# **Wetland and Water Resources Delineation Report**

# Chicago Department of Transportation Jackson Park 6401 S. Stony Island Avenue Chicago, Illinois 60637

**FINAL** 

August 2017

GSG Project No.: 17-3003



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**FINAL** 

August 2017

Submitted to:

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August 18, 2017



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## **Acronyms and Abbreviations**

C coefficient of conservatism
CFR Code of Federal Regulations

CWA Clean Water Act

FEMA Federal Emergency Management Agency

FQI floristic quality index

GIS ArcView geographical information system

GPS global positioning system

HQAR high-quality aquatic resource

IDNR Illinois Department of Natural ResourcesIEPA Illinois Environmental Protection AgencyNRCS Natural Resources Conservation Service

NWI National Wetland Inventory
OHWM ordinary high water mark
RPP Regional Permit program

SWANCC Solid Waste Authority of Northern Cook County

TNW traditionally navigable waters
USACE U.S. Army Corps of Engineers

USEPA U.S. Environmental Protection Agency

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

WOUS water of the United States
WQC water quality certification



#### 1 Executive Summary

GSG Consultants Inc. (GSG) was contracted to identify wetlands and water resources, including wetlands, ditches, and streams which are located within Jackson Park from approximately E 56<sup>th</sup> Street to E 67<sup>th</sup> Street and from S Dorchester Avenue to the limits of Lake Michigan.

GSG completed a wetland delineation of the ±740-acre Jackson Park study area, located in the in Sections 12, 13, 14, 23, and 24, Township 38N, Range 14E, and Section 19, Township 38N, Range 15E in Cook County, Illinois. The study area contains existing roads, road right-of-way, golf course, shoreline, and maintained and natural area parklands.

Based on a field investigation conducted by GSG on August 2<sup>nd</sup> through 4<sup>th</sup>, 2017 and our review of related resource materials, it is our professional opinion that one isolated, USACE non-jurisdictional wetland, comprising 0.43 acres, and three USACE jurisdictional wetlands below the Lake Michigan ordinary high water mark (OHWM) (581.5 ft AMSL), comprising 0.68 acres exist within the study area Additionally, Lake Michigan, it's associated north and south lagoons, and Pond 1 are also likely jurisdictional waters within the project area *(Exhibit 1)*.

#### 1.1 Study Area

The study area includes Jackson Park from E 56<sup>th</sup> Street to E 67<sup>th</sup> Street and from S Dorchester Avenue to the limits of Lake Michigan. The delineation was performed in August 2017. The study area is located entirely within Cook County and is located within the Lake Michigan Watershed of Illinois (*Exhibit 2*). The study area is located within the Northcentral and Northeast Region as designated by the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0).

#### 1.2 Purpose

This report presents the results of the delineation of waters within the study area. The purpose of this report is to present a quantification and description of all waters that may be impacted by the project to support pending permitting requirements under the Clean Water Act (CWA), Rivers and Harbors Act, and The Interagency Wetland Policy Act as administered by the USACE, Illinois Environmental Protection Agency (IEPA), and Illinois Department of Natural Resources (IDNR).

The jurisdictional status of the study area is based on GSG's best professional understanding and interpretation of the U.S. Army Corps of Engineers (USACE)s Wetland Delineation Manual (Environmental Laboratory, 1987) and guidance documents and regulations. Jurisdictional determinations for other water resources were made based on definitions and guidance found in 33 CFR 328.3, USACE Regulatory Guidance Letters, and the wetland delineation manual.



#### 2.1 Wetlands

Wetlands are defined as those areas that are "inundated or saturated by surface or groundwater 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. Wetlands generally include swamps, marshes, bogs, and similar areas" [33 Code of Federal Regulations (CFR) 328.3(b)].

Wetlands within the study area were identified and delineated in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (USACE, 2012). This methodology consisted of establishing wetland determination plots which documented the vegetation, soils, and hydrology at each plot location. Wetlands were classified according to the hierarchical system developed by the U.S. Fish and Wildlife Service (USFWS) (Cowardin et al, 1979). Wetland boundaries were delineated using global positioning system (GPS) devices which were subsequently uploaded into ArcView geographical information system (GIS). The GIS information was used to generate the report figures herein.

Potential wetland areas were considered wetlands if they met all three of the following wetland criteria:

- 1. Hydrophytic Vegetation Hydrophytic vegetation is present when the prevalent vegetation consists of species that are typically adapted to prolonged inundation or soil saturation during the growing season. This criterion may not need to be met if the area has been disturbed (farmed, etc.) and the natural vegetation has been removed.
- 2. Hydric Soil Hydric soils are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.
- 3. Hydrology Wetland hydrology may include inundation either permanently or periodically or soil saturation to the surface at some time during the growing season.

In order for a wetland to be considered a jurisdictional water of the United States, the 2001 Supreme Court decision in Solid Waste Agency of Northern Cook County (SWANCC) versus USACE requires that a wetland be hydrologically connected to a jurisdictional water of the United States. Further guidance has been given subsequent to the 2006 Supreme Court decision in Rapanos v. United States. In accordance with the Rapanos decision, the USACE and U.S. Environmental Protection Agency (USEPA) generally assert jurisdiction over:

- Traditionally navigable waters (TNW) and wetlands adjacent to TNWs;
- Waters that are not TNWs provided they are relatively permanent waters i.e. waters that
  flow year-round, or at least "seasonally," (typically 3 months) and include wetlands adjacent
  to such water bodies if the wetlands "directly abut" the water body; and
- Waters that are neither TNWs nor relatively permanent waters provided that a "significant nexus" exists between the water (including adjacent wetlands) and a TNW.

Using the methodology described by Swink and Wilhelm (1994) in Plants of the Chicago Region, a Floristic Quality Assessment was performed for each potential wetland and USACE jurisdictional vegetated ditch that was delineated.



Wetland and Water Resources Delineation Report Jackson Park Chicago, Illinois Based on this methodology, a coefficient of conservatism (C) was assigned to each native plant species identified and the site's floristic quality index (FQI) was calculated as follows:

$$FQI = \bar{C}\sqrt{n}$$

(where n equals the number of native plant species at the site)

The C value, a range from 0 to 10, is an indicator of how likely a plant species may be found on an undisturbed site in a natural plant community. Plant species with low C values are typically more common and will likely tolerate a high degree of disturbance, whereas plant species with high C values are typically less common and cannot tolerate disturbance. The FQI is a function of the C value and provides a measure of the floristic integrity or level of site disturbance.

#### 2.2 Ditches

Based on project guidance, the USACE Chicago District will not claim jurisdiction over ditches (including roadside ditches) excavated or formed wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

#### 2.3 Streams

The field determination of streams as jurisdictional resources is typically based upon the presence of an ordinary high water mark (OHWM), observable "bed and bank," and the presence of documented surface water connections to navigable waters of the United States.

According to 33 CFR 328.3, "the term ordinary high water mark" means "the line on the shore established by the fluctuations of water and indicated by physical characteristics such as 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." In general, the OHWM for a stream is usually determined through an examination of the recent physical evidence of surface flow in the stream channel. Watercourses that contain an observable bed and bank, and exhibit an OHWM, are classified as waters of the United States which are regulated by the USACE under Section 404 of the Clean Water Act and potentially Section 10 of the Rivers and Harbors Act of 1899. Mapping tools used in delineating jurisdictional streams include aerial photography, topographic maps, and field delineation using GPS.

#### 2.4 Non-Agricultural Lands

The delineation of wetlands and other water resources on the site were based on the methodology described in the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region Version 2.0 (Environmental Laboratory, 2010) as required by current USACE policy.

Prior to the field work, the background information was reviewed to establish the probability and potential location of wetlands on the site. Next, a general reconnaissance of the site was conducted to determine study area conditions. The study area was then walked with the specific intent of determining wetland boundaries. Data stations were established at locations within and near the wetland areas to document soil characteristics, evidence of hydrology and dominant vegetation.



Wetland and Water Resources Delineation Report Jackson Park Chicago, Illinois Note that no attempt was made to examine a full soil profile to confirm any soil series designations. However, soils were examined to a depth of at least 16 inches to assess soil characteristics and study area hydrology. Complete descriptions of typical soil series can be found in the soil survey for this county.

#### 2.5 Delineation Data Sheets

Where stations represent a wetland boundary point they are presented as paired data points, one each documenting the wetland and upland sides of the wetland boundary. The routine wetland delineation data sheets used in the wetland delineation process are located in *Appendix A*. These forms are the written documentation of how representative sample stations meet or do not meet each of the wetland criteria. Plant species, which are included on the NWPL, follow the NWPL naming protocol; additional sources listed in the bibliography are used for plants that are not listed in the NWPL.

#### 2.6 Study area Photographs

Photographs of the study area are located in *Appendix B*. These photographs are the visual documentation of study area conditions at the time of inspection. The photographs are intended to provide representative visual samples of any wetlands or other special features found on the study area.

#### 2.7 Survey of Wetland Boundary

The wetland delineation map (*Exhibit 1*) reflects the wetland boundaries marked in the field and described below. The USACE Chicago District requires a wetland boundary survey be completed by a Professional Land Surveyor or Professional Engineer in order to verify the delineation boundaries for impact and regulatory purposes.

#### 2.8 Naturally Problematic and Significantly Disturbed Wetlands

The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), 2012 identifies several situations under which conventional indicators of wetland vegetation, hydrology, or hydric soils are difficult or impossible to observe as a result of natural conditions (Naturally Problematic) or recent/historic disturbance (Significantly Disturbed). The USACE outlines procedures allowed for determining wetland boundaries under these Significantly Disturbed situations.



#### 3 Results

#### 3.1 Background Investigation

A variety of existing data sources were reviewed as planning tools prior to field reconnaissance to support and enhance the identification of wetland and stream resources in the field. Data sources reviewed include the following:

- U.S. Geological Survey (USGS) topographic mapping
- National Wetland Inventory (NWI) maps,
- Natural Resources Conservation Service (NRCS) soil maps, and
- Federal Emergency Management Agency (FEMA) floodplain and floodway maps.

#### 3.1.1 United States Geological Survey (USGS) Topographical Map

The Jackson Park (2015) Quadrangle *(Exhibit 2)* identifies generally flat terrain throughout the study area. The on-site field assessment confirmed topography and observed that the study area generally drained to the east (Lake Michigan).

The USGS map identified one open water area bounded by E 59<sup>th</sup> St, E60<sup>th</sup> St, S Stony Island Ave and S Cornell Ave. The field investigation determined that this area is not open water, rather an open upland maintained grassy lawn.

#### 3.1.2 National Wetland Inventory

The NWI maps were prepared from high altitude photography and in most cases have not been verified with actual conditions. Because of this, wetlands are sometimes erroneously identified, missed, or misidentified. Additionally, the criteria used in identifying these wetlands were different from those currently used by the USACE. The USACE does not accept the use of NWI mapping to make wetland determinations.

The NWI map of the study area (*Exhibit 3*) identifies one feature associated with Lake Michigan to the East of the study area and extending into the study area associated with two separate lagoons. *Table 3-1* lists the symbol and description of the feature identified on the NWI map.

Table 3-1 – NWI Wetlands within the Study Area

Symbol	Description
L1UBH	Lacustrine Limnetic Unconsolidated Bottom Permanently Flooded

The presence of the L1UBH feature was verified in the field.

#### 3.1.3 Soil Survey

The county soil maps were developed from a combination of topography, high-altitude photography, and sporadic field verification. Soil survey maps may reflect historical conditions rather than current study area conditions, and are relatively low-resolution, limiting their accuracy.



Wetland and Water Resources Delineation Report Jackson Park Chicago, Illinois The mapping units contain inclusions of other soil types for up to 15 percent of the area of the unit. The USACE does not accept the use of NRCS soil surveys to make wetland determinations.

The NRCS Soil Survey of Cook County identified twelve soil series on the study area (*Exhibit 4*). *Table 3-2* identifies the soil unit symbol, soil unit name, and whether or not the soil type contains components that meet the hydric soil criteria.

Table 3-2 - Soil Types within the Study Area

Symbol	Description	Rating
49A	Watseka loamy fine sand, 0 to 2 percent slopes	Non-hydric
54B	Plainfield loamy sand, 1 to 6 percent slopes	Non-hydric
141A	Wesley fine sandy loam, 0 to 2 percent slopes	Non-hydric
201A	Gilford fine sandy loam, 0 to 2 percent slopes	Hydric
367	Beaches	Non-hydric
392A	Urban land-Orthents loamy, complex, nearly level	Non-hydric
533	Urban Land	Non-hydric
741B	Oakville fine sand, 1 to 6 percent slopes	Non-hydric
741D	Oakville fine sand, 6 to 12 percent slopes	Non-hydric
800A	Psamments, nearly level	Non-hydric
802B	Orthents, loamy, undulating	Non-hydric
2800	Urban land-Psamments complex, gently sloping	Non-hydric

#### 3.1.4 Floodplain Map

The FEMA FIRM identifies the location of the 100-year floodplain within the study area (*Exhibit 5*). The FIRM shows one area within the 100-year floodplain associated with Lake Michigan and associated lagoons with a Base Flood Elevation (BFE) of 585 feet.

#### 3.2 On-Site Investigation

Four wetlands and one large body of water were identified within and adjacent to the study area. Wetland and waterbody resources are depicted on *Exhibits 1, 1a, and 1b*. Wetland Determination Data Forms are provided in *Appendix A*, Photographs are provided in *Appendix B*, and, Floristic Quality Assessment data is provided in *Appendix D*.

According to Swink and Wilhelm (1994), if the mean C value for a site is 3.5 or greater, or if the FQI is 35 or more, the site has sufficient floristic quality to be at least of marginal natural area quality. If the mean C value is 4.5 or greater, or if the FQI is 45 or more, then the site has almost certain natural area potential. According to the Chicago District of the USACE, high-quality aquatic resource (HQAR) sites include, among other things, sedge meadows, wet prairies dominated by native graminoid species, and wetlands with an FQI greater than or equal to 20 (≥20) or a mean C value ≥3.5.



#### 3.2.1 Wetlands

Wetland descriptions are provided below; a summary of wetlands in the study area is provided in *Table 3-3*.

#### Wetland 1

Wetland 1 is located on the west side of South Stoney Island Avenue between E 59<sup>th</sup> Street and E 60<sup>th</sup> Street. This 0.43-acre mown emergent wetland is located just outside the existing right-of-way of South Stoney Island. Yellow nutsedge (*Cyperus esculentus*), marsh yellowcress (*Porulaca oleracea*), and smartweed (*Persicaria hydropiperoides*) are dominant hydrophytes within the study area. The C value is 3.25, and FQI is 6.50, indicating low floristic quality. Wetland 1 does not appear to have a any type of hydrologic connection to jurisdictional WOUS.

#### Wetland 2

Wetland 2 is located on the west side of 63<sup>rd</sup> St. Beach at the northeast corner of East Hayes Drive and Lake Shore Drive. This 0.50-acre emergent wetland is located on the coastal dune shoreline. Wool grass (*Scirpus cyperinus*), chairmakers bulrush (*Scirpus americanus*), fern flatsedge (*Cyperus filicinus*), and Canadian rush (*Juncus canadensis*) are dominant hydrophytes within the study area. The C value is 5.00, and FQI is 16.58, indicating a potetial HQAR. This wetland is within the OHWM of Lake Michigan, a WOUS.

#### Wetland 3

Wetland 3 is located on the west bank of the south lagoon connected to Lake Michigan near the northeast corner of E Marquette Drive and South Richards Drive. This 0.14-acre emergent\shrub scrub wetland is located along the lagoon shoreline. Black willow (*Salix nigra*) and common reed (*Phragmites australis*) are dominant hydrophytes within the study area. The C value is 2.14, and FQI is 5.67, indicating low floristic quality. This wetland is directly connected to, and within the OHWM of Lake Michigan, a WOUS.

#### Wetland 4

Wetland 4 is located on the northeast bank of the wooded island located in the north lagoon. This 0.03-acre emergent wetland is located on the main island within north lagoon on the northeast bank. Silver maple (*Acer saccharinum*), red osier dogwood (*Cornus alba*), Virginia wild rye (*Elymus virginica*), and swamp smartweed (*Persicaria hydropipoides*) are dominant hydrophytes within the study area. The C value is 3.20, and FQI is 10.12, indicating low floristic quality. This wetland is directly connected to, and within the OHWM of Lake Michigan, a WOUS.

#### 3.2.2 Streams

There were no jurisdictional/non-jurisdictional streams identified in the study area.

#### 3.2.3 Other Waters

#### **Lake Michigan and associated Lagoons**

Lake Michigan, a deep water lake extends along the eastern edge of the project area. Two lagoons, north and south extend into the project area, providing recreational and commercial boat access from marinas in each lagoon to the open lake. The water elevation in the lagoons is directly tied to the water level in Lake Michigan. The shoreline of Lake Michigan is primarily armored with



Wetland and Water Resources Delineation Report Jackson Park Chicago, Illinois stone, or seawall. Two recreational, sandy beaches exist within the project area. The shoreline of the lagoons varies from seawall, hardened stone, steep vegetated bank, to shallow bank with a narrow band of hydrophytic vegetation.

#### Pond 1

Pond 1 is located south of Marquette Drive, within the existing golf course. The pond is a deep water pond with steep banks that are maintained to the edge through the golf course. Pond 1 drains into a culvert on the south side of Marquette Drive that drains into the Lake Michigan South Lagoon, north of Marquette Drive

Table 3-3 – Wetlands and Water Resources in the Study Area

Wetland ID	Size (acres)	Mean C Value	FQI	Jurisdictional Status	Classification	Comments
Jurisdictional	Waters					
Wetland 2	0.50	5.00	16.58	Jurisdictional	L1UB3J	Shoreline wetland; HQAR
Wetland 3	0.14	2.14	5.67	Jurisdictional	PEM5A	Wetland bay in Lake Michigan Lagoon
Wetland 4	0.03	3.20	10.12	Jurisdictional	PEM1A	Wetland bay in Lake Michigan Lagoon
Lake Michigan and associated Lagoons	N/A	N/A	N/A	Jurisdictional	L1UBH	Navigable Water Body
Pond 1	1.62	N/A	N/A	Jurisdictional	PUBH	Drains to Lake Michigan
Non-Jurisdicti	ional Wate	rs				
Wetland 1	0.43	3.25	6.50	Isolated	PEM1A	Mown lawn in park



#### 4 Jurisdictional Analysis

#### 4.1 USACE

The USACE has authority over the discharge of fill or dredged material into WOUS This includes authority over any filling, mechanical land clearing, or other construction activities that occur within the boundaries of any WOUS. A permit must be obtained from the Chicago District USACE before any of these activities occur. Permits can be divided into two general categories: Regional Permits and Individual Permits. The Regional Permits have been developed for projects that meet specific criteria and generally require 60 to 180-days for processing, depending on which regional permit is being sought after. Individual Permits are required for projects that do not fall under the Regional Permit Program (RPP) or are deemed to have potentially significant environmental impacts. These permits are much more difficult to obtain and receive a much higher level of regulatory agency and public scrutiny, and usually require more than one year for processing.

#### 4.2 Other Agencies

The IEPA is responsible for issuing Clean Water Act Section 401 permits known as Water Quality Certification (WQC) in conjunction with the USACE 404 permits. Most Regional Permits have been pre-approved for WQC, but for all Individual and some Regional Permits a separate application for WQC must be submitted directly to the IEPA.

The IDNR is responsible for administering the Interagency Wetland Policy Act of 1989 [20 ILCS830] (effective May 6, 1996). If financial assistance is administered or provided by any agency of the State of Illinois for a project associated with this study area, and the project proposes impacts to on-site wetlands, then the project will be subject to the Interagency Wetland Policy Act of 1989.

Since the study area is within the City of Chicago, the restrictions of the Cook County Watershed Management Ordinance do not apply. City of Chicago Building/Drainage permits may be applicable.



#### 5 Summary and Conclusion

#### 5.1 Wetland Summary

GSG completed wetland delineation of the ±740 acre Jackson Park study area, located in the in Sections 12, 13, 14, 23, and 24, Township 38N, Range 14E, and Section 19, Township 38N, Range 15E in Cook County, Illinois. The study area contains existing roads, road right-of-way, golf course, shoreline, and maintained and natural area parklands.

Based on a field investigation conducted by GSG on August 2<sup>nd</sup> through 4<sup>th</sup>, 2017 and our review of related resource materials, it is our professional opinion that one isolated, USACE non-jurisdictional wetland, comprising 0.43 acres, and three USACE jurisdictional wetlands below the Lake Michigan ordinary high water mark (OHWM) (581.5 ft AMSL), comprising 0.68 acres exist within the study area. Additionally, Lake Michigan, it's associated north and south lagoons, and Pond 1 are also likely jurisdictional waters within the project area *(Exhibit 1)*.

A permit may be required from the USACE prior to any filling, dredging, or mechanical land clearing that occurs within the boundaries of any jurisdictional wetland or WOUS.

While this report represents our best professional judgment based on our knowledge and experience, it is important to note that the Chicago District of the USACE has final discretionary authority over all jurisdictional determinations of WOUS including wetlands under Section 404 of the CWA in this region. It is therefore recommended that a copy of this report be furnished to the Chicago District USACE to confirm the results of our findings.



#### 6 References

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Environmental Laboratory. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version 2.0), ERDC/EL TR-10-16, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

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http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed 10/30/2012.

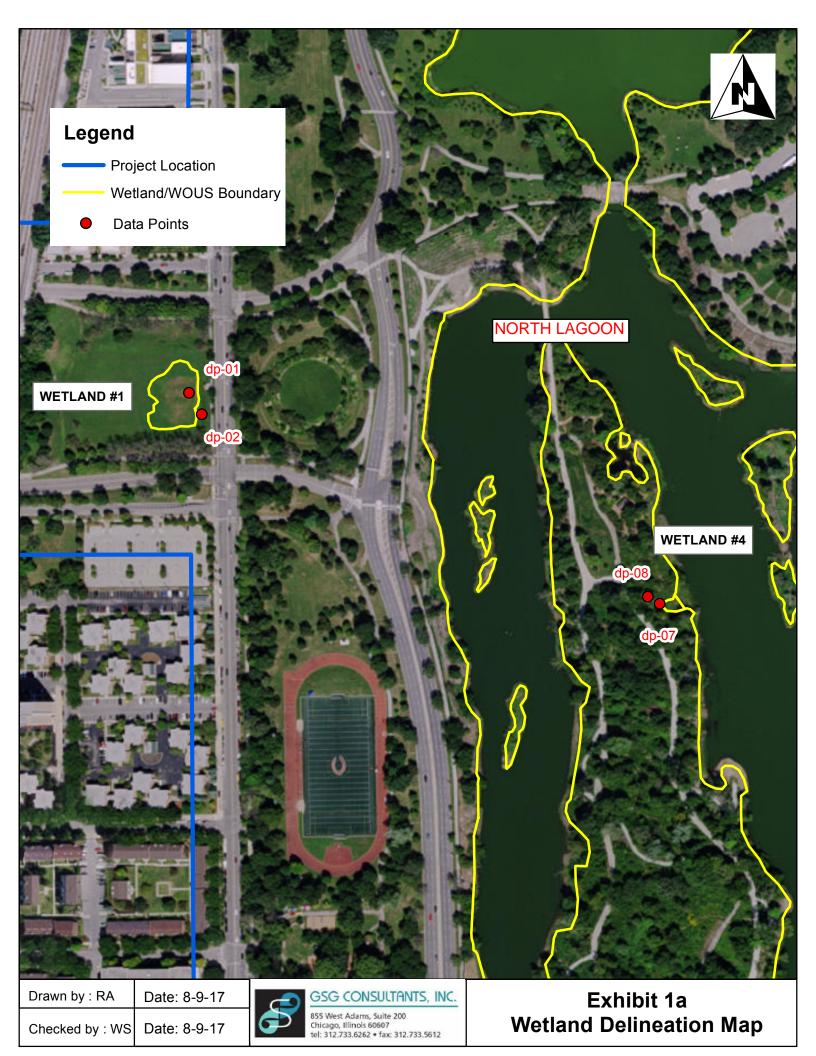
Swink, Floyd and Gerould Wilhelm. 1994. Plants of the Chicago Region. 4th ed. Indianapolis: Indiana Academy of Science.



### **EXHIBITS**







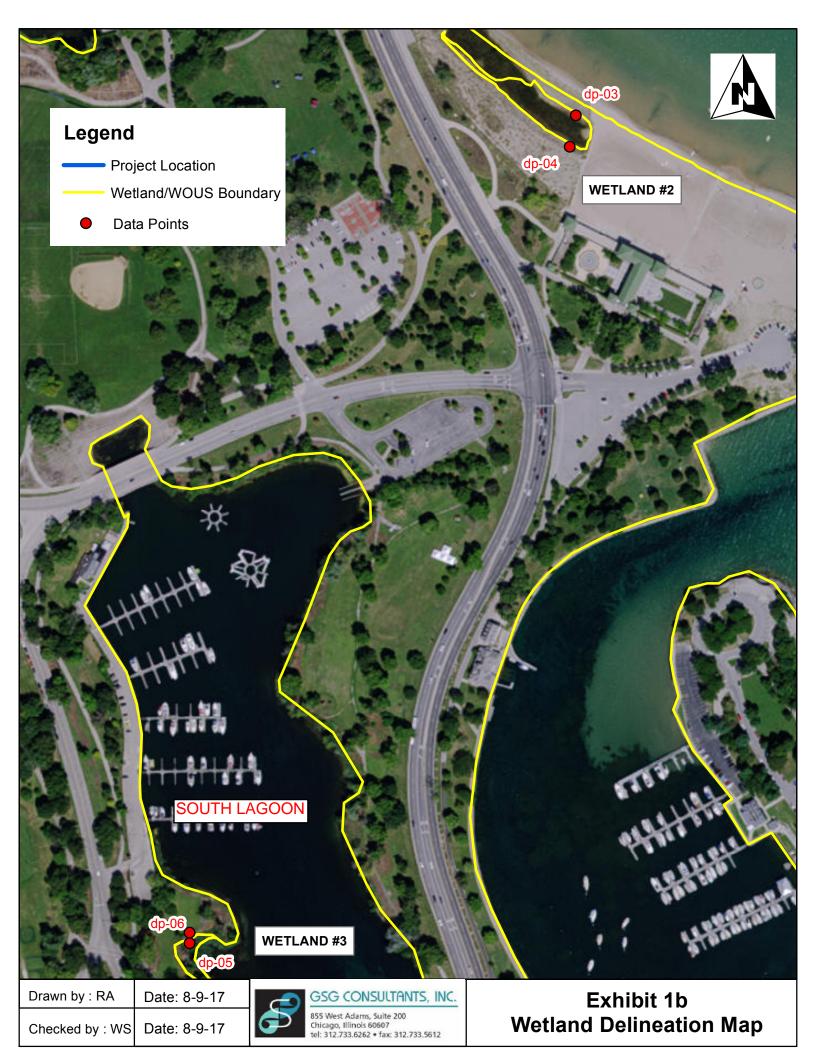






Image Source: USGS Topographic Map

Drawn By: NW	Date: 8-10-2017	GSG CONSULTANTS, INC.
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Image Source: National Wetland Inventory Mapper

Drawn By: NW Date: 8-10-2017

Checked By: WS Date: 8-10-2017

Checked By: WS Date: 8-10-2017

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Exhibit 3 NWI Map





Image Source: USDA Web Soil Survey

Drawn By: NW Date: 8-10-2017

Checked By: WS Date: 8-10-2017



Exhibit 4
USDA Soil Map



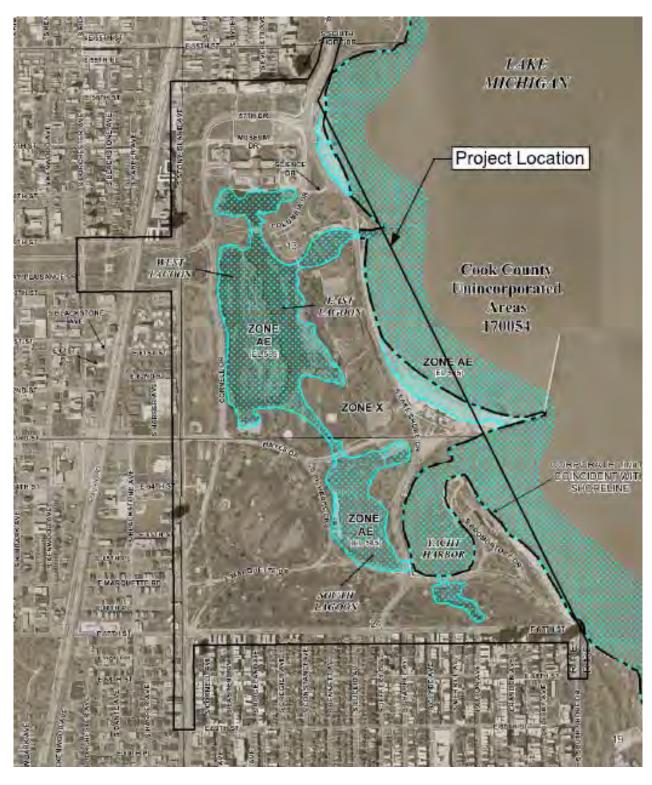


Image Source: Federal Emergency Management Agency

Drawn By: NW Date: 8-10-2017

Checked By: WS Date: 8-10-2017

Checked By: WS Date: 8-10-2017

Checked By: WS Date: 8-10-2017

Exhibit 5
FEMA Map

# APPENDIX A Wetland Delineation Data Sheets



#### WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson P	ark			Cit	y/County: Chi	cago/Cook		Sampling Date: 8/3/2017
Applicant/Owner:	Chicago D	epartment of	Transpo	rtation				State: IL	Sampling Point: DP-01
Investigator(s):	Bill Santeli	k, Nicole Wah	lborg			Section,	Township, F	Range: S14, T38N, R14E	
Landform (hillslope, ter	race, etc.):	Depress	sion				Local relie	f (concave, convex, none)	: concave
Slope (%):	0%	Lat: 41.786	3915		Lon	g:	-87.	586928	Datum: NAD83
Soil Map Unit Name:	Wa	itseka loamy f	ine sand	t				NWI clas	sification: N/A
Are climatic / hydrologic	c conditions	s on the site ty	pical fo	r this ti	me of year?	Yes X	No	_ (If no, explain in Rema	rks.)
Are Vegetation	N, So	oil <u>N</u> ,	or Hydr	ology	N significantly disturb	ed?	Are "Norma	al Circumstances" present	? Yes <u>X</u> No
Are Vegetation	N, So	oil <u>N</u> ,	or Hydr	ology	N naturally problema	tic?	(If needed,	explain any answers in R	emarks.)
SUMMARY OF F	INDINGS	S Attach	site n	nap s	howing sampling p	oint location	ons, trans	sects, important fea	itures, etc.
Hydrophytic Vegetation	n Procent?	)	Yes	Х	No	Is the Sam	nlad Araa		
Hydric Soil Present?	on resent:		Yes	X	No No	within a W	•	Yes	X No
Wetland Hydrology Pr	resent?		Yes	Х	No No		onal Wetland		
		e procedures	here or i	in a se	parate report.)	1		·	
					. ,				
HADBOI OCA									
HYDROLOGY									
Wetland Hydrology I	Indicators:							Secondary Indicators (n	ninimum of two required)
Primary Indicators (m		one is required	d; check	all that				Surface Soil Crack	
Surface Water (A	-		_		Water-Stained Leaves (E	39)		Drainage Patterns	
High Water Table	e (A2)		_		Aquatic Fauna (B13)			Moss Trim Lines (	•
Saturation (A3) Water Marks (B1	1)		_		Marl Deposits (B15) Hydrogen Sulfide Odor (	C1)		Dry-Season Water Crayfish Burrows	
Sediment Depos	•		_		Oxidized Rhizospheres of	-	s (C3)		on Aerial Imagery (C9)
Drift Deposits (B			_		Presence of Reduced Iro	_	3 (00)	Stunted or Stresse	
Algal Mat or Crus			_		Recent Iron Reduction in		26)	X Geomorphic Positi	
Iron Deposits (B	. ,		_		Thin Muck Surface (C7)		/	Shallow Aquitard (	` '
X Inundation Visibl	le on Aerial	Imagery (B7)			Other (Explain in Remark	(s)		Microtopograpic R	elief (D4)
Sparsely Vegeta	ted Concav	ve Surface (B8	3)					X FAC-Neutral Test	(D5)
Field Observations:									
Surface Water Preser	nt?	Yes	No_	Χ	Depth (inches):				
Water Table Present?	>	Yes	No_		Depth (inches):				
Saturation Present?	,	Yes	No_	Х	Depth (inches):		Wetland H	ydrology Present?	Yes X No
(includes capillary frin	<u> </u>	aguag moni	toring w	all aar	ial photos, provious inche	otiona) if avai	labla		
Describe Recorded D	ata (stream	i gauge, moni	toring w	eii, aer	ial photos, previous inspe	ctions), if avail	iable:		
Remarks:									

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft.</u> )	% Cover	Species?	Status	Dominance Test Worksheet:
1. 2.				Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
3. 4.				Total Number of Dominant Species Across All Strata 3 (B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)
7.				<u></u> (12)
		= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )				Total % Cover of: Multiply by:
1				OBL species 50 x 1 = 50
2.				FACW species 70 x 2 = 140
3				FAC species 0 x 3 = 0
4				FACU species111 x 4 =444
5				UPL species 10 x 5 = 50
6.				Column Totals: 241 (A) 684 (B)
7.				Prevalence Index = B/A = 2.84
		= Total Cover		
Herb Stratum (Plot size: 5 ft. )				
Cyperus esculentus	70	Yes	FACW	Hydrophytic Vegetation Indicators:
2. Portulaca oleracea	60	Yes	FACU	Rapid Test for Hydrophytic Vegetation
Persicaria hydropiperoides	50	Yes	OBL	X Dominance Test is >50%
4. Poa pratensis	40	No	FACU	X Prevalence Index is ≤ 3.0 <sup>1</sup>
5. Plantago major	10	No	FACU	Morphological Adaptations <sup>1</sup> (Provide supporting data
6. Securigera varia	10	No	UPL	in Remarks or on a separate sheet)
7. Arctium minus	1	No	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
9				present, unless disturbed or problematic.
10				
11				
12.				Definitions of Vegetation Strata:
13 14				Tree - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15				Sapling/shrub - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				
18				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
19				, , , , , , , , , , , , , , , , , , , ,
20				Woody vines - All woody vines greater than 3.28 ft in height.
	241	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft. )				
1				
2				Hydrophytic
3.				Vegetation
4.				Present ? Yes X No No No
		= Total Cover		
Remarks: (Include photo numbers here or on a separate	sheet.)			1
,	,			

SOIL Sampling Point: DP-01

pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. D=Depletion Grains, MS=Reduced Sand, GS=Reduced Sand, GS=Red	Type: C=Concentratio lydric Soil Indicators Histosol (A1) Histic Epipedon (	2/1 2/1 2/1 2/1 on, D=Depletion, F	93	10YR 5/1 10YR 6/6 10YR 5/2 10YR 5/8	2 2			Sandy loam	
pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. D=Depletion Grains, MS=Reduced Sand, GS=Reduced Sand, GS=Red	ype: C=Concentratio dric Soil Indicators Histosol (A1) Histic Epipedon (	2/1 2/1 2/1 on, D=Depletion, F	93	10YR 6/6 10YR 5/2 10YR 5/8	2 2			Sandy loam	
pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  dric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA Histos (Epipedon (A2) Histos (A2) Histos (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Slack Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sardy Gleyed Matrix (S4) Sardy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (F12) Cher (Explain in Remarks)  Type:  Type:	/pe: C=Concentratio dric Soil Indicators Histosol (A1) Histic Epipedon (	on, D=Depletion, F		10YR 5/2 10YR 5/8	2			Sandy loam	
pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  dric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 om Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, K, L, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 1448, 144) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149) Sandy Redox (S5) Fitipped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B) Cicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:	/pe: C=Concentratio dric Soil Indicators Histosol (A1) Histic Epipedon (	on, D=Depletion, F		10YR 5/8				Sandy loam	
pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  dric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 om Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, K, L, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 1448, 144) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149) Sandy Redox (S5) Fitipped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B) Cicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:	/pe: C=Concentratio dric Soil Indicators Histosol (A1) Histic Epipedon (	on, D=Depletion, F		10YR 5/8					
pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  Indicators for Problematic Hydric Soils <sup>3</sup> :  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histo Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)  Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L)  Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12) Redox Dark Surface (F7) Pledmont Foodplain Soils (F9) (MLRA 144)  Sandy Mucky Mineral (S1) Pepleted Dark Surface (F7) Pledmont Foodplain Soils (F9) (MLRA 1445, 149)  Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149)  Sandy Redox (S5) Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Strictive Layer (if observed):	rdric Soil Indicators Histosol (A1) Histic Epipedon (		RM=Red		- — — — — — — — — — — — — — — — — — — —				
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Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 145, 149) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Stripped Matrix (S6) Very Shallow Dark Surface (T712) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	dric Soil Indicators Histosol (A1) Histic Epipedon (		RM=Red		- — — — — — — — — — — — — — — — — — — —				
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Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 145, 149) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Stripped Matrix (S6) Other (Explain in Remarks)  Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Type:  Type:	dric Soil Indicators Histosol (A1) Histic Epipedon (		RM=Red						
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 145, 149) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox CS5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  strictive Layer (if observed): Type:	dric Soil Indicators Histosol (A1) Histic Epipedon (		RM=Red						
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 145, 149) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Stripped Matrix (S6) Very Shallow Dark Surface (T712) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	dric Soil Indicators Histosol (A1) Histic Epipedon (		RM=Red						
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, F) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 145, 149) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  strictive Layer (if observed):  Type:	Histosol (A1) _Histic Epipedon (	s:		uced Matrix, MS=Ma	sked Sand G	rains. <sup>2</sup> Loca	ation: PL=Po		
Histic Epipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)  Startified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) Chark K, L, M)  Coast Prairie Redox (A16) (LRR K, L, R) Strip Mucky Peat or Peat (S3) (LRR K, L, M) Dark Surface (S7) (LRR K, L, M) Dark Surface (S7) (LRR K, L) Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, F) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 145, 149) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  strictive Layer (if observed): Type:	Histic Epipedon (			5 5.	0 1 101				=
Black Histic (A3)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1) (LRR K, L)  Dark Surface (S7) (LRR K, L, M)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Polyvalue Below Surface (S8) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR K, L)  Redox Depressions (F8)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:		(A2)	_		N Surface (St	3) (LRR R, N	ILRA		
Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Iron-Manganese Masses (F12) (LRR K, L, F)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Redox Depressions (F8)  Mesic Spodic (TA6) (MLRA 144A, 145, 149)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Other (Explain in Remarks)  Type:  Type:			_	Thin Dark Surfa	ace (S9) (LRF	RR, MLRA 1	149B)		
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, E) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 148 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B) Other (Explain in Remarks)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:			_			LRR K, L)			
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, F Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 148 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B) Other (Explain in Remarks)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:									
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:			'' _						
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Cicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Strictive Layer (if observed):  Type:			_						
Stripped Matrix (S6)  Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  strictive Layer (if observed):  Type:			_	Redox Depress	ions (F8)				
Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Other (Explain in Remarks)  dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  strictive Layer (if observed):  Type:		•							
Strictive Layer (if observed):  Type:		•	M, MLRA	149B)					
Strictive Layer (if observed):  Type:									
Type:	dicators of hydrophy	ytic vegetation an	d wetland	d hydrology must be	present, unle	ss disturbed	or problem	atic.	
	strictive Layer (if o	observed):							
	Type:								
Depth (inches): Hydric Soil Present? Yes X No	Depth (inches):						Hydric Sc	oil Present? Y	es <u>X</u> No

#### WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson Pa	rk					tity/County: Chi	cago/Cook			Sampling	Date: <u>8/3/</u>	/2017
Applicant/Owner:	Chicago De	partment of	Transpo	rtation					State	<u>IL</u>	Sampling I	Point: DP	'-02
Investigator(s):	Bill Santelik	, Nicole Wah	ılborg				Section,	Township, R	ange: <u>S14, T3</u>	8N, R14E			
Landform (hillslope, ter	race, etc.):	hillslope	)					Local relief	(concave, con	vex, none):	convex		
Slope (%):	1%	Lat: <u>41.786</u>	3814			Lo	ng:	-87.	58682		Datum:	NAD83	
Soil Map Unit Name:	Wat	seka loamy fi	ine sand	t						NWI classi	fication:	N/A	
Are climatic / hydrologic	c conditions	on the site ty	/pical for	r this tir	me of year?		Yes X	No	(If no, explai	n in Remark	s.)		
Are Vegetation	N , Soi	il <u>N</u> ,	or Hydr	ology	N signifi	icantly distu	rbed?	Are "Norma	I Circumstance	s" present?	Yes	X No	
Are Vegetation	N , Soi	il <u>N</u> ,	or Hydr	ology	N natura	ally problem	atic?	(If needed,	explain any ans	wers in Rer	marks.)		
SUMMARY OF F	INDINGS	Attach	site m	nap s	howing s	ampling	point locati	ons, trans	ects, impo	tant feat	ures, etc.		
Hydrophytic Vegetation	n Present?		Vac		No	X	Is the Sam	inled Area					
Hydric Soil Present?	mi resent:		Yes			X	within a W	-		Yes	No		
Wetland Hydrology Pr	resent?		_			X		onal Wetland	Site ID:	-	<del></del> ;		-
Remarks: (Explain	n alternative	procedures	here or i	in a se	parate report	<u> </u>							
						•							
LIVEROL COV													
HYDROLOGY													
Wetland Hydrology I	ndicators:								Secondary In	dicators (mir	nimum of two	required)	)
Primary Indicators (m	inimum of or	ne is required	l; check	all that						Soil Cracks			
Surface Water (A	-		_		_Water-Stain		(B9)			e Patterns (I	•		
High Water Table	e (A2)		_		_Aquatic Fau	, ,				im Lines (B	•		
Saturation (A3)	1)		_		Marl Deposi		(04)			son Water 1	` ,		
Water Marks (B1	•		-		Hydrogen S		-	- (02)		Burrows (C	-	(CO)	
Sediment Depos  Drift Deposits (B			-		Presence of	-	on Living Root	s (C3)			n Aerial Imag Plants (D1)	ary (C9)	
Algal Mat or Cru	-		_		_		in Tilled Soils (	26)		phic Position			
Iron Deposits (B	. ,		-		Thin Muck S		,	50)		Aquitard (D	. ,		
Inundation Visible	-	magery (B7)	_		Other (Expla	-				ograpic Rel	-		
Sparsely Vegeta	ted Concave	e Surface (B8	3)		- ` `		,			utral Test (E			
Field Observations:													
Surface Water Preser	nt?	Yes	No	Х	Depth (inc	ches):							
Water Table Present?	,	Yes	No	Χ	Depth (inc	ches):							
Saturation Present?	,	Yes	No	Χ	Depth (inc	:hes):		Wetland Hy	drology Pres	ent?	Yes	No_>	Κ
(includes capillary frin	<u> </u>												
Describe Recorded D	ata (stream	gauge, monif	toring we	ell, aer	ial photos, pr	evious insp	ections), if avai	lable:					
Remarks:													
Remarks.													

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1. 2.				Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
3. 4.				Total Number of Dominant Species Across All Strata 2 (B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.				<u> </u>
· -		= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1.				OBL species 0 x 1 = 0
2				FACW species 0 x 2 = 0
3.				FAC species 0 x 3 = 0
4	_			FACU species 40 x 4 = 160
5				UPL species 130 x 5 = 650
6				Column Totals: 170 (A) 810 (B)
7				Prevalence Index = B/A = 4.76
Harb Chrahum (Disk sizes 5 ft		= Total Cover		
Herb Stratum (Plot size: 5 ft. )  1. Fetuca arundinacea	70	Yes	UPL	Hydrophytic Vegetation Indicators:
Taraxacum officinale	10	No	FACU	Rapid Test for Hydrophytic Vegetation
Melilotus offinalis	60	Yes	UPL	Dominance Test is >50%
4. Poa pratensis	30	No	FACU	Prevalence Index is ≤ 3.0 <sup>1</sup>
5.				Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
6.				' '
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8. 9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10.				
11.				
12.				Definitions of Vegetation Strata:
13 14				Tree - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15				Sapling/shrub - Woody plants less than 3 inches DBH and
16				greater than 3.28 ft (1 m) tall.
17 18				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
19				,
20				Woody vines - All woody vines greater than 3.28 ft in height.
	170	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft.	)			
1	_			
2	_			Hydrophytic
3				Vegetation
4				Present ? Yes No _X
		= Total Cover		
Remarks: (Include photo numbers here or on a seg	parate sheet.)			
·	-			

SOIL Sampling Point: DP-02

Depth   Matrix   Nature   Na	•	Matrix		D	edox Featur	25				
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 2Location: PL=Pore Lining, M=Matrix.  Hydric Soil Indicators:  Histosol (A1) Pohyalus Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 4898)  Histic Epipedon (A2) 1498) Coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 1498) Coast Prairie Redox (A16) (LRR K, L, R)  Hydrogen Sulffide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)  Stratified Layers (A5) Loamy Gleyed Matrix (F2) Pohyalus Below Surface (S9) (LRR K, L)  Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (F6) Thin Dark Surface (F7)  Sandy Mucky Mineral (S1) Depleted Matrix (F3) Piedmont Floodplain Solis (F19) (MLRA 1498)  Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 14498)  Sandy Rodox (S5) Red Ox Depressions (F8) Red Parent Material (F21)  Dark Surface (S7) (LRR R, LRR M, MLRA 1498)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:	(HICHES)	-	%				Loc <sup>2</sup>	Texture	R	emarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 2Location: PL=Pore Lining, M=Matrix.  Hydric Soil Indicators:  Histosol (A1) Pohyalus Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 4898)  Histic Epipedon (A2) 1498) Coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 1498) Coast Prairie Redox (A16) (LRR K, L, R)  Hydrogen Sulffide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)  Stratified Layers (A5) Loamy Gleyed Matrix (F2) Pohyalus Below Surface (S9) (LRR K, L)  Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (F6) Thin Dark Surface (F7)  Sandy Mucky Mineral (S1) Depleted Matrix (F3) Piedmont Floodplain Solis (F19) (MLRA 1498)  Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 14498)  Sandy Rodox (S5) Red Ox Depressions (F8) Red Parent Material (F21)  Dark Surface (S7) (LRR R, LRR M, MLRA 1498)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:	0-18"	10YR 2/1	100					Sandy loam		
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:										
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:							-			
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:			·							
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:										
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, LRR M, MLRA 149B)  Thin Dark Surface (A12) Redox Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Type: Type: Type:										
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, LRR M, MLRA 149B)  Thin Dark Surface (A12) Redox Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Type: Type: Type:										
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, LRR M, MLRA 149B)  Thin Dark Surface (A12) Redox Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Type: Type: Type:										
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:										
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Redox (S5) Stripped Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L, R) Mesic Spodic (TA6) (MLRA 149B)  Similar (F2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Type:  Type:										
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, LRR M, MLRA 149B)  Thin Dark Surface (A12) Redox Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Type: Type: Type:								-		
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:										
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, LRR M, MLRA 149B)  Thin Dark Surface (A12) Redox Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Type: Type: Type:										
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:										
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:										
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2) 149B) Coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)  Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)  Thick Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)  Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  Sandy Redox (S5) Red Parent Material (F21)  Stripped Matrix (S6) Other (Explain in Remarks)  Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:			n, RM=Redu	ced Matrix, MS=Mas	ked Sand G	ains. <sup>2</sup> Loca	tion: PL=Po		lamatia Iluduia	Calla <sup>3</sup> .
Histic Epipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR K, L, R)  Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Restrictive Layer (if observed): Type:  Type:	-			Polyvalue Relow	Surface (S8	\/IDDD M	ΙΙ ΒΛ		-	
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)  Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (S8) (LRR K, L)  Thick Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:  Type:			_		ounace (oo	) (LIXIX IX, II	LIVA			•
Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR K, L, R)  Redox Depressions (F8)  Stripped Matrix (S6)  Dark Surface (S7) (LRR K, L, R)  Polyvalue Below Surface (S8) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Iron-Manganese Masses (F12) (LRR K, L, R)  Piedmont Floodplain Soils (F19) (MLRA 149B)  Mesic Spodic (TA6) (MLRA 144B)  Redox Depressions (F8)  Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Polyvalue Below Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K,				Thin Dark Surfac	e (S9) <b>(LRR</b>	R, MLRA 1	49B)	5 cm Mucky	Peat or Peat (S	3) (LRR K, L, R)
Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S9) (LRR K, L)  Redox Depressions (F8)  Mesic Spodic (TA6) (MLRA 144B)  Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**  Restrictive Layer (if observed):  Type:  Type:			_			.RR K, L)				-
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, LRR M, MLRA 149B) Other (Explain in Remarks)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:			Δ11)						•	
Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:										
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:			_							
Stripped Matrix (S6) Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type:			_	Redox Depression	ons (F8)					144A, 145, 149B)
Dark Surface (S7) (LRR R, LRR M, MLRA 149B)  Other (Explain in Remarks)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:										TF12)
Restrictive Layer (if observed):  Type:			R M, MLRA	149B)						11 12)
Type:	<sup>3</sup> Indicators of h	hydrophytic vegetation	and wetland	hydrology must be p	resent, unles	ss disturbed	or problem	atic.		
	Type:									
Depth (inches): Hydric Soil Present? Yes No X	i ypo.									
		nches):					Hydric Sc	oil Present?	Yes	No X
	Depth (ir	<u> </u>								
	Depth (ir									
	Depth (ir									
	Depth (ir									
	Depth (ir	_								
	Depth (ir									
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	Depth (ir	_								
	Depth (ir									
	Depth (ir									
	Depth (ir	_								

#### WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson Pa	ırk					City/0	County: Chi	cago/Cook			Sam	pling D	Date: 8/4	<del>↓</del> /2017
Applicant/Owner:	Chicago De	partme	nt of Tr	ansport	tation					State:	IL	Sam	pling P	oint: DF	o-03
Investigator(s):	Bill Santelik	ι, Nicole	₃ Wahlb	org				Section,	Township,	Range: <u>S13, T38</u>	3N, R14E				
Landform (hillslope, te	rrace, etc.):	D€	epressio	on					Local relie	ef (concave, con	/ex, none):	concav	е		
Slope (%):	0%	Lat: <u>4</u> 1	1.7826	348			Long:		-87	.574319		Da	atum: 1	NAD83	
Soil Map Unit Name:	Bea	ches									NWI class	ification	: <u>I</u>	L1UBH	
Are climatic / hydrolog	ic conditions	on the	site typ	ical for	this tim	e of year?		Yes X	No	(If no, explain	n in Remark	ks.)			
Are Vegetation	N, So	il	N_, o	r Hydro	logy	N significantly	disturbed	1?	Are "Norm	al Circumstance	s" present?	Y	/es <u>)</u>	X No	<u></u>
Are Vegetation	N, So	il	N_, o	r Hydro	logy	N naturally pro	oblematic	?	(If needed,	explain any ans	wers in Re	marks.)			
SUMMARY OF F	FINDINGS	Att	ach s	ite m	ap sh	owing sampli	ing poi	nt location	ons, tran	sects, impor	tant feat	ures,	etc.		
Hydrophytic Vegetation	on Present?			Yes	Х	No		Is the Sam	nled Area						
Hydric Soil Present?	on i resent:			Yes	X	No	-	within a W	-		Yes	X	No		
Wetland Hydrology P	resent?			Yes	Х	No	-		nal Wetland	d Site ID:		_	_		_
Remarks: (Explai	in alternative	proced	lures he	ere or in	ı a sepa	arate report.)									
I															
1															
<u> </u>															
HYDROLOGY															
W-41d Hdl	I									0					
Wetland Hydrology Primary Indicators (m		na ie ra	auired:	chack s	all that	annly)				Secondary Inc	Soil Cracks		ow r	equirea	)
X Surface Water (		ile is ie	quireu,	CHECK 2		маter-Stained Lea	aves (B9)				Patterns (				
High Water Tab				_		Aquatic Fauna (B1	, ,				m Lines (B				
X Saturation (A3)	,			_		Marl Deposits (B1	,				son Water	,	2)		
Water Marks (B1) Hydrogen Sulfide Odor (C1)								Crayfish Burrows (C8)							
Sediment Depos	sits (B2)			_	X (	Oxidized Rhizosph	heres on	Living Root	s (C3)	Saturation	n Visible o	n Aerial	Image	ry (C9)	
Drift Deposits (E	-			_		Presence of Redu					or Stressed		(D1)		
Algal Mat or Cru				_		Recent Iron Reduc		illed Soils (0	C6)		ohic Positio	. ,			
Iron Deposits (B	-	lmagan	, (D7)	_		Thin Muck Surface					Aquitard (D				
Inundation Visib Sparsely Vegeta		٠.		_	—,	Other (Explain in F	Temarks)			X FAC-Ne	ograpic Re utral Test (f				
Field Observations:									1						
Surface Water Prese		Yes	X	No		Depth (inches):	2"								
Water Table Present			X	No _		Depth (inches):	N/A								
Saturation Present?		Yes	X	No		Depth (inches):	N/A		Wetland H	lydrology Prese	nt?	Yes	X	No	
(includes capillary frin															
Describe Recorded D	ata (stream	gauge,	monito	ring we	II, aeria	l photos, previous	inspection	ons), if avai	lable:						
Remarks:															
romano.															

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
2.				Number of Dominant Species That Are OBL, FACW, or FAC:4 (A)
3. 4.				Total Number of Dominant Species Across All Strata 4 (B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
7.				
		= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )				Total % Cover of:Multiply by:
1				OBL species 90 x 1 = 90
2				FACW species 0 x 2 = 0
3				FAC species <u>5</u> x 3 = <u>15</u>
4				FACU species <u>0</u> x 4 = <u>0</u>
5				UPL species 0 x 5 = 0
6				Column Totals: 95 (A) 105 (B)
7				Prevalence Index = B/A = 1.11
		= Total Cover		
Herb Stratum (Plot size: 5 ft. )  1. Scirpus cyperinus	20	Yes	OBL	Hydrophytic Vegetation Indicators:
	20	Yes	OBL	X Rapid Test for Hydrophytic Vegetation
		Yes		l <del></del> ' ' ' '
3. Cyperus filicinus	20	Yes	OBL	X Dominance Test is >50%  X Prevalence Index is ≤ 3.0 <sup>1</sup>
4. Juncus canadensis	20	No No	OBL	
5. Cyperus diandrus	10		OBL	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
6. Equisetum hyemale	5	<u>No</u>	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7.				Problematic Hydrophytic Vegetation (Explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
9.				present, unless disturbed or problematic.
10.				
11.				Definitions of Vagetation Strate
12.				Definitions of Vegetation Strata:
13				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15 16				Sapling/shrub - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				
18				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
19				
20				Woody vines - All woody vines greater than 3.28 ft in height.
	95	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft. )				
1				
2				Hydrophytic
3.				Vegetation
4.				Present ? Yes X No
		= Total Cover		
Remarks: (Include photo numbers here or on a separate	e sheet.)			<u> </u>
	- 3			

SOIL Sampling Point: DP-03

ches)	Matrix Color (moist)	%		Redox Features  % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
	Color (moist)		Color (moist)	<u></u>			Remarks			
	10YR 5/3	95	10YR 2/1	5		SAND				
	10YR 5/2	98	10YR 3/1	2		SAND				
	10YR 5/3	95	10YR 5/2	5		SAND				
						· · · · · · · · · · · · · · · · · · ·				
						·				
e: C=Cor	ncentration, D=Depletion	n. RM=Re	duced Matrix. MS=Mas	sked Sand Grains. <sup>2</sup> Loc	ation: PL=Por	e Lining, M=Matrix.				
	ndicators:	.,				Indicators for Problema	tic Hydric Soils³:			
Histosol	(A1)			V Surface (S8) (LRR R,	MLRA	2 cm Muck (A10)	(LRR K, L, MLRA 149B)			
_	pipedon (A2)		149B)	(CO) (LDD D MLDA	4.40D)		ox (A16) (LRR K, L, R)			
-	istic (A3)			ce (S9) (LRR R, MLRA lineral (F1) (LRR K, L)	149B)	Dark Surface (S7	or Peat (S3) (LRR K, L, R)			
	en Sulfide (A4) d Layers (A5)		Loamy Gleyed N				Surface (S8) (LRR K, L)			
_	d Below Dark Surface (A	<b>A11</b> )	X Depleted Matrix			Thin Dark Surface				
Thick Da	ark Surface (A12)		Redox Dark Sur	face (F6)		Iron-Manganese I	Masses (F12) (LRR K, L, R)			
	Mucky Mineral (S1)		Depleted Dark S			Piedmont Floodplain Soils (F19) (MLRA 14				
-	Gleyed Matrix (S4)		Redox Depressi	ons (F8)			6) (MLRA 144A, 145, 149B)			
	Redox (S5) d Matrix (S6)					Red Parent Mater Very Shallow Dar				
	ırface (S7) <b>(LRR R, LRF</b>	R M, MLR	A 149B)			Other (Explain in	· ·			
_										
cators of	hydrophytic vegetation a	and wetla	nd hydrology must be p	present, unless disturbe	d or problema	tic.				
trictive L	ayer (if observed):									
Type:										
_				<del></del>	Uharlata Oat	I B 40	V N-			
Depth (i	nches):				Hydric Soi	Present? Y	es X No			

#### WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson F	Park				City/C	ounty: Chi	cago/Cook			Sampling	Date: 8/4/201	17
Applicant/Owner:	Chicago D	Department of	Transpo	rtation					State	: <u>IL</u>	Sampling I	Point: DP-04	ŀ
Investigator(s):	Bill Santel	lik, Nicole Wał	nlborg				Section,	Township, R	ange: <u>S13, T3</u>	8N, R14E			
Landform (hillslope, ter	race, etc.):	Hillslope	е					Local relief	(concave, con	vex, none):	convex		
Slope (%):	1%	Lat: 41.782	2415			Long:		-87.5	574384		Datum:	NAD83	
Soil Map Unit Name:	Ве	aches								NWI classi	fication:	L2USJ	
Are climatic / hydrologic	c condition	s on the site t	ypical fo	r this ti	me of year?		Yes X	No	(If no, explai	n in Remark	s.)		
Are Vegetation	<u>N</u> , S	Soil N,	, or Hydr	ology	N significantly	disturbed	?	Are "Norma	l Circumstance	s" present?	Yes	X No	
Are Vegetation	<u>N</u> , S	Soil N,	, or Hydr	ology	N naturally pro	oblematic?		(If needed,	explain any ans	swers in Rer	narks.)		
SUMMARY OF F	INDING	S Attach	site n	nap s	howing sampli	ing poir	nt location	ons, trans	ects, impo	rtant feat	ures, etc.		
Hydrophytic Vegetation	on Procont	2	Voc		No X		c the Sam	pled Area					
Hydric Soil Present?	on resent	:	Yes		No X	•	vithin a W	-		Yes	No		
Wetland Hydrology Pi	resent?		_			-		nal Wetland	Site ID:				
		e procedures	here or i	in a se	parate report.)	·							_
\ 1		•			' '								
HYDROLOGY													
Wetland Hydrology	Indicators	:							Secondary Inc	dicators (mir	nimum of two	required)	
Primary Indicators (m	inimum of	one is required	d; check	all tha	t apply)				Surface	Soil Cracks	(B6)		-
Surface Water (A	<b>A</b> 1)				Water-Stained Lea	aves (B9)			Drainag	e Patterns (I	310)		
High Water Tabl	e (A2)		_		Aquatic Fauna (B1	13)			Moss Tr	im Lines (B	16)		
Saturation (A3)			_		Marl Deposits (B15	5)			Dry-Sea	son Water 1	able (C2)		
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)													
Sediment Depos			_		Oxidized Rhizosph		-	s (C3)			n Aerial Imag	ery (C9)	
Drift Deposits (B			_		Presence of Redu						Plants (D1)		
Algal Mat or Cru	. ,		_		Recent Iron Reduc		ed Soils (C	26)		phic Position	. ,		
Iron Deposits (B	-	(57)	_		Thin Muck Surface					Aquitard (D	-		
Inundation Visibl Sparsely Vegeta			_		Other (Explain in F	Remarks)				oograpic Rel utral Test (E			
	iteu Conca	ve Surface (Di	0)					1		uliai Test (L	,,,		
Field Observations:	- 40	V	NI.		Don'th (in the ca)								
Surface Water Preser Water Table Present?		Yes	No_ No	X	Depth (inches):	-							
Saturation Present?	?	Yes	No_	X	Depth (inches):			Watland H	drology Proc	nnt?	Voc	No Y	
(includes capillary frin	ine)	Yes	NO_	^	Depth (inches):	-		welland ny	drology Pres	entr	Yes	NO A	-
Describe Recorded D	<u> </u>	n gauge, moni	itorina w	ell. aer	ial photos, previous	s inspectio	ns), if avail	able:					
200011201100014042	ata (otroan	gaage,e		o, ao.	iai priotos, protious	opou.o	,,	a					
Remarks:													

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1 2				Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
3 4				Total Number of Dominant Species Across All Strata3 (B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)
7.				(,
		= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )				Total % Cover of:Multiply by:
1.				OBL species 0 x 1 = 0
2.				FACW species 5 x 2 = 10
3.				FAC species 20 x 3 = 60
4.				FACU species 20 x 4 = 80
5				UPL species25 x 5 =125
6				Column Totals: 70 (A) 275 (B)
7				Prevalence Index = B/A = 3.93
		= Total Cover		
Herb Stratum (Plot size: 5 ft. )				
1. Salix interior	5	<u>No</u>	FACW	Hydrophytic Vegetation Indicators:
Equisetum arvense	20	Yes	FAC	Rapid Test for Hydrophytic Vegetation
3. Coreopsis verticillata	10	No No	UPL	Dominance Test is >50%
4. Elymus virginica	15	Yes	UPL	Prevalence Index is ≤ 3.0 <sup>1</sup>
5. Rudbeckia hirta	5	No No	FACU	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
6. Eragrostis cilianensis	15	Yes	FACU	, ,
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
9.				present, unless disturbed or problematic.
10.				
11.				Definitions of Vanatation Streets
12.				Definitions of Vegetation Strata:
13 14				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15 16				Sapling/shrub - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of
18				size, and woody plants less than 3.28 ft tall.
19				
20				Woody vines - All woody vines greater than 3.28 ft in height.
	70	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft. )				
1				
2				Hydrophytic
3				Vegetation
4				Present ? Yes NoX
		= Total Cover		
Remarks: (Include photo numbers here or on a separate	sheet.)			

pth	Matrix		Redox Features	1 2	T	Damanta
ches)	Color (moist)	<u></u> %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
"	10YR 5/4	100			SAND	
3"	10YR 5/3	100			SAND	
		<del></del>			<del></del>	
					<del></del>	
e: C=Con	centration, D=Depletion	n, RM=Redu	ced Matrix, MS=Masked Sand Grains. <sup>2</sup> Loc	cation: PL=Po	re Lining, M=Matrix.	
	ndicators:	·				lematic Hydric Soils <sup>3</sup> :
Histosol	(A1)	_	Polyvalue Below Surface (S8) (LRR R,	MLRA	2 cm Muck (A	A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		149B)	4.40D)		Redox (A16) (LRR K, L, R)
_	istic (A3) en Sulfide (A4)	_	Thin Dark Surface (S9) (LRR R, MLRA Loamy Mucky Mineral (F1) (LRR K, L)	1490)		Peat or Peat (S3) (LRR K, L, R) (S7) (LRR K, L, M)
	d Layers (A5)	_	Loamy Gleyed Matrix (F2)			low Surface (S8) (LRR K, L)
_	d Below Dark Surface (/	A11)	Depleted Matrix (F3)			rface (S9) (LRR K, L)
	ark Surface (A12)	· _	Redox Dark Surface (F6)		Iron-Mangane	ese Masses (F12) (LRR K, L, R)
Sandy M	Mucky Mineral (S1)		Depleted Dark Surface (F7)		Piedmont Flo	odplain Soils (F19) (MLRA 149B
_	Gleyed Matrix (S4)	_	Redox Depressions (F8)			(TA6) (MLRA 144A, 145, 149B)
_	Redox (S5) I Matrix (S6)				Red Parent N	laterial (F21) Dark Surface (TF12)
	rface (S7) <b>(LRR R, LRF</b>	R M, MLRA	149B)			n in Remarks)
_	,,,,,,	,	•			······
icators of	hydrophytic vegetation	and wetland	hydrology must be present, unless disturbed	d or problema	atic.	
trictive L	ayer (if observed):					
	<b></b> ( 0.00.100.).					
Type:						
	nches):			Hydric So	il Present?	Yes NoX
Depth (ii						
Depth (in						

## WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson Pa	rk				City/0	County: Chi	cago/Cook			Sam	pling D	Date: 8/4/20	)17
Applicant/Owner:	Chicago Department of Transportation State: IL											pling P	oint: DP-0	15
Investigator(s):	Bill Santelik	, Nicole Wahl	lborg				Section,	Township, F	Range: <u>S24, T38</u>	3N, R14E				
Landform (hillslope, ter	race, etc.):	Depress	ion					Local relie	f (concave, conv	/ex, none):	concav	e		
Slope (%):	0%	Lat: <u>41.776</u>	630			Long:		-87.	578087		Da	atum: <u>1</u>	NAD83	
Soil Map Unit Name:	Wats	seka loamy fii	ne sand							NWI class	ification	: <u>1</u>	N/A	
Are climatic / hydrologic	c conditions	on the site ty	pical for th	his tim	e of year?		Yes X	No	(If no, explain	n in Remark	ks.)			
Are Vegetation	N, Soi	I <u>N</u> ,	or Hydrolo	ogy _	N significantly	disturbed	d?	Are "Norma	al Circumstance	s" present?	· \	∕es <u>&gt;</u>	X No	
Are Vegetation	N, Soi	I <u>N</u> ,	or Hydrolo	ogy _	N naturally pro	blematic	?	(If needed,	explain any ans	wers in Re	marks.)			
SUMMARY OF F	INDINGS	Attach	site ma	ıp sh	owing sampli	ing poi	nt location	ons, trans	sects, impor	tant feat	ures,	etc.		
Hydrophytic Vegetation	on Present?		Yes	Х	No		Is the Sam	nled Area						
Hydric Soil Present?	on resent:		Yes	X	No No		within a W	•		Yes	X	No_		
Wetland Hydrology Pr	resent?		Yes	Х	No			nal Wetland	I Site ID:			_		
Remarks: (Explain	n alternative	procedures h	nere or in	a sepa	arate report.)	<u> </u>								
İ														
HYDROLOGY														
Wetland Hydrology I									Secondary Inc			of two r	equired)	_
Primary Indicators (mi		e is required	; check al			(DO)				Soil Cracks				
Surface Water (A	,		_		Water-Stained Lea Aquatic Fauna (B1	` '				Patterns (				
X High Water Table X Saturation (A3)	e (A2)				Marl Deposits (B15	'	· · · · · · · · · · · · · · · · · · ·							
Water Marks (B1	1)		_		Hydrogen Sulfide (		)			Burrows (C	•	<i>'</i> 2)		
Sediment Depos	•				Oxidized Rhizosph			s (C3)		n Visible o		Image	ry (C9)	
Drift Deposits (B					Presence of Reduc		_	, ,		or Stressed		-		
Algal Mat or Crus	st (B4)			F	Recent Iron Reduc	ction in Ti	illed Soils (0	26)	X Geomor	ohic Positio	n (D2)			
Iron Deposits (B	5)		_	7	Thin Muck Surface	e (C7)			Shallow	Aquitard (D	03)			
Inundation Visibl				(	Other (Explain in R	Remarks)				ograpic Re		į.		
Sparsely Vegeta	ited Concave	: Surface (B8	.)						FAC-Ne	utral Test ([	D5)			
Field Observations:														
Surface Water Preser		Yes		X	Depth (inches):									
Water Table Present?		Yes X	No		Depth (inches):	7"								
Saturation Present? (includes capillary frin		Yes X	No		Depth (inches):	4"		Wetland H	ydrology Prese	nt?	Yes _	X	No	_
Describe Recorded D		nauge monit	oring well	aeria	I nhotos previous	inspection	nns) if avail	ahle:						
Doddingo recorded D	ata (otroam)	gaago, mome	oring won	, aona	i priotoo, proviodo	пороси	onoj, ii avaii	abio.						
Remarks:														

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
<ol> <li>Salix nigra</li> <li></li></ol>	5	Yes	OBL	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
3				Total Number of Dominant Species Across All Strata 3 (B)
5.				Percent of Dominant Species That Are
6. 7.				OBL, FACW, or FAC: 100% (A/B)
<u> </u>	5	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )				Total % Cover of: Multiply by:
1. Rhamnus cathartica	2	No	FAC	OBL species <u>5</u> x 1 = <u>5</u>
Phytolacca americana	2	No	FACU	FACW species 125 x 2 = 250
3.				FAC species 13 x 3 = 39
4.				FACU species 4 x 4 = 16
5.				UPL species 0 x 5 = 0
6.				Column Totals: 147 (A) 310 (B)
7.				Prevalence Index = B/A = 2.11
	4	= Total Cover		
Herb Stratum (Plot size: 5 ft. )				
1. Phragmites australis	100	Yes	FACW	Hydrophytic Vegetation Indicators:
Impatiens capensis	20	No	FACW	X Rapid Test for Hydrophytic Vegetation
Solidago gigantea	5	No	FACW	X Dominance Test is >50%
4. Arctium minus	2	No	FACU	X Prevalence Index is ≤ 3.0 <sup>1</sup>
5.				Morphological Adaptations <sup>1</sup> (Provide supporting data
6.				in Remarks or on a separate sheet)
7.				Problematic Hydrophytic Vegetation (Explain)
8.				<del>.</del>
9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10.				
11.				
12.				Definitions of Vegetation Strata:
13.				
14				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15				Sapling/shrub - Woody plants less than 3 inches DBH and
16				greater than 3.28 ft (1 m) tall.
17				Herb - All herbaceous (non-woody) plants, regardless of
18				size, and woody plants less than 3.28 ft tall.
19				Woody vines All woody vines greater than 2.29 ft in height
20	127	= Total Cover		Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30 ft. )	127	- Total Cover		
1. Vitis riparia	10	Yes	FAC	
Solanum dulcamara	1	No	FAC	Herdraubertia
3.			1710	Hydrophytic Vegetation
4.				Present? Yes X No
ļ	11	= Total Cover		103 <u>X</u> 10
Demonstra (Inches of the trans		- I Jiai Juvel		1
Remarks: (Include photo numbers here or on a separat	e sheet.)			

Profile Descr	iption: (Describe to th	e depth n	eeded to document th	ne indicator	or confirm	the absen	ce of indicators.)					
Depth (inches)	Matrix Color (moist)	%		edox Featur %	es Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks				
(inches) 0-5"	10YR 2/2	100	Color (moist)	70	Туре		SANDY LOAM	Remarks				
5-18"	10YR 4/1	95	10YR 3/6	5			SANDY LOAM					
5-16	1011/4/1	95	10113/6				SANDT LOAW					
	centration, D=Depletion	n, RM=Red	luced Matrix, MS=Mas	ked Sand G	rains. <sup>2</sup> Loca	tion: PL=P	U,					
Hydric Soil In Histosol			Polyvalue Below	Surface (S8	ALBER M	II RΔ		ematic Hydric Soils <sup>3</sup> : x10) (LRR K, L, MLRA 149B)				
	pipedon (A2)	-	149B)	Curiace (CC	, (LIXIX IX, II	ILIVA	Coast Prairie	Redox (A16) (LRR K, L, R)				
	stic (A3)	-	Thin Dark Surface			49B)						
	en Sulfide (A4) d Layers (A5)	-	Loamy Mucky Mi Loamy Gleyed M		RR K, L)			(S7) <b>(LRR K, L, M)</b> low Surface (S8) <b>(LRR K, L)</b>				
	d Below Dark Surface (	A11)	X Depleted Matrix			Thin Dark Surface (S9) (LRR K, L)						
	ark Surface (A12)	-	Redox Dark Surf			Iron-Manganese Masses (F12) (LRR K, L, R Piedmont Floodplain Soils (F19) (MLRA 1498						
	Mucky Mineral (S1) Gleyed Matrix (S4)	-	Depleted Dark S Redox Depression					(TA6) (MLRA 144A, 145, 149B)				
	Redox (S5)	•					Red Parent M					
	l Matrix (S6) rface (S7) <b>(LRR R, LRI</b>	R M, MLR	A 149B)				Very Shallow Other (Explain	Dark Surface (TF12) n in Remarks)				
<sup>3</sup> Indicators of I	hydrophytic vegetation	and wetlar	nd hydrology must be p	resent, unle	ss disturbed	or problem	natic.					
Restrictive La	ayer (if observed):											
Туре:												
Depth (in	nches):					Hydric So	oil Present?	Yes X No				
Remarks:												

## WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson Par	rk					City/County:	Chic	ago/Cook			Sampling	Date: 8/4	/2017	
Applicant/Owner:	Chicago Department of Transportation State: IL											Sampling I	Point: DF	<sup>2</sup> -06	
Investigator(s):	Bill Santelik,	, Nicole Wahll	oorg				Sec	tion, <sup>-</sup>	Township, R	ange: <u>S24, T3</u>	8N, R14E				
Landform (hillslope, ter	race, etc.):	Hillslope							Local relief	(concave, con	vex, none):	convex			
Slope (%):	1% L	Lat: 41.776	710			!	Long:		-87.5	78077		Datum:	NAD83		
Soil Map Unit Name:	Wats	seka loamy fir	ie sand	ı							NWI classi	ification:	N/A		
Are climatic / hydrologi	c conditions	on the site typ	oical for	r this tir	me of year?		Yes_	Χ	No	(If no, explai	n in Remark	s.)			
Are Vegetation	N , Soil	<u>N</u> , c	or Hydro	ology	N signi	ficantly dis	sturbed?		Are "Norma	Circumstance	s" present?	Yes	X No	)	
Are Vegetation	N , Soil	<u>N</u> , c	or Hydro	ology	N natur	rally proble	ematic?		(If needed,	explain any ans	wers in Rer	marks.)			
SUMMARY OF F	INDINGS	Attach	site m	nap s	howing s	ampling	g point lo	atio	ns, trans	ects, impo	rtant feat	ures, etc.			
Hydrophytic Vegetation	on Present?		Vec		No	Х	le tho	Sami	oled Area						
Hydric Soil Present?	mi rosont:		Yes_		No	X		-	etland?		Yes	No			
Wetland Hydrology Pi	resent?		_						nal Wetland	Site ID:			-	-	
		procedures h	ere or i	n a ser	parate repor	t.)									
<b>\</b> 1	,	1		'		,									
LIVEROL COV															
HYDROLOGY															
Wetland Hydrology	indicators:									Secondary In	dicators (mi	nimum of two	required	)	
Primary Indicators (m	inimum of on	e is required;	check	all that	t apply)					Surface	Soil Cracks	(B6)			
Surface Water (A	<b>41</b> )		_		_Water-Stair	ned Leave	es (B9)			Drainag	Drainage Patterns (B10)				
High Water Tabl	e (A2)		_		_Aquatic Fa	, ,					im Lines (B	•			
Saturation (A3)			_		Marl Depos						son Water	` '			
Water Marks (B1	•		_		_ Hydrogen S				(20)		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)				
Sediment Depos			_		-	-	es on Living I	Roots	s (C3)			-	ery (C9)		
Drift Deposits (B	-		_		Presence of			::- (0	·C)			Plants (D1)			
Algal Mat or Cru Iron Deposits (B	. ,		-		Thin Muck		on in Tilled So	olis (C	0)		phic Positio Aquitard (D	, ,			
Inundation Visible	-	magery (B7)	-		Other (Expl		•				ograpic Re	-			
Sparsely Vegeta			_				ao,				utral Test ([				
Field Observations:															
Surface Water Preser	nt?	Yes	No	Х	Depth (in	ches):									
Water Table Present?	,	Yes	No	Х	Depth (in	_		_							
Saturation Present?	١	Yes	No	Χ	Depth (in	ches):			Wetland Hy	drology Pres	ent?	Yes	No_2	Χ	
(includes capillary frin	<u> </u>														
Describe Recorded D	ata (stream ç	gauge, monito	oring we	ell, aeri	ial photos, p	revious ins	spections), if	availa	able:						
Remarks:															
Remarks.															

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft.</u> )	% Cover	Species?	Status	Dominance Test Worksheet:
1 2				Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
3. 4.				Total Number of Dominant Species Across All Strata 4 (B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.				<u> </u>
· -		= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )				Total % Cover of: Multiply by:
1. Morus nigra	5	Yes	UPL	OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3.				FAC species 0 x 3 = 0
4.				FACU species 130 x 4 = 520
5.				UPL species 25 x 5 = 125
6.				Column Totals: 155 (A) 645 (B)
7.				Prevalence Index = B/A = 4.16
	5	= Total Cover		
Herb Stratum (Plot size: 5 ft. )				
1. Plantago lanceolata	30	Yes	FACU	Hydrophytic Vegetation Indicators:
2. Melilotus americana	10	No	UPL	Rapid Test for Hydrophytic Vegetation
3. Taraxacum officinale	10	No	FACU	Dominance Test is >50%
4. Glechoma hederacea	30	Yes	FACU	Prevalence Index is ≤ 3.0 <sup>1</sup>
5. Poa pratensis	60	Yes	FACU	Morphological Adaptations (Provide supporting data
6. Viola sororia	10	No	UPL	in Remarks or on a separate sheet)
7.				Problematic Hydrophytic Vegetation (Explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
9.				present, unless disturbed or problematic.
10.				
11.				
12.				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15				Sapling/shrub - Woody plants less than 3 inches DBH and
16 17				greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10				Size, and woody plants less than 5.20 it tall.
20				Woody vines - All woody vines greater than 3.28 ft in height.
	150	= Total Cover		7 in Woody Villos groater than 0.25 it in noight.
Woody Vine Stratum (Plot size: 30 ft. )	100	rotal Covol		
1.				
2.				Hydrophytic
3.				Vegetation
4.				Present ? Yes No X
		= Total Cover		
Remarks: (Include photo numbers here or on a separate	e sheet.)			<u> </u>
The transfer of the second second separate	255,			

	Matrix			edox Featu		1 2	T 4			
nches)	Color (moist)	%	Color (moist)	<u></u> %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	K	emarks	
6"	10YR 2/2	100					SANDY LOAM			
18"	10YR 5/6	98	10YR 5/2	2			SAND			
	-									
	-									
				·						
-										
	·									
					. 2.					
	ncentration, D=Depletion	n, RM=Red	duced Matrix, MS=Mas	ked Sand G	rains. Loca	ition: PL=P	ore Lining, M=Matrix. Indicators for Prob	lematic Hydric	Soils <sup>3</sup> :	
Histosol			Polyvalue Below	Surface (S8	3) (LRR R, N	ILRA		A10) (LRR K, L,		
_	pipedon (A2)	-	149B)					e Redox (A16) <b>(L</b>		
_	istic (A3)		Thin Dark Surfac			49B)		m Mucky Peat or Peat (S3) (LRR K, L, R)		
	en Sulfide (A4)		Loamy Mucky Mi		LRR K, L)		e (S7) <b>(LRR K, L</b>	-		
_	d Layers (A5) d Below Dark Surface (	Δ11)	Loamy Gleyed M Depleted Matrix					elow Surface (S8 urface (S9) <b>(LRR</b>		
	ark Surface (A12)		Redox Dark Surf						2) <b>(LRR K, L, R)</b>	
_	Mucky Mineral (S1)	-	Depleted Dark S				Piedmont Fl	oodplain Soils (F	19) <b>(MLRA 149B)</b>	
	Gleyed Matrix (S4)		Redox Depression	ons (F8)					44A, 145, 149B)	
	Redox (S5)							Material (F21)	FF40\	
	d Matrix (S6) Irface (S7) <b>(LRR R, LR</b>	R M. MLR	A 149B)					v Dark Surface (ī iin in Remarks)	IF 12)	
								,		
dicators of	hydrophytic vegetation	and wetlar	nd hydrology must be p	resent, unle	ss disturbed	or problem	natic.			
strictive La	ayer (if observed):									
Type:										
_						l <u>-</u>				
	nches):					Hydric S	oil Present?	Yes	No X	

## WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson Pa	ark			C	tity/County: Chi	cago/Cook			Samp	oling E	Date: 8/4/2017
Applicant/Owner:	Chicago Department of Transportation State: IL											oint: DP-07
Investigator(s):	Bill Santelil	k, Nicole Wah	lborg			Section,	Township, F	Range: <u>S13, T38</u>	N, R14E			
Landform (hillslope, ter	race, etc.):	Depress	ion				Local relie	f (concave, conv	ex, none):	concave	)	
Slope (%):	0%	Lat: 41.785	5448		Lo	ng:	-87.	582298		Dat	tum: <u>I</u>	NAD83
Soil Map Unit Name:	Gilf	ord fine sandy	/ laom						NWI classi	fication:	<u> </u>	_1UBHx
Are climatic / hydrologic	c conditions	on the site ty	pical fo	r this tir	me of year?	Yes X	No	(If no, explain	in Remark	s.)		
Are Vegetation	N, Sc	oil <u>N</u> ,	or Hydr	ology	N significantly distu	rbed?	Are "Norma	al Circumstances	" present?	Y	es <u>)</u>	X No
Are Vegetation	N, Sc	oil <u>N</u> ,	or Hydr	ology	N naturally problem	atic?	(If needed,	explain any answ	vers in Rer	marks.)		
SUMMARY OF F	INDINGS	S Attach	site n	nap s	howing sampling	point location	ons, trans	sects, import	ant feat	ures, e	etc.	
Hydrophytic Vegetation	n Procent?		Yes	Х	No	Is the Sam	nlad Araa					
Hydric Soil Present?	mi resent:		Yes	X	No No	within a W	-		Yes >	<	No_	
Wetland Hydrology Pr	resent?		Yes	Х	No No		nal Wetland	I Site ID:		<del></del>	-	
		e procedures h	nere or i	in a ser		, , ,		<u> </u>				
		•			, ,							
HYDROLOGY												
IIIDKOLOGI												
Wetland Hydrology I								Secondary Indi	cators (mir	nimum o	f two r	equired)
Primary Indicators (mi		ne is required	l; check	all that					oil Cracks			
Surface Water (A			_		Water-Stained Leaves	(B9)			Drainage Patterns (B10)			
High Water Table	e (A2)		_		Aquatic Fauna (B13)	<u>—</u>					2)	
Saturation (A3) Water Marks (B1	1)		-		Marl Deposits (B15) Hydrogen Sulfide Odor	(C1)					2)	
Sediment Depos	•		-	Х	Oxidized Rhizospheres		s (C3)		Burrows (C n Visible or		mage	n/ (C9)
Drift Deposits (B			-		Presence of Reduced I	_	3 (00)		r Stressed		_	iy (C3)
Algal Mat or Crus			-		Recent Iron Reduction		26)	X Geomorp			J.,	
Iron Deposits (B			_		Thin Muck Surface (C7	•	,		quitard (D	. ,		
Inundation Visibl	-	Imagery (B7)	_		Other (Explain in Rema				grapic Rel			
Sparsely Vegeta	ted Concav	e Surface (B8	3)		•			FAC-Neu	tral Test (E	05)		
Field Observations:												
Surface Water Preser	nt?	Yes	No_	Χ	Depth (inches):							
Water Table Present?	•	Yes	No_	Х	Depth (inches):							
Saturation Present?		Yes	No_	Х	Depth (inches):		Wetland H	ydrology Presei	nt?	Yes _	X	No
(includes capillary frin	<u> </u>			-U		ti) ifi	labla.					
Describe Recorded D	ata (stream	i gauge, monit	oring w	eii, aeri	al photos, previous insp	ections), if avail	iable:					
Remarks:												

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
Acer saccharinum     2.	20	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
3. 4.				Total Number of Dominant Species Across All Strata 4 (B)
5.				Percent of Dominant Species That Are
6.				OBL, FACW, or FAC:(A/B)
7	20	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )		- Total Cover		Total % Cover of: Multiply by:
1. Cornus alba	10	Yes	FACW	OBL species 25 x 1 = 25
2.				FACW species 120 x 2 = 240
2				FAC species 0 x 3 = 0
				FACU species 20 x 4 = 80
5.				UPL species 0 x 5 = 0
6.				Column Totals: 165 (A) 345 (B)
7.	-			Prevalence Index = B/A = 2.09
· -	10	= Total Cover		Trevalence index – B/A –
Herb Stratum (Plot size: 5 ft. )		- Total Cover		
1. Elymus virginicus	60	Yes	FACW	Hydrophytic Vegetation Indicators:
Liymus virginicus     Persicaria hydropiperoides	20	Yes	OBL	
				X Rapid Test for Hydrophytic Vegetation
3. Impatiens capensis	15	No No	FACW	X Dominance Test is >50%  X Prevalence Index is ≤ 3.0¹
4. Cyperus esculentus	10	No	FACW	l <del></del>
5. Phytolacca americana	10	No No	FACU	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
6. Solidago altissima	10	No	FACU	, , , , , , , , , , , , , , , , , , ,
7. Epilobium ciliatum	5	No	FACW	Problematic Hydrophytic Vegetation (Explain)
8. Scirpus atrovirens	5	No	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
9.				present, unless disturbed or problematic.
10.				
11.				Definitions of Vonetation Otrata
12.				Definitions of Vegetation Strata:
13 14				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15 16				Sapling/shrub - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				
18				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
19				
20				Woody vines - All woody vines greater than 3.28 ft in height.
	135	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft. )				
1.				
2.				Hydrophytic
3.				Vegetation
4.				Present? Yes X No
		= Total Cover		
Remarks: (Include photo numbers here or on a separat	e sheet )			
Remarks: (include prioto numbers here or on a separat	e sneet.)			

	Matrix	0/		Redox Features	-,1 12	T	Demonto
ches)	Color (moist)	%	Color (moist)	<u> % T</u>	ype <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0"	10YR 2/1	100				LOAM	
8"	10YR 2/1	98	7.5YR 4/6	2		LOAM	
			-			<del></del>	
						· <del></del>	
						. <u></u>	
						· <del></del>	
						. <del></del>	
						·	
						·	
o: C=Cor	ncentration, D=Depletion	- DM-Doc	Jused Matrix MS=Ms	acked Sand Grain	2l coation: DI =	Poro Lining M-Matrix	
	ndicators:	i, itivi–itec	uced Matrix, MO-Ma	isked Sand Grains	3. Location: 1 L-1	Indicators for Problem	atic Hydric Soils <sup>3</sup> :
Histosol			Polyvalue Belo	w Surface (S8) <b>(L</b> l	RR R, MLRA	2 cm Muck (A10	) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)	-	149B)				dox (A16) (LRR K, L, R)
Black H	istic (A3)	-	Thin Dark Surfa	ace (S9) <b>(LRR R,</b> I	MLRA 149B)	5 cm Mucky Pea	t or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)	-		Mineral (F1) (LRR	K, L)	Dark Surface (S	
_	d Layers (A5)	<u>-</u>	Loamy Gleyed				Surface (S8) (LRR K, L)
_	d Below Dark Surface ( <i>l</i> ark Surface (A12)	A11) <u> </u>	X Depleted Matrix Redox Dark Su				ce (S9) <b>(LRR K, L)</b> Masses (F12) <b>(LRR K, L, R)</b>
_	Mucky Mineral (S1)	-	Depleted Dark				plain Soils (F19) (MLRA 149B
_	Gleyed Matrix (S4)	-	Redox Depress				A6) (MLRA 144A, 145, 149B)
_	Redox (S5)	_				Red Parent Mate	erial (F21)
	d Matrix (S6)					Very Shallow Da	rk Surface (TF12)
_Dark Su	ırface (S7) (LRR R, LRF	R M, MLRA	( 149B)			Other (Explain in	Remarks)
cators of	hydrophytic vegetation a	and watlan	d hydrology must bo	procent unless d	icturbad ar probla	matia	
cators or	Trydrophytic vegetation a	and wellar	a nyarology mast be	present, unless u	isturbed or probler	mano.	
trictive L	ayer (if observed):						
Type:							
Depth (i	in also as \.				l localui a G	Soil Present?	/aa V Na
Denin ()	inches):					Soli Present?	res <u>x</u> no

## WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:	Jackson Pa	rk				City/	County: Chi	cago/Cook			Sampling	Date: 8/4/2017	
Applicant/Owner:	Chicago Department of Transportation State: IL											Point: DP-08	
Investigator(s):	Bill Santelik	, Nicole Wahl	borg				Section,	Township, R	ange: <u>S13, T3</u>	8N, R14E			
Landform (hillslope, ter	race, etc.):	hillslope						Local relief	(concave, con	vex, none):	convex		
Slope (%):	1%	Lat: <u>41.785</u>	498			Long:		-87.5	82484		Datum:	NAD83	
Soil Map Unit Name:	Gilfo	ord fine sandy	loam							NWI classi	fication:	N/A	
Are climatic / hydrologic	conditions	on the site typ	oical for	r this ti	me of year?		Yes X	No	(If no, explai	n in Remark	s.)		
Are Vegetation	N , So	il <u>N</u> ,	or Hydr	ology	N significantly	disturbe	d?	Are "Norma	l Circumstance	s" present?	Yes	X No	
Are Vegetation	N , So	il <u>N</u> ,	or Hydr	ology	N naturally pro	oblematio	?	(If needed,	explain any ans	wers in Rer	marks.)		
SUMMARY OF F	INDINGS	Attach	site m	nap s	howing sampl	ing poi	nt location	ons, trans	ects, impo	tant feat	ures, etc.		
Hydrophytic Vegetation	n Present?		Vac		No X		Is the Sam	nlad Araa					
Hydric Soil Present?	iii iosciii:		Yes		No X	-	within a W	-		Yes	No	Х	
Wetland Hydrology Pr	esent?		Yes		No X	•		nal Wetland	Site ID:	-	<u> </u>		
Remarks: (Explain	n alternative	procedures h	ere or i	n a se	parate report.)	_							
		•			, ,								
HVPPOLOOV													
HYDROLOGY													
Wetland Hydrology I	ndicators:								Secondary In	dicators (mir	nimum of two	required)	
Primary Indicators (m	inimum of or	ne is required	; check	all that	t apply)				Surface	Soil Cracks	(B6)		
Surface Water (A	-		_		Water-Stained Lea	•	)		Drainage Patterns (B10)				
High Water Table	e (A2)		_		Aquatic Fauna (B	,				im Lines (B	•		
Saturation (A3)	`		_		Marl Deposits (B1					son Water 1	, ,		
Water Marks (B1	•		-		Hydrogen Sulfide		-	- (C2)		Burrows (C	-	(CO)	
Sediment Depos  Drift Deposits (B			-		Oxidized Rhizospl Presence of Redu		-	s (C3)			n Aerial Image Plants (D1)	ary (C9)	
Algal Mat or Cru	-		_		Recent Iron Redu		-	26)		phic Position			
Iron Deposits (B	. ,		_		Thin Muck Surface		ilica collo (c	50)		Aquitard (D	, ,		
Inundation Visible	-	magery (B7)	_		Other (Explain in I		)			ograpic Rel	-		
Sparsely Vegeta	ted Concave	e Surface (B8	) _		- ` `					utral Test (E			
Field Observations:													
Surface Water Preser	nt?	Yes	No	Χ	Depth (inches):								
Water Table Present?	•	Yes	No	Χ	Depth (inches):								
Saturation Present?		Yes	No	Χ	Depth (inches):			Wetland Hy	drology Pres	ent?	Yes	No X	
(includes capillary frin	<u> </u>												
Describe Recorded D	ata (stream	gauge, monito	oring w	ell, aer	ial photos, previous	s inspecti	ons), if avail	able:					
Remarks:													
rtomano.													

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1. Morus alba	30	Yes	FACU	Number of Dominant Species That Are
2. Acer rubrum	1	No	FAC	OBL, FACW, or FAC: 2 (A)
Celtis occidentalis  4.	20	Yes	FAC	Total Number of Dominant Species Across All Strata 5 (B)
5.				``
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)
7.				
	51	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )				Total % Cover of: Multiply by:
1.				OBL species 0 x 1 = 0
2.				FACW species 65 x 2 = 130
3.				FAC species 21 x 3 = 63
4.				FACU species 66 x 4 = 264
5				UPL species 40 x 5 = 200
6				Column Totals: 192 (A) 657 (B)
7				Prevalence Index = B/A = 3.42
Herb Stratum (Plot size: 5 ft. )		= Total Cover		
Elymus hystrix	30	Yes	FACU	Hydrophytic Vegetation Indicators:
Verbena officinalis	5	No	FACU	Rapid Test for Hydrophytic Vegetation
Melilotus officinalis	1	No	FACU	Dominance Test is >50%
4. Zizea aurea	40	Yes	UPL	Prevalence Index is ≤ 3.0 <sup>1</sup>
5. Elymus virginicus	65	Yes	FACW	Morphological Adaptations <sup>1</sup> (Provide supporting data
6.				in Remarks or on a separate sheet)
7.				Problematic Hydrophytic Vegetation (Explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
9				present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13 14				Tree - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15				Sapling/shrub - Woody plants less than 3 inches DBH and
16 17				greater than 3.28 ft (1 m) tall.
18				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10				Size, and woody plants less than 6.20 it tail.
20				Woody vines - All woody vines greater than 3.28 ft in height.
	141	= Total Cover		, , ,
Woody Vine Stratum (Plot size: 30 ft. )				
1.				
2				Hydrophytic
3				Vegetation
4				Present ? Yes NoX
		= Total Cover		
Remarks: (Include photo numbers here or on a separate	e sheet.)			

Profile Descri	iption: (Describe to th	e depth nee	ded to documen	t the indicator or conf	irm the absend	ce of indicators.)				
Depth	Matrix			Redox Features	1 . 2					
(inches)	Color (moist)		Color (moist)	% Type	Loc <sup>2</sup>	Texture	Remarks			
0-16"	10YR 2/1	100				loam				
<del></del>										
					_					
-										
<del></del>										
	centration, D=Depletion	n, RM=Reduc	ed Matrix, MS=M	asked Sand Grains. <sup>2</sup> L	ocation: PL=Po					
Hydric Soil In							elematic Hydric Soils <sup>3</sup> :			
Histosol			Polyvalue Belonation 149B)	ow Surface (S8) (LRR I	R, MLRA		A10) (LRR K, L, MLRA 149B)			
Histic Ep Black Hi	oipedon (A2)		•	face (S9) (LRR R, MLR	Δ 149R)		rairie Redox (A16) <b>(LRR K, L, R)</b> cky Peat or Peat (S3) <b>(LRR K, L, R)</b>			
l <del></del>	n Sulfide (A4)			Mineral (F1) (LRR K, L	-		e (S7) (LRR K, L, M)			
l ——	Layers (A5)		Loamy Gleyed		-,		elow Surface (S8) (LRR K, L)			
l ——	d Below Dark Surface ( <i>I</i>	A11) —	Depleted Matr			Thin Dark Surface (S9) (LRR K, L)				
l ——	ark Surface (A12)		Redox Dark S			Iron-Manganese Masses (F12) (LRR K, L, R)				
l ——	lucky Mineral (S1)		— Depleted Dark			Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy G	Sleyed Matrix (S4)		Redox Depres	sions (F8)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy R	tedox (S5)					Red Parent I	Material (F21)			
	Matrix (S6)					Very Shallow	v Dark Surface (TF12)			
Dark Su	rface (S7) <b>(LRR R, LRF</b>	R M, MLRA 1	49B)			Other (Expla	in in Remarks)			
31	d				h - d bl	-4:-				
Indicators of I	nydrophytic vegetation a	and wetland I	nydrology must be	e present, unless distur	bed or problem	atic.				
Restrictive La	ayer (if observed):									
Type:										
_										
Depth (ir	nches):				Hydric So	oil Present?	Yes No X			
Remarks:					•					

# APPENDIX B Study Area Photographs





855 West Adams, Suite 200, Chicago, IL 60607; Phone: (312) 733-6262

**Project Number: 17-3003** 

Project Site: 6401 S Stony Island Ave, Chicago, IL



Date: 08/02/2014 Photograph taken by: WS

View of datapoint 1, wetland plot for wetland 1 facing northwest.



Date: 06/03/2016 Photograph taken by: WS

View of datapoint 2, upland plot for wetland 1 facing east.



855 West Adams, Suite 200, Chicago, IL 60607; Phone: (312) 733-6262

**Project Number: 17-3003** 

Project Site: 6401 S Stony Island Ave, Chicago, IL



Date: 08/04/2017 Photograph taken by: WS

View of datapoint 3, wetland plot for wetland 2, facing west.



Date: 08/04/2017 Photograph taken by: WS

View of datapoint 4, upland plot for wetland 2, facing north.

855 West Adams, Suite 200, Chicago, IL 60607; Phone: (312) 733-6262

**Project Number: 17-3003** 

Project Site: 6401 S Stony Island Ave, Chicago, IL



Date: 08/04/2017 Photograph taken by: WS

View of datapoint 5, wetland plot for wetland 3, facing south.



Date: 08/04/2017 Photograph taken by: WS

View of datapoint 6, upland plot for wetland 3, facing south.



855 West Adams, Suite 200, Chicago, IL 60607; Phone: (312) 733-6262

**Project Number: 17-3003** 

Project Site: 6401 S Stony Island Ave, Chicago, IL



Date: 08/04/2017 Photograph taken by: WS

View of datapoint 7, wetland plot for wetland 4, facing east.



Date: 08/04/2017

Photograph taken by: WS

View of datapoint 8, upland plot for wetland 4, facing west.



855 West Adams, Suite 200, Chicago, IL 60607; Phone: (312) 733-6262

**Project Number: 17-3003** 

Project Site: 6401 S Stony Island Ave, Chicago, IL



Date: 08/04/2017 Photograph taken by: WS

View of Lake Michigan shoreline at the northern point of the study area, facing north.



Date: 08/04/2017 Photograph taken by: WS

View of landscaped area on wooded island, facing north.



855 West Adams, Suite 200, Chicago, IL 60607; Phone: (312) 733-6262

Project Number: 17-3003

Project Site: 6401 S Stony Island Ave, Chicago, IL



Date: 08/04/2017 Photograph taken by: WS

View of north lagoon and adjacent golf course within study area, facing north.

# APPENDIX C Floristic Quality Assessment



SITE: Wetland 1 Jackson Park B. Santelik/N. LOCALE: BY: Walborg

NOTES:

CONSERVATISM-BASED METRICS ADDITIONAL METRICS SPECIES RICHNESS (ALL) MEAN C (NATIVE SPECIES) 3.25 9 MEAN C (ALL SPECIES) SPECIES RICHNESS 1.44 (NATIVE) 4 MEAN C (NATIVE TREES) 2.00 % NON-NATIVE 0.56 MEAN C WET INDICATOR (NATIVE SHRUBS) n/a (ALL) -0.11 MEAN C WET INDICATOR (NATIVE HERBACEOUS) (NATIVE) 3.67 -1.25 % HYDROPHYTE FQAI (NATIVE SPECIES) 6.50 (MIDWEST) 0.67 (NATIVE SPECIES)
FQAI
(ALL SPECIES)
ADJUSTED FQAI
% C VALUE 0
% C VALUE 1-3
% C VALUE 4-6
% C VALUE 7-10 % NATIVE PERENNIAL 4.33 0.44 % NATIVE ANNUAL % ANNUAL % PERENNIAL 21.67 0.00 0.67 0.11 0.11 0.11 0.11 0.78

	SPECIES NAME				MIDWEST		WET			
SPECIES	(NWPL/	SPECIES	COMMON		WET	NC-NE WET	INDICATOR	2		
ACRONYM	MOHLENBROCK)	(SYNONYM)	NAME	C VALUE	INDICATOR	INDICATOR	(NUMERIC)	HABIT	DURATION	NATIVITY
		ARCTIUM								
ARCMIN	Arctium minus	MINUS	Lesser Burrdock		0 FACU	FACU		1 Forb	Biennial	Adventive
		Cyperus								
cypesc	Cyperus esculentus	esculentus	Chufa		0 FACW	FACW		1 Sedge	Perennial	Native
сурсас	Oyperus esculentus	Polygonum	Ondia		0171011	171011		1 Jeage	rerennar	Native
	Persicaria	opelousanum								
DEDLINO		•	C		7.00	ODI		0 5	D	NI - Ali
PERHYO	hydropiperoides	adenocalyx	Swamp Smartweed		7 OBL	OBL		-2 Forb	Perennial	Native
		PLANTAGO								
PLAMAJ	Plantago major	MAJOR	Great Plantain		0 FAC	FACU		0 Forb	Perennial	Adventive
		POA	Kentucky Blue							
POAPRA	Poa pratensis	PRATENSIS	Grass		0 FAC	FACU		0 Grass	Perennial	Adventive
		Populus								
POPDEL	Populus deltoides	deltoides	Eastern Cottonwood		2 FAC	FAC		0 Tree	Perennial	Native
	.,	PORTULACA								
POROLE	Portulaca oleracea	OLERACEA	Little-Hogweed		0 FACU	FACU		1 Forb	Annual	Adventive
RORPAL	Rorippa palustris		Bog Yellowcress		4 OBL	OBL		-2 Forb	Perennial	Native
NON AL	Korippa palustris	CORONILLA	bog renoweress		4 ODL	ODL		-2 1010	Cicillai	Native
050145			0 1/11		0.1101			0.5.1		
SECVAR	Securigera varia	VARIA	Crown Vetch		0 UPL	UPL		2 Forb	Perennial	Adventive

SITE: LOCALE: Wetland 2 Jackson Park B. Santelik, N. Wahlborg BY:

NOTES:

CONSERVATISM-

BASED METRICS			ADDITIONAL METRICS
MEAN C (NATIVE SPECIES)	5.00	SPECIES RICHNESS (ALL)	11
MEAN C (ALL SPECIES) MEAN C	5.00	SPECIES RICHNESS (NATIVE)	11
(NATIVE TREES)	2.00	% NON-NATIVE	0.00
MEAN C (NATIVE SHRUBS) MEAN C (NATIVE HERBACEOUS)	1.00 5.78	WET INDICATOR (ALL) WET INDICATOR (NATIVE)	-1.27 -1.27
FQAI (NATIVE SPECIES) FOAI	16.58	% HYDROPHYTE (MIDWEST) % NATIVE	0.91
(ALL SPECIES) ADJUSTED FQAI % C VALUE 0 % C VALUE 1-3 % C VALUE 4-6 % C VALUE 7-10	16.58 50.00 0.00 0.27 0.45 0.27	PERENNIAL % NATIVE ANNUAL % ANNUAL % PERENNIAL	0.91 0.09 0.09 0.91

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM) Cyperus	COMMON NAME Umbrella Flat	C VALUE	MIDWEST WET INDICATOR	NC-NE WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
CYPDIA	Cyperus diandrus	diandrus Cyperus	Sedge Great Plains Flat		10 FACW	OBL	-	1 Sedge	Annual	Native
CYPFIL	Cyperus Iupulinus	filiculmis Equisetum	Sedge		5 FACU	FACU		1 Sedge	Perennial	Native
EQUHYE	Equisetum hyemale	hyemale Juncus	Tall Scouring-Rush		3 FACW	FAC	-	1 Fern	Perennial	Native
JUNCAN	Juncus canadensis Juncus effusus ssp.	canadensis Juncus	Canadian Rush		7 OBL	OBL	-	2 Forb	Perennial	Native
JUNEFF	solutus	effusus Populus	Lamp Rush		7 OBL	OBL	-	2 Forb	Perennial	Native
POPDEL	Populus deltoides	deltoides Sagittaria	Eastern Cottonwood	I	2 FAC	FAC		0 Tree	Perennial	Native
SAGLAT	Sagittaria latifolia	latifolia	Duck-Potato		4 OBL	OBL	-	2 Forb	Perennial	Native
SALINT	Salix interior Schoenoplectus	Salix interior Scirpus	Sandbar Willow		1 FACW	FACW	-	1 Shrub	Perennial	Native
SCIPUN	pungens	pungens Scirpus	Three-Square		5 OBL	OBL	-	2 Sedge	Perennial	Native
	Schoenoplectus	validus	Soft-Stem Club-							
SCIVAL	tabernaemontani	creber Scirpus	Rush		5 OBL	OBL	-	2 Sedge	Perennial	Native
SCICYP	Scirpus cyperinus	cyperinus	Cottongrass Bulrush	1	6 OBL	OBL	-	2 Sedge	Perennial	Native

SITE: LOCALE: Wetland 3 Jackson Park B. Santelik, N. Wahlborg

BY: NOTES:

CONSERVATISM-

BASED METRICS			ADDITIONAL METRICS
MEAN C (NATIVE SPECIES)	2.14	SPECIES RICHNESS (ALL)	13
MEAN C (ALL SPECIES) MEAN C	1.15	SPECIES RICHNESS (NATIVE)	7
(NATIVE TREES)	2.00	% NON-NATIVE	0.46
MEAN C (NATIVE SHRUBS) MEAN C (NATIVE	0.00	WET INDICATOR (ALL) WET INDICATOR	-0.23
HERBACEOUS)	2.25	(NATIVE)	-0.43
FQAI (NATIVE SPECIES) FQAI	5.67	% HYDROPHYTE (MIDWEST) % NATIVE	0.69
(ALL SPECIES)	4.16	PERENNIAL	0.46
ADJUSTED FQAI	15.72	% NATIVE ANNUAL	0.08
% C VALUE 0	0.54	% ANNUAL	0.08
% C VALUE 1-3	0.31	% PERENNIAL	0.85
% C VALUE 4-6	0.15		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	NC-NE WET	WET INDICATOR (NUMERIC)	-	DURATION	NATIVITY
		Acer negundo	)							
ACENEG	Acer negundo	violaceum ARCTIUM	Ash-Leaf Maple		O FAC	FAC		0 Tree	Perennial	Native
ARCMIN	Arctium minus	MINUS HIBISCUS	Lesser Burrdock		0 FACU	FACU		1 Forb	Biennial	Adventive
HIBSYR	Hibiscus syriacus	SYRIACUS Impatiens	Rose-of-Sharon Spotted Touch-Me-		0 UPL	UPL		2 Shrub	Perennial	Adventive
IMPCAP	Impatiens capensis	capensis LYTHRUM	Not		3 FACW	FACW		-1 Forb	Annual	Native
LYTSAL	Lythrum salicaria Phragmites	SALICARIA	Purple Loosestrife		0 OBL	OBL		-2 Forb	Perennial	Adventive
	australis ssp.	Phragmites								
PHRAUSU	australis Phytolacca	australis Phytolacca	Common Reed		0 FACW	FACW		-1 Grass	Perennial	Adventive
PHYAME	americana	americana RHAMNUS	American Pokeweed European		1 FACU	FACU		1 Forb	Perennial	Native
RHACAT	Rhamnus cathartica	CATHARTICA	Buckthorn		0 FAC	FAC		0 Shrub	Perennial	Adventive
SALNIG	Salix nigra	Salix nigra SOLANUM	Black Willow Climbing		4 OBL	OBL		-2 Tree	Perennial	Native
SOLDUL	Solanum dulcamara	DULCAMARA Solidago	Nightshade		0 FAC	FAC		0 Vine	Perennial	Adventive
SOLALT	Solidago altissima	altissima Verbena	Tall Goldenrod		1 FACU	FACU		1 Forb	Perennial	Native
VERHAS	Verbena hastata	hastata	Simpler's-Joy		4 FACW	FACW		-1 Forb	Perennial	Native
VITRIP	Vitis riparia	Vitis riparia	River-Bank Grape		2 FACW	FAC		-1 Vine	Perennial	Native

SITE: Wetland 4 Jackson Park B. Santelik, N. LOCALE: BY: Wahlborg

NOTES:

CONSERVATISM-BASED METRICS ADDITIONAL METRICS SPECIES RICHNESS (ALL) MEAN C (NATIVE SPECIES) 3.20 10 MEAN C (ALL SPECIES) SPECIES RICHNESS 3.20 (NATIVE) 10 MEAN C (NATIVE TREES) 3.00 % NON-NATIVE 0.00 MEAN C (NATIVE SHRUBS) WET INDICATOR 6.00 (ALL) -0.60 MEAN C WET INDICATOR (NATIVE HERBACEOUS) (NATIVE) 2.88 -0.60 % HYDROPHYTE FQAI (NATIVE SPECIES) 10.12 (MIDWEST) 0.70 (NATIVE SPECIES)
FQAI
(ALL SPECIES)
ADJUSTED FQAI
% C VALUE 0
% C VALUE 1-3
% C VALUE 4-6
% C VALUE 7-10 % NATIVE PERENNIAL 10.12 0.90 % NATIVE ANNUAL % ANNUAL % PERENNIAL 32.00 0.10 0.10 0.10 0.50 0.30 0.10

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM) Acer	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	NC-NE WET INDICATOR	WET INDICATOR (NUMERIC)	P. HABIT	DURATION	NATIVITY
ACESAU	Acer saccharum	saccharum Cornus	Sugar Maple		3 FACU	FACU		1 Tree	Perennial	Native
CORALB	Cornus alba	stolonifera Cyperus	Red Osier		6 FACW	FACW		-1 Shrub	Perennial	Native
CYPESC	Cyperus esculentus		Chufa		0 FACW	FACW		-1 Sedge	Perennial	Native
ELYVIR	Elymus virginicus	virginicus Epilobium	Virginia Wild Rye		4 FACW	FACW		-1 Grass	Perennial	Native
EPICIL	Epilobium ciliatum	ciliatum Impatiens	Fringed Willowherb Spotted Touch-Me-		3 FACW	FACW		-1 Forb	Perennial	Native
IMPCAP	Impatiens capensis	capensis Polygonum	Not		3 FACW	FACW		-1 Forb	Annual	Native
	Persicaria	opelousanum								
PERHYO	hydropiperoides Phytolacca	adenocalyx Phytolacca	Swamp Smartweed		7 OBL	OBL	-	-2 Forb	Perennial	Native
PHYAME	americana	americana Scirpus	American Pokeweed	I	1 FACU	FACU		1 Forb	Perennial	Native
SCIATV	Scirpus atrovirens	atrovirens Solidago	Dark-Green Bulrush	ı	4 OBL	OBL		-2 Sedge	Perennial	Native
SOLALT	Solidago altissima	altissima	Tall Goldenrod		1 FACU	FACU		1 Forb	Perennial	Native

0.90