Woodridge
PARK DISTRICT

JUBILEE POINT PARK

NATURAL AREA IMPROVEMENT PLAN

DRAFT

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INTRODUCTION

The Woodridge Park District ("District") is committed to improving the quality of its natural areas. With the recent acquisition of the Town Centre property, now known as Jubilee Point Park, and proposed park site improvements, the District is planning on restoring native plant species to the site. In 2015, the District began removing woody invasive species from District owned or maintained properties in accordance with the Natural Resource Management Plan. Some of these sites include but are not limited to Hawthorne Hill Woods, Boundary Hill Woods, Lake Carleton, 63rd Street Park and the Vicente subdivision storm water management outlets.

Due to the degraded nature of this unmanaged natural area at Jubilee Point Park, as compared to other natural areas the District has worked to restore, the District decided that a more detailed habitat improvement plan would be beneficial to the success of the project. The purpose of this Plan is to compile factual information about the site and outline restoration efforts that are warranted, in order to create a healthy habitat for the flora and fauna that call the site home. The District's primary goal for the site is to transition the unmanaged natural areas to managed native woodlands and prairies that will improve the overall ecology of the property and complement the community's desire for park improvements as approved in the 2014 Town Centre Master Plan and 2022 Schematic Design Master Plan.

SITE HISTORY

For much of the recorded past, the site has been open land. Maps from the Illinois land surveys in the early 1800s, prior to settlement, show that the area was prairie with an area of woodland on the southern spur, south of the church, and just touching the western edge of the site. Aerial images from 1939 and 1956 show that the area was actively farmed. Several of the aerial images of the site are included in Appendix A. Farming was mainly done for corn, hay, and dairy cattle. **Figure 1** to the right are images taken from an airplane in the early 1970s. They clearly show that the site was devoid of trees except for a few areas along the drainage ways.

Although not owned by the District until May of 2023, the District has had a long history with the property. In 1966, the land was purchased by Community High School District 99. The Park District entered into a lease agreement with Community High School District 99 to use the site for park and recreational activities in 1971. The Village of Woodridge purchased the property in 2008 from the School District. In 2012, the District entered an intergovernmental agreement (IGA) with the Village for 50% ownership of the site. In 2023, the Village and District amended the IGA for the District to purchase the Village's fifty percent share and own 100% of the property.

Currently, the site is primarily used for the community garden plots, a sled hill and the Jubilee, a community event that takes place annually in June. These activities take place in areas that consist of turf grass, outside of the existing unmanaged natural areas because there is little access to the natural area aspects of the site due to the dense invasive brush.

LAND DESCRIPTION

This section covers some of the physical aspects that are known about the site comprised of factors such as soil types and hydrology, including the 2018 wetland delineation.

Soil Types

The site is made up of four different soil types: Ashkum silty clay loam, two different types of Ozaukee silt loam and Markham silt loam. Along with the characteristics of the different types of soils, these soils also vary between whether they are hydric or non-hydric.

When a soil is hydric there is continuous saturation/flooding during the growing season causing a lower amount of oxygen in the upper part of the soil horizon. Another important detail about the soil types is the slope.

All of the soils have a slope percentage, meaning the greater the slope percentage the more the soil compaction will be affected.

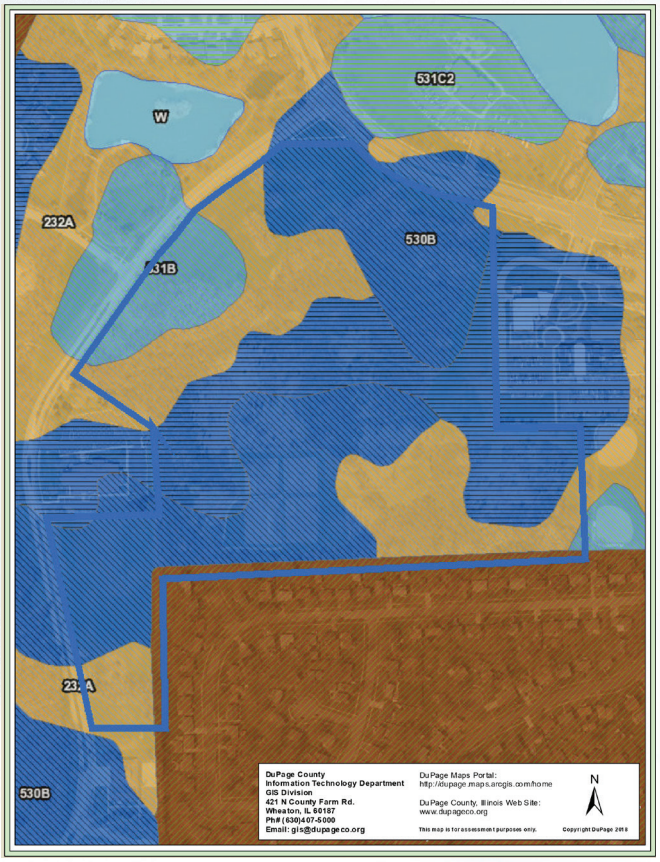
- Ashkum silty clay loam (232A) is considered a hydric soil, with a slope between 0 and 2 percent.

FIGURE 1- EARLY 1970S PHOTOGRAPHS FROM THE WOODRIDGE LIBRARY'S WEBSITE

- The next two soil types are an Ozaukee silt loam soil.
    - The first Ozaukee silt loam (530B) is hydric and has a slope between 0 and 2 percent, while the second Ozaukee silt loam (530C2) is non-hydric and has a slope between 4 and 6 percent. Along with these properties, this soil has also been eroded due to natural occurrences.

- The final soil type is Markham silt loam (531B), which is a hydric soil with a slope between 2 and 4 percent. **Figure 2** below is a soil map that shows the three different soil types and where they are located on the site.

FIGURE 2 - SOIL MAP FROM THE DUPAGE COUNTY GIS WEBSITE



Hydrology

Two wetland delineations have been conducted on the site. The first delineation took place in 2018. During the study, three wetlands were identified on the site which can be seen to the right in **Figure 3**.

The individual wetlands are further described below. A new wetland delineation was performed in 2023 as part of the proposed park site development plans, but has not been received as of this writing.

> **Positive wetland hydrology was indicated because of the presence of a high-water table, saturation and positive FAC-neutral test.**

FIGURE 3 - 2018 WETLAND DELINEATION MAP

Wetland 1 is an emergent and scrub/shrub wetland with a Native Mean C-value of 2.19 indicative of a wetland plant community and low floristic quality. Along with this, positive wetland hydrology was indicated because of the presence of a high-water table, saturation and positive FAC-neutral test. This wetland contains Ashkum silty clay loam.

Wetland 2 is a forested and scrub/shrub wetland. This wetland also has characteristics of a wetland plant community and low floristic quality due to the Native Mean C-value being 1.53, as well as a positive wetland hydrology was indicated because of the presence of a high-water table, saturation and positive FAC-neutral test. The soil type that makes up this wetland is Ozaukee silt loam, 2 to 4%.

Wetland 3 is an emergent and scrub-shrub wetland with a creek channel at its center flowing from east to west. It was found that this wetland has a Native Mean C-Value of 1.5 indicative of a wetland plant community of low floristic quality. A positive wetland hydrology was recorded due to the presence of a high-water table, saturation, drift deposits, exposed/buttressing roots, and drainage patterns. Soils were mapped as Ashkum silty clay loam.

Table 1 below shows the range of the Native C-Value as-well as the dominant vegetation throughout the wetlands.

TABLE 1 - WETLAND VEGETATION SUMMARY

AREA	POSSIBLE JURISDICTIONAL STATUS*	NATIVE FQAI	NATIVE MEAN C	DOMINANT VEGETATION	TYPE
Wetland 1	USACE Jurisdictional (East Branch DuPage River Tributary)	12.37	2.19	Silver Maple (Acer Saccharinum European Buckthorn (Rhamnus Cathartica), Devil's-Pitchfork (Bidens Frondosa), Riverbank Grape (Vitis Riparia), Black Bent (Agrostis Gigantea), and Eastern Woodland Sedge (Carex Blanda)	Emergent & Scrub/Shrub
Wetland 2	Isolated County Jurisdictional	6.31	1.53	American Elm (Ulmus Americana), Silver Maple, European Buckthorn, and Eastern Woodland Sedge	Forested & Scrub/Shrub
Wetland 13	USACE Jurisdictional (Tributary Channel)	4.74	1.50	Green Ash (Fraxinus Pennsylvanica), European Buckthorn, and Tartarian Honeysuckle (Lonicera Tatarica)	Emergent Scrub/Shrub with defined channel

BIOLOGICAL ASPECTS

This section describes some of the biological aspects of the site including the flora and fauna found at the site. The information has been taken from the 2018 wetland survey, the 2018 tree inventory and observations conducted on the site.

Flora

Although there have not been any site wide floristic quality surveys conducted at the property, some information on the vegetation can be gathered from the tree inventory and wetland delineations. A species list of the plants recorded in the tree inventory and 2018 wetland delineation can be found in Appendix B.

2018 Tree Inventory

In 2018, Graf Tree Care, Inc. completed a tree inventory of what was then called the Town Centre property (now Jubilee Point Park). The inventory included all trees with a diameter at breast height (dbh) of six inches or greater. Numerous factors were collected on all of the trees including species, condition, height, spread, wounds and existence of deadwood. As the property was not owned solely by the District at the time, 40 of the 1,960 trees identified in the survey are now on Village or Woodridge School District #68 property. Of the 1,920 trees on District property, approximately 87 were removed for regular maintenance or in the development of the sled hill, leaving a total of 1,833 trees in the inventory.

There were 29 different tree species, of which 18 native species, identified in the report. However, of the 18 native tree species, nine of them had a coefficient of conservatism value of 3 or less indicating that they have a "weedy nature". The weedier native species included box elder, eastern red cedar, black cherry, eastern cottonwood, silver maple and hackberry. Some of the higher quality trees on the site include three different species of oaks (bur, red and shingle), basswood and Ohio buckeye. A total of 238 trees are non-native and should be removed as part of the improvement process.

The report from Graf Tree Care, Inc. found that the trees on the site were overall in poor condition. As described in the report, condition 1 trees are trees greater than 16" in dbh and have few to no defects and exhibit good growth form. Similar to condition 1 trees, condition 2 trees must have a minimum dbh of at least 8" and few to no defects. The survey identified no condition 1 trees and only 17 condition 2 trees found on the site. Condition 3 trees have no minimum dbh consideration and are trees that are in average condition.

Condition 4 trees are in poor condition and show significant amounts of deadwood, wounds or poor growth form. Trees rated condition 5 are typically dead. Overall, the inventory found significantly more trees in the below average and very poor condition classes than was to be statistically expected according to a standard bell curve. Per the study, 291 trees are recommended for removal based on their poor condition. **Table 2** below shows the difference in the conditions of the actual trees and what was to be expected at the site.

TABLE 2 - ADJUSTED TREE INVENTORY CONDITION RATINGS

CONDITION RATING	ACTUAL # OF TREES	EXPECTED # OF TREES	DIFFERENCE
Condition 1 - Specimen	0	24	-24
Condition 2 - Above Average	17	240	-223
Condition 3 - Average	1111	1319	-208
Condition 4 - Below Average	464	240	224
Condition 5 - Very Poor	255	24	231
TOTAL	1847	1847	0

In their findings Graf Tree Care, Inc. commented that "the understory at the Town Centre site has become densely overgrown with invasive species, particularly Buckthorn, Honeysuckle, Oriental Bittersweet, and Multi-flora Rose, as well as rampant native poison ivy. If future development of the site includes salvaging parts of the woodland, it is recommended that a large-scale restoration plan be created to focus on widespread removal of invasive and nuisance species."

Fauna

No formal surveys have been conducted on the site to date, but some of the wildlife that has been observed by District staff on the site can be viewed in **Table 3** below. The observations were conducted in November 2023 while inspecting the site.

TABLE 3 - LIST OF WILDLIFE AND/OR WILDLIFE SIGNS OBSERVED ON THE SITE IN NOVEMBER 2023

MAMMALS	BIRDS	HERPTILES	INSECTS
Raccoon	Blue Jay	None	None
White-tailed Deer	Redtail Hawk		
Eastern Cottontail	Mourning Dove		
Gray Squirrel			

RESTORATION ACTIVITIES

The restoration activities described in this section will help achieve the goal of creating quality areas of native prairies and woodlands from the existing unmanaged site.

Prairies are grassland areas that have developed where fires or other disturbances frequently occurred. Fire prevented trees and other shrubs from establishing in the prairie. Prairies consist of a variety of native grasses and forbs. These plants typically have deep root structures which allow them to flourish after a disturbance.

Woodlands are areas that contain trees. The density of the trees will determine the type of woodland: savanna, open woodland or forest. Woodlands can be rated on their quality and are typically described by the dominant types of trees, such as oak-hickory woodland or a maple-beech forest. The quality of the woodland can change overtime. Typically, pioneer species, such as black cherry and eastern red cedar first establish on a site. These are eventually replaced by other more permanent species such as oaks, maples and lindens.

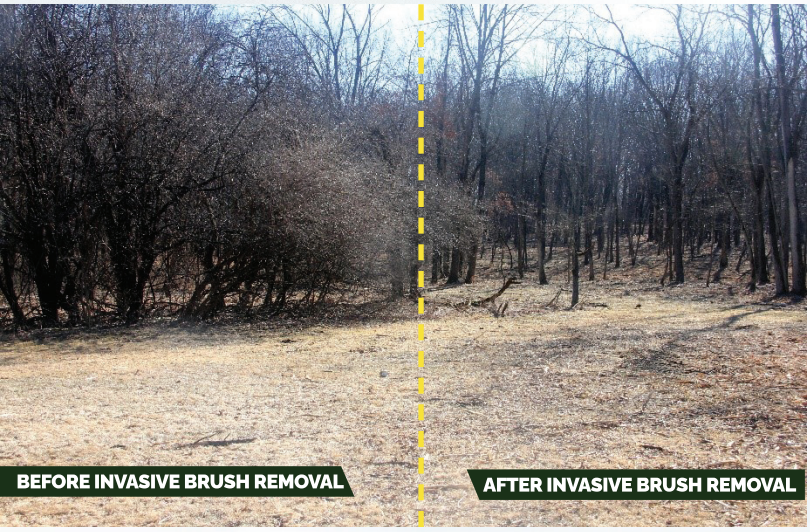
The District is looking to improve the existing invasive dominated natural areas at Jubilee Point Park through a multifaceted approach that includes: 1) removal of woody invasive plants; 2) removal of hazardous trees; and 3) installation of new plants and seed. These activities will improve the quality and diversity of the vegetation on the site, which will in turn support more diverse wildlife and insect species. Some additional benefits include enhanced visibility throughout the site in the service of public safety; and in the long term a more aesthetically pleasing, managed landscape.

Overall, through the actions described below, the District's goal is to improve the quality of the natural areas (woodland, prairie, wetlands) for both the flora and fauna that call the site home and to improve the aesthetics and safety for patrons that will visit the site. These activities are considered best management practices and are conducted by organizations such as forest preserve districts, conservation districts and state natural resource departments.

Woody Invasive Removals

The first step will be contracting the removal of the invasive woody plants at the site. The woody plants that will be removed include species such as buckthorn, bush honeysuckle, white mulberry and multiflora rose. The removal of these invasive plants is essential to the overall health of the natural areas. When non-native woody invasive plants are left in natural areas they aggressively choke out native groundcovers and increase soil erosion. The removal of these species will expose more sunlight to the understory allowing native trees, shrubs, flowers and grasses to flourish as intended for these natural areas. **Figure 4** shows a previous invasive removal project at Hawthorne Hill Woods, where the left side still has the invasive brush and the right side has had the invasive brush removed.

FIGURE 4 - INVASIVE BRUSH REMOVAL AT HAWTHORNE HILL WOODS



> **The removal of these invasive plants is essential to the overall health of the natural areas.**

Staff and ecology consultants recommend having the material manually cut with chainsaws and brush cutters and either burning the material on site or chipping it and removing it from the site. This method is preferred over clearing with forestry mulcher machines or other mechanical methods that would leave the debris at the site. When leaving the debris on site, such as at Hawthorne Hill Woods, staff has observed a longer timeframe for herbaceous plant species to germinate. Due to the high amount of invasive brush at the site, it is expected that the amount of wood chips at the site would be thick enough to hinder desired seed growth. Utilizing burn piles and burning the material will result in a better substrate for seeds and other plant material to establish quickly and creates a more finished look to the project.

Ideally, the entire site would be cleared at one time to reduce the source of weed seeds that could reinfest the cleared area. However, dependent on the cost and available funds, the removals may be phased in. In this scenario, the first area to be cleared will be approximately 19.5 acres on the south side of the site where most of the proposed park development would occur. The second phase would clear the remaining 7.3 acres on the north side of the property.

The impact on wildlife during the removal operations is expected to be minimal. As we have observed from using the same methods at other natural area sites, there may be some temporary displacement of wildlife in areas where crews are actively working, but wildlife quickly returns to the site, as soon as later that same day. The end result of the removal of invasive species will make the site more desirable to wildlife by opening access and allowing other more desirable plant species to establish. The increased floral diversity will provide a richer and more diverse environment allowing more species of wildlife to utilize the site for food and shelter.

Hazardous Tree Removals

Following the removal of the invasive trees and brush, the focus will be on removing hazardous trees from the site. Dead trees along paths, open areas and property lines that have the potential to negatively impact park users or neighbors will be removed for safety. The 2018 Tree Inventory identified 290 trees that were recommended for removal. The majority of these trees were dead, but were still standing. The survey also identified an additional 200 trees with severe deadwood and/or wounds that will need further evaluation to determine if they pose a risk that can be mitigated with proper pruning or if they will also need to be removed.

Figure 5 below is a comparison of the tree inventory currently to what it will look like after removing the non-native and hazardous trees.

Since the tree inventory is over 5 years old, all trees will need to be inspected again to determine if they can safely remain on the site. Each tree will be evaluated by an ISA Certified Arborist prior to their removal. Dead trees that are not near active use areas or property lines may be left for wildlife habitat if the risk of impacting park guests is minimal. The practice of leaving dead trees for wildlife habitat is also recommended by the Conservation Foundation staff.

FIGURE 5 - COMPARISON OF TREE INVENTORY BEFORE (LEFT) AND AFTER (RIGHT) PROPOSED REMOVALS

> **Following the removal of the invasive trees and brush, the focus will be on removing hazardous trees from the site.**

Native Planting

The third facet, native planting, would occur shortly after the clearing of the hazardous material. The goal of this phase would be to augment the native herbaceous and woody plants at the site, increasing the biodiversity and creating a healthier and more stable environment for both the plants and animals that use the site. Where accessible, staff would hydroseed (**Figure 6**) a native seed mix suitable to the conditions of the site. This seed mix would contain a variety of species that would be adaptable to both sun and shade. The seed mix would be similar to the one used at Ide's

FIGURE 6 - HYDROSEEDING NATIVE SEED AT 63RD STREET PARK

Grove West Park implemented as part of the replanting efforts after the extensive tree loss resulting from the 2022 tornado. This native seed mix allows the herbaceous layer to continue to develop as the trees mature. This recommended seed mix and suggestions for trees can be found in Appendix C.

In addition to seeding, plugs and/or potted herbaceous plants may be installed where seed may be difficult to establish or to provide a more immediate finished product. New native trees and shrubs of varying sizes should also be installed to help develop the goal of a healthy woodland. Although there are native trees on site, the goal would be to introduce more quality, sustainable species to the area, rather than the weedier pioneer species that currently dominate most of the site. This would include planting more species such as oaks and hickories on the site. This implementation method would again mirror Ide's Grove West Park's natural area restoration efforts conducted after the tornado, which utilized trees from five gallon pots up to 2" ball and burlap trees. Larger single stem trees should be protected from deer with wire cages, similar to what is done on park sites, in order to prevent deer from rubbing the trunks.

MANAGEMENT ACTIVITIES

Below are some of the management activities that will help ensure a successful improvement project. These will be ongoing efforts to manage the landscape in accordance with the District's Natural Resource Management Plan.

Herbaceous Weed Control

Due to the degraded nature of the vegetation at the site, it is anticipated that controlling invasive weedy species will be a high priority in the early years of the project. This would be done through regular spot treatments on individual plants in the enhancement areas. Mowing may also be beneficial in seeded areas to suppress larger areas of invasive species and prevent them from setting seed.

Woody Invasive Control

The high number of invasive woody species and the amount of seed generated by them will likely result in continued control of woody resprouts in the early years of the project. Larger stems, 1" or greater, should be cut to the ground and spot treated to prevent any future growth.

Prescribed Fire

Prescribed fire should be introduced to the site as soon as possible in appropriate areas. The site was added to the District's IEPA open burning permit in 2016, but no burn has been conducted yet.

In areas set to be planted with trees, care should be taken not to damage the desired trees so that they can become established. Prescribed fire will immediately be useful in some areas that are more open and currently contain native herbaceous species.

Floristic Quality Assessment

Floristic quality assessments are essential to monitoring the success of any natural area work. By conducting these surveys, it can be determined if the maintenance activities are indeed benefitting the natural area or if the practices should be adjusted to help improve the quality of the natural area. At a minimum, meander surveys should be conducted in the different management areas at proper times during the growing season to determine what activities need to take place to improve the quality of the natural area.

PRELIMINARY MANAGEMENT AREAS

Although significant data has not yet been gathered pertaining to the herbaceous flora at the site, some initial management areas can be laid out. The management areas are defined by site observations and review of all the material pertaining to the site including historic aerial photos. Final determination of how different areas need to be managed will be established after the removal of the invasive brush and an analysis of the existing vegetation is completed. **Figure 7** on the following page shows the approximate locations of the management areas described in more detail below.

FIGURE 7 - MAP OF PRELIMINARY MANAGEMENT AREAS

Main Wetland

This area is approximately 4.4 acres and is the larger wetland on the south edge of the site along the homes on Ravinia Drive. There are many mature trees including native silver maples and most of the oaks on the site are found here.

Even after removing the invasive species, there will be numerous native trees remaining that will greatly benefit from the increased growing space and continue to provide quality habitat.

While additional native herbaceous seeding may be needed in this area, it is not likely to require additional trees planted. After removal of the invasive brush, the area should be evaluated to determine if native shrubs and understory trees would be a good benefit to the improvement of the area. Due to the proximity of the homes and previous resident concerns, management of poison ivy should be continued along the property line.

Drainage Ways/ Intermittent Streams

These areas include parts of wetlands 1 and 2 in the 2018 wetland survey. They cover a total of approximately 3.6 acres. These areas were among the first to start to develop trees, as seen in the early aerial images. Again, the trees in these areas are not high quality, but mainly pioneer species. These areas will likely need additional plantings for canopy, understory, shrubs and herbaceous seeding. These areas may also be prone to erosion along the banks of the drainage ways. Additional plantings and erosion control measures may be needed to stabilize the slopes and prevent soil loss.

It is likely that implementation of the natural area improvements will begin in these first two areas, the main wetland and drainage ways. Enhancements will include utilizing the existing trees and supplementing them with more diverse, quality species to create a more sustainable open woodland. The location of these areas will also help break up views across the site, providing some screening of different features of the park site.

Open "Prairie"

This area is approximately 4.2 acres in size and is located just north of the existing garden plots. There has been little tree establishment in this area, despite being left unmanaged. Woody species in this area consist mostly of Eastern red cedar and crab apples. Some native herbaceous species were also observed in this area including goldenrods, bergamot, vervains, milkweed, knotweed, big bluestem and switch grass. This area would benefit from prescribed fire and is expected to improve when the invasive brush is removed.

Sled Hill

The sides of the sled hill were seeded with a native prairie mix. Although fairly weedy, native species are beginning to establish. This management area covers approximately 0.9 acre. Staff has been maintaining the area through regular weed control treatments. This area should be maintained as on open prairie and trees should be removed in order to keep the recreational use of the hill safe. It would also benefit from some supplemental seeding to help outcompete the non-native herbaceous species in the area.

Remaining "Woodland"

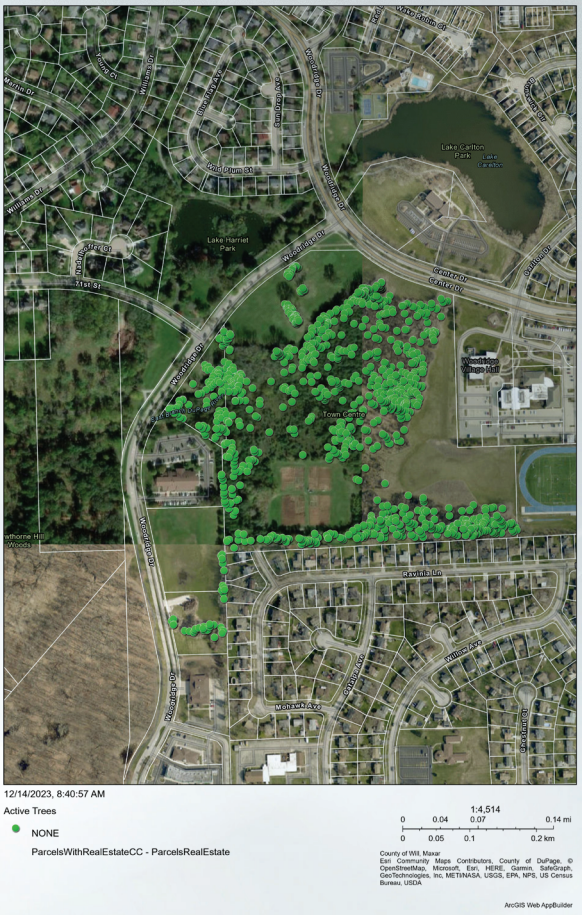
Outside these preliminary management areas, much of the site's woodland will need to be "built" from scratch. This covers approximately 14.5 acres of the site. Areas included in this section will require further analysis to determine which management practices will be needed to make them successful. The large amounts of invasive brush and lack of quality trees throughout the site will necessitate additional plantings to improve the biodiversity and sustainability of the natural area. These plantings should include native canopy and understory trees, shrubs and native flowers and grasses. It would be beneficial to plant in pockets that could be maintained efficiently without overburdening staff.

Proposed Park Site Development Impacts

Overall, the park site development is not expected to have a major impact on the condition of the natural area at Jubilee Point Park. Most of the proposed construction will be in existing turf areas and the current community garden plots. Of the 27.6 acres of natural area currently established on the site, only 4.75 acres will be impacted by the park development. The remaining natural area will be reinvigorated with appropriate native seeding and plantings to create improved natural areas throughout the park site.

Phase 2 of the park development project, proposes to remove an estimated 273 trees from the site, this number does include 48 trees that would be removed as part of the natural area improvement project including condition 5 (dead) and non-native trees. A total of 14 non-native trees and 34 hazardous trees would be removed in accordance to the natural area improvement recommendations laid out in this plan. Trees removed as part of the development of the site will be replaced in accordance with the Village of Woodridge's tree preservation and replacement ordinance, which would require an estimated 113 trees (2.5" caliper) to be planted. **Figure 8** shows the locations of the trees that will remain after both the natural area improvements and proposed park site development occur. It should be noted that the District also plans on installing numerous smaller trees to improve the quality of the natural areas.

FIGURE 8 - TREES REMAINING AFTER ALL PROPOSED REMOVALS

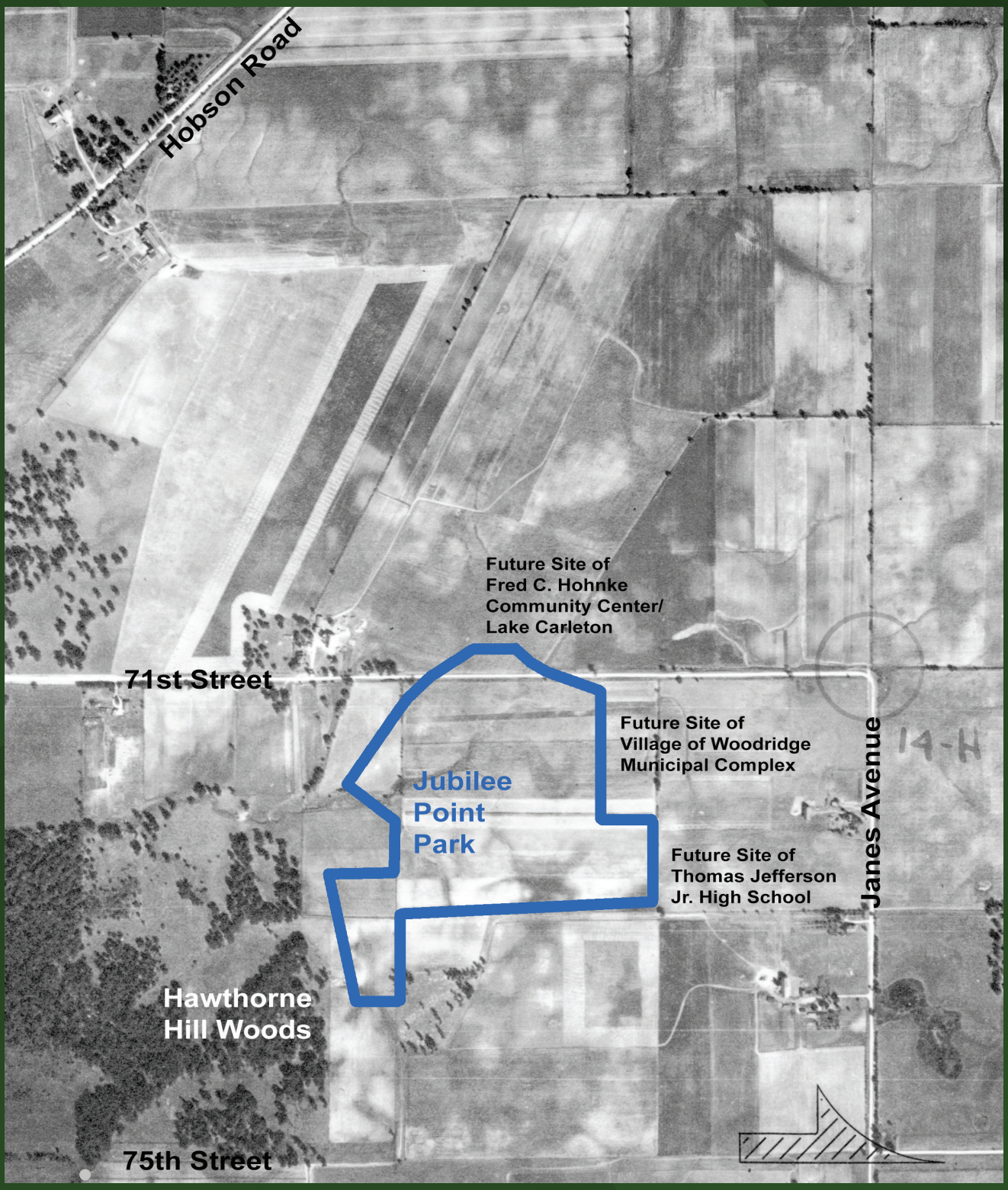


The District's acquisition of this property to preserve it from commercial, residential or institutional development combined with the proposed natural area improvements, will outweigh any impact of the proposed park developments by increasing the biodiversity and creating more suitable habitat for wildlife and insects at the site. The proposed park development and natural area improvements on this site and surrounding District properties can also be used as an educational opportunity to teach area students, residents and park patrons of the positive impacts that sound environmental stewardship can provide. This can further demonstrate how the natural environment and access to park and recreational opportunities can co-exist in harmony to improve the overall quality of lives of our residents.

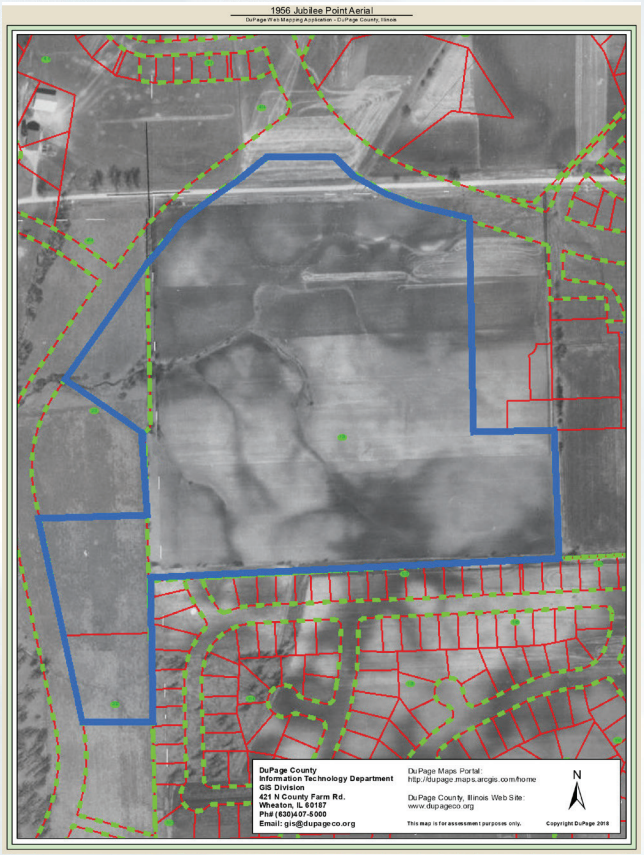
Appendix A

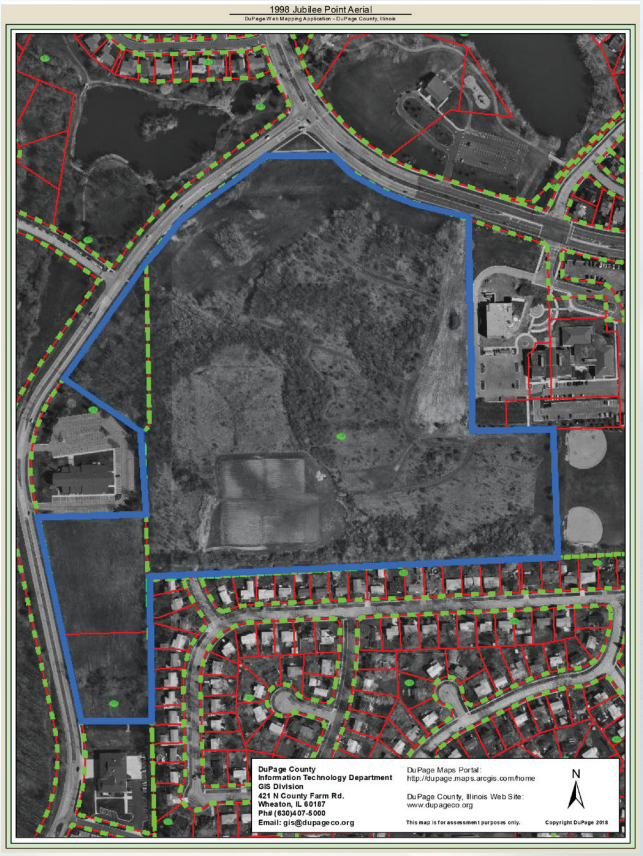
HISTORIC AERIAL IMAGES

1939 AERIAL IMAGE WITH APPROXIMATE LOCATION



1939 AERIAL IMAGES FROM 1956, 1978, 1987 AND 1998





Appendix B

WETLAND AND TREE FLORISTIC QUALITY ASSESSMENTS

2018 COMBINED WETLANDS 4/4/2018

Jubilee Point Park | Woodridge | DuPage | IL | United States

FQA DB Region: Chicago Region USACE
FQA DB Publication Year: 2017
FQA DB Description: https://www.lrc.usace.army.mil/Missions/Regulatory/FQA.aspx
Practitioner: Paul Bollinger
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes: Combined Wetlands 1, 2 and 3
Private/Public: Public

CONSERVATISM-BASED METRICS:

Total Mean C:	1.4
Native Mean C:	2.2
Total FQI:	10.3
Native FQI:	13
Adjusted FQI:	17.7
% C value 0:	48.1
% C value 1-3:	38.9
% C value 4-6:	13
% C value 7-10:	0
Native Tree Mean C:	2.4
Native Shrub Mean C:	2.0
Native Herbaceous Mean C:	2.1

SPECIES RICHNESS:

Total Species:	54	
Native Species:	35	64.80%
Non-native Species:	19	35.20%

SPECIES WETNESS:

Mean Wetness:	-0.1
Native Mean Wetness:	-0.3

PHYSIOGNOMY METRICS:

Tree:	10	18.50%
Shrub:	8	14.80%
Vine:	3	5.60%
Forb:	24	44.40%
Grass:	7	13%
Sedge:	13	3.70%
Rush:	0	0%
Fern:	0	0%
Bryophyte:	0	0%

DURATION METRICS:

Annual:	3	5.60%
Perennial:	48	5.60%
Biennial:	3	5.60%
Native Annual:	3	5.60%
Native Perennial:	32	59.30%
Native Biennial:	0	0%

SPECIES

SCIENTIFIC NAME	FAMILY	ACRONYM	NATIVE?	C	W	PHYSIO.	DURATION	COMMON NAME
Acer negundo	Aceraceae	ACENEG	native	0	0	tree	perennial	ash-leaf maple
Acer saccharinum	Aceraceae	ACESAI	native	1	-1	tree	perennial	silver maple
Achillea filipendulina	Asteraceae	ACHFIL	non-native	0	2	forb	perennial	fern-leaf yarrow
Ageratina altissima	Asteraceae	AGEALT	native	3	1	forb	perennial	white snakeroot
Agrostis gigantea	Poaceae	AGRALB	non-native	0	-1	grass	perennial	black bent
Alliaria petiolata	Brassicaceae	ALLPET	non-native	0	0	forb	biennial	garlic-mustard
Ambrosia artemisiifolia	Asteraceae	AMBART	native	0	1	forb	annual	annual ragweed
Barbarea vulgaris	Brassicaceae	BARVUL	non-native	0	0	forb	biennial	garden yellow-rocket
Bidens frondosa	Asteraceae	BIDFRO	native	1	-1	forb	annual	devils-pitchfork
Carex blanda	Cyperaceae	CXBLAN	native	1	0	sedge	perennial	eastern woodland sedge
Carex stricta	Cyperaceae	CXSTRI	native	5	-2	sedge	perennial	uptight sedge
Cornus alba	Cornaceae	CORALB	native	5	-1	shrub	perennial	red osier
Cornus racemosa	Cornaceae	CORRAC	native	1	0	shrub	perennial	gray dogwood
Crataegus crus-galli	Rosaceae	CRACRU	native	3	0	tree	perennial	cock-spur hawthorn
Dactylis glomerata	Poaceae	DACGLO	non-native	0	1	grass	perennial	orchard grass
Dipsacus fullonum	Dipsacaceae	DIPFUL	non-native	0	1	forb	biennial	fullers teasel
Epilobium coloratum	Onagraceae	EPICOL	native	3	-2	forb	perennial	purple-leaf willowherb
Eupatorium serotinum	Asteraceae	EUPSER	native	0	0	forb	perennial	late-flowering thoroughwort
Fallopia scandens	Polygonaceae	FALSCA	native	3	0	vine	perennial	climbing black-bindweed
Fragaria virginiana	Rosaceae	FRAVIR	native	0	1	forb	perennial	virginia strawberry
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	green ash
Geum canadense	Rosaceae	GEUCAN	native	1	0	forb	perennial	white avens
Glechoma hederacea	Lamiaceae	GLEHED	non-native	0	1	forb	perennial	groundivy
Glyceria striata	Poaceae	GLYSTR	native	4	-2	grass	perennial	fowl manna grass
Hydrophyllum virginianum	Hydrophyllaceae	HYDVIR	native	5	0	forb	perennial	shawnee-salad
Juglans nigra	Juglandaceae	JUGNIG	native	3	1	tree	perennial	black walnut
Juncus dudleyi	Juncaceae	JUNDUD	native	2	-1	forb	perennial	dudleys rush
Lonicera tatarica	Caprifoliaceae	LONTAT	non-native	0	1	shrub	perennial	twinsisters
Lythrum salicaria	Lythraceae	LYTSAL	non-native	0	-2	forb	perennial	purple loosestrife
Morus alba	Moraceae	MORALB	non-native	0	0	tree	perennial	white mulberry
Panicum virgatum	Poaceae	PANVIR	native	3	0	grass	perennial	wand panic grass
Persicaria pensylvanica	Polygonaceae	PERPEN	native	0	-1	forb	annual	pinkweed
Phalaris arundinacea	Poaceae	PHAARU	non-native	0	-1	grass	perennial	reed canary grass
Phleum pratense	Poaceae	PHLPRA	non-native	0	1	grass	perennial	common timothy
Poa pratensis	Poaceae	POAPRA	non-native	0	0	grass	perennial	kentucky blue grass
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Rhamnus cathartica	Rhamnaceae	RHACAT	non-native	0	0	shrub	perennial	european buckthorn
Ribes missouriense	Grossulariaceae	RIBMIS	native	2	2	shrub	perennial	missouri gooseberry
Rosa multiflora	Rosaceae	ROSMUL	non-native	0	1	shrub	perennial	rambler rose
Rubus occidentalis	Rosaceae	RUBOCC	native	0	2	shrub	perennial	black raspberry
Rumex crispus	Polygonaceae	RUMCRI	non-native	0	0	forb	perennial	curly dock
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Salix nigra	Salicaceae	SALNIG	native	5	-2	tree	perennial	black willow
Solidago altissima	Asteraceae	SOLALT	native	1	1	forb	perennial	tall goldenrod
Symphyotrichum lateriflorum	Asteraceae	ASTLAT	native	4	-1	forb	perennial	farewell-summer
Taraxacum officinale	Asteraceae	TAROFF	non-native	0	1	forb	perennial	common dandelion
Teucrium canadense	Lamiaceae	TEUCAN	native	3	-1	forb	perennial	american germander
Toxicodendron radicans	Anacardiaceae	RHURAD	native	2	0	vine	perennial	eastern poison-ivy
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaf cat-tail
Ulmus americana	Ulmaceae	ULMAME	native	3	-1	tree	perennial	american elm
Ulmus pumila	Ulmaceae	ULMPUM	non-native	0	2	tree	perennial	siberian elm
Verbena urticifolia	Verbenaceae	VERURT	native	2	0	forb	perennial	white vervain
Viola sororia	Violaceae	VIOSOR	native	3	0	forb	perennial	hooded blue violet
Vitis riparia	Vitaceae	VITRIP	native	1	-1	vine	perennial	river-bank grape

Appendix B Continued

WETLAND AND TREE FLORISTIC QUALITY ASSESSMENTS

2018 TREE INVENTORY4/2/2018

Jubilee Point Park | Woodridge | DuPage | IL | United States

FQA DB Region: Chicago Region USACE
FQA DB Publication Year: 2017
FQA DB Description: https://www.lrc.usace.army.mil/Missions/Regulatory/FQA.aspx
Practitioner: Leslie Delles
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
Private/Public: Public

CONSERVATISM-BASED METRICS:

Total Mean C:	1.9
Native Mean C:	3.1
Total FQI:	10.2
Native FQI:	13.2
Adjusted FQI:	24.4
% C value 0:	51.7
% C value 1-3:	17.2
% C value 4-6:	27.6
% C value 7-10:	3.4
Native Tree Mean C:	3.3
Native Shrub Mean C:	0
Native Herbaceous Mean C:	

SPECIES RICHNESS:

Total Species:	29	
Native Species:	18	62.10%
Non-native Species:	11	7.90%

SPECIES WETNESS:

Mean Wetness:	0.7
Native Mean Wetness:	0.2

PHYSIOGNOMY METRICS:

Tree:	27	93.10%
Shrub:	2	6.90%
Vine:	0	0%
Forb:	0	0%
Grass:	0	0%
Sedge:	0	0%
Rush:	0	0%
Fern:	0	0%
Bryophyte:	0	0%

DURATION METRICS:

Annual:	0	0%
Perennial:	29	100%
Biennial:	0	0%
Native Annual:	0	0%
Native Perennial:	18	62.10%
Native Biennial:	0	0%

SPECIES

SCIENTIFIC NAME	FAMILY	ACRONYM	NATIVE?	C	W	PHYSIO.	DURATION	COMMON NAME
Acer negundo	Aceraceae	ACENEG	native	0	0	tree	perennial	ash-leaf maple
Acer platanoides	Aceraceae	ACEPLA	non-native	0	2	tree	perennial	norway maple
Acer saccharinum	Aceraceae	ACESAI	native	1	-1	tree	perennial	silver maple
Aesculus glabra	Hippocastanaceae	AESGLA	native	7	0	tree	perennial	ohio buckeye
Ailanthus altissima	Simaroubaceae	AILALT	non-native	0	1	tree	perennial	tree-of-heaven
Celtis occidentalis	Ulmaceae	CELOCC	native	2	0	tree	perennial	common hackberry
Crataegus crus-galli	Rosaceae	CRACRU	native	3	0	tree	perennial	cock-spur hawthorn
Fraxinus americana	Oleaceae	FRAAME	native	5	1	tree	perennial	white ash
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	green ash
Juglans nigra	Juglandaceae	JUGNIG	native	3	1	tree	perennial	black walnut
Juniperus virginiana	Cupressaceae	JUNVIR	native	0	1	tree	perennial	eastern red-cedar
Maclura pomifera	Moraceae	MACPOM	non-native	0	1	tree	perennial	osage-orange
Malus ioensis	Rosaceae	MALIOE	native	4	2	tree	perennial	iowa crab apple
Morus alba	Moraceae	MORALB	non-native	0	0	tree	perennial	white mulberry
Picea pungens	Pinaceae	PICPUN	non-native	0	2	tree	perennial	colorado blue spruce
Pinus nigra	Pinaceae	PINNIG	non-native	0	2	tree	perennial	austrian pine
Pinus sylvestris	Pinaceae	PINSYL	non-native	0	2	tree	perennial	scots pine
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Prunus serotina	Rosaceae	PRUSER	native	0	1	shrub	perennial	black cherry
Pyrus calleryana	Rosaceae	PYRCAL	non-native	0	2	tree	perennial	ornamental pear
Quercus imbricaria	Fagaceae	QUEIMB	native	4	1	tree	perennial	shingle oak
Quercus macrocarpa	Fagaceae	QUEMAC	native	5	0	tree	perennial	burr oak
Quercus rubra	Fagaceae	QUERUB	native	5	1	tree	perennial	northern red oak
Robinia pseudoacacia	Fabaceae	ROBPSE	non-native	0	1	tree	perennial	black locust
Salix nigra	Salicaceae	SALNIG	native	5	-2	tree	perennial	black willow
Syringa vulgaris	Oleaceae	SYRVUL	non-native	0	2	shrub	perennial	common lilac
Tilia americana	Tiliaceae	TILAME	native	5	1	tree	perennial	american basswood
Ulmus americana	Ulmaceae	ULMAME	native	3	-1	tree	perennial	american elm
Ulmus pumila	Ulmaceae	ULMPUM	non-native	0	2	tree	perennial	siberian elm

Appendix C

RECOMMENDED SEED, TREES AND SHRUBS

TALLGRASS MESIC PRAIRIE SAVANNA SEED MIX

A mix for open grown hardwoods, with patchwork full sun & shade with a grassy understory. This mix will also work in new tree plantings in full sun. Do not use equipment within the dripline of trees. Shallow, gentle soil prep only!

SPECIES	COMMON NAME	LB/AC
Ageratina altissima {Eupatorium rugosum}	White Snake Root	0.031
Agrostis perennans	Upland Bent	1.000
Andropogon gerardii	Big Bluestem	2.000
Asclepias syriaca	Common Milkweed	0.063
Baptisia lactea {B alba macrophylla}	White Indigo	0.063
Bromus latiglumis {B altissimus}	Earleaf Brome	0.015
Carex Bicknellii	Bicknells Sedge	0.188
Carex grisea	Wood Gray Sedge	0.031
Carex Sprengelii	Sprengels Sedge	0.031
Ceanothus americanus	New Jersey Tea	0.031
Coreopsis tripteris	Tall Coreopsis	0.094
Desmodium canadense	Showy Ticktrefoil	0.094
Diarrhena americana	Beak Grass	0.031
Elymus canadensis	Canada Rye	2.000
Elymus hystrix {Hystrix patula}	Bottlebrush Grass	0.063
Elymus villosus	Silky Rye	0.125
Elymus virginicus	Virginia Rye	1.000
Eupatorium altissimum	Tall Boneset	0.031
Euthamia graminifolia {Solidago g}	Grass Leaf Goldenrod	0.063
Gentiana alba {G. flavida}	Pale Gentian	0.063
Glyceria striata	Fowl Manna Grass	0.063
Heliopsis helianthoides	Early Sunflower	0.125
Juncus dudleyi	Dudleys Rush	0.125
Monarda fistulosa	Bergamont	0.094
Oenothera biennis	Evening Primrose	0.063
Oenothera gaura {Gaura biennis}	Biennial Gaura	0.031
Oligoneuron rigidum {Solidago r}	Stiff Goldenrod	0.063
Panicum virgatum	Switch Grass	0.500
Polygonatum biflorum commutatum {P canaliculatum}	Smooth Solomons Seal	0.031
Pycnanthemum tenuifolium	Slender Mt Mint	0.031
Pycnanthemum virginianum	Common Mt Mint	0.063
Rudbeckia hirta	Blackeyed Susan	0.125
Rudbeckia subtomentosa	Sweet Coneflower	0.125
Rudbeckia triloba	Browneyed Susan	0.250
Schizachyrium scoparium {Andropogon s}	Little Bluestem	2.000
Solidago juncea	Early Goldenrod	0.015
Solidago ulmifolia	Elmleaf Goldenrod	0.188
Sorghastrum nutans	Indian Grass	2.000
Schizachyrium scoparium {Andropogon s}	Little Bluestem	2.000
Solidago juncea	Early Goldenrod	0.015
Solidago ulmifolia	Elmleaf Goldenrod	0.188
Sorghastrum nutans	Indian Grass	2.000
Symphyotrichum drummondii {Aster d}	Drummonds Aster	0.063
Symphyotrichum shortii {Aster s}	Shorts Aster	0.063
Symphyotrichum urophyllum {Aster sagittifolius}	Arrowleaf Aster	0.063
Tradescantia ohiensis	Ohio Spiderwort	0.046
Vernonia missurica	Missouri ironweed	0.046
Zizia aurea	Golden Alexander	0.063

TREE AND SHRUB RECOMMENDATIONS

SPECIES	COMMON NAME	LB/AC
Sugar Maple	Acer saccarinum	Canopy
Blue Beech	Carpinus caroliniana	Understory
Bitternut Hickory	Carya cordiformis	Canopy
Shagbark Hickory	Carya ovata	Canopy
New Jersey Tea	Ceanothus americanus	Shrub
Hackberry	Celtis occidentalis	Canopy
Buttonbush	Cephalanthis occidentalis	Shrub
Redbud	Cercis canadensis	Understory
Hawthorns	Craetagus spp.	Understory
Black Walnut	Juglans nigra	Canopy
Ironwood	Ostrya virginiana	Understory
Wild Plum	Prunus americana	Understory
White Oak	Quercus alba	Canopy
Shingle Oak	Quercus Imbricaria	Canopy
Bur Oak	Quercus macrocarpa	Canopy
Smooth Sumac	Rhus glabra	Shrub
Staghorn Sumac	Rhus typhina	Shrub
Gooseberry	Ribes spp.	Shrub
Elderberry	Sambucus canadensis	Shrub
Linden	Tilia americana	Canopy

Woodridge
PARK DISTRICT

For updated information, plans, schedules and actions:

SCAN THE QR

OR VISIT THE WEBSITE

www.woodridgeparks.org/projects/jubilee-point-park-development/