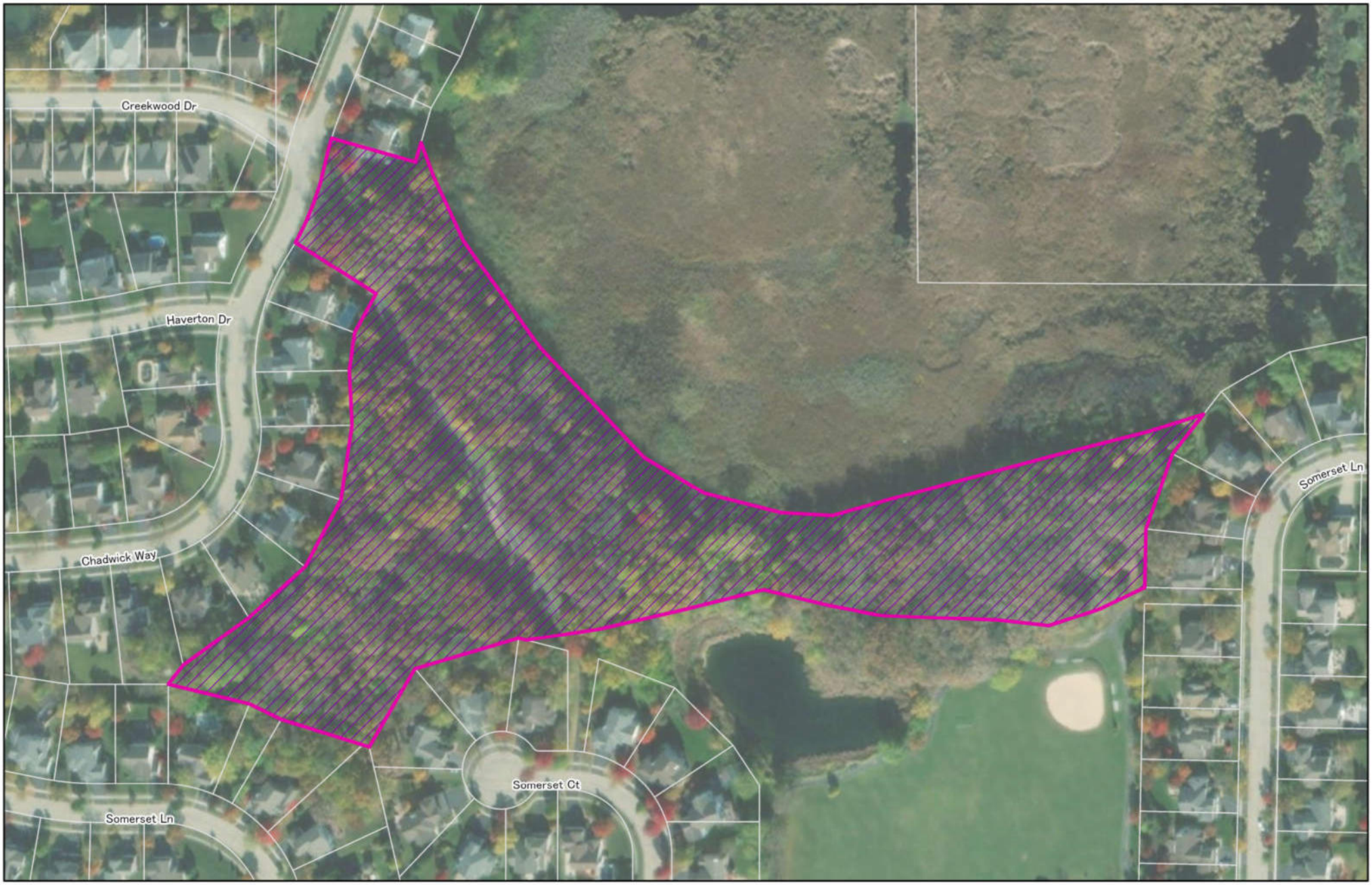
Exhibit Details:
East of Chadwick Way

Exhibit Title:
Longmeadow Park Pond 2

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Longmeadow Park Pond 2

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Cattail (*Typha* spp) Very common wetland plant that colonizes shorelines and marshes. The narrow-leaved and hybrid species become problematic as they form dense stands and reduce native plant diversity. Tall, thin blade-like leaves with flowers that form dense dark brown, cigar-shape at the end of spikes.	Decrease cattail coverage to allow native vegetation growth. Allow some cattails to existing to perform water quality functions. Replace with more desirable emergent marsh species.	Apply a glyphosate-based herbicide (Aquamaster) to stands with backpack spayers and hand wick individuals within good quality native vegetation. Boom wicking can be used on larger monotypic stands.	June-September	



0 220 Feet

N

Legend:

- MPRD Parcels
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/16/2023

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Project Name:
MPRD Management Plan

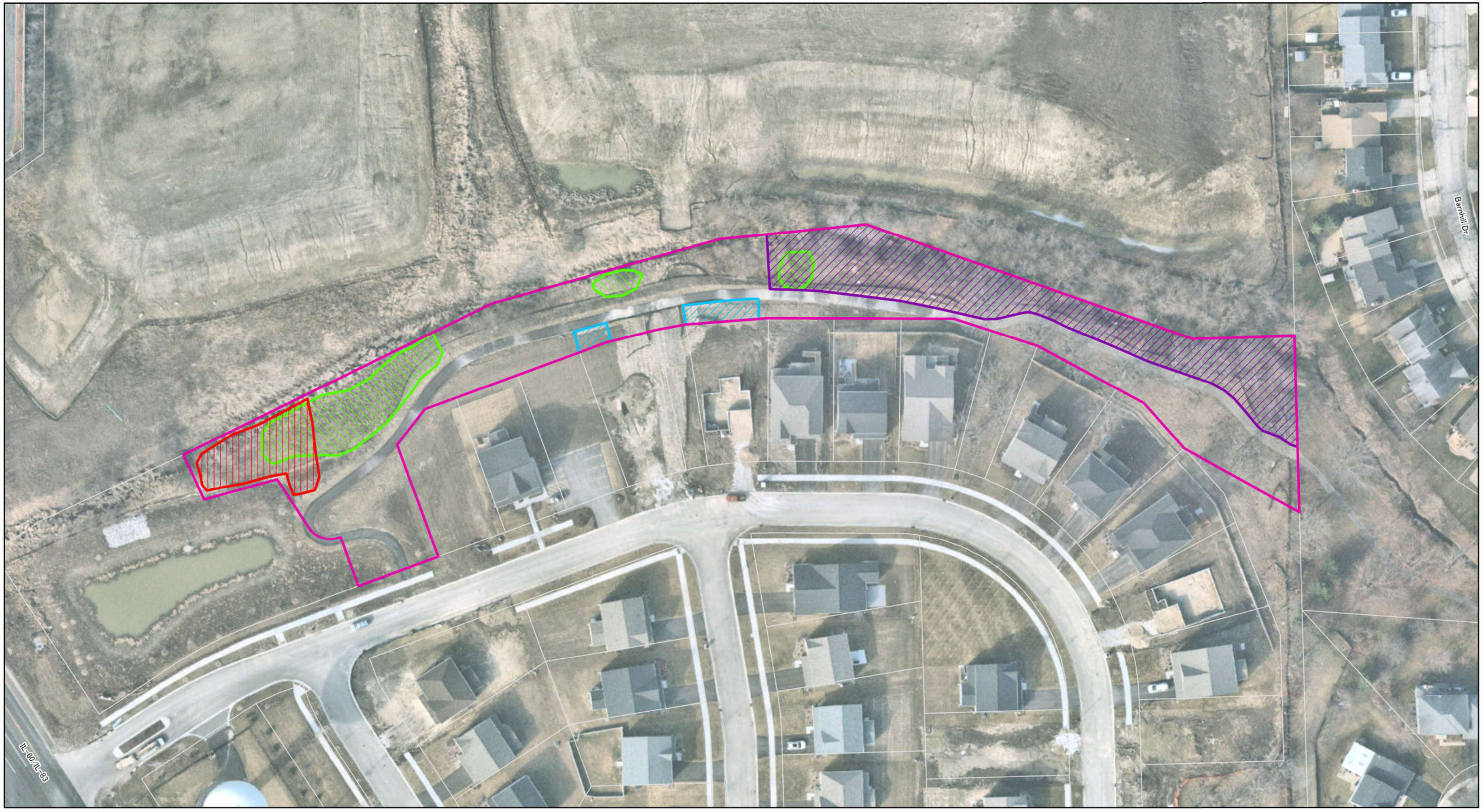
Prepared for:
Mundelein Parks and Recreation District

Location Information:
North of Somerset Ct

Exhibit Title:
Longmeadow Wooded Area

Longmeadow Wooded Area

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 80 Feet

Project Number: 21-0201

Date: 3/16/2023

N

Legend:

- MPRD Parcels
- Common Reed
- Sweet Clover
- Undesirable Woody Species
- Teasel
- Tax Parcels

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Exhibit Details:
Savannah Cir and Rockefeller Dr

Exhibit Title:
Maple Hill Path

Maple Hill Path

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Sweet clover (*Melilotus* spp) Yellow and white sweet clover are common invasive clover species that can degrade prairie communities with dense growth.	Reduce dense growth of sweetclovers to enable diverse native species growth.	Mowing as low as possible (<1"), timed just after flower emergence can suppress sweetclover. Plants may resprout and still flower, but rarely produce viable seed. Mowing will not eradicate first year plants as they resprout. Treat with Aminopyralid (Milestone) using backpack sprayers over dry ground.	June-September	

Maple Hill Path

Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

0 150 Feet

N

Legend:

- MPRD Parcels
- Reed Canary Grass
- Teasel
- Tax Parcels

Project Number: 21-0201

Date: 3/16/2023

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

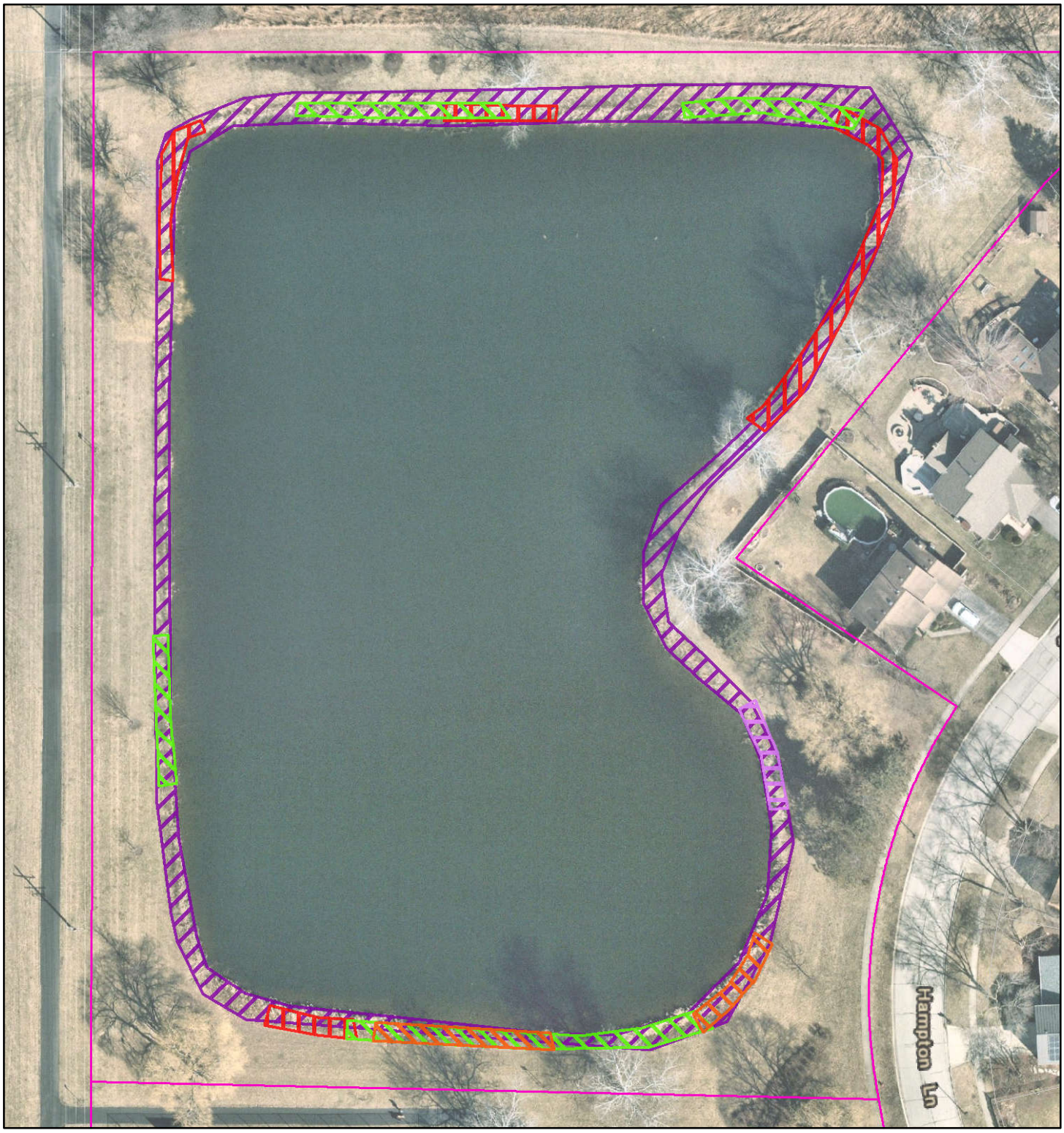
Exhibit Details:
Kessler Dr & Martini St

Exhibit Title:
Mundelein Crossings Subdivision

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Mundelein Crossings

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalarus arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	



Scale:

0 70 Feet

Orientation:

Legend:

- Common Reed
- Purple Loosestrife
- Teasel
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Hampton Ln & Sherwood Ct

Exhibit Title:

Noll Retention Pond

Project Number: 21-0201

Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.

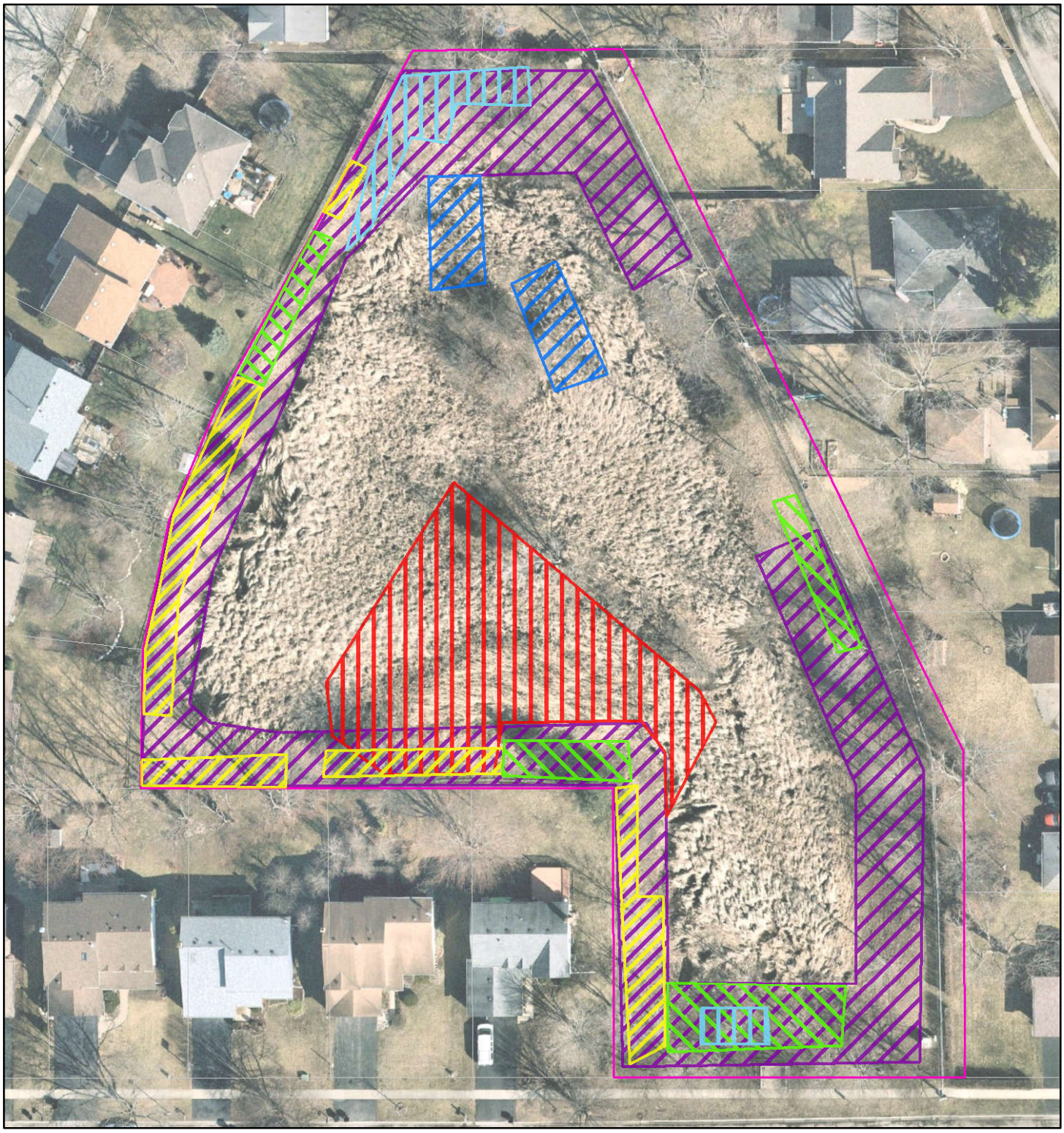
Engineering, Ecology and Landscape Architecture

Noll Retention Pond

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	

Noll Retention Pond

Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 60 Feet

Orientation:

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Legend:

- Burdock
- Common Reed
- Reed Canary Grass
- Sandbar Willow
- Teasel
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Orchard Ave & Michael Ave

Exhibit Title:

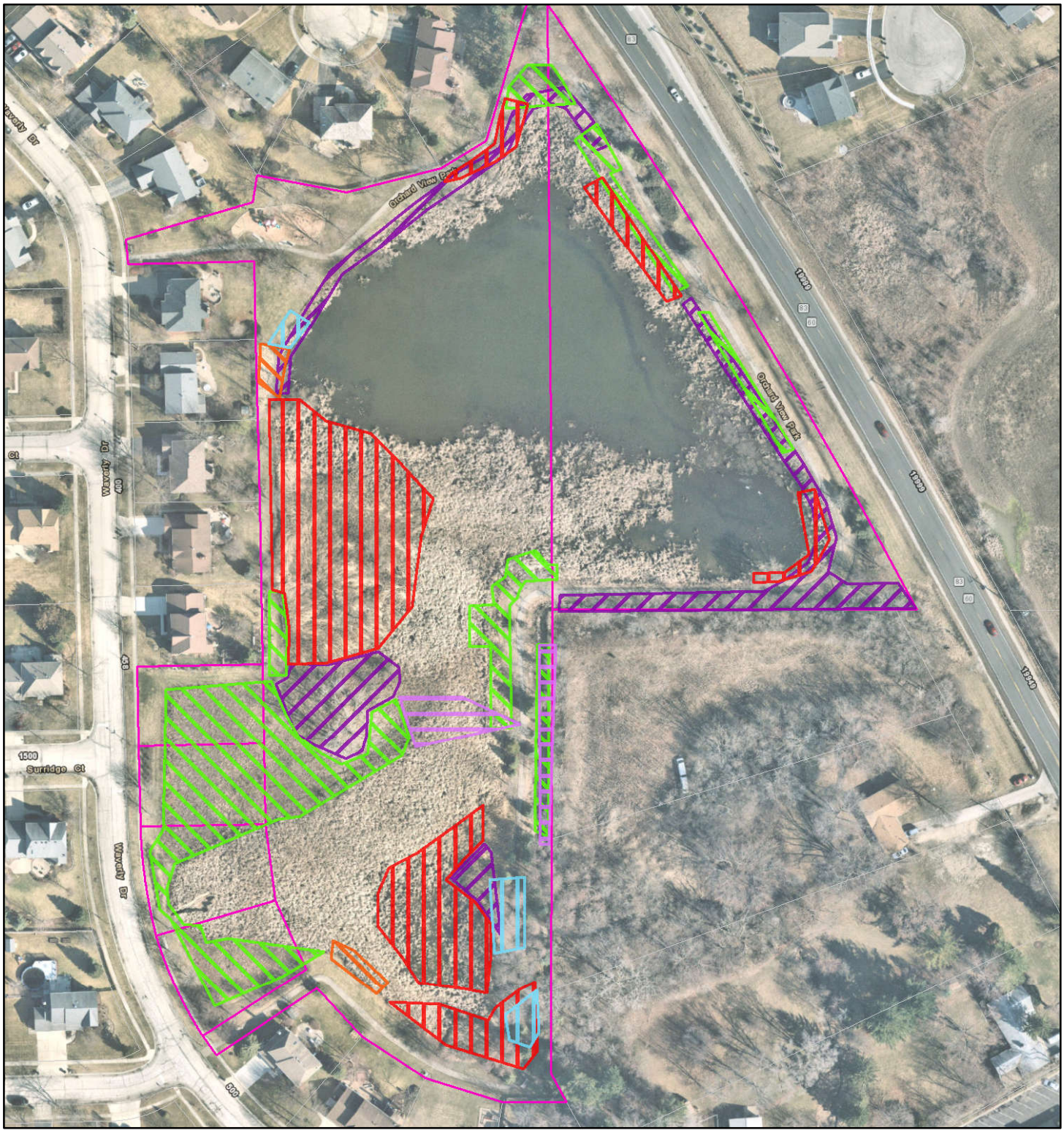
Orchard Basin

Orchard Basin

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	

Orchard Basin

Sandbar Willow (*Salix interior*) Very common wetland shrub that is native but becomes invasive and grows into large clones up to 20' tall. Very long narrow leaves compared to all other willows.	Decrease willow shrub cover to allow native herbaceous vegetation to thrive.	Small young inviduals can be treated by spraying foliage with a glyphosate-based herbicide (Aquamaster) to stands with backpack sprayers and hand-wick individuals within good quality native vegetation. Larger stands will require cutting with hand tools/chain saws and then treating fresh-cut stumps wtih glyphosate based herbicide to reduce regrowth. However, this is a root suckering species that may require follow up foliar treatements.	June-September	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 140 Feet

Orientation:

Legend:

- Burdock
- Common Reed
- Purple Loosestrife
- Reed Canary Grass
- Teasel
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Surridge Ct & Waverly Dr

Exhibit Title:

Orchard View

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.

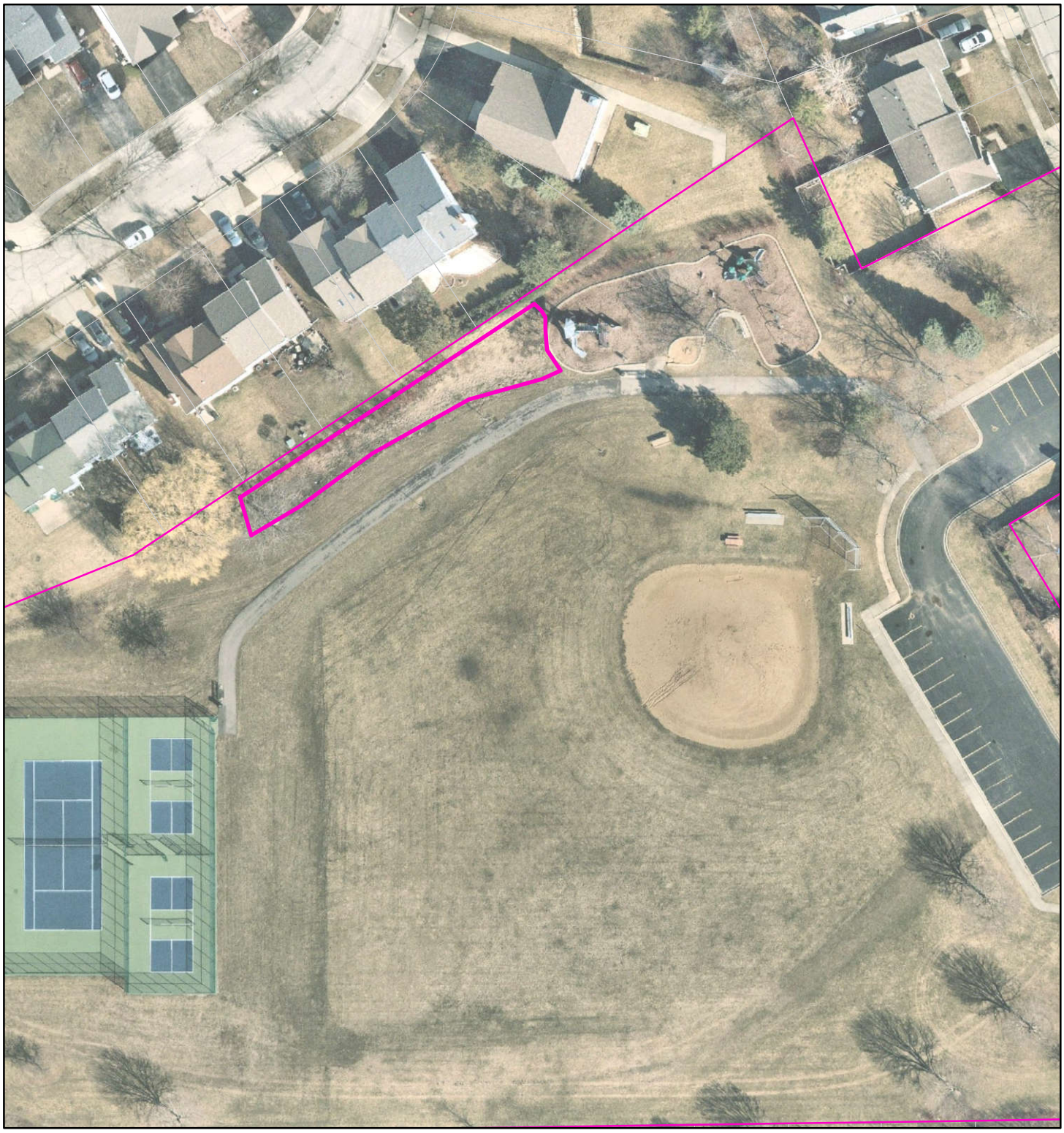
Engineering, Ecology and Landscape Architecture

Orchard View

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	

Orchard View

Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 65 Feet

Orientation:

Legend:

- MPRD Parcels
- Scott Brown Rain Garden
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.

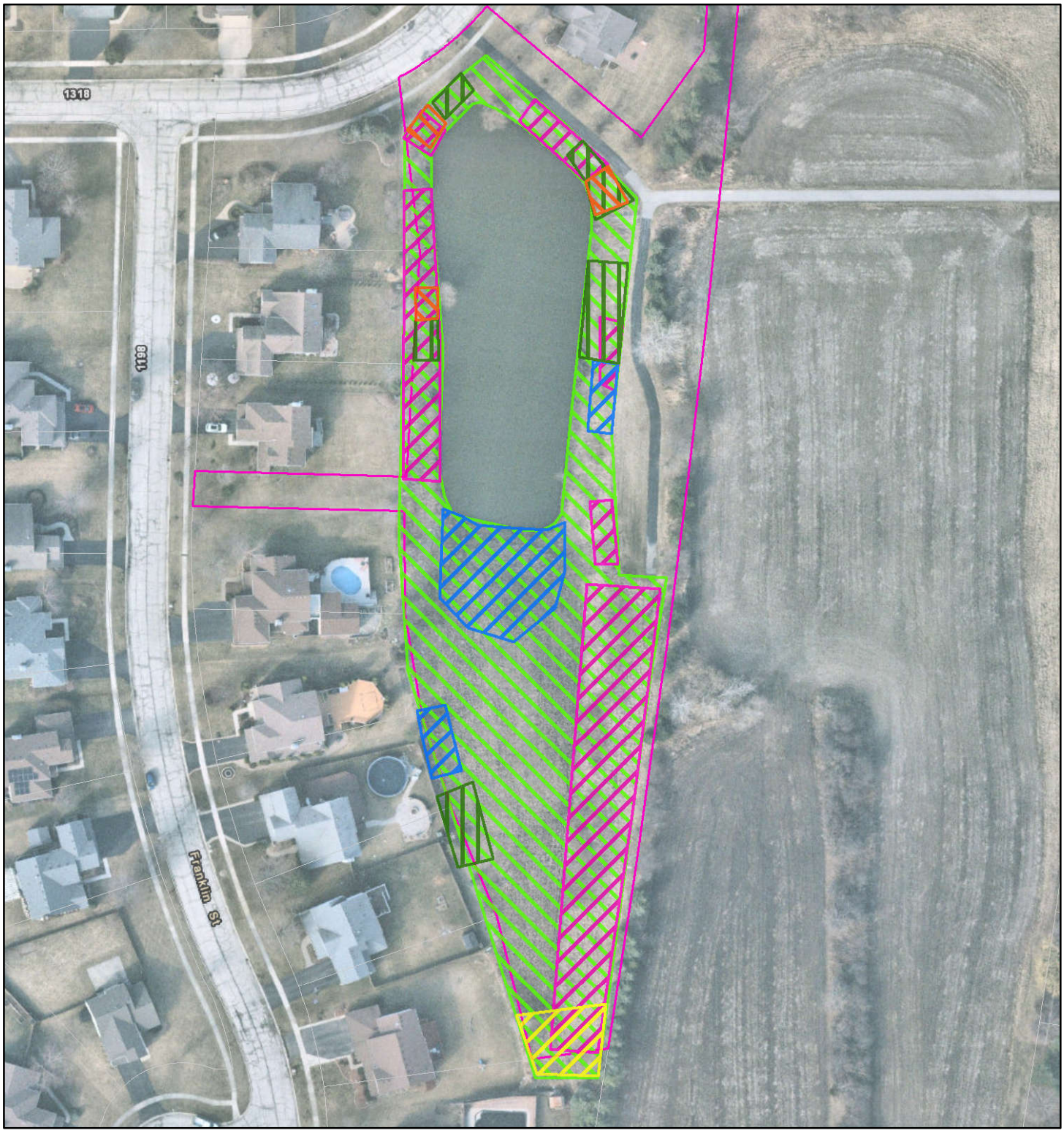
Engineering, Ecology and Landscape Architecture

Location:

136 N Southport Rd

Exhibit Title:

Scott Brown Park Rain Garden



Scale:

0 100 Feet

Orientation:

Legend:

- Crown Vetch
- Reed Canary Grass
- Riverbank Grape
- Sandbar Willow
- Teasel
- Thistle
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Kettering Rd & Franklin St

Exhibit Title:
Town and Country Homes Pond 2

Project Number: 21-0201

Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Town and Country Homes Pond 2

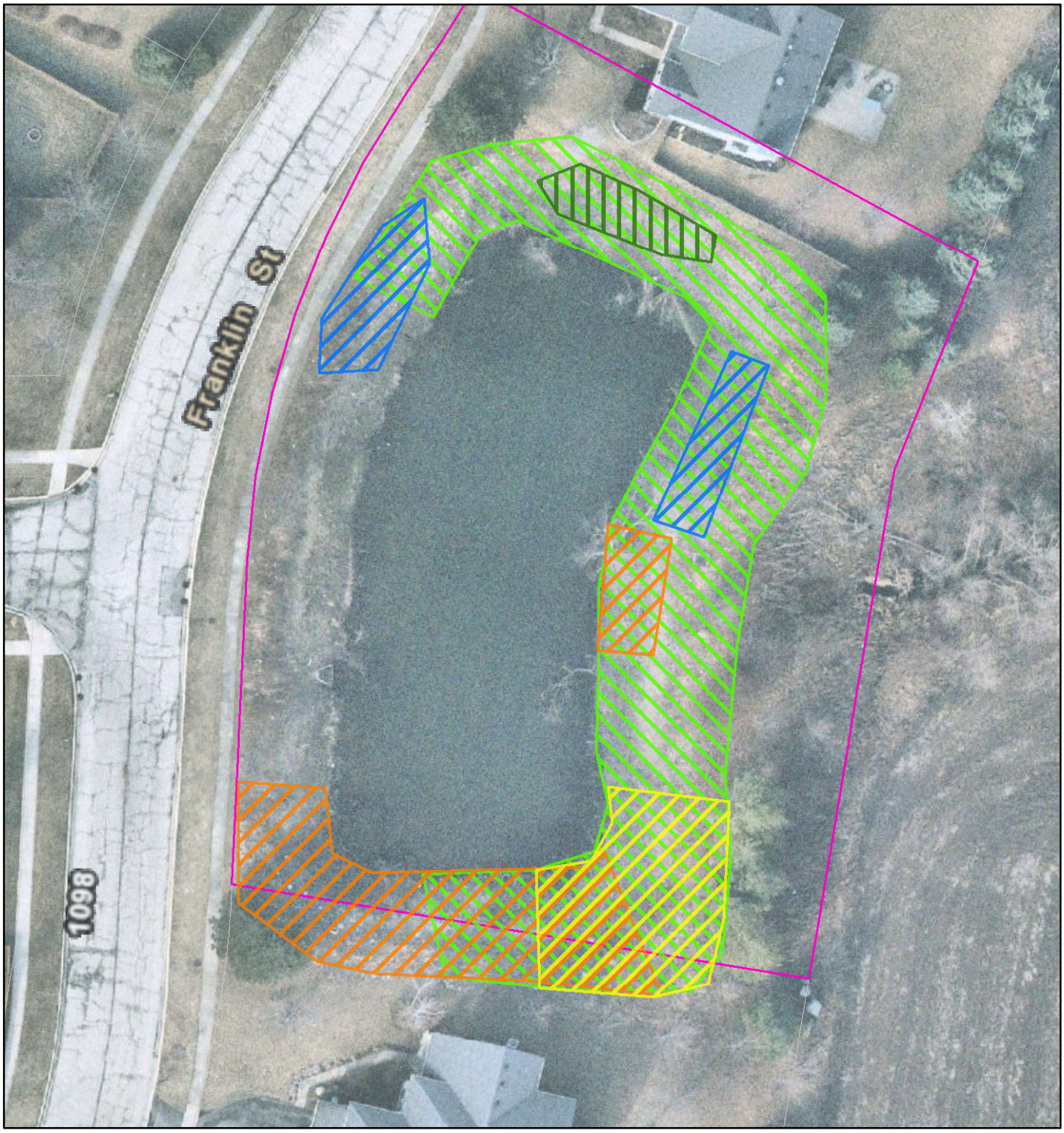
Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Crown Vetch (*Coronilla varia*) Pink-flowered member of the legume or bean family formerly used as a slope stabilizing plant. Becomes very aggressive and produces tangled dense growth that reduces native plant diversity.	Eradicate crown vetch cover to allow native deep-rooted species to provide better slope stabilization and habitat value.	Treat with Aminopyralid (Milestone) using backpack sprayers. Alternatively, Clopyralid (Transline) can also be used effectively. These can only be used in dry areas.	June-October	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Riverbank Grape (*Vitis riparia*) A native perennial vine that can be very aggressive. Dark colored fruits can be found in the summer.	Treat for effective control to allow for higher quality native species.	Selectively foliar application during the growing season with Triclopyr (Garlon 4).	May-October	

Town and Country Homes Pond 2

Sandbar Willow (*Salix interior*) Very common wetland shrub that is native but becomes invasive and grows into large clones up to 20' tall. Very long narrow leaves compared to all other willows.	Decrease willow shrub cover to allow native herbaceous vegetation to thrive.	Small young inviduals can be treated by spraying foliage with a glyphosate-based herbicide (Aquamaster) to stands with backpack sprayers and hand-wick individuals within good quality native vegetation. Larger stands will require cutting with hand tools/chain saws and then treating fresh-cut stumps wtih glyphosate based herbicide to reduce regrowth. However, this is a root suckering species that may require follow up foliar treatements.	June-September	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	

Town and Country Homes Pond 2

Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	



Scale:

0 40 Feet

Orientation:

Legend:

- Reed Canary Grass
- Riverbank Grape
- Sandbar Willow
- Sweet Clover
- Teasel
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

Franklin St & Westfield Way

Exhibit Title:

Town and Country Homes Pond 3

Project Number: 21-0201

Date: 10/28/2021

Prepared by:

Hey and Associates, Inc.

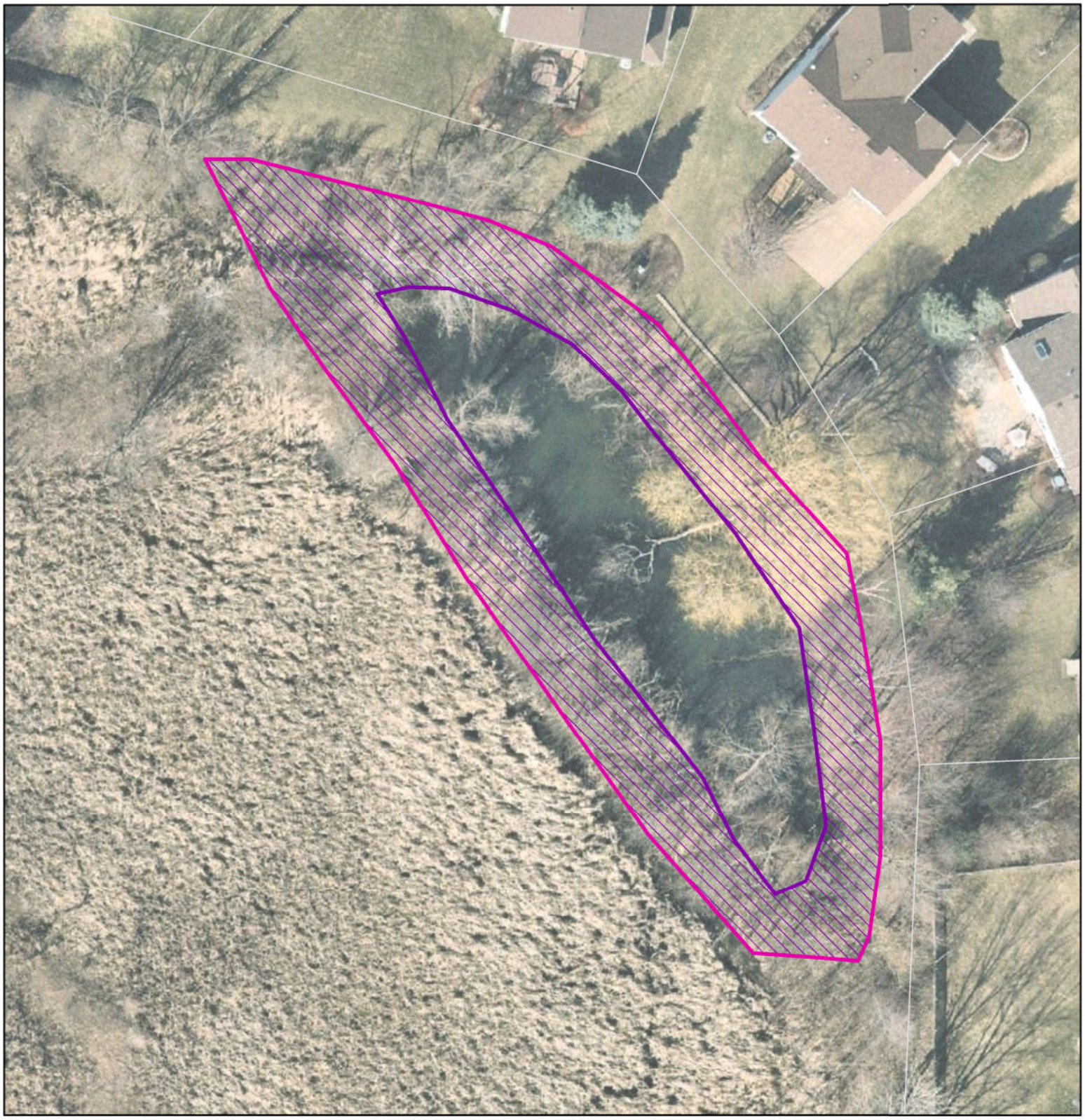
Engineering, Ecology and Landscape Architecture

Town and Country Homes Pond 3

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Riverbank Grape (*Vitis riparia*) A native perennial vine that can be very aggressive. Dark colored fruits can be found in the summer.	Treat for effective control to allow for higher quality native species.	Selectively foliar application during the growing season with Triclopyr (Garlon 4).	May-October	

Town and Country Homes Pond 3

Sandbar Willow (*Salix interior*) Very common wetland shrub that is native but becomes invasive and grows into large clones up to 20' tall. Very long narrow leaves compared to all other willows.	Decrease willow shrub cover to allow native herbaceous vegetation to thrive.	Small young inviduals can be treated by spraying foliage with a glyphosate-based herbicide (Aquamaster) to stands with backpack sprayers and hand-wick individuals within good quality native vegetation. Larger stands will require cutting with hand tools/chain saws and then treating fresh-cut stumps wtih glyphosate based herbicide to reduce regrowth. However, this is a root suckering species that may require follow up foliar treatements.	June-September	
White and Yellow Sweet Clover (*Melilotus* spp) An invasive biennial species that invades dry to moist sunny areas.	Reduce population over time primarily through mowing.	Mow several times throughout the growing season to remove biomass and prevent seed production.	June -August	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	



0 40 Feet

N

Legend:

- MPRD Parcels
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/16/2023

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

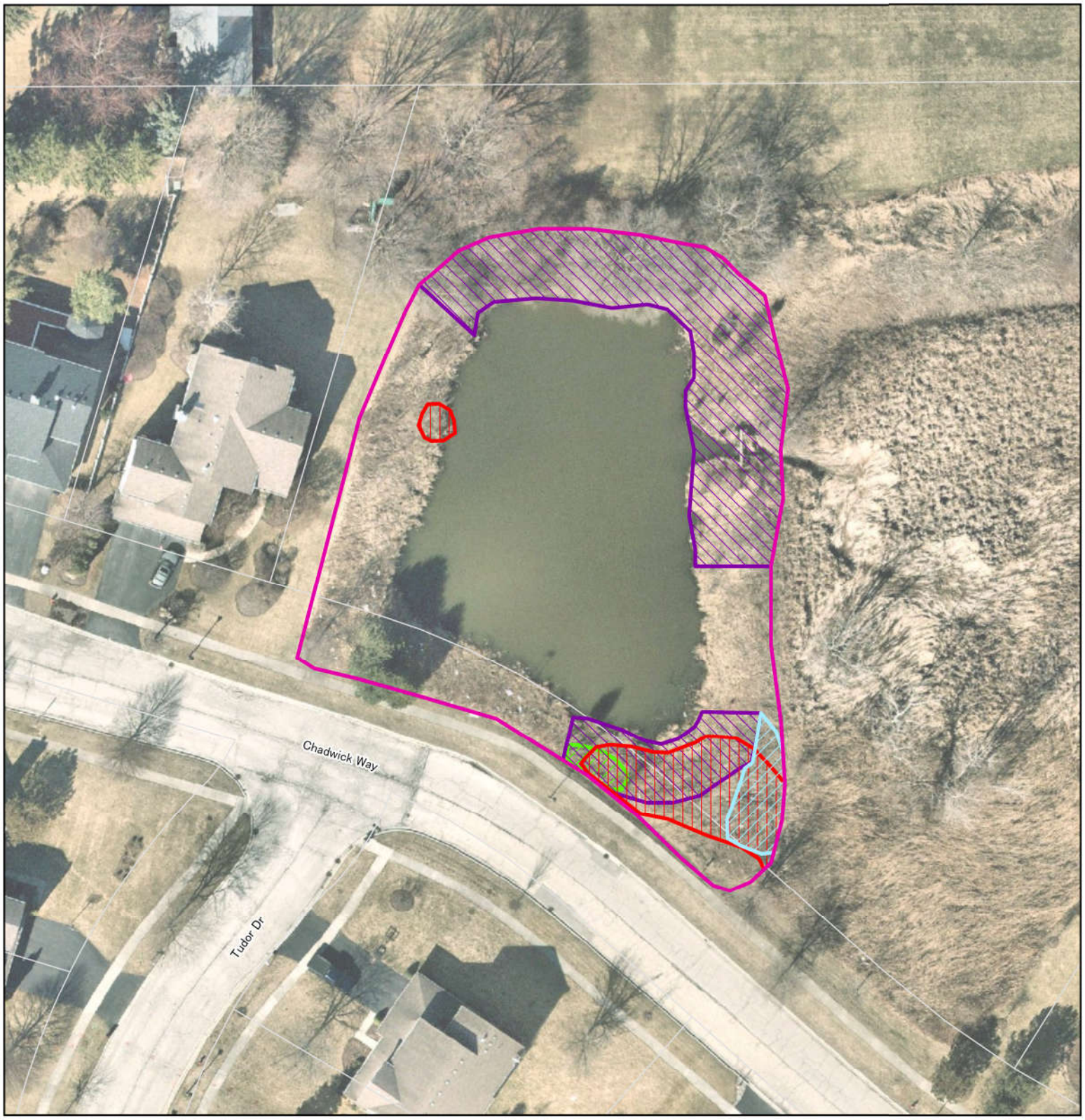
Exhibit Details:
Tudor Dr and Somerset Ln

Exhibit Title:
Town & Country Homes Pond 5

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Town and Country Homes Pond 5

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 60 Feet

N

Legend:

- MPRD Parcels
- Burdock
- Common Reed
- Teasel
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/17/2023

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Exhibit Details:
Chadwick Way & Tudor Dr

Exhibit Title:
Town & Country Homes Pond 6

Town and Country Homes Pond 6

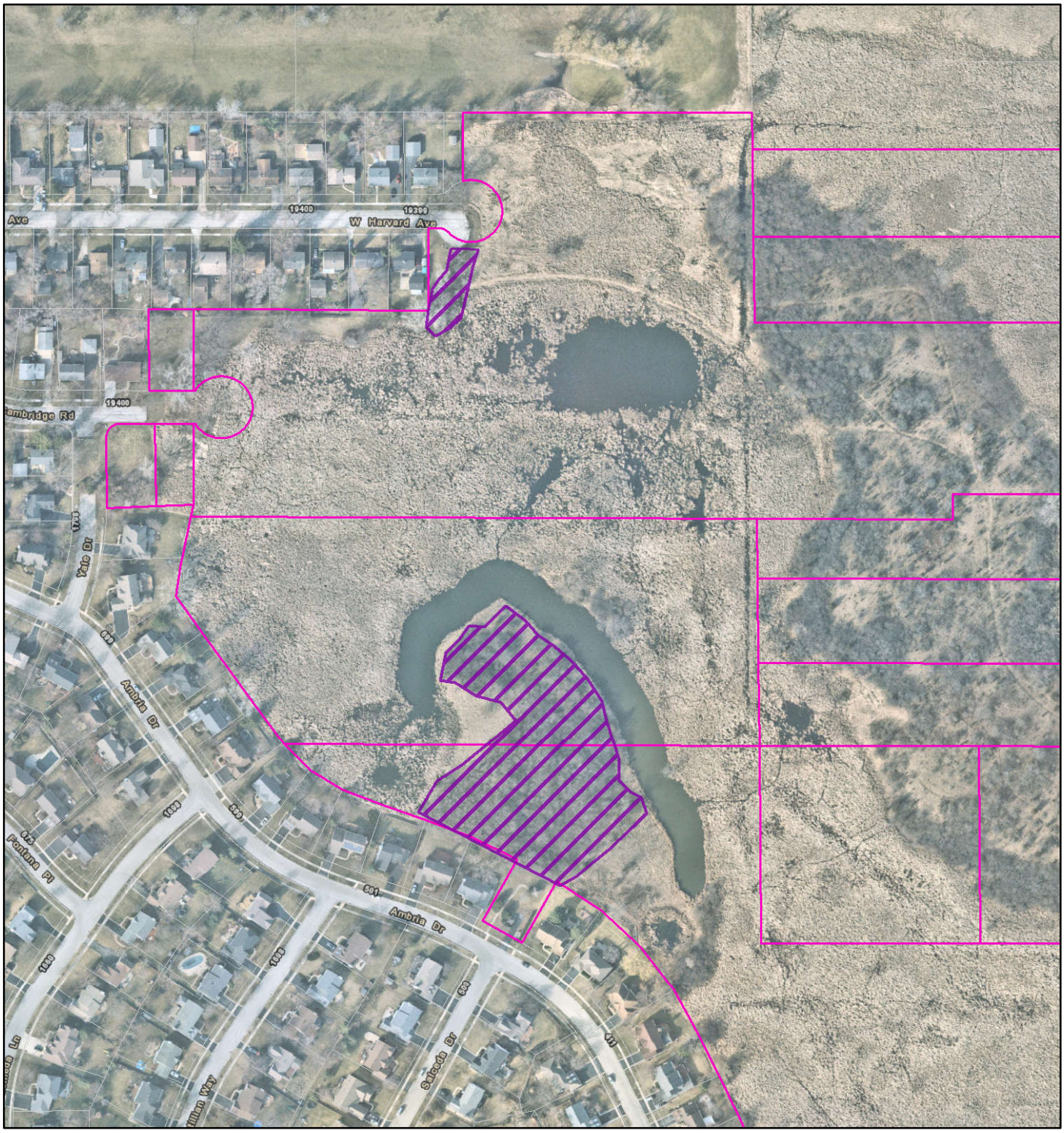
Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Buckthorn (*Rhamnus* spp) Woody species that spreads rapidly, colonizing areas and shading out native species, leaving dead zones under canopy. Forms solid stands within woodlands and prairie. Produces sharp thorns on branches and black berries.	Reduce monoculture stands to encourage native vegetation growth.	Cut within 2" of ground and treat stumps with aquatic-approved herbicide (Aquamaster) IF over water. Chip cut material and haul off-site or burn on-site. Prescribed burning every 3-5 years	October-March October-March	
Common Burdock (*Arctium minus*) A biennial broadleaf weed often found in disturbed areas.	Reduce population to allow for more desirable vegetation.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June-September	
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	

Town and Country Homes Pond 6

Sandbar Willow (*Salix interior*) Very common wetland shrub that is native but becomes invasive and grows into large clones up to 20' tall. Very long narrow leaves compared to all other willows.	Decrease willow shrub cover to allow native herbaceous vegetation to thrive.	Small young inviduals can be treated by spraying foliage with a glyphosate-based herbicide (Aquamaster) to stands with backpack sprayers and hand-wick individuals within good quality native vegetation. Larger stands will require cutting with hand tools/chain saws and then treating fresh-cut stumps wtih glyphosate based herbicide to reduce regrowth. However, this is a root suckering species that may require follow up foliar treatements.	June-September	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	

Town and Country Homes Pond 6

Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 250 Feet

Orientation:

Legend:

- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Location:

Cambridge Rd & Yale Dr

Exhibit Title:

Vickory Park

Vickory Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Scale:

0 150 Feet

Orientation:

Legend:

- Common Reed
- Purple Loosestrife
- Reed Canary Grass
- Teasel
- Thistle
- Undesirable Woody Species
- MPRD Parcels
- Tax Parcels

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location:
Hillside Dr & Pershing Ave

Exhibit Title:
Wilderness Park

Project Number: 21-0201 Date: 10/29/2021

Prepared by:

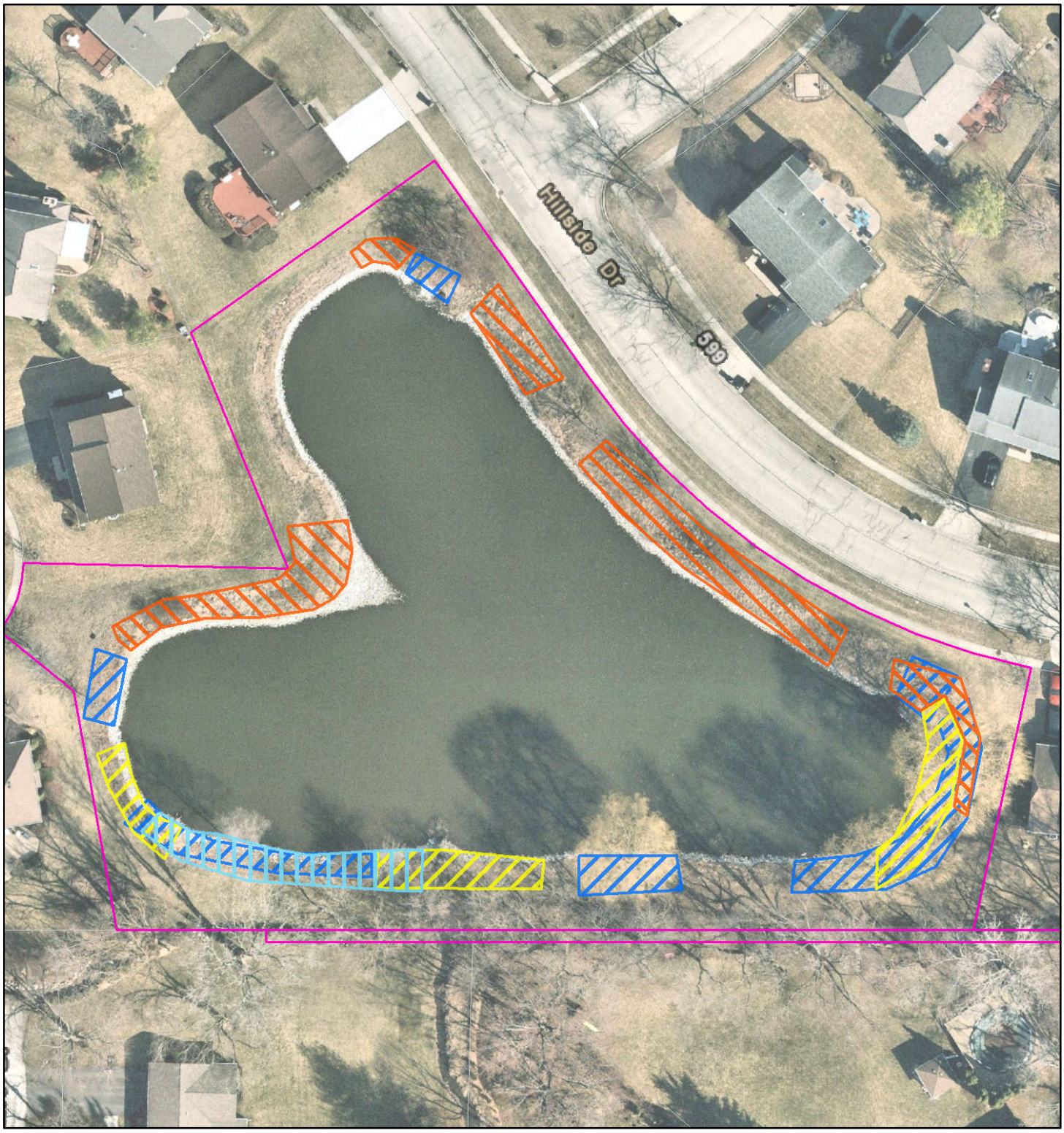
Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Wilderness Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	

Wilderness Park

Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



Scale:

0 60 Feet

Orientation:

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Legend:

- Burdock
- Reed Canary Grass
- Thistle
- Undesirable Woody Resprouts
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

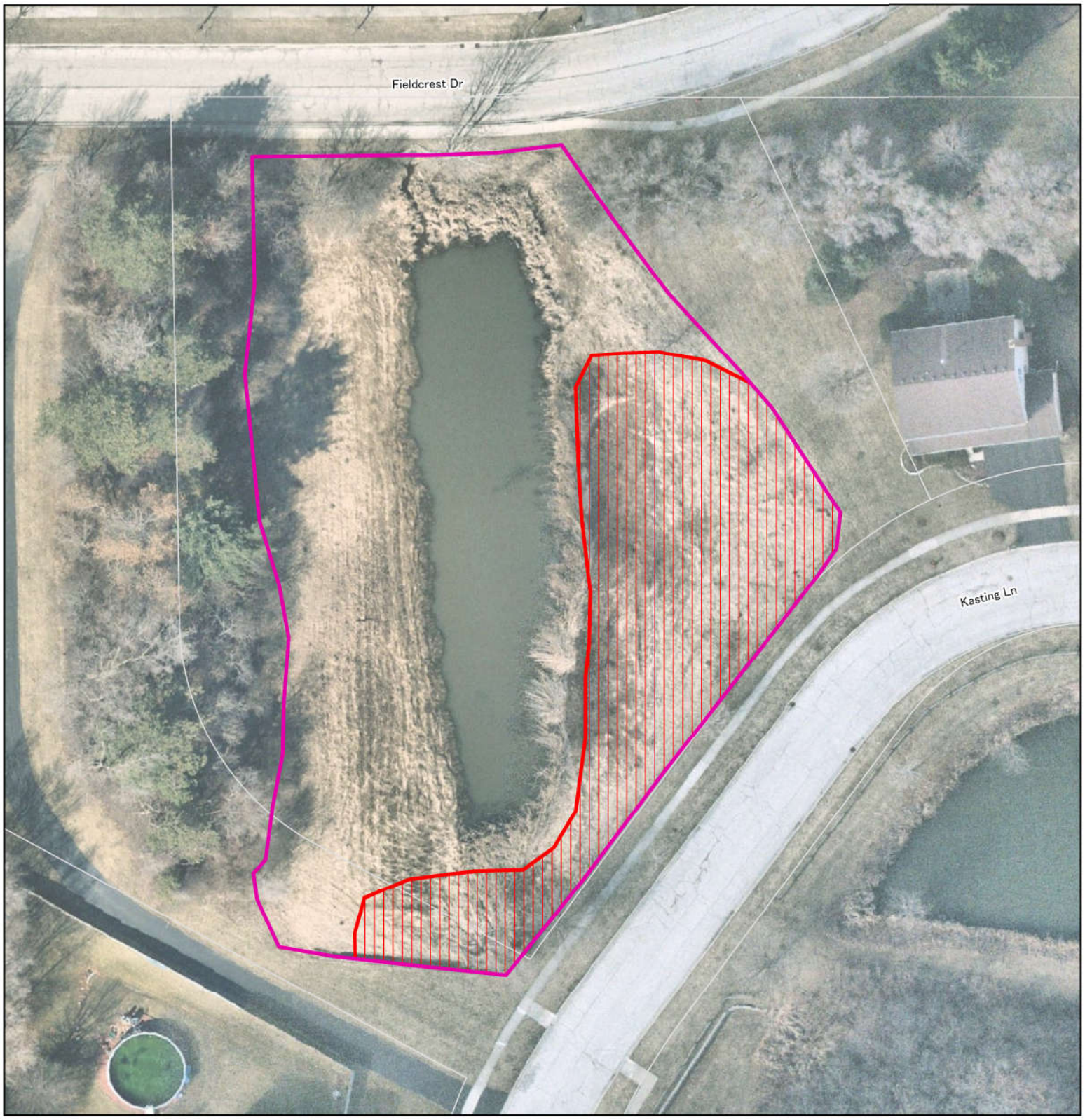
Hillside Dr & Hawthorne Blvd

Exhibit Title:

Wilderness South Park

Wilderness South Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 60 Feet

N

Legend:

- MPRD Parcels
- Common Reed
- Tax Parcels

Project Number: 21-0201

Date: 3/17/2023

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Exhibit Details:
Northeast Kasting Ln

Exhibit Title:
Woodlands Pond 1

Woodlands Pond 1

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Common Reed (*Phragmites australis*) Extremely invasive wetland species which can reach 14' in height. Forms monoculture stands, spreads horizontally through rhizome runners. Brown/purple feathery plum flowers above.	Reduce monocultural stands to encourage native vegetation growth.	Apply a glyphosate-based herbicide (Aquamaster) to common reed stands with backpack sprayer and hand wick individuals within good quality native vegetation. Best to apply herbicide when "tassling" or in flower.	June - September	

0 20 Feet

N

Legend:

- MPRD Parcels
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/17/2023

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Exhibit Details:
Kasting Ln and Barnhill Dr

Exhibit Title:
Woodlands Pond 2

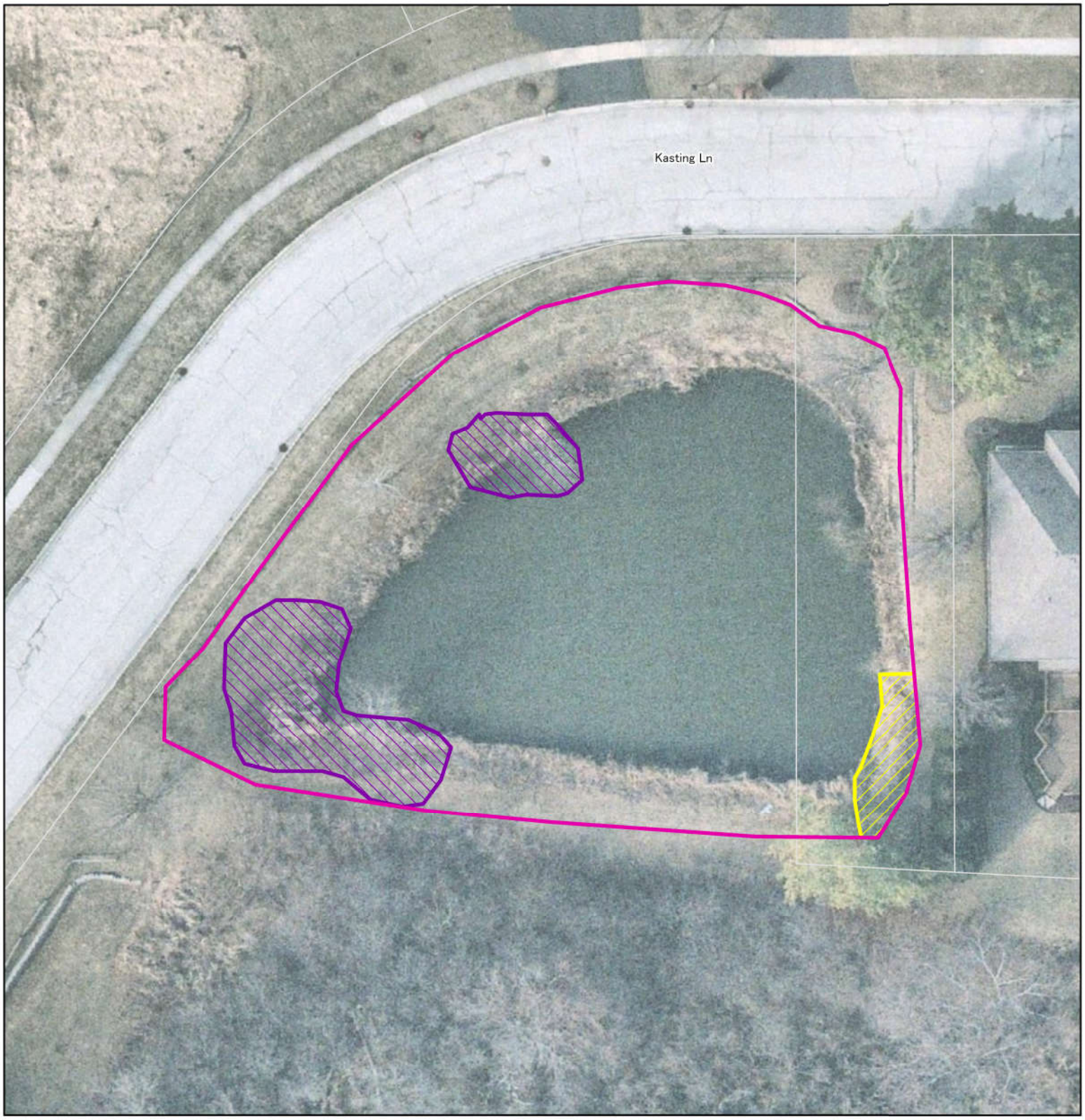
Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Woodlands Pond 2

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Woodlands Pond 2

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 20 Feet

N

Legend:

- MPRD Parcels
- Reed Canary Grass
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/17/2023

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

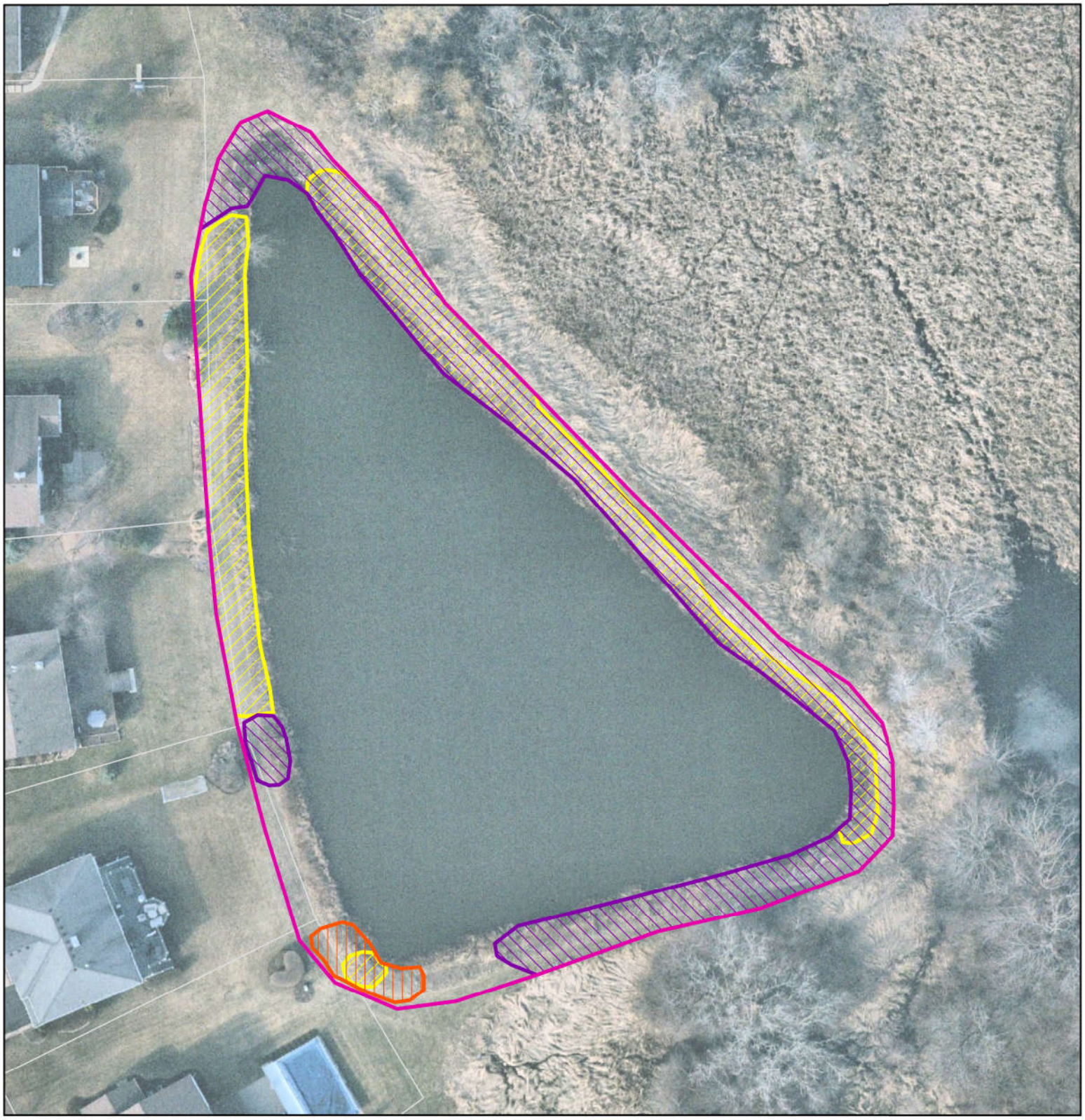
Exhibit Details:
Kasting Ln

Exhibit Title:
Woodlands Park Pond 1

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Woodlands Park Pond 1

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalarus arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 60 Feet

N

Legend:

- MPRD Parcels
- Reed Canary Grass
- Thistle
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/17/2023

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Exhibit Details:
East of Kasting Ln

Exhibit Title:
Woodlands Park Pond 3

Woodlands Park Pond 3

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalarus arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

0 40 Feet

N

Legend:

- MPRD Parcels
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/17/2023

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Exhibit Details:
East of Kasting Ln

Exhibit Title:
Woodlands Park Pond 4

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Woodlands Park Pond 4

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

0 20 Feet

N

Legend:

- MPRD Parcels
- Reed Canary Grass
- Undesirable Woody Species
- Tax Parcels

Project Number: 21-0201

Date: 3/17/2023

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

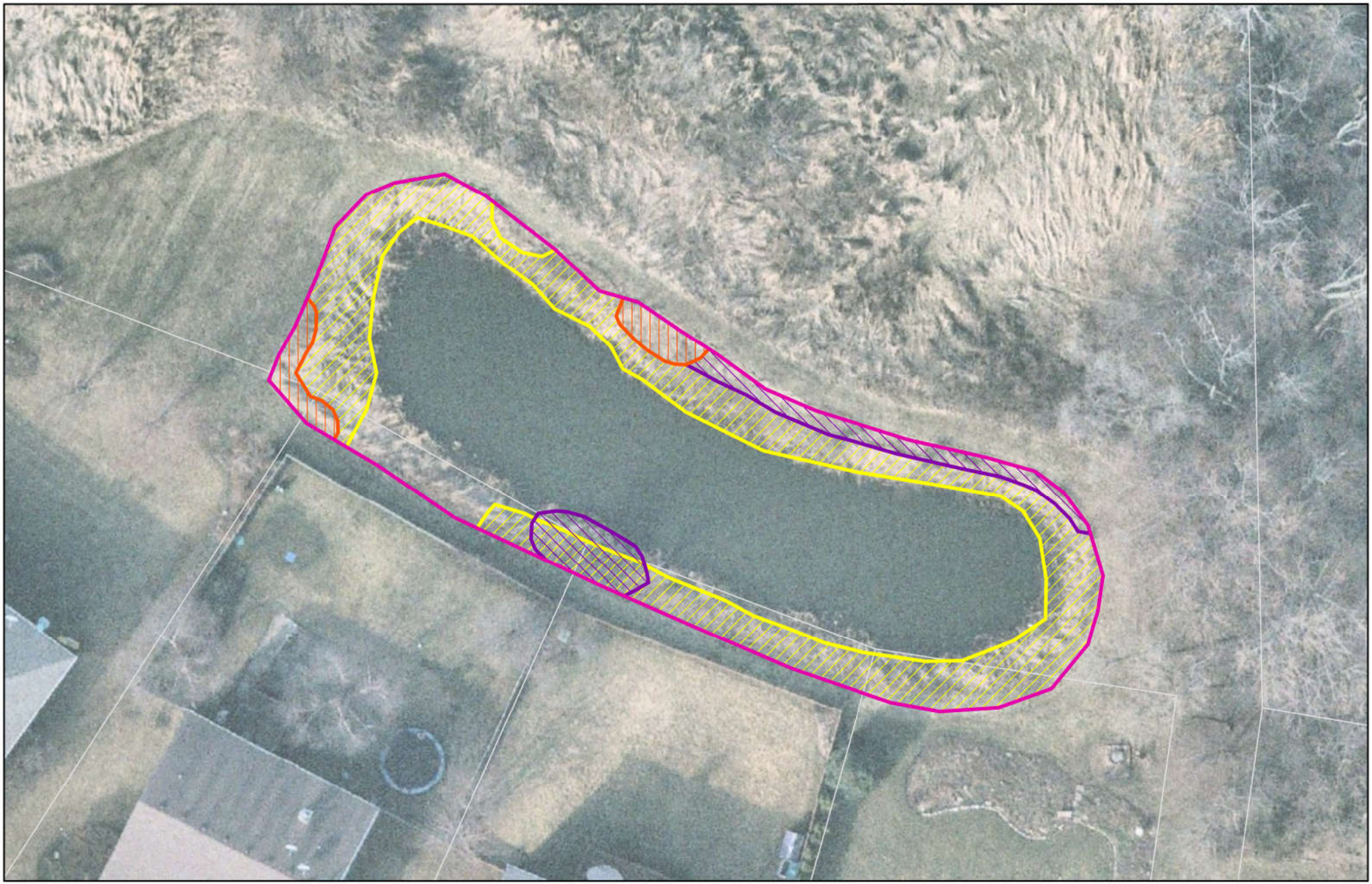
Exhibit Details:
North of Kasting Ln

Exhibit Title:
Woodlands Park Pond 5

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Woodlands Park Pond 5

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalarus arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	



0 20 Feet

Project Number: 21-0201

Date: 3/17/2023

N

Legend:

- MPRD Parcels
- Reed Canary Grass
- Thistle
- Undesirable Woody Species
- Tax Parcels

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Project Name:
MPRD Management Plan

Prepared for:
Mundelein Parks and Recreation District

Location Information:
Kasting Ln and Sandler Ct

Exhibit Title:
Woodlands Park Pond 6

Woodlands Park Pond 6

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Reed Canary Grass (*Phalarus arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	
Field Thistle (*Cirsium arvense*) Native to Eurasia. It is a aggressive pernnial that can form dense stands. It has a purple flower that blooms June through November.	Reduce field thistle to allow more desirable species to flourish	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	June -August	
Undesireable Woody Species	Decrease woody cover to allow herbaceous species to thrive.	Cut at base and treat stump with Triclopyr (garlon4) herbicide	November-February	

Scale:

0 130 Feet

Orientation:

Legend:

- Buckthorn
- Purple Loosestrife
- Reed Canary Grass
- Riverbank Grape
- Teasel
- MPRD Parcels
- Tax Parcels

Project Name:

MPRD Management Plan

Prepared for:

Mundelein Parks and Recreation District

Location:

775 Wortham Dr

Exhibit Title:

Wortham Park

Project Number: 21-0201

Date: 10/29/2021

Prepared by:

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

Wortham Park

Weed Type (Priority ranking top to bottom)	Management Objective	Management Activity	Schedule (Month)	Other Issues
Buckthorn (*Rhamnus* spp) Woody species that spreads rapidly, colonizing areas and shading out native species, leaving dead zones under canopy. Forms solid stands within woodlands and prairie. Produces sharp thorns on branches and black berries.	Reduce monoculture stands to encourage native vegetation growth.	Cut within 2" of ground and treat stumps with aquatic-approved herbicide (Aquamaster) IF over water. Chip cut material and haul off-site or burn on-site. Prescribed burning every 3-5 years	October-March	
Purple Loosestrife (*Lythrum salicaria*) A very common invasive plant of marshes and wet areas with striking spikes of magenta flower. Becomes very aggressive forming dense stands that reduce native diversity.	Eradicate purple loosestrife in all managed areas each year to allow more native diversity.	Selectively spray with Triclopyr 3 (Garlon 3A) when flowering but before seed set using backpack sprayers.	July-September	
Reed Canary Grass (*Phalaris arundinacea*) Common invader of native habitats, forms large stands and severely degrades wetlands and other habitats. Aggressive grass that forms monocultures of golden spiked seed heads in early summer.	Decrease reed canary grass early in spring to allow native seedlings to thrive.	Backpack spray reed canary grass with grass-specific herbicide in dry areas (Poast, Envoy); or with aquatic-approved herbicide in wet areas (Aquamaster).	April-October	

Wortham Park

Riverbank Grape (*Vitis riparia*) A native perennial vine that can be very aggressive. Dark colored fruits can be found in the summer.	Treat for effective control to allow for higher quality native species.	Selectively foliar application during the growing season with Triclopyr (Garlon 4).	May-October	
Teasel (*Dipsacus* spp) Invasive biennial species which forms a mat of rosettes and competes with native species. Spreads rapidly via heavy seed production. Learge leaves form rosettes and whie spiny seed heads form in mudsummer.	Eradicate small stands before becoming solid stands. Control large stands through broad scale treatment.	Apply broadleaf specific herbicide to individuals (Transline, 2,4D) with backpack sprayer, avoiding native plant species.	May-July	

CANADA THISTLE

Cirsium arvense

SEED HEAD/BLOOM

NON-BLOOMING/LEAVES

ADULT PLANT/BLOOMING

HABITAT:

Invades forest openings, oak savannas, prairies, dunes, agricultural fields, pastures, roadsides, and disturbed areas.

BLOOM PERIOD:

June - September

CHARACTERISTICS:

Canada thistle is an herbaceous perennial with upright, grooved, hairy stems that branch near the top of the plant. It grows 2-4' tall. Leaves are simple and alternate, lance-shaped with spiny, toothed edges. Flowers are numerous, small (0.5-0.75" wide) and purple to pink (rarely white).

CONTROL:

Manual/Mechanical: Pull or mow (minimum 3 times per growing season) to decrease root reserves; mow when flower buds are just about to open. Late spring (May-June) burns for 3 consecutive years stimulates germination and kills seedlings.

Chemical: Foliar spray with Glyphosate during the early bolting phase when plants are 6-10" tall. Foliar spray with Animopyralid, Metsulfuron-methyl, or Clopyralid during the bud to flower phase or to rosettes in the fall.

PURPLE LOOSESTRIFE

Lythrum salicaria

Seed Head/Bloom

Non-Blooming/Leaves

Adult Plant/Blooming

Habitat:

Invades many types of wetlands including, wet meadows, marshes, river and stream banks, ponds, lake edges and ditches.

Bloom Period:

July - September

Characteristics:

A wetland perennial that grows 3-7' tall on 4 to 6-sided, somewhat woody stems. Plants get larger and more bush-like with each year of growth. Once established it can quickly form dense stands that displace other emergent wetland species.

Control:

Manual/Mechanical: Cut and remove flowering spikes to prevent seed production for that year; plants will resprout.

Chemical: Foliar spray with Triclopyr or aquatic-approved Glyphosate in the fall when the plant is reaching dormancy. Cut-stump treat with aquatic approved Glyphosate.

Biological: Biological control is an option. *Galerocella* beetles can be released to provide long-term control.

REED CANARY GRASS

Phalaris arundinacea

SEED HEAD/BLOOM

NON-BLOOMING/LEAVES

ADULT PLANT/BLOOMING

HABITAT:

Reed canary grass dominates a significant number of wetlands in the Midwest and also spreads into forests, prairies, fields, and floodplains.

BLOOM PERIOD:

May - June

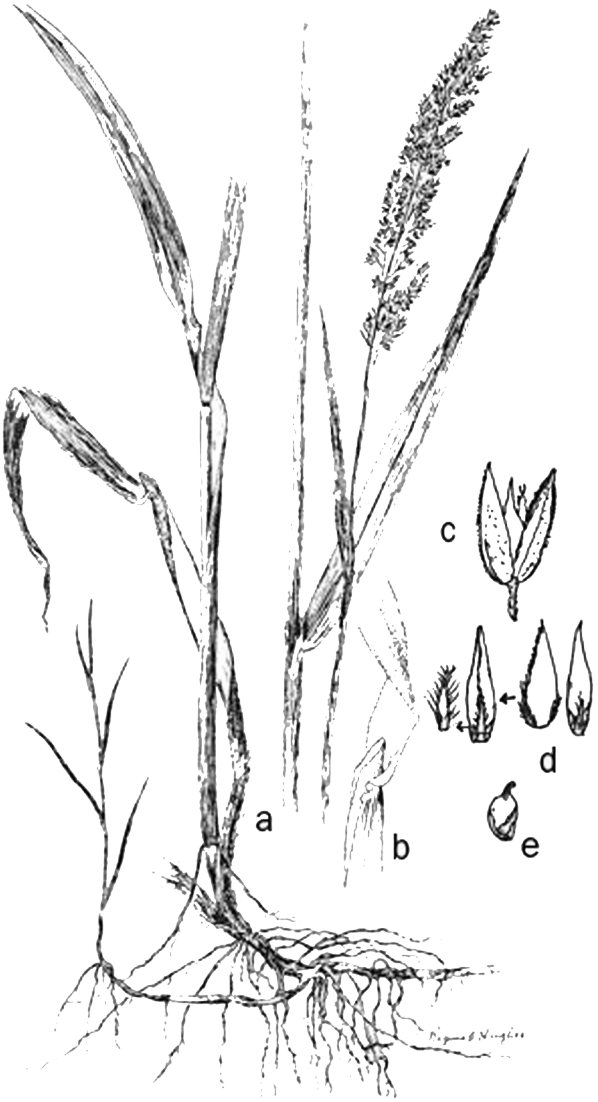
CHARACTERISTICS:

A perennial, sod-forming, cool-season grass with erect, hairless stems that grow 2-6' tall. Although there is evidence that there are native strains, it's generally believed that the invasive strains are not native.

CONTROL:

Manual/Mechanical: Hand pull, dig, or smother small patches. Mow close to the ground at least 3 times/ year to retard growth and prevent seed set. Till soil repeatedly for at least one growing season or remove the top 8-18" of sod. Burn in late spring or fall for 5-6 years in a row.

Chemical: Foliar spray with grass specific herbicide, Sethoxydim or Clethodim, in the spring when population is under 8" tall. Two applications are generally required to provide effective results. In dense monocultures, a foliar spray with Glyphosate also provides effective results if selectivity is not required.



SEED HEAD/BLOOM

NON-BLOOMING/LEAVES

ADULT PLANT/BLOOMING

HABITAT:

Includes edges of floodplain forests, swamps, wet prairies, marshes, edges and shallow water of ponds and rivers, large drainage ditches, edges of poorly drained fields, and wet areas along beaches.

BLOOM PERIOD:

Mid to Late Summer

CHARACTERISTICS:

Perennial Grass growing 6'-16' tall.

Prefers full sun, wet conditions (including shallow water), and a rich fertile soil to sustain the rapid growth of this grass. Shade and soil that is moist are tolerated.

The florets are wind-pollinated which develops a grain, but it is often abortive or sterile. The root system consists of stout rhizomes and coarse fibrous roots.

Spreads aggressively through its rhizomes.

CONTROL:

Manual/Mechanical: Mow (where possible) 3-5 times during the growing season to decrease stand density. Mow or burn after a chemical application for additional control and maintenance (i.e. apply chemical in late summer and burn in late fall).

Chemical: Foliar spray or hand-wick with Glyphosate from June-September.

CATTAIL

Spp. Typha

Seed Head/Bloom

Non-Blooming/Leaves

Adult Plant/Blooming

Habitat:

Invasive cattails can be found in freshwater marshes, wet meadows, fens, shallow ponds, streams, lake shores, ditches, and roadsides.

Bloom Period:

May - July

Characteristics:

Cattails are perennial, wetland plants 5-10’ tall, often with a submersed base. Hybrid cattail is a cross between the native, non-invasive T. latifolia (common or broad-leaved cattail) and the invasive T. angustifolia (narrow-leaved cattail).

Large monospecific stands of invasive cattails spread vegetatively and exclude other plants that provide wildlife food and cover.

Control:

Manual/Mechanical: Hand pull

Chemical: Foliar spray or wick application with aquatic Glyphosate. Repeat as needed.

BUCKTHORN

EASTERN COTTONWOOD

SIBERIAN ELM

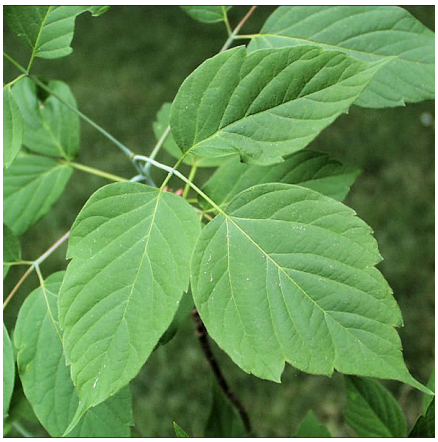
LIST OF SPECIES:

Acer negundo	Box Elder
Acer platanoides	Norway Maple
Celastrus orbiculatus	Oriental Bittersweet
Cornus spp.	Dogwood spp.
Crataegus crus-galli	Cockspur Hawthorn
Crataegus mollis	Downy Hawthorn
Elaeagnus spp.	Russian Olive/Autumn Olive
Juglans nigra	Black Walnut
Picea spp.	Spruce
Populus deltoides	Eastern Cottonwood
Prunus serotina	Black Cherry
Rhamnus cathartica	Common Buckthorn
Rhamnus frangula	Glossy Buckthorn
Rosa multiflora	Multiflora Rose
Salix fragilis	Crack Willow
Salix interior	Sandbar Willow
Ulmus pumila	Siberian Elm
Viburnum opulus	European Highbush Cranberry

CONTROL:

Chemical: Foliar application to low-growing woody vegetation with Triclopyr or Glyphosate when vegetation is actively growing. Foliar application in the fall, well before leaf abscission, is an effective time to apply herbicides and prevent damage to desirable species that have entered dormancy. Cut stump herbicide application should be performed immediately after material has been cut at the base. Recommended herbicides are based on the restrictions of the herbicide label. If the treatment area is free of standing water, an ester formulation of Triclopyr (i.e. Garlon 4) is recommended. In wetland areas, Glyphosate or Garlon 3 can be used to provide good control in wet substrates.

SANDBAR WILLOW



BOX ELDER

Marsh List

Forbs

Scientific Name	**Common Name**
Acorus calamus	sweet flag
Asclepias incarnata	marsh milkweed
Eupatorium perfoliatum	common boneset
Iris virginica shrevei	blue flag
Mimulus ringens	monkey flower
Pontedaria cordata	pickerel weed
Sagittaria latifolia	common arrowhead

Graminoids

Scientific Name	**Common Name**
Carex comosa	bristly sedge
Juncus effusus	common rush
Scirpus cyperinus	wool grass
Scirpus fluviatilis	river bulrush
Scirpus pungens	chairmakers rush
Scirpus acutus	hard-stemmed bulrush
Sparganium eurycarpum	common bur reed
Spartina pectinata	prairie cord grass

Mesic Prairie Buffer Seed List

Forbs

Scientific Name	**Common Name**	**Total Ozs.**
Asclepias tuberosa	butterfly milkweed	2
Aster laevis	smooth blue aster	2
Aster nova-angliae	New England aster	2
Baptisia leucantha	white false indigo	2
Coreopsis tripteris	tall coreopsis	2
Desmodium canadense	showy tick trefoil	2
Echinacea pallida	pale purple coneflower	3
Echinacea purpurea	purple coneflower	3
Eryngium yuccifolium	rattlesnake master	1
Heliopsis helianthoides	ox-eye sunflower	2
Lespedeza capitata	round-headed bush clover	1
Liatris pychnostachya	prairie blazingstar	2
Liatris spicata	marsh blazingstar	2
Monarda fistulosa	wild bergamot	3
Parthenium integrifolium	wild quinine	2
Penstemon digitalis	smooth penstemon	2
Petalostemum purpureum	purple prairie clover	3
Ratibida pinnata	yellow coneflower	2
Rudbeckia hirta	black-eyed Susan	3
Rudbeckia subtomentosa	sweet black-eyed Susan	2
Silphium integrifolium	rosinweed	2
Silphium terebinthinaceum	prairie dock	1
Solidago rigida	stiff goldenrod	3
Verbena hastata	blue vervain	2
Zizia aurea	golden alexanders	1

Grasses

Scientific Name	**Common Name**	**Total Ozs.**
Andropogon gerardii	big bluestem	32
Andropogon scoparius	little bluestem	32
Bouteloua curtipendula	side-oats grama	16
Elymus canadensis	Canada wild rye	32
Panicum virgatum	switch grass	8
Sorghastrum nutans	Indian grass	16

Prairie Buffer Plant List

Forbs

Scientific Name	**Common Name**
Asclepias tuberosa	butterfly milkweed
Arnoglossum atriplicifolium	Indian plantain
Astragalus canadensis	Canada milkvetch
Echinacea pallida	pale purple coneflower
Eryngium yuccifolium	rattlesnake master
Liatris pychnostachya	prairie blazingstar
Parthenium integrifolium	wild quinine
Silphium integrifolium	rosinweed
Solidago rigida	stiff goldenrod

Marsh List

Forbs

Scientific Name	Common Name
Asclepias incarnata	swamp milkweed
Eupatorium maculatum	spotted Joe Pye weed
Hypericum pyramidatum	Great St. John's Wort
Iris virginica shrevei	blue flag
Lobelia cardinalis	cardinal flower
Mimulus ringens	monkey flower
Physostegia virgainia	obedient plant
Vernonia fasciculata	common ironweed

Transline Tolerant Prairie Buffer Seed List

Forbs

Scientific Name	**Common Name**	**Total Ozs.**
Asclepias syriaca	common milkweed	2
Asclepias tuberosa	butterfly milkweed	2
Monarda fistulosa	wild bergamot	3
Verbena stricta	hoary vervain	4
Zizia aurea	golden alexanders	4

Grasses

Scientific Name	**Common Name**	**Total Ozs.**
Andropogon gerardii	big bluestem	24
Andropogon scoparius	little bluestem	32
Bouteloua curtipendula	side oats grama	32
Elymus canadensis	Canada wild rye	32
Panicum virgatum	switch grass	16
Sorghastrum nutans	Indian grass	24

Woodland Seed List

Forbs

Scientific Name	**Common Name**	**Total Ozs.**
Agastache scrophulariaefolia	purple giant hyssop	1
Allium canadense	wild onion	0.5
Aster azureus	sky-blue aster	1
Aster laevis	smooth-blue aster	1
Aster sagittifolius	arrow-leaved aster	2
Cacalia atriplicifolia	Pale Indian Plantain	2
Camassia scilloides	wild hyacinth	2
Comandra umbellata	false toadflax	0.25
Desmodium glutinosum	pointed-leaved tick trefoil	2
Dodecatheon meadia	shooting star	1
Echinacea purpurea	purple coneflower	1
Eupatorium purpureum	sweet joe pye weed	2
Geranium maculatum	wild geranium	2
Helianthus strumosus	pale-leaved sunflower	2
Heuchera richardsonii	prairie alum root	1
Hypericum punctatum	dotted St. John's wort	0.25
Monarda fistulosa	wild bergamont	2
Penstemon digitalis	foxglove beardtongue	2
Polemonium reptans	Jacob's ladder	1
Polygonatum canaliculatum	great solomons seal	2
Ranunculus fascicularis	early buttercup	0.5
Rudbeckia subtomentosa	sweet black-eyed susan	2
Scrophularia marilandica	late figwort	0.25
Solidago speciosa	showy goldenrod	2
Tradescantia ohiensis	Ohio spiderwort	2

Grasses

Scientific Name	**Common Name**	**Total Ozs.**
Carex cephalophora	short-headed bracted sedge	4
Carex pensylvanica	Pennsylvania sedge	4
Bromus pubescens	woodland brome	8
Elymus canadensis	Canada wild rye	16
Elymus villosus	silky wild rye	8
Hystrix patula	bottle brush grass	16

Priority Table

Site	Public Interest in Park	Tasks	Functional/Ecological	Cost Benefit (1=low; 5=high)
Asbury Park Pond 1	Low	Herbaceous Weed Control	Moderate	Moderate/High
		Expanding Buffer	Moderate	Moderate
		Planting Wetland Fringe	Low	Moderate/Low
Asbury Park Pond 2	High	Herbaceous Weed Control	Low	High
Barefoot Bay Rain Garden	High	Woody Control	Moderate	High
Bob Lewandowski Park	Moderate/High	Woody Control	High	Moderate/High
		Herbaceous Weed Control	Moderate	Moderate
		Overseeding with native species	Low	Moderate/Low
Cambridge Country Park	High	Herbaceous Weed Control	High	High
		Overseeding with native species	Moderate	Moderate/High
Cambridge Country Pond	High	Herbaceous Weed Control	Low	High
Cardinal Terrace	High	Follow-up woody resprout control	High	Moderate/High
		Overseeding with native species	Moderate	Moderate/High
Clearbrook Park	Low	Woody Control	Moderate	Moderate/Low
Clearbrook Park South (Shady Lane)	Low	Herbaceous Weed Control	Moderate	Moderate/Low
		Woody Control	Moderate	Low
Community Park Site 1 (near Mainenance Bulding)	Low	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	Moderate	Moderate
		Supplemental Seeding	Moderate	Moderate/Low
Community Park Site 2 (near Spray Park)	Moderate/High	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	Moderate	Moderate
		Supplemental Seeding	Moderate	Moderate/Low
Community Park Site 3 (near Dunbar)	Moderate/High	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	Moderate	Moderate
		Supplemental Seeding	Moderate	Moderate/Low
Community Park Site 4 (near Big Pond)	Moderate/High	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	Moderate	Moderate
		Supplemental Seeding	Moderate	Moderate/Low
Diamond Lake Beach	Moderate/Low	Woody Control	Moderate	Moderate/Low
		Herbaceous Weed Control	Moderate	Moderate
Diamond Lake Sports Complex - Overlook	Moderate/High	Herbaceous Weed Control	Moderate	Moderate/High
		Supplemental Planting	Low	Moderate/High
Diamond Lake Sports Complex	Moderate/High	Continued Woody Control	High	Moderate/High
Gordon Ray Park	Low	Woody Control	Moderate	Moderate
		Overseeding with native species	Low	Moderate/Low
Hanrahan North Park	Moderate	Follow-up woody resprout control	Moderate	Moderate/High
		Overseeding/planting	Low	Moderate/High
		Expanding Buffer of Pond	Moderate	Moderate/Low

Priority Table

Site	Public Interest in Park	Tasks	Functional/Ecological	Cost Benefit (1=low; 5=high)
John Weich Park	Low	Woody Control	Low	Low
		Herbaceous Weed Control	Low	Moderate/Low
		Overseeding with native species	Low	Moderate/Low
Kracklauer Park	High	Herbaceous Weed Control	Low	High
		Woody Control	Low	High
		Supplemental Planting	Low	Moderate/High
Leo Leathers Park - West Trail - Site 1	Moderate	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	Moderate	Moderate
		Supplemental Seeding	Low	Moderate/Low
Leo Leathers Park - West Trail - Site 2	Moderate	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	Moderate	Moderate
		Supplemental Seeding	Low	Moderate/Low
Leo Leathers Park - East Trail - Site 1	Low	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	High	Low
		Supplemental Seeding	Low	Moderate/Low
Leo Leathers Park - East Trail - Site 2	Med/High	Herbaceous Weed Control	High	Moderate/High
		Woody Control	High	Moderate
		Supplemental Seeding	Moderate	Moderate/Low
Longmeadow Park Pond 1	Moderate/High	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	High
		Overseeding with native species	Moderate	Low
Longmeadow Park Pond 2	Low	Herbaceous Weed Control	High	Moderate/High
Longmeadow Park Wooded Area	High	Woody Control	Moderate	High
Lions Field	Moderate/High	Herbaceous Weed Control	High	High
		Woody Control	High	High
		Overseeding with native species	Moderate	Moderate
Maple Hill Path	High	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	Moderate
		Overseeding with native species	Low	Moderate/Low
Mundelein Crossings	High	Herbaceous Weed Control	Moderate	Moderate
Noll Retention Pond	Moderate/Low	Woody Control	High	Moderate/High
		Herbaceous Weed Control	Moderate	Moderate/High
		Expanding Buffer	Moderate	Moderate/Low
Orchard Basin	Moderate	Herbaceous Weed Control	Moderate	Moderate/High
		Woody Control	Moderate	Low
Orchard View	Low	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	Moderate
Scott Brown Park Rain Garden	Low	Increase size of native plant community	Low	Low

Priority Table

Site	Public Interest in Park	Tasks	Functional/Ecological	Cost Benefit (1=low; 5=high)
Town and Country Homes Pond 2	Moderate/Low	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	Moderate
		Overseeding with native species	Moderate	Moderate/Low
Town and Country Homes Pond 3	Moderate/High	Herbaceous Weed Control	Moderate	High
		Woody Control	Moderate	High
Town and Country Homes Pond 5	Moderate/Low	Woody Control	High	Moderate
Town and Country Homes Pond 6	Moderate	Herbaceous Weed Control	Moderate	High
		Woody Control	Moderate	Moderate
		Overseeding with native species	Low	Low
		Outlet Repair	High	Moderate
Vickory Park	Low	No tasks recommended	Low	Low
Wilderness Park	Moderate/Low	Herbaceous Weed Control	Moderate	High
		Woody Control	Moderate	Moderate/High
		Overseeding with native species	Moderate	Moderate/Low
Wilderness Park South	Low	Herbaceous Weed Control	Low	Moderate
		Woody Control	Low	Moderate
		Overseeding with native species	Low	Moderate/Low
Woodlands Park Pond 1	Moderate	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	Moderate
		Overseeding with native species	Low	Moderate/Low
Woodlands Park Pond 3	Moderate	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	Moderate
		Overseeding with native species	Low	Moderate/Low
Woodlands Park Pond 4	Low	Woody Control	Low	Low
Woodlands Park Pond 5	Moderate	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	Moderate
		Overseeding with native species	Low	Moderate/Low
Woodlands Park Pond 6	Low	Woody Control	Moderate	Moderate
		Herbaceous Weed Control	Moderate	Moderate
Woodlands Pond 1	High	Herbaceous Weed Control	High	High
		Overseeding with native species	Moderate	Moderate
Woodlands Pond 2	Moderate	Herbaceous Weed Control	Moderate	Moderate
		Woody Control	Moderate	Moderate
		Overseeding with native species	Low	Moderate/Low
Wortham Park	Moderate	Woody Control	Moderate	High
		Herbaceous Weed Control	Moderate	High

Vegetation Treatment/Planting Calendar	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Reed Canary Grass				x	x			x	x	x		
Common Reed									x	x		
Purple loosestrife						x	x	x				
Common Burdock						x	x	x				
Field Thistle						x	x					
Crown Vetch					x	x	x					
Teasel					x	x	x	x	x			
Poison Hemlock												
Bird's Foot Trefoil					x	x	x					
Japanese Knotweed							x	x	x			
Yellow-stemmed Bamboo						x	x	x	x	x		
Woody Foliar				x	x					x	x	
Woody Cut Stump	x	x	x							x	x	x
Mowing						x	x	x				
Controlled Burning	x	x	x	x							x	x
Supplemental Seeding	x	x	x	x	x	x					x	x
Supplemental Planting - prairie					x	x						
Supplemental Planting - wetland					x	x						
Supplemental Planting - woodland				x	x							

MUNDELEIN PARK &
RECREATION DISTRICT
Connecting Our Community

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