

GEOTECHNICAL

ENVIRONMENTAL

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WATER

CONSTRUCTION MANAGEMENT

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December 6, 2019

Mr. Ders Anderson Greenways Director Openlands 25 East Washington Street, Suite 1650 Chicago, Illinois 60602

Re: Wetland and Waterway Screening Altgeld Gardens City of Chicago, Cook County, Illinois

Dear Mr. Anderson,

The City of Chicago is proposing improvements to a property located south of East 134th Street, east of South Maryland Avenue, and west of Forest Preserves of Cook County (FPCC), Beaubien Woods Forest Preserve within the City of Chicago, Cook County, Illinois (T37N, R14E, Sections 34 and 35). Land use on the subject property consist of undeveloped land. Adjacent land use consists of residential land, Altgeld Gardens Seventh Day Adventist Church, Carver Park, and Carver Primary and Middle Schools.

Huff & Huff, Inc. (H&H) conducted a wetland and waterway screening on the subject property on September 25, 2019. The location of the subject property is depicted on Figure 1 in Attachment 1.

During the screening, eight (8) potential wetlands and one waterway, the Little Calumet River, were identified on or adjacent to the subject property. The wetland and waterway sites identified were not formally delineated, but were screened for planning purposes. The property lies within the Grand Calumet River/Little Calumet River Watershed (Hydrologic Unit Code [HUC] #071200030407), a subwatershed of the Chicago River Watershed (HUC #07120003).

This letter summarizes the findings of the wetland and waterway screening conducted for the above referenced project.

INTRODUCTION

The U.S. Army Corps of Engineers (USACE, <u>Federal Register</u> 1982) and the U.S. Environmental Protection Agency (EPA; <u>Federal Register</u> 1980) jointly define wetlands as: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Identification of wetlands is based on a three-factor approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology, originally set forth by the USACE in the 1987 Environmental Laboratory publication entitled "Corps of Engineers Wetlands Delineation Manual: Technical Report Y-87-1", commonly referred to as the 1987 Wetlands Delineation Manual.



The Midwest Region supplement to the 1987 Wetlands Delineation Manual was released in 2010 outlining updated technical guidance and procedures for identifying and delineating wetlands that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act (CWA) or Section 10 of the Rivers and Harbors Act. This wetland and waterway investigation was conducted using methodologies presented in the "Regional Supplement to the USACE Wetland Delineation Manual: Midwest Region (Version 2.0)" (2010 USACE Midwest Region Manual).

WETLAND IDENTIFICATION METHODOLOGY

This wetland and waterway screening was conducted based on available mapping resources, aerial photography, as well as methodologies outlined in the 2010 "COE Midwest Region Manual." Each potential wetland and waterway area was screened for the presence of wetland indicators comprised of hydrophytic vegetation and wetland hydrology as discussed below.

Hydrophytic Vegetation

Dominant vegetation within the property of the wetland and surface water screening was evaluated to determine the presence of hydrophytic vegetation. The indicator status for plant species are rated based on an estimated probability of occurring in wetlands. This rating system, published by Lichvar et al. in 2016 under the title "The National Wetland Plant List: 2016 Update of Wetland Ratings", consists of obligate wetland plants (OBL), facultative wetland plants (FACW), facultative plants (FAC), facultative upland plants (FACU), and upland plants (UPL). Obligate plant species generally grow in water. Facultative plant species can exist in saturated or dry soil conditions, and upland plants typically require dry soil conditions to exist. On June 10, 2019, the USACE provided initial notice of proposed changes to the National Wetland Plant List, referred to as the "2018 National Wetland Plant List Wetland Rating Update" (84 Fed. Reg. 111). The proposed changes have not gone into effect at the time of this report.

Hydric Soils

A description of the soil profile is used to evaluate the presence of hydric soil. Hydric soil indicators are defined in the 2010 COE Midwest Region Manual: Hydric Soil Indicators, Chapter 3. Soils were not investigated as part of this wetland and waterway screening. However, the Cook County soil survey was reviewed to determine the presence of mapped hydric soil.

Wetland Hydrology

Wetland hydrology indicators, defined in the 2010 USACE Midwest Region Manual: Wetland Hydrology Indicators, Chapter 4, are separated into four groups and divided into a primary or secondary category based on their estimated reliability in this region. Primary indicators provide stand-alone evidence of a current or recent hydrological event. Secondary indicators provide evidence of recent inundation or saturation when supported by one or more other primary indicators or secondary wetland hydrology indicators, but should not be used alone.

Wetland hydrology indicators were not formally investigated as part of the screening process. However, standing water, readily observable hydrology indicators, and depressional topography were noted where applicable in order to determine the probability of the presence of wetland hydrology.



Waterway/Surface Water Assessment

Surface waters may only have one or two of the wetland criteria listed above. The USACE defines the ordinary high water mark (OHWM) as the boundary of surface waters. The OHWM is the line on the shore established by fluctuations of water and is indicated by physical characteristics such as:

- A clear, natural line impressed on the bank;
- Shelving;
- Changes in the character of soil;
- Destruction of terrestrial vegetation;
- The presence of litter and debris; or
- Other appropriate means that consider the characteristics of the surrounding areas.

During low streamflow or drought conditions, the OHWM is used to determine the boundary of a surface water. During extremely high streamflow conditions or flood conditions the boundaries of surface waters cannot accurately be determined. Therefore, waterway boundaries should be delineated when normal streamflow conditions are present.

To differentiate boundaries between surface waters/waterways and adjacent wetlands, evidence of the OHWM is utilized. Changes in vegetation can also be evaluated to determine where true hydrophytic (FAC and FACW) plant species are present versus aquatic or OBL species. However, it should be noted that in many cases vegetation is not present within the channels of surface waters. Vegetation adjacent to waterways may be limited to species overhanging the banks and channel.

If the presence of a surface water is questionable, the USACE will typically conduct a review of historic aerial photographs and historic U.S. Geological Survey (USGS) topographic maps to confirm the current or historic presence of a surface water. This can include segments of streams that are entirely enclosed.

Floristic Quality Assessment

Observed plant species are noted to obtain the Floristic Quality Index (FQI) and mean C-value (coefficient of conservatism). Areas of high natural quality include native plants with C-values ranging from approximately 4 to 10. C-values are assigned to native plants as listed in *Flora of the Chicago Region* (Wilhelm and Rericha, 2017). A low C-value indicates that a plant is generally not considered high quality or is a habitat generalist. A native species FQI for each site is obtained by multiplying the mean C-value of all native plants encountered by the square root of the number (N) of native species. Native species FQI values of 0 to 5.0 are considered severely degraded, 5.1 to 9.9 are degraded, 10 to 19.9 are moderate quality with some native character, and those with values greater than 20 have natural characteristics and are considered an environmental asset.



WETLAND AND WATERWAY FINDINGS

PUBLISHED MAP DATA

Data were gathered from the Cook County Soil Survey, the U.S. Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) Map, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), and the U.S. Geological Survey (USGS) Hydrologic Atlas to provide an indication of areas where wetlands and waterways potentially occur.

Soil Survey

The Natural Resources Conservation Service (NRCS) Web Soil Survey is generated from USDA-NRCS certified data of Cook County. Table 1 summarizes the mapped soils on the subject property, as depicted on Figure 2 in Attachment 1.

Table 1. Mapped Soils on the Subject Property

Soil Unit	Soil Type	Potential Hydric Inclusion (Component Representative Percentage)	Likelihood of Being Hydric? (Hydric Soil Rating Percentage) ¹	Landform(s) in which the Soil is Considered Hydric
805A	Orthents, clayey, nearly level	Ashkum (4%) Aquents, clayey (2%)	No (6%)	Ground moraines
1409A	Aquents, clayey, undrained, nearly level	Aquents, clayey, undrained (91%)	High (91%)	
W	Water		No (0%)	

Landform **NRCS** as stated in the Soil Data Access (SDA) Hydric Soils List for Cook County, Illinois. https://www.nrcs.usda.gov/Internet/FSE DOCUMENTS/nrcseprd1316620.html

The NRCS 2016 National Hydric Soil List by State provides a hydric rating for soils and indicates the component representative percentage of map units that meet the criteria for hydric soils. The hydric soil ratings by map unit are shown on Figure 2 in Attachment 1 and shows the hydric soil rating for each soil unit within the subject property. The NRCS Web Soil Survey categorizes soils by hydric rating into five classes: zero percent, one to 32 percent, 33 to 65 percent, 66 to 99 percent, and 100 percent.

According to the NRCS 2016 *National Hydric Soil List by State* for Cook County, Aquents, clayey, undrained, nearly level (1409A) is listed as containing hydric inclusions that represent between 66 and 99 percent of the soil type within Cook County. This soil type has a high likelihood of being hydric within the specific landform noted in Table 1.

According to the NRCS 2016 National Hydric Soil List by State for Cook County, Orthents, clayey, nearly level (805A) is listed as containing hydric inclusions that represent between one to 32 percent of the soil type within Cook County. This soil type has a low likelihood of being hydric within the specific landform noted in Table 1.

It should be noted that field analyses of soils supersede the mapped soils data as presented within the NRCS 2016 *National Hydric Soil List by State*.



National Wetlands Inventory

The digital format NWI Maps were developed by the FWS in collaboration with the USGS, Water Resources Division using data from 1988. The maps were prepared primarily by stereoscopic analysis of high altitude aerial photographs. All wetlands are identified based on vegetation, visible hydrology, and geography in accordance with the Cowardin System. According to the FWS, aerial photographs typically reflect conditions during the year and season they were taken. There is a margin of error inherent in the use of aerial photographs to delineate wetlands. Therefore, wetland boundaries established through interpretation of aerial photographs may be revised based upon detailed ground and historical analyses of individual sites.

The NWI Map (Figure 3 in Attachment 1) depicts the following wetlands on or adjacent to the subject property:

- One Palustrine, Forested, Broad-Leaved Deciduous/Emergent, Persistent, Temporarily Flooded, Partially Drained/Ditched (PFO1/EM1Ad) wetland located at the northeast side of the property, and
- One Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBH) waterway associated with the Little Calumet River, located along the southern boundary of the property.

Flood Insurance Rate Map

The FEMA FIRM (Figure 4 in Attachment 1) depicts Zone A (Floodplain) and Zone X (Other Areas) on the subject property. Zone A (Floodplain) is defined as, "the area subject to flooding by the 1% annual chance flood ... No Base Flood Elevations determined." Zone X (Other Areas), is defined as "areas determined to be outside the 0.2% annual chance floodplain."

Hydrologic Atlas

The USGS Hydrologic Atlas (Figure 5 in Attachment 1) depicts flood areas, river miles (where applicable), and major drainage divisions. The USGS Hydrologic Atlas depicts flood areas associated with the Little Calumet River on the subject property. The USGS Hydrologic Atlas does not depict drainage divisions on the subject property.

Section 303(d) and Total Maximum Daily Load (TMDL)

Surface waters are designated by the Illinois Environmental Protection Agency (IEPA) for a variety of uses including drinking water, aquatic life, primary contact (e.g., swimming), secondary contact (e.g., boating), wildlife, agricultural use, industrial use, food-processing water supply, and aesthetic quality. Section 303(d) of the CWA requires states to identify surface waters that do not meet applicable water quality standards or do not fully support their designated uses by providing a prioritized list of impaired waters, known as the Section 303(d) List, to the U.S. EPA for review and approval. The CWA also requires that a Total Maximum Daily Load (TMDL) be developed for each pollutant of an impaired surface water. A TMDL sets a maximum limit of a given pollutant that a surface water can receive without violating water quality standards and designated uses.

The Little Calumet River is located adjacent to the southern boundary of the subject property. According to the Illinois EPA 2018 Illinois Integrated Water Quality Report and Section 303(d) List, the segment of the Little Calumet River (Assessment Unit ID [AUID] IL_HA-05) adjacent to the subject property is listed on the 303(d) List for its designated use of Fish Consumption. Causes of the impairment include mercury and polychlorinated biphenyls.



Illinois Department of Natural Resources Biological Stream Characterization

The segment of the Little Calumet River adjacent to the subject property is rated D for Diversity and Integrity as part of the Biological Stream Characterization Study (IDNR, 2008). The Little Calumet River is not a Biologically Significant Stream (IDNR, 2008).

FIELD INVESTIGATION

Eight potential wetlands (Sites 1, 2, 3, 4, 5, 6, 7, and 8) and the Little Calumet River (Site W1) were identified on or adjacent to the subject property. The wetland and waterway sites were not formally delineated, but were screened for planning purposes. The identified sites are briefly described below and the approximate boundary of each site is mapped on Figure 6 in Attachment 1. The Floristic Quality Assessment (FQA) is located in Attachment 2. Photographic documentation is included in Attachment 3.

Wetlands

<u>Site 1</u> is a potential wetland that encompasses the eastern two thirds of the subject property. A total of 18.4 acres of Site 1 is located on the subject property. Site 1 consists of a common reed (*Phragmites australis*) and reed canary grass (*Phalaris arunindancea*) wet meadow and forested areas along the banks of the Little Calumet River (Site W1).

Predominant vegetation associated with Site 1 includes; common reed, reed canary grass, devil's pitchfork (*Bidens frondosa*), Canadian thistle (*Cirsium arvense*), red osier dogwood (*Cornus alba*), tall boneset (*Eupatorium altissimum*), green ash (*Fraxinus pennsylvanica*), purple loosestrife (*Lythrum salicaria*), eastern cottonwood (*Populus deltoides*), common buckthorn (*Rhamnus cathartica*), and black willow (*Salix nigra*), which are primarily hydrophytes. The native FQI and native mean C-value for Site 1 are 24.1 and 3.1, respectively, indicating high floristic quality with native character.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County and Aquents, clayey, undrained, nearly level (1409A), which has a hydric soil rating of 91 percent within Cook County. Soils within Site 1 appear to have been disturbed due to dumping.

Site 1 receives surface water from adjacent uplands and impervious surfaces, and periodic overbank flooding from the Little Calumet River. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Saturation, Crayfish Burrows, Geomorphic Position, and FAC-Neutral Test.

The NWI Map depicts Site 1 as a PFO1/EM1AD wetland. The FEMA FIRM depicts Site 1 within Zone X (Other Areas). Site 1 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.

<u>Site 2</u> is a potential wetland located at the northern end of the subject property. A total of 0.05 acre of Site 2 is located on the subject property. Site 2 consists of a depressional drainageway that appears to convey water south into Site 1.



Predominant vegetation associated with Site 2 includes; common reed, green ash, purple loosestrife, Kentucky bluegrass (*Poa pratensis*), eastern cottonwood, and common buckthorn, which are primarily hydrophytes. The native FQI and native mean C-value for Site 2 are 5.4 and 1.6, respectively, indicating degraded floristic quality.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County.

Site 2 receives surface water from adjacent uplands and impervious surfaces. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Geomorphic Position (D2) and FAC-Neutral Test (D5).

Site 2 is not depicted as a wetland on the NWI Map. The FEMA FIRM depicts Site 2 within Zone X (Other Areas). Site 2 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.

<u>Site 3</u> is a potential wetland located at the northern end of the subject property, approximately 190 feet east of South Maryland Avenue. A total of 0.005 acre of Site 3 is located on the subject property. Site 3 consists of a depressional area that is likely present due to stormwater runoff.

Predominant vegetation associated with Site 3 includes; green ash, saw tooth sunflower (*Helianthus grosseserratus*), and common reed, which are hydrophytes. The native FQI and native mean C-value for Site 3 are 5.7 and 2.0, respectively, indicating degraded floristic quality.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County. Soils within Site 3 appear to have been disturbed due to the placement of fill material.

Site 3 receives surface water from adjacent uplands and impervious surfaces. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Geomorphic Position (D2) and FAC-Neutral Test (D5).

Site 3 is not depicted as a wetland on the NWI Map. The FEMA FIRM depicts Site 3 within Zone X (Other Areas). Site 3 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.

<u>Site 4</u> is a potential wetland located approximately 580 feet south of East 134th Street. A total of 0.07 acre of Site 4 is located on the subject property. Site 4 consists of a forested and scrub-shrub wetland.

Predominant vegetation associated with Site 4 includes; creeping Charlie (*Glechoma hederacea*), purple loosestrife, and common reed, which are primarily hydrophytes. The native FQI and native mean C-value for Site 4 are 10.7 and 2.6, respectively, indicating moderate floristic quality with some native character.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County.



Site 4 receives surface water from adjacent uplands and impervious surfaces. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Geomorphic Position (D2) and FAC-Neutral Test (D5).

Site 4 is not depicted as a wetland on the NWI Map. The FEMA FIRM depicts Site 4 within Zone X (Other Areas). Site 4 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.

<u>Site 5</u> is a potential wetland located approximately 615 feet south of East 134th Street. A total of 0.09 acre of Site 5 is located on the subject property. Site 5 consists of a forested and scrub-shrub wetland.

Predominant vegetation associated with Site 5 includes; common hackberry (*Celtis occidentalis*), red osier dogwood, green ash, common reed, common buckthorn, and elderberry (*Sambucus nigra*), which are primarily hydrophytes. The native FQI and native mean C-value for Site 5 are 10.9 and 2.7, respectively, indicating moderate floristic quality with some native character.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County. Soils within Site 5 appear to have been disturbed due to the placement of fill material.

Site 5 receives surface water from adjacent uplands and impervious surfaces. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Geomorphic Position (D2) and FAC-Neutral Test (D5).

Site 5 is not depicted as a wetland on the NWI Map. The FEMA FIRM depicts Site 5 within Zone X (Other Areas). Site 5 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.

<u>Site 6</u> is a potential wetland located approximately 780 feet south of East 134th Street. A total of 0.02 acre of Site 6 is located on the subject property. Site 6 consists of common reed confined within a circular, rock-lined depression.

Predominant vegetation associated with Site 6 includes common reed, which is a hydrophyte. The native FQI and native mean C-value for Site 6 are 6.4 and 2.4, respectively, indicating degraded floristic quality.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County. Soils within Site 6 appear to have been disturbed due to the placement of fill material. Slag material appears to be present within Site 6.

Site 6 receives surface water from adjacent uplands and impervious surfaces. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Geomorphic Position (D2) and FAC-Neutral Test (D5).



Site 6 is not depicted as a wetland on the NWI Map. The FEMA FIRM depicts Site 6 within Zone X (Other Areas). Site 6 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.

<u>Site 7</u> is a potential wetland located approximately 730 feet south of the two churches on East 134th Street. A total of 0.03 acre of Site 7 is located on the subject property. Site 7 consists of a wet meadow.

Predominant vegetation associated with Site 7 includes; green ash, purple loosestrife, reed canary grass, eastern cottonwood, and common buckthorn, which are primarily hydrophytes. The native FQI and native mean C-value for Site 7 are 9.0 and 2.2, respectively, indicating degraded floristic quality.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County.

Site 7 receives surface water from adjacent uplands and impervious surfaces, and periodic overbank flooding from the Little Calumet River. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Geomorphic Position (D2) and FAC-Neutral Test (D5).

Site 7 is not depicted as a wetland on the NWI Map. The FEMA FIRM depicts Site 7 within Zone X (Other Areas). Site 7 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.

<u>Site 8</u> is a potential wetland located in the southeast corner of South Maryland Avenue and East 134th Street. A total of 0.10 acre of Site 8 is located on the subject property. Site 8 consists of a wet meadow.

Predominant vegetation associated with Site 8 includes; red osier dogwood, green ash, purple loosestrife, and common reed, which are primarily hydrophytes. The native FQI and native mean C-value for Site 8 are 8.7 and 2.5, respectively, indicating degraded floristic quality.

The soil is mapped as Orthents, clayey, nearly level (805A), which has a hydric rating of six percent in ground moraines within Cook County.

Site 8 receives surface water from adjacent uplands and impervious surfaces. Although not formally investigated, indicators of wetland hydrology observed at the time of the site visit include Geomorphic Position (D2) and FAC-Neutral Test (D5).

Site 8 is not depicted on the NWI Map. The FEMA FIRM depicts Site 8 within Zone X (Other Areas). Site 8 will likely be considered a wetland based on the predominance of hydrophytic vegetation and the presence of wetland hydrology indicators as well as a review of mapping resources and historic aerial imagery.



Waterways

<u>Site W1</u> is the Little Calumet River, which flows west parallel to the southern boundary of the subject property. Site W1 is a Traditional Navigable Waters (TNW). Site W1 provides the functions of conveyance and wildlife habitat. Site W1 receives surface water from adjacent uplands, wetlands, and impervious surfaces. The following summarizes the characteristics of Site W1.

Acreage on subject property: 0.06 acre

Flow Regime (Perennial, Intermittent, Ephemeral): Perennial

Flow direction: West

Flow strength (Low, Moderate, or High): High

OHWM indicators: Clear, natural line impressed on the banks and destruction of terrestrial vegetation, defined

bed and banks, extended inundation Approximate width: 425 to 450 feet Approximate depth: 6 to 12 feet

Adjacent land cover: Forested, emergent wetlands, industrial properties, landfills

Substrate: Unknown due to poor water clarity

Riffles observed? No Pools observed? No

Bank vegetation: Common buckthorn, saw tooth sunflower, eastern cottonwood, common reed

USGS 8-Digit HUC: 07120003

Waters Type: TNW HGM Code: Riverine

National Wetland Inventory Code: R2UBH USGS Topographic Map: Blue line stream

FEMA FIRM: Zone A
Navigable Section 10: Yes
Navigable Section 9: Yes

Tables 2 and 3 summarize the characteristics of the potential wetlands and Site W1 within the subject property.





Table 2. Wetland Summary Table

Site # ¹	Potential Wetland Type	Dominant Vegetation	Native FQI/ Native Mean C-Value	Mapped Soil Type ²	NWI Classification	Isolated? ³ (Y/N)	Acreage on Subject Property
1	Wet meadow/ forested wetland	Common reed, reed canary grass, devil's pitchfork, Canadian thistle, red osier dogwood, tall boneset, green ash, purple loosestrife, eastern cottonwood, common buckthorn, black willow	24.1/3.1	Orthents, clayey, nearly level (805A), Aquents, clayey, undrained, nearly level (1409A)	PFO1/EM1AD	Z	18.4
2	Drainageway	Common reed, green ash, purple loosestrife, Kentucky bluegrass, eastern cottonwood	5.4/1.6	Orthents, clayey, nearly level (805A)	None	N	0.05
3	Depressional wetland	Green ash, saw tooth sunflower, common reed	5.7/2.0	Orthents, clayey, nearly level (805A)	None	Z	0.005
4	Forested/scrub- shrub wetland	Creeping Charlie, purple loosestrife, common reed	10.7/2.6	Orthents, clayey, nearly level (805A)	None	N	0.07
5	Forested/scrub- shrub wetland	Common hackberry, red osier dogwood, green ash, common reed, common buckthorn, elderberry	10.9/2.7	Orthents, clayey, nearly level (805A)	None	Z	0.09
6	Depressional wetland	Common reed	6.4/2.4	Orthents, clayey, nearly level (805A)	None	N	0.02
7	Wet meadow	Green ash, purple loosestrife, reed canary grass, eastern cottonwood, common buckthorn	9.0/2.2	Orthents, clayey, nearly level (805A)	None	N	0.03
8	Wet meadow	Red osier dogwood, green ash, purple loosestrife, common reed	8.7/2.5	Orthents, clayey, nearly level (805A)	None	Z	0.10

¹Number assigned by H&H during wetland delineations.

²Hydric soils are in bold font.

³Isolated based on professional judgement. The USACE makes all final jurisdictional determinations. Isolated applies to the lack of hydrological connection to a surface water.



Table 3. Waterway Summary Table

Site #1	Туре	Flow Regime (Perennial, Intermittent, Ephemeral)	Approximate Width (Feet)	Approximate Depth (Feet)	OHWM Indicator ²	Bank Vegetation	NWI and USGS Topographic Map Classification	Waters Type ³	Acreage on Subject Property
W1	Little Calumet River	Perennial	425 to 450 feet	6 to 12	B, N, E	Common buckthorn, saw tooth sunflower, eastern cottonwood, common reed	R2UBH/ Perennial Blue Line Stream	TNW	0.06

¹Number assigned by H&H during wetland delineations.

²B= Defined bed and banks, N= Natural line impression, S= Shelving, soil changes, D = destruction/lack of vegetation, L= litter or debris, E= extended inundation

³TNW= Traditional Navigable Waters



CONCLUSION AND SUMMARY OF FIELD INVESTIGATION

Eight (8) potential wetlands and the Little Calumet River (Site W1) were identified on or adjacent to the subject property. The wetland and waterway sites identified were not formally delineated, but were screened for planning purposes. Representative photographs from the field investigation are provided in Attachment 3.

If you have questions, please contact me at 630-684-4418 or <u>Matthew.Mackey@GZA.com</u>. Very Truly Yours,

HUFF & HUFF, INC. (A Subsidiary of GZA)

Matt Mackey

Environmental Scientist

Lailah Reich

Consultant Reviewer, PWS

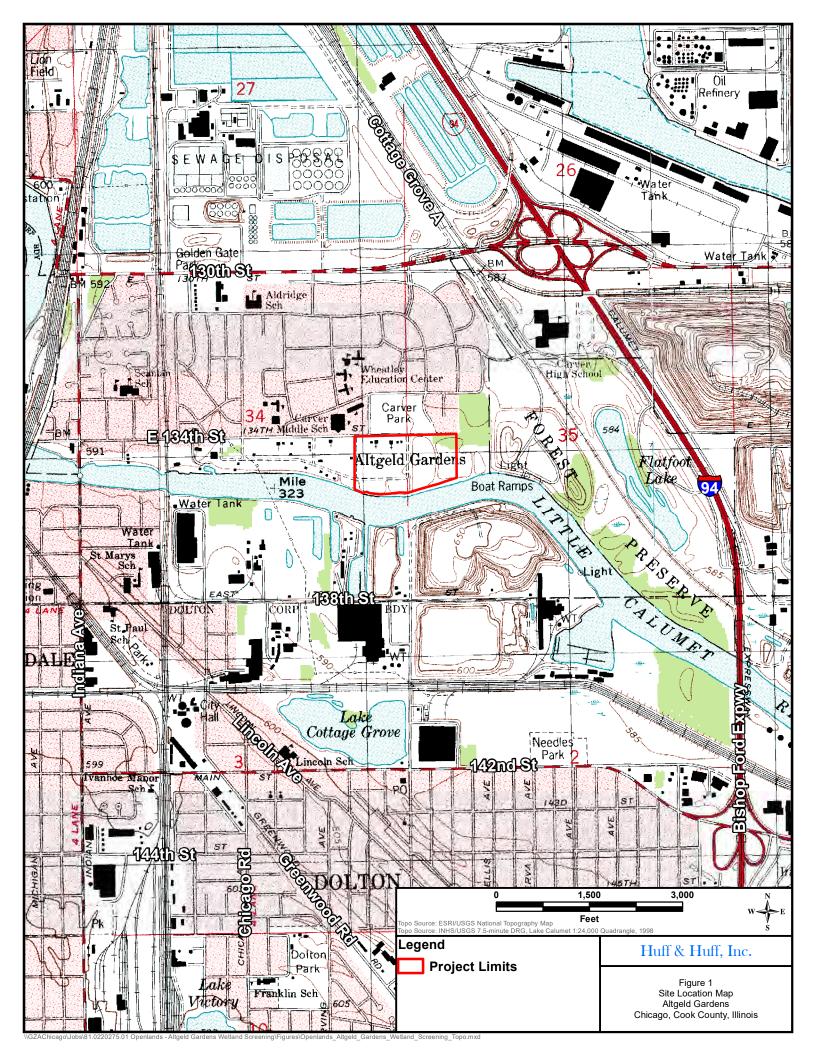
Jim Novak, PWS Associate Principal

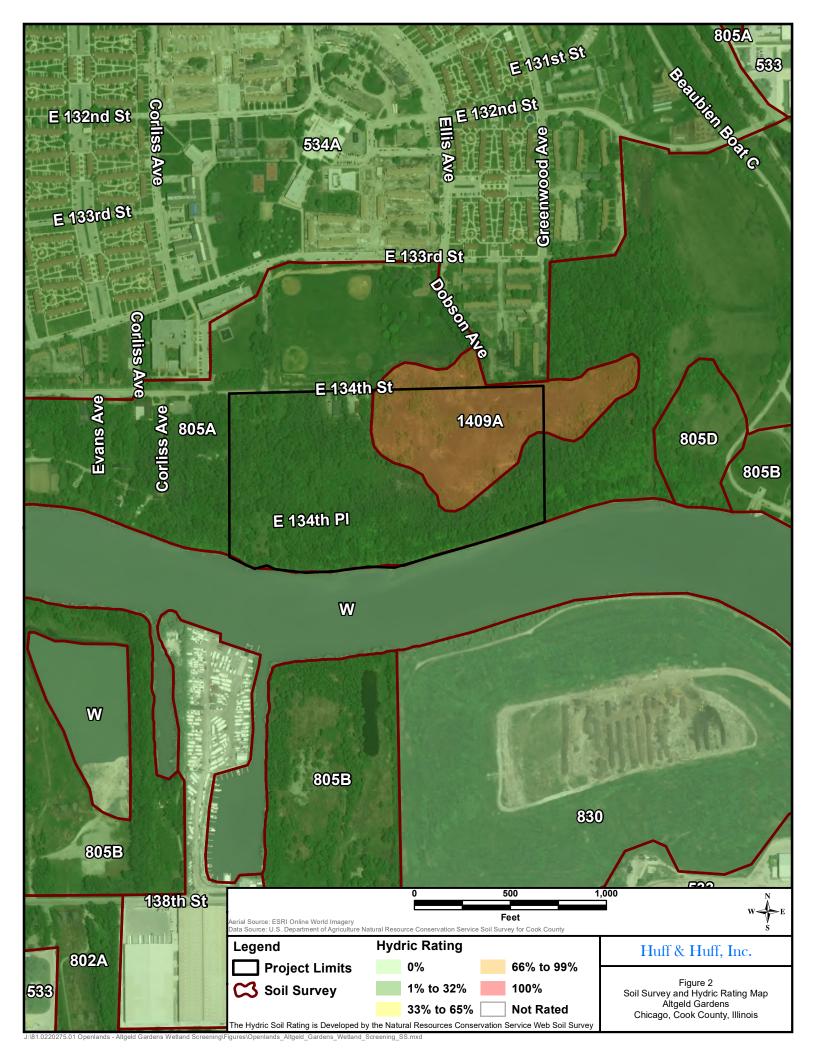
Enclosures

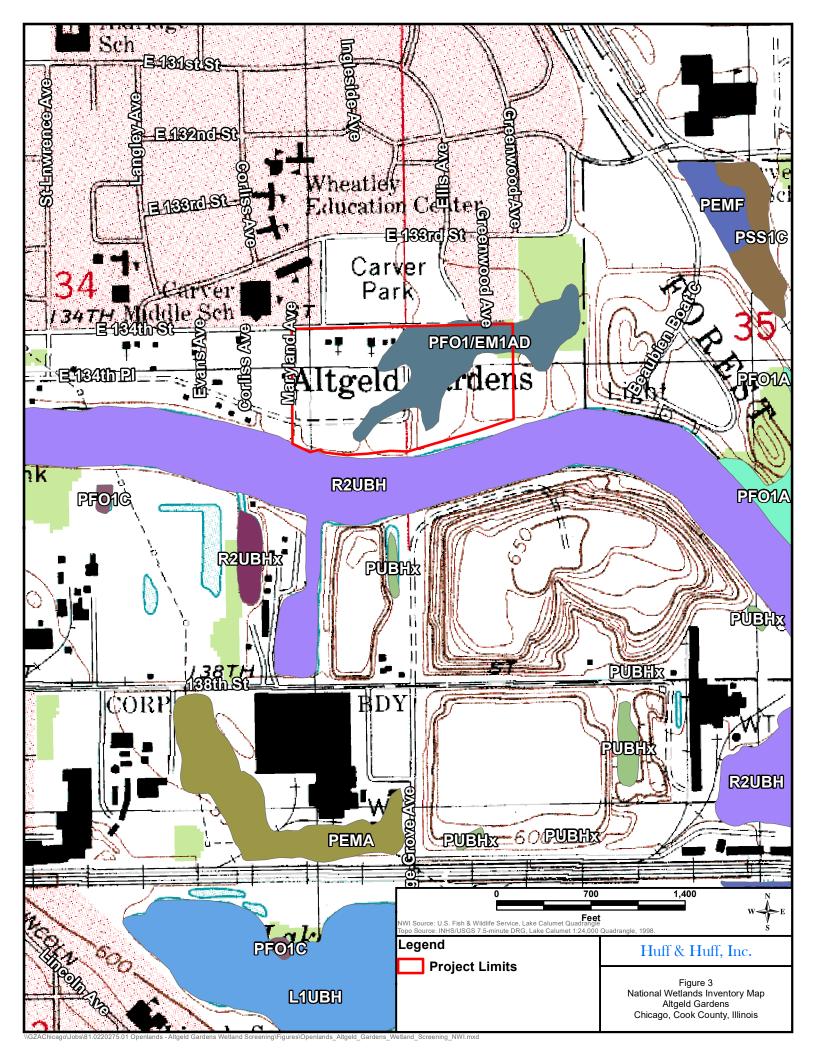
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Attachment 1

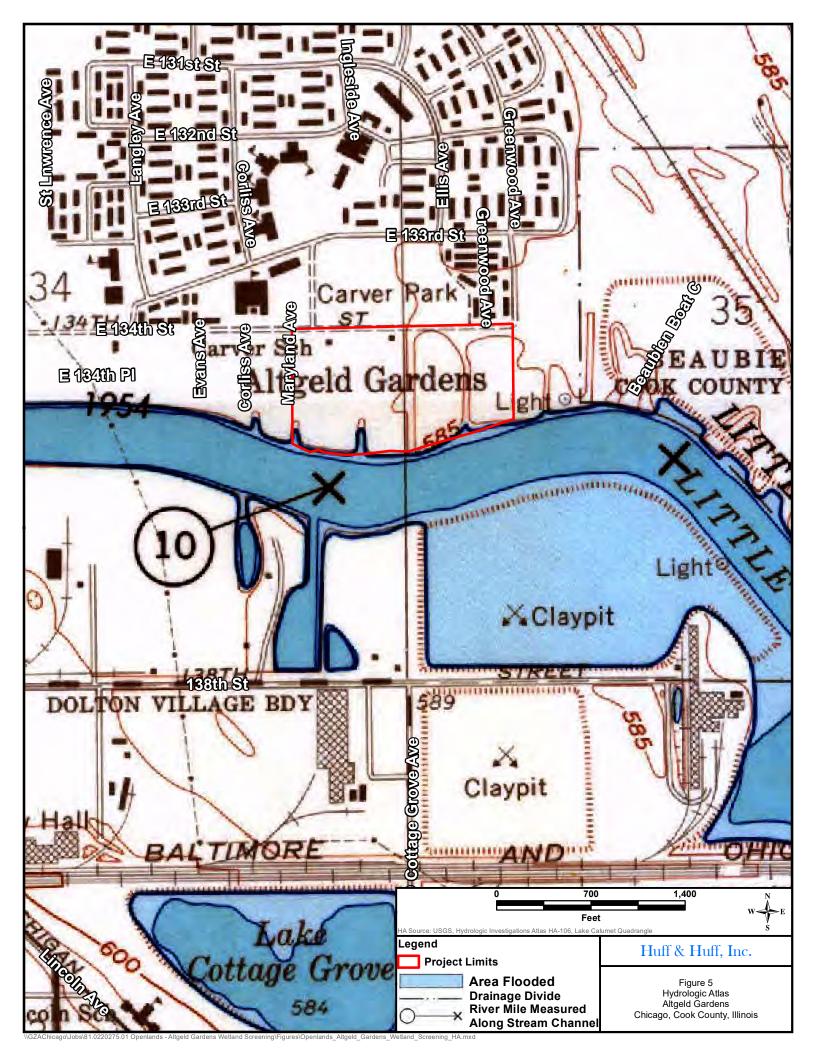
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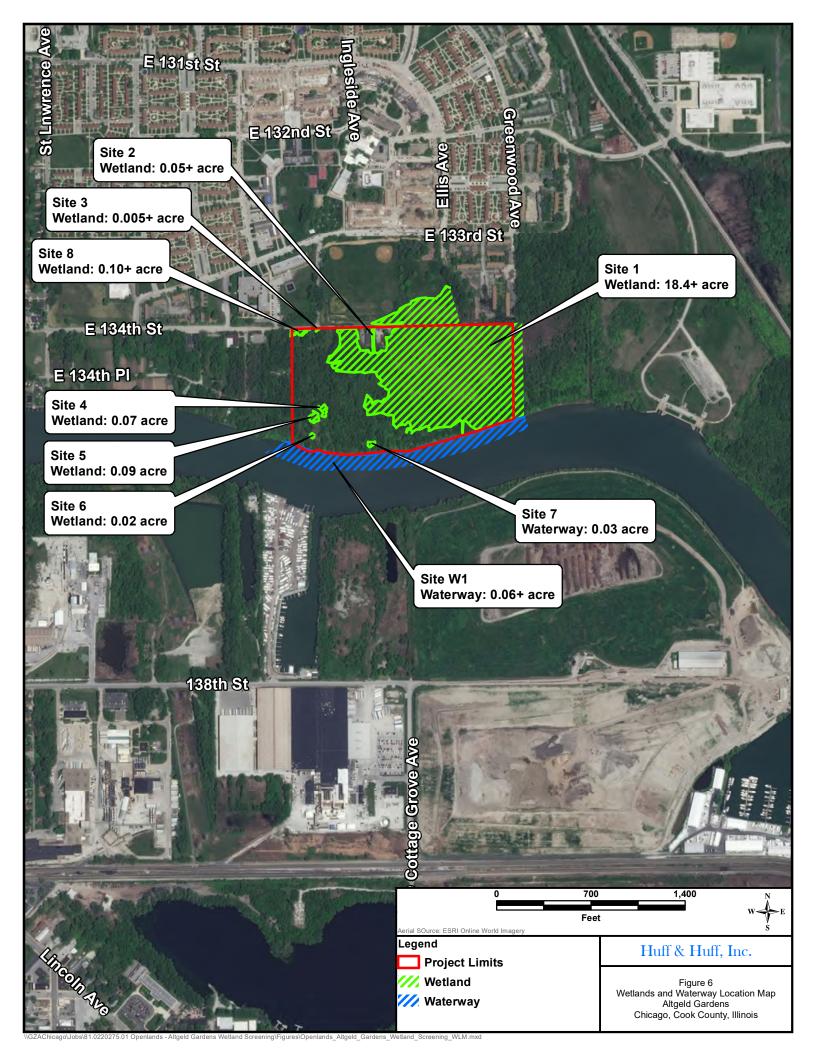












Attachment 2

Floristic Quality Assessments

FLORISITIC QUALITY ASSESSMENT - SITE 1 Wetland and Waterway Screening Altgeld Gardens City of Chicago, Cook County, Illinois

ADDITIONAL METRICS

METRICS MEAN C (NATIVE SPECIES RICHNESS SPECIES) 3.12 (ALL) 87 MEAN C (ALL SPECIES) MEAN C (NATIVE TREES) SPECIES RICHNESS (NATIVE) 2.15 60 % NON-NATIVE 3.13 0.31 MEAN C (NATIVE SHRUBS) MEAN C WET INDICATOR 4.57 -0.14 (ALL) (NATIVE WET INDICATOR HERBACEOUS) 2.88 (NATIVE) -0.40 FQAI (NATIVE % HYDROPHYTE (MIDWEST) SPECIES) 24.14 0.66 FQAI % NATIVE (ALL SPECIES) ADJUSTED FQAI 20.05 PERENNIAL 0.62 25.88 % NATIVE ANNUAL 0.07 % C VALUE 0 0.40 % ANNUAL 0.07 % C VALUE 1-3 % PERENNIAL 0.31 0.89 % C VALUE 4-6 % C VALUE 7-10 0.22 0.07

CONSERVATISM-

BASED

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
acesai	Acer saccharinum	Acer saccharinum	Silver Maple	1	FACW	-1	Tree	Perennial	Native
aesgla	Aesculus glabra	Aesculus glabra	Ohio Buckeye	7	FAC	0	Tree	Perennial	Native
Agealt	Ageratina altissima	Eupatorium rugosum	White Snakeroot	3	FACU	1	Forb	Perennial	Native
agrgry	Agrimonia gryposepala	Agrimonia gryposepala	Tall Hairy Grooveburr	2	FACU	1	Forb	Perennial	Native
agrpar	Agrimonia parviflora	Agrimonia parviflora	Harvestlice	4	FACW	-1	Forb	Perennial	Native
allpet	Alliaria petiolata	ALLIARIA PETIOLATA	Garlic-Mustard	0	FAC	0	Forb	Biennial	Adventive
ambart	Ambrosia artemisiifolia	Ambrosia artemisiifolia elatior	Annual Ragweed	0	FACU	1	Forb	Annual	Native
apocan	Apocynum cannabinum	Apocynum sibiricum	Indian-Hemp	2	FAC	0	Forb	Perennial	Native
Arcmin	Arctium minus	ARCTIUM MINUS	Lesser Burrdock	0	FACU	1	Forb	Biennial	Adventive
ascsyr	Asclepias syriaca	Asclepias syriaca	Common Milkweed	0	FACU	1	Forb	Perennial	Native
bidfro	Bidens frondosa	Bidens frondosa	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
calcan	Calamagrostis canadensis	Calamagrostis canadensis	Bluejoint	6	OBL	-2	Grass	Perennial	Native
cxblan	Carex blanda	Carex blanda	Eastern Woodland Sedge	1	FAC	0	Sedge	Perennial	Native
cxstip	Carex stipata	Carex stipata	Stalk-Grain Sedge	4	OBL	-2	Sedge	Perennial	Native
catspe	Catalpa speciosa	CATALPA SPECIOSA	Northern Catalpa	0	FACU	1	Tree	Perennial	Adventive
celocc	Celtis occidentalis	Celtis occidentalis	Common Hackberry	2	FAC	0	Tree	Perennial	Native
cicint	Cichorium intybus	CICHORIUM INTYBUS	Chicory	0	FACU	1	Forb	Perennial	Adventive
cirlut	Circaea canadensis	Circaea lutetiana canadensis	Broad-Leaf Enchanter's- Nightshade	3	FACU	1	Forb	Perennial	Native
cirarv	Cirsium arvense	CIRSIUM ARVENSE	Canadian Thistle	0	FACU	1	Forb	Perennial	Adventive
corsto	Cornus alba	Cornus stolonifera; Cornus baileyi; Cornus sericea	Red Osier	5	FACW	-1	Shrub	Perennial	Native
corrac	Cornus racemosa	Cornus racemosa	Gray Dogwood	1	FAC	0	Shrub	Perennial	Native
cracru	Crataegus crus-galli	Crataegus crus-galli; Crataegus acutifolia	Cock-Spur Hawthorn	3	FAC	0	Tree	Perennial	Native
cyndac	Cynodon dactylon	CYNODON DACTYLON	Bermuda Grass	0	FACU	1	Grass	Perennial	Adventive
daucar	Daucus carota	DAUCUS CAROTA	Queen Anne's Lace	0	UPL	2	Forb	Biennial	Adventive
drycar	Dryopteris carthusiana	Dryopteris spinulosa	Spinulose Wood Fern	8	FACW	-1	Fern	Perennial	Native
echcru	Echinochloa crus- galli	Echinochloa crusgalli	Large Barnyard Grass	0	FACW	-1	Grass	Annual	Native
elyrep	Elymus repens	AGROPYRON REPENS; Elytrigia repens	Creeping Wild Rye	0	FACU	1	Grass	Perennial	Adventive

FLORISITIC QUALITY ASSESSMENT - SITE 1 Wetland and Waterway Screening Altgeld Gardens City of Chicago, Cook County, Illinois

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
elyvir	Elymus virginicus	Elymus virginicus	Virginia Wild Rye	3	FACW	-1	Grass	Perennial	Native
epicol	Epilobium coloratum	Epilobium coloratum	Purple-Leaf Willowherb	3	OBL	-2	Forb	Perennial	Native
eupalt	Eupatorium	Eupatorium	Tall Boneset	0	UPL	2	Forb	Perennial	Native
Сирин	altissimum	altissimum Solidago	Tuli Bolicace	Ů	01.2		1015	rereminar	Nutive
eutgra	Euthamia graminifolia	graminifolia; Solidago graminifolia nuttallii; Euthamia nuttallii	Flat-Top Goldentop	4	FACW	-1	Forb	Perennial	Native
fravir	Fragaria virginiana	Fragaria virginiana	Virginia Strawberry	0	FACU	1	Forb	Perennial	Native
fraaln	Frangula alnus	RHAMNUS FRANGULA	Glossy False Buckthorn	0	FACW	-1	Shrub	Perennial	Adventive
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
galtrd	Galium trifidum	Galium trifidum	Three-Petal Bedstraw	9	FACW	-1	Forb	Perennial	Native
geucan	Geum canadense	Geum canadense	White Avens	1	FAC	0	Forb	Perennial	Native
glehed	Glechoma	GLECHOMA	Groundivy	0	FACU	1	Forb	Perennial	Adventive
glystr	hederacea Glyceria striata	HEDERACEA Glyceria striata var. stricta	Fowl Manna Grass	4	OBL	-2	Grass	Perennial	Native
helgro	Helianthus	Helianthus	Saw-Tooth	4	FACW	-1	Forb	Perennial	Native
impcap	grosseserratus Impatiens capensis	grosseserratus Impatiens capensis	Sunflower Spotted Touch-Me-	3	FACW	-1	Forb	Annual	Native
lapcan	Laportea	Laportea canadensis	Not Canadian Wood-	5	FACW	-1	Forb	Perennial	Native
	canadensis	Liatris spicata	Nettle Dense Gayfeather	7		0			
liaspi Iontat	Liatris spicata Lonicera tatarica	LONICERA	Twinsisters	0	FAC FACU	1	Forb Shrub	Perennial Perennial	Native Adventive
lonbel	Lonicera X bella	TATARICA LONICERA X BELLA	Showy Fly	0	FACU	1	Shrub	Perennial	Adventive
lycame	Lycopus	Lycopus americanus	Honeysuckle Cut-Leaf Water-	4	OBL	-2	Forb	Perennial	Native
.,	americanus	LYTHRUM	Horehound						
lytsal	Lythrum salicaria	SALICARIA MORUS ALBA VAR.	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
moralb	Morus alba	TATARICA	White Mulberry	0	FAC	0	Tree	Perennial	Adventive
parpen	Parietaria pensylvanica	Parietaria pensylvanica	Pennsylvania Pellitory	0	FACU	1	Forb	Annual	Native
parqui	Parthenocissus quinquefolia	Parthenocissus quinquefolia	Virginia-Creeper	4	FACU	1	Vine	Perennial	Native
passat	Pastinaca sativa	PASTINACA SATIVA	Parsnip	0	UPL	2	Forb	Biennial	Adventive
pendig	Penstemon digitalis	Penstemon digitalis	Foxglove Beardtongue	4	FAC	0	Forb	Perennial	Native
phaaru	Phalaris arundinacea	PHALARIS ARUNDINACEA	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
phrausu	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	-1	Grass	Perennial	Adventive
phyame	Phytolacca americana	Phytolacca americana	American Pokeweed	0	FACU	1	Forb	Perennial	Native
pilpum	Pilea pumila	Pilea pumila	Canadian Clearweed	2	FACW	-1	Forb	Annual	Native
plalan	Plantago lanceolata	PLANTAGO LANCEOLATA	English Plantain	0	FACU	1	Forb	Perennial	Adventive
poapra	Poa pratensis	POA PRATENSIS	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
popdel	Populus deltoides	Populus deltoides	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
pruvull	Prunella vulgaris ssp. lanceolata	Prunella vulgaris lanceolata	Common Selfheal	1	FAC	0	Forb	Perennial	Native
rhacat	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
ribame	Ribes americanum	Ribes americanum	Wild Black Currant	4	FACW	-1	Shrub	Perennial	Native
robpse	Robinia pseudoacacia	ROBINIA PSEUDOACACIA	Black Locust	0	FACU	1	Tree	Perennial	Adventive
rospal rumcri	Rosa palustris Rumex crispus	Rosa palustris RUMEX CRISPUS	Swamp Rose Curly Dock	8 0	OBL FAC	-2 0	Shrub Forb	Perennial Perennial	Native Adventive
salint	Salix interior	Salix interior	Sandbar Willow	2	FACW	-1	Shrub	Perennial	Native
salnig	Salix nigra	Salix nigra	Black Willow	5	OBL	-2	Tree	Perennial	Native
samcan	Sambucus nigra ssp. canadensis	Sambucus canadensis	Black Elder	4	FAC	-1	Shrub	Perennial	Native
sanodo	Sanicula odorata	Sanicula gregaria	Clustered Black- Snakeroot	3	FAC	0	Forb	Perennial	Native
sciatv	Scirpus atrovirens	Scirpus atrovirens	Dark-Green Bulrush	4	OBL	-2	Sedge	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 1 Wetland and Waterway Screening Altgeld Gardens City of Chicago, Cook County, Illinois

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
sculat	Scutellaria lateriflora	Scutellaria lateriflora	Mad Dog Skullcap	4	OBL	-2	Forb	Perennial	Native
solalt	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
solcan	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	1	Forb	Perennial	Native
spitom	Spiraea tomentosa	Spiraea tomentosa rosea	Steeplebush	8	FACW	-1	Shrub	Perennial	Native
astsim	Symphyotrichum lanceolatum	Aster simplex	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
astnov	Symphyotrichum novae-angliae	Aster novae-angliae	New England American-Aster	3	FACW	-1	Forb	Perennial	Native
astsag	Symphyotrichum urophyllum	Aster sagittifolius	Arrow-Leaf Aster	5	UPL	2	Forb	Perennial	Native
taroff	Taraxacum officinale	TARAXACUM OFFICINALE	Common Dandelion	0	FACU	1	Forb	Perennial	Adventive
teucan	Teucrium canadense	Teucrium canadense	American Germander	3	FACW	-1	Forb	Perennial	Native
rhurad	Toxicodendron radicans	Rhus radicans	Eastern Poison-Ivy	2	FAC	0	Vine	Perennial	Native
trihyb	Trifolium hybridum	TRIFOLIUM HYBRIDUM	Alsike Clover	0	FACU	1	Forb	Perennial	Adventive
typgla	Typha X glauca	TYPHA X GLAUCA	Hybrid Cat-Tail	0	OBL	-2	Forb	Perennial	Adventive
ulmame	Ulmus americana	Ulmus americana	American Elm	3	FACW	-1	Tree	Perennial	Native
ulmpum	Ulmus pumila	ULMUS PUMILA	Siberian Elm	0	UPL	2	Tree	Perennial	Adventive
vibopu	Viburnum opulus var. opulus	VIBURNUM OPULUS	Highbush- Cranberry	0	FAC	0	Shrub	Perennial	Adventive
viosor	Viola sororia	Viola priceana	Hooded Blue Violet	3	FAC	0	Forb	Perennial	Native
vitaes	Vitis aestivalis	Vitis aestivalis	Summer Grape	5	FACU	1	Vine	Perennial	Native
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 2 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

CONSERVATISM-BASED METRICS

ADDITIONAL METRICS

MLIKICS		METRICS	
MEAN C (NATIVE SPECIES)	1.64	SPECIES RICHNESS (ALL)	17
MEAN C (ALL SPECIES) MEAN C	1.06	SPECIES RICHNESS (NATIVE)	11
(NATIVE TREES)	2.33	% NON-NATIVE	0.35
MEAN C (NATIVE SHRUBS) MEAN C	2.00	WET INDICATOR (ALL)	0.00
(NATIVE HERBACEOUS) FQAI	1.33	WET INDICATOR (NATIVE)	0.09
(NATIVE SPECIES) FQAI	5.43	% HYDROPHYTE (MIDWEST) % NATIVE	0.65
(ALL SPECIES)	4.37	PERENNIAL	0.53
ADJUSTED FQAI	13.16	% NATIVE ANNUAL	0.12
% C VALUE 0	0.47	% ANNUAL	0.12
% C VALUE 1-3	0.47	% PERENNIAL	0.88
% C VALUE 4-6	0.06		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
apocan	Apocynum cannabinum	Apocynum sibiricum	Indian-Hemp	2	FAC	0	Forb	Perennial	Native
bidfro	Bidens frondosa	Bidens frondosa	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
glehed	Glechoma hederacea	GLECHOMA HEDERACEA	Groundivy	0	FACU	1	Forb	Perennial	Adventive
lytsal	Lythrum salicaria	LYTHRUM SALICARIA	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
parpen	Parietaria pensylvanica	Parietaria pensylvanica	Pennsylvania Pellitorv	0	FACU	1	Forb	Annual	Native
phrausu	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	-1	Grass	Perennial	Adventive
poapra	Poa pratensis	POA PRATENSIS	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
popdel	Populus deltoides	Populus deltoides	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
rhacat	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
ribmis	Ribes missouriense	Ribes missouriense	Missouri Gooseberry	2	UPL	2	Shrub	Perennial	Native
solalt	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
solcan	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	1	Forb	Perennial	Native
astsim	Symphyotrichum lanceolatum	Aster simplex	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
taroff	Taraxacum officinale	TARAXACUM OFFICINALE	Common Dandelion	0	FACU	1	Forb	Perennial	Adventive
ulmame	Ulmus americana	Ulmus americana	American Elm	3	FACW	-1	Tree	Perennial	Native
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 3 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

CONSERVATISM-BASED METRICS

ADDITIONAL METRICS

MEAN C	23		
(NATIVE SPECIES)	2.00	SPECIES RICHNESS (ALL)	17
MEAN C (ALL SPECIES) MEAN C	0.94	SPECIES RICHNESS (NATIVE)	8
(NATIVE TREES)	4.00	% NON-NATIVE	0.53
MEAN C (NATIVE SHRUBS) n/s	a	WET INDICATOR (ALL)	0.12
(NATIVE HERBACEOUS) FQAI	1.83	WET INDICATOR (NATIVE)	-0.25
(NATIVE SPECIES) FQAI	5.66	% HYDROPHYTE (MIDWEST) % NATIVE	0.59
(ALL SPECIES)	3.88	PERENNIAL	0.41
ADJUSTED FQAI	13.72	% NATIVE ANNUAL	0.06
% C VALUE 0	0.53	% ANNUAL	0.12
% C VALUE 1-3	0.35	% PERENNIAL	0.65
% C VALUE 4-6	0.12		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
arcmin	Arctium minus	ARCTIUM MINUS	Lesser Burrdock	0	FACU	1	Forb	Biennial	Adventive
bidfro	Bidens frondosa	Bidens frondosa	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
dacglo	Dactylis glomerata	DACTYLIS GLOMERATA	Orchard Grass	0	FACU	1	Grass	Perennial	Adventive
daucar	Daucus carota	DAUCUS CAROTA	Queen Anne's Lace	0	UPL	2	Forb	Biennial	Adventive
dipful	Dipsacus fullonum	DIPSACUS SYLVESTRIS	Fuller's Teasel	0	FACU	1	Forb	Biennial	Adventive
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
geucan	Geum canadense	Geum canadense	White Avens	1	FAC	0	Forb	Perennial	Native
helgro	Helianthus grosseserratus	Helianthus grosseserratus	Saw-Tooth Sunflower	4	FACW	-1	Forb	Perennial	Native
lytsal	Lythrum salicaria	LYTHRUM SALICARIA	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
moralb	Morus alba	MORUS ALBA VAR. TATARICA	White Mulberry	0	FAC	0	Tree	Perennial	Adventive
passat	Pastinaca sativa	PASTINACA SATIVA	Parsnip	0	UPL	2	Forb	Biennial	Adventive
phrausu	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	-1	Grass	Perennial	Adventive
setpum	Setaria pumila	SETARIA GLAUCA	Yellow Bristle Grass	0	FAC	0	Grass	Annual	Adventive
solalt	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
solcan	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	1	Forb	Perennial	Native
astsim	Symphyotrichum lanceolatum	Aster simplex	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 4 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

CONSERVATISMBASED ADDITIONAL
METRICS METRICS

MEAN C			
(NATIVE SPECIES)	2.59	SPECIES RICHNESS (ALL)	23
MEAN C (ALL SPECIES) MEAN C	1.91	SPECIES RICHNESS (NATIVE)	17
(NATIVE TREES)	1.67	% NON-NATIVE	0.26
MEAN C (NATIVE SHRUBS) MEAN C	3.33	WET INDICATOR (ALL)	-0.65
(NATIVE HERBACEOUS) FQAI	2.67	WET INDICATOR (NATIVE)	-0.76
(NATIVE SPECIES) FQAI	10.67	% HYDROPHYTE (MIDWEST) % NATIVE	0.87
(ALL SPECIES)	9.17	PERENNIAL	0.70
ADJUSTED FQAI	22.25	% NATIVE ANNUAL	0.04
% C VALUE 0	0.30	% ANNUAL	0.04
% C VALUE 1-3	0.39	% PERENNIAL	0.96
% C VALUE 4-6	0.30		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
acesai	Acer saccharinum	Acer saccharinum	Silver Maple	1	FACW	-1	Tree	Perennial	Native
bidfro	Bidens frondosa	Bidens frondosa	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
corsto	Cornus alba	Cornus stolonifera; Cornus baileyi; Cornus sericea	Red Osier	5	FACW	-1	Shrub	Perennial	Native
corrac	Cornus racemosa	Cornus racemosa	Gray Dogwood	1	FAC	0	Shrub	Perennial	Native
elyvir	Elymus virginicus	Elymus virginicus	Virginia Wild Rye	3	FACW	-1	Grass	Perennial	Native
epicol	Epilobium coloratum	Epilobium coloratum	Purple-Leaf Willowherb	3	OBL	-2	Forb	Perennial	Native
solgra	Euthamia graminifolia	Solidago graminifolia; Solidago graminifolia nuttallii; Euthamia nuttallii	Flat-Top Goldentop	4	FACW	-1	Forb	Perennial	Native
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
geucan	Geum canadense	Geum canadense	White Avens	1	FAC	0	Forb	Perennial	Native
glehed	Glechoma hederacea	GLECHOMA HEDERACEA	Groundivy	0	FACU	1	Forb	Perennial	Adventive
glystr	Glyceria striata	Glyceria striata var. stricta	Fowl Manna Grass	4	OBL	-2	Grass	Perennial	Native
lycame	Lycopus americanus	Lycopus americanus	Cut-Leaf Water- Horehound	4	OBL	-2	Forb	Perennial	Native
lytsal	Lythrum salicaria	LYTHRUM SALICARIA	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
parqui	Parthenocissus quinquefolia	Parthenocissus quinquefolia	Virginia-Creeper	4	FACU	1	Vine	Perennial	Native
phaaru	Phalaris arundinacea	PHALARIS ARUNDINACEA	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
phrausu	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	-1	Grass	Perennial	Adventive

FLORISITIC QUALITY ASSESSMENT - SITE 4 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
popdel	Populus deltoides	Populus deltoides	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
pruvull	Prunella vulgaris ssp. lanceolata	Prunella vulgaris lanceolata	Common Selfheal	1	FAC	0	Forb	Perennial	Native
rhacat	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
rosmul	Rosa multiflora	ROSA MULTIFLORA	Rambler Rose	0	FACU	1	Shrub	Perennial	Adventive
samcan	Sambucus nigra ssp. canadensis	Sambucus canadensis	Black Elder	4	FAC	-1	Shrub	Perennial	Native
sanodo	Sanicula odorata	Sanicula gregaria	Clustered Black- Snakeroot	3	FAC	0	Forb	Perennial	Native
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 5 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

CONSERVATISMBASED ADDITIONAL
METRICS METRICS

	METRICS	
2.65	SPECIES RICHNESS (ALL)	23
1.96	SPECIES RICHNESS (NATIVE)	17
3.50	% NON-NATIVE	0.26
4.50	WET INDICATOR (ALL)	-0.17
2.10	WET INDICATOR (NATIVE)	-0.35
10.91	% HYDROPHYTE (MIDWEST) % NATIVE	0.74
9.38	PERENNIAL	0.65
22.76	% NATIVE ANNUAL	0.09
0.30	% ANNUAL	0.09
0.43	% PERENNIAL	0.91
0.26		
0.00		
	1.96 3.50 4.50 2.10 10.91 9.38 22.76 0.30 0.43 0.26	2.65 (ALL) SPECIES RICHNESS (NATIVE) 3.50 % NON-NATIVE WET INDICATOR (ALL) WET INDICATOR (ALL) 2.10 (NATIVE) 10.91 (MIDWEST) % NATIVE 9.38 PERENNIAL 22.76 % NATIVE ANNUAL 0.30 % ANNUAL 0.43 % PERENNIAL 0.26

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
ambart	Ambrosia artemisiifolia	Ambrosia artemisiifolia elatior	Annual Ragweed	0	FACU	1	Forb	Annual	Native
bidfro	Bidens frondosa	Bidens frondosa	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
catspe	Catalpa speciosa	CATALPA SPECIOSA	Northern Catalpa	0	FACU	1	Tree	Perennial	Adventive
celocc	Celtis occidentalis	Celtis occidentalis	Common Hackberry	2	FAC	0	Tree	Perennial	Native
corsto	Cornus alba	Cornus stolonifera; Cornus baileyi; Cornus sericea	Red Osier	5	FACW	-1	Shrub	Perennial	Native
solgra	Euthamia graminifolia	Solidago graminifolia; Solidago graminifolia nuttallii; Euthamia nuttallii	Flat-Top Goldentop	4	FACW	-1	Forb	Perennial	Native
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
geucan	Geum canadense	Geum canadense	White Avens	1	FAC	0	Forb	Perennial	Native
glehed	Glechoma hederacea	GLECHOMA HEDERACEA	Groundivy	0	FACU	1	Forb	Perennial	Adventive
polvir	Persicaria virginiana	Polygonum virginianum	Jumpseed	4	FAC	0	Forb	Perennial	Native
phrausu	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	-1	Grass	Perennial	Adventive
plaocc	Platanus occidentalis	Platanus occidentalis	American Sycamore	5	FACW	-1	Tree	Perennial	Native
poapra	Poa pratensis	POA PRATENSIS	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
rhacat	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
samcan	Sambucus nigra ssp. canadensis	Sambucus canadensis	Black Elder	4	FAC	-1	Shrub	Perennial	Native
sangre	Sanicula odorata	Sanicula gregaria	Clustered Black- Snakeroot	3	FAC	0	Forb	Perennial	Native
solalt	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 5 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
solcan	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	1	Forb	Perennial	Native
astsim	Symphyotrichum lanceolatum	Aster simplex	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
astnov	Symphyotrichum novae-angliae	Aster novae-angliae	New England American-Aster	3	FACW	-1	Forb	Perennial	Native
tripra	Trifolium pratense	TRIFOLIUM PRATENSE	Red Clover	0	FACU	1	Forb	Perennial	Adventive
ulmame	Ulmus americana	Ulmus americana	American Elm	3	FACW	-1	Tree	Perennial	Native
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 6 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

CONSERVATISM-BASED

ADDITIONAL

METRICS	;	METRICS	
MEAN C (NATIVE SPECIES)	2.43	SPECIES RICHNESS (ALL)	10
MEAN C (ALL SPECIES) MEAN C	1.70	SPECIES RICHNESS (NATIVE)	7
(NATIVE TREES)	3.50	% NON-NATIVE	0.30
MEAN C (NATIVE SHRUBS) n/a MEAN C		WET INDICATOR (ALL)	-0.40
(NATIVE HERBACEOUS) FQAI	2.25	WET INDICATOR (NATIVE)	-0.29
(NATIVE SPECIES) FQAI	6.43	% HYDROPHYTE (MIDWEST) % NATIVE	0.70
(ALL SPECIES)	5.38	PERENNIAL	0.70
ADJUSTED FQAI	20.32	% NATIVE ANNUAL	0.00
% C VALUE 0	0.30	% ANNUAL	0.00
% C VALUE 1-3 % C VALUE 4-6	0.50 0.20	% PERENNIAL	0.90
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
dipful	Dipsacus fullonum	DIPSACUS SYLVESTRIS	Fuller's Teasel	0	FACU	1	Forb	Biennial	Adventive
solgra	Euthamia graminifolia	Solidago graminifolia; Solidago graminifolia nuttallii; Euthamia nuttallii	Flat-Top Goldentop	4	FACW	-1	Forb	Perennial	Native
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
lytsal	Lythrum salicaria	LYTHRUM SALICARIA	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
phrausu	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	-1	Grass	Perennial	Adventive
solalt	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
solcan	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	1	Forb	Perennial	Native
astsim	Symphyotrichum lanceolatum	Aster simplex	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
ulmame	Ulmus americana	Ulmus americana	American Elm	3	FACW	-1	Tree	Perennial	Native
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 7 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

CONSERVATISM-BASED ADDITIONAL METRICS METRICS

MEAN C			
(NATIVE SPECIES)	2.18	SPECIES RICHNESS (ALL)	21
MEAN C (ALL SPECIES) MEAN C	1.76	SPECIES RICHNESS (NATIVE)	17
(NATIVE TREES)	2.25	% NON-NATIVE	0.19
MEAN C (NATIVE SHRUBS) MEAN C	5.00	WET INDICATOR (ALL)	-0.57
(NATIVE HERBACEOUS) FOAI	2.00	WET INDICATOR (NATIVE)	-0.53
(NATIVE SPECIES) FQAI	8.97	% HYDROPHYTE (MIDWEST) % NATIVE	0.86
(ALL SPECIES)	8.07	PERENNIAL	0.71
ADJUSTED FQAI	19.58	% NATIVE ANNUAL	0.10
% C VALUE 0	0.33	% ANNUAL	0.10
% C VALUE 1-3	0.43	% PERENNIAL	0.90
% C VALUE 4-6	0.24		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
bidfro	Bidens frondosa	Bidens frondosa	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
corsto	Cornus alba	Cornus stolonifera; Cornus baileyi; Cornus sericea	Red Osier	5	FACW	-1	Shrub	Perennial	Native
cramol	Crataegus mollis	Crataegus mollis	Downy Hawthorn	2	FAC	0	Tree	Perennial	Native
epicol	Epilobium coloratum	Epilobium coloratum	Purple-Leaf Willowherb	3	OBL	-2	Forb	Perennial	Native
eupalt	Eupatorium altissimum	Eupatorium altissimum	Tall Boneset	0	UPL	2	Forb	Perennial	Native
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima ; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
geucan	Geum canadense	Geum canadense	White Avens	1	FAC	0	Forb	Perennial	Native
glystr	Glyceria striata	Glyceria striata var. stricta	Fowl Manna Grass	4	OBL	-2	Grass	Perennial	Native
lycame	Lycopus americanus	Lycopus americanus	Cut-Leaf Water- Horehound	4	OBL	-2	Forb	Perennial	Native
lytsal	Lythrum salicaria	LYTHRUM SALICARIA	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
phaaru	Phalaris arundinacea	PHALARIS ARUNDINACEA	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
poapra	Poa pratensis	POA PRATENSIS	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
popdel	Populus deltoides	Populus deltoides	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
rhacat	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
sciatv	Scirpus atrovirens	Scirpus atrovirens	Dark-Green Bulrush	4	OBL	-2	Sedge	Perennial	Native
solalt	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
solcan	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	1	Forb	Perennial	Native
astsim	Symphyotrichum lanceolatum	Aster simplex	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
ulmame	Ulmus americana	Ulmus americana	American Elm	3	FACW	-1	Tree	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 7 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native
xanstr	Xanthium strumarium	Xanthium strumarium var. canadense; Xanthium strumarium var. glabratum	Rough Cockleburr	0	FAC	0	Forb	Annual	Native

FLORISITIC QUALITY ASSESSMENT - SITE 8 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

CONSERVATISM-BASED

ADDITIONAL

METRICS	5	METRICS	
MEAN C (NATIVE SPECIES)	2.50	SPECIES RICHNESS (ALL)	22
MEAN C (ALL SPECIES) MEAN C	1.36	SPECIES RICHNESS (NATIVE)	12
(NATIVE TREES)	2.33	% NON-NATIVE	0.45
MEAN C (NATIVE SHRUBS) MEAN C	5.00	WET INDICATOR (ALL)	-0.18
(NATIVE HERBACEOUS) FQAI	2.50	WET INDICATOR (NATIVE)	-0.33
(NATIVE SPECIES) FQAI	8.66	% HYDROPHYTE (MIDWEST) % NATIVE	0.73
(ALL SPECIES)	6.40	PERENNIAL	0.55
ADJUSTED FQAI	18.46	% NATIVE ANNUAL	0.00
% C VALUE 0	0.50	% ANNUAL	0.00
% C VALUE 1-3	0.36	% PERENNIAL	0.91
% C VALUE 4-6	0.14		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
euprug	Ageratina altissima	Eupatorium rugosum	White Snakeroot	3	FACU	1	Forb	Perennial	Native
corsto	Cornus alba	Cornus stolonifera; Cornus baileyi; Cornus sericea	Red Osier	5	FACW	-1	Shrub	Perennial	Native
dipful	Dipsacus fullonum	DIPSACUS SYLVESTRIS	Fuller's Teasel	0	FACU	1	Forb	Biennial	Adventive
epicol	Epilobium coloratum	Epilobium coloratum	Purple-Leaf Willowherb	3	OBL	-2	Forb	Perennial	Native
frapen	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	-1	Tree	Perennial	Native
glehed	Glechoma hederacea	GLECHOMA HEDERACEA	Groundivy	0	FACU	1	Forb	Perennial	Adventive
helgro	Helianthus grosseserratus	Helianthus grosseserratus	Saw-Tooth Sunflower	4	FACW	-1	Forb	Perennial	Native
lytsal	Lythrum salicaria	LYTHRUM SALICARIA	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
passat	Pastinaca sativa	PASTINACA SATIVA	Parsnip	0	UPL	2	Forb	Biennial	Adventive
phaaru	Phalaris arundinacea	PHALARIS ARUNDINACEA	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
phrausu	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	-1	Grass	Perennial	Adventive
plamaj	Plantago major	PLANTAGO MAJOR	Great Plantain	0	FAC	0	Forb	Perennial	Adventive
poapra	Poa pratensis	POA PRATENSIS	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
popdel	Populus deltoides	Populus deltoides	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
rumcri	Rumex crispus	RUMEX CRISPUS	Curly Dock	0	FAC	0	Forb	Perennial	Adventive
soldul	Solanum dulcamara	SOLANUM DULCAMARA	Climbing Nightshade	0	FAC	0	Vine	Perennial	Adventive
solalt	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
solcan	Solidago canadensis	Solidago canadensis	Canadian Goldenrod	1	FACU	1	Forb	Perennial	Native
astsim	Symphyotrichum lanceolatum	Aster simplex	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native

FLORISITIC QUALITY ASSESSMENT - SITE 8 Wetland and Waterway Screening Openlands - Altgeld Gardens City of Chicago, Cook County, Illinois

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
rhurad	Toxicodendron radicans	Rhus radicans	Eastern Poison-Ivy	2	FAC	0	Vine	Perennial	Native
ulmame	Ulmus americana	Ulmus americana	American Elm	3	FACW	-1	Tree	Perennial	Native
vitrip	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Attachment 3 Photographic Log



Client Name: Openlands	Site Location: Altgeld Gardens, City of Chicago, Cook County, Illinois		Project No. 81.0220275.01
Photo 1 – Facing southeast toward Site 1 from approximately 70 feet west of the Altgeld Gardens Seventh Day Adventist Church, located at 945 E. 134 th Street.		Photo 2 – Facing east toward Site 1 from the south side of Carver Park, located on the north side of E. 134 th Street.	
Photo 3 – Facing northeast toward S Gardens Seventh Day Adventist Chur	ite 1 from approximately 115 feet northeast of the Altgeld ch.	Photo 4 – Facing north toward Site 1 from approximately 50 Seventh Day Adventist Church.	feet west of the Altgeld Garden



Client Name: Openlands	Site Location: Altgeld Gardens, City of Chicago, Cook Co	ounty, Illinois	Project No. 81.0220275.01
Photo 5 – Facing east toward Site 2 Seventh Day Adventist Church.	2 from approximately 15 feet east of the Altgeld Gardens	Photo 6 – Facing south toward Site 2 from approximately 15 for Seventh Day Adventist Church.	eet east of the Altgeld Gardens
Photo 7 – Facing south toward Site 3 from approximately 175 feet east of the E. 134 th Street and S. Maryland Avenue intersection.		Photo 8 – Facing southeast toward Site 3 from approximately 175 feet east of the E. 134 th Street and S. Maryland Avenue intersection.	



Client Name: Openlands	Site Location: Altgeld Gardens, City of Chicago, Cook Co	punty, Illinois	Project No. 81.0220275.01
Photo 9 – Facing south toward Site 4 from approximately 375 feet north of the Little Calumet River (Site W1).		Photo 10 – Facing east toward Site 4 from approximately 325 feet north of the Little Calumet River (Site W1).	
Photo 11 – Facing south toward Sir River (Site W1).	te 5 from approximately 335 feet north of the Little Calumet	Photo 12 – Facing north toward Site 5 from approximately 200 River (Site W1).) feet north of the Little Calume



Client Name: Openlands	Site Location: Altgeld Gardens, City of Chicago, Cook Co	punty, Illinois	Project No. 81.0220275.01
Photo 13 – Facing west toward Site River (Site W1).	6 from approximately 110 feet north of the Little Calumet	Photo 14 – Facing west toward Site 7 from approximately 75 fe (Site W1).	et north of the Little Calumet River
Photo 15 – Facing north toward Sit River (Site W1).	e 7 from approximately 65 feet north of the Little Calumet	Photo 16 – Facing south toward Site 8 from approximately f Street and S. Maryland Avenue intersection.	ive feet southeast of the E. 134 th



Client Name: Openlands	Site Location: Altgeld Gardens, City of Chicago, Cook Co	punty, Illinois	Project No. 81.0220275.01
Photo 17 – Facing east toward Site 8 from approximately 10 feet northwest of the E. 134 th Street and S. Maryland Avenue intersection.		Photo 18 – Facing southwest toward the Little Calumet River from approximately 920 feet south of E 134 th Street (Site W1).	
Photo 19 – Facing south toward Site	W1 from approximately 920 feet south of E 134 th Street.		