

KANE COUNTY DEVELOPMENT DEPARTMENT

Zoning Division, Kane County Government Center

719 Batavia Avenue

Geneva, Illinois 60134

Office (630) 232-3492 Fax: (630) 232-3411

Received Date

ZONING MAP AMENDMENT APPLICATION

Instructions:

To request a map amendment (rezoning) for a property, complete this application and submit it with all required attachments to the Subdivision and Zoning Division.

When the application is complete, we will begin the review process.

The information you provide must be complete and accurate. If you have a question please call the subdivision and zoning division, and we will be happy to assist you.

1. Property Information:	Parcel Number (s): Parts of 08-19-201-002 and 08-19-226-005
	Street Address (or common location if no address is assigned): An approximate 3.2-acre parcel within a larger 53-acre parcel at the SE corner of State Routes 47 and 64

2. Applicant Information:	Name WLS Television, Inc.	Phone (312) 750-7768
	Address 190 N. State Street	Fax
	Chicago, IL 60601 Attn: Craig Strom	Email craig.strom@abc.com

3. Owner of record information:	Name Chicago Trust Company, N.A., as successor Trustee u/t/a dated January 9, 1966, as amended by Amendment dated April 1, 2010 as known as Trust No. 1016	Phone (630) 232-2750
	Address 411 West Main St.	Fax
	St. Charles, IL 60174	Email

Legal Description Of Special Use Parcel

That part of the north east 1/4 of Section 19, Township 40 North, Range 7 East of the 3rd Principal Meridian, Kane County, Illinois, described as follows: commencing at the point of intersection of the north line of said north east 1/4 of Section 19 with the center line of S.B.I. Route 47 according to the plat thereof recorded on November 2, 1932, as Document No. 360675; thence on an assumed bearing of south 1 degree 24 minutes 02 seconds east along said center line of S.B.I. Route 47, 989.56 feet for the point of beginning; thence continuing south 1 degree 24 minutes 02 seconds east along said center line of S.B.I. Route 47, 109.99 feet; thence north 89 degrees 51 minutes 22 seconds east 173.85 feet; thence north 67 degrees 54 minutes 21 seconds east 372.64 feet; thence north 0 degrees 30 minutes 02 seconds west 273.77 feet; thence north 90 degrees 00 minutes 00 seconds west 188.64 feet; and thence south 47 degrees 22 minutes 42 seconds west 449.52 feet, more or less, to the point of beginning.

Note: The legal description does not exclude that part thereof lying within the Route 47 right-of-way.

Zoning and Use Information:

2030 Plan Land Use Designation of the property: Open Space & Countryside/Estate Residential

Current zoning of the property: F-Farming

Current use of the property: Farming

Proposed zoning of the property: F-Farming (no change)

Proposed use of the property: Farming and weather radar/Doppler system and related uses

If the proposed Map Amendment is approved, what improvements or construction is planned? (An accurate site plan may be required)

N/A

Attachment Checklist

- Plat of Survey prepared by an Illinois Registered Land Surveyor.
- Legal description
- Completed Land Use Opinion application (Available in pdf form at www.kanedupageswed.org/luo.pdf), as required by state law, mailed to: The Kane Dupage Soil and Water Conservation District, 545 S. Randall Road, St. Charles, IL 60174.
- Endangered Species Consultation Agency Action Report (available in pdf form at www.dnr.state.il.us/orep/nrrc/aar.htm) to be filed with the Illinois Department of Natural Resources.
- List of record owners of all property adjacent & adjoining to subject property
- Trust Disclosure (If applicable)
- Findings of Fact Sheet
- Application fee (make check payable to Kane County Development Department)

I (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.

Record Owner	Date
	May 5, 2015
Applicant or Authorized Agent	Date

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N/A

This instrument is executed by the undersigned Land Trustee, not personally but solely as Trustee in the exercise of the power and authority conferred upon and vested in it as such Trustee. It is expressly understood and agreed that all of the warranties, indemnities, representations, covenants, undertakings and agreements herein made on the part of the Trustee are undertaken by it solely in its capacity as Trustee and not personally. It is further understood and agreed that the Trustee merely holds title to the property herein described and has no agents, employees or control over the management of the property and no knowledge of other factual matters except as represented to it by the beneficiary(ies) of the Trust. No personal liability or personal responsibility is assumed by or shall at any time be asserted or enforceable against the Trustee in this instrument, all such liability being expressly waived by every person now or hereafter claiming any right or security hereunder, and the owner of any interest in the property hereby waives any right to sue or to bring any claim, demand, or action for breach of any warranty, indemnity, representation, covenant, undertaking or agreement accruing hereunder solely to the Trust estate for the payment thereof.

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I (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.

The Chicago Trust Company, Successor Trustee to
Suburban Bank & Trust u/a dtd 01/09/96, # 12-1016
BY: Linda J. Pitrowski

May 12, 2015

Record Owner Vice President & Trust Officer Date

Applicant or Authorized Agent Date



Zoning Request Report
County of Kane

Kane County Development
719 Batavia Ave
Geneva, IL 60134
Phone: (630) 232-3492
Fax: (630) 232-3411

TO: Kane County Zoning Board Of Appeals
Kane County Development Committee
County Board Member District
Janice Hill
Petitioner

Carl Scheodel

Mark VanKerkhoff

Monica Meyers

PETITION NUMBER 2015-4355

Date 06/29/2015

GENERAL INFORMATION

APPLICANT: WLS TELEVISION, INC.
CRAIG STROM
190 N. STATE STREET
CHICAGO 60601

PURPOSE: REQUEST FOR A SPECIAL USE FOR A 152' DOPPLER RADAR TOWER

EXISTING ZONING: F - FARMING;

REQUESTED ACTION: SPECIAL USE; FOR A DOPPLER RADAR TOWER

SIZE: 3.20 ACRES

LOCATION: ON THE SOUTHEAST CORNER OF ROUTE 47 AND ROUTE 64, SECTION 19, CAMPTON TOWNSHIP (08-19-201-002 & 08-19-226-005)

SURROUNDING	ZONING	USE
NORTH	VILLAGE OF LILY LAKE	COMMERCIAL;
SOUTH	F - FARMING;	OPEN SPACE; RESIDENTIAL;
EAST	F - FARMING;	OPEN SPACE;
WEST	F - FARMING;	OPEN SPACE;

EXISTING LAND USE: OPEN SPACE;

LAND USE PLAN DESIGNATION: PROPOSED OPEN SPACE / COUNTRYSIDE ESTATE RESIDENTIAL

ZONING HISTORY: NO PREVIOUS REQUESTS FOR THIS PROPERTY

APPLICABLE LAND USE REGULATION: ARTICLE VIII, SECTION 8.1-2 H.5 OF THE KANE COUNTY ZONING ORDINANCE

June 30, 2015

Suburban Bank of Elmhurst Trust #1016 (*WLS Television*)
Special Use for a Doppler radar-dome (radome) facility

Special Information: WLS Television is currently under contract to purchase the 53 acres on the southeast corner of the intersection of Route 47 and Route 64. The property is a mix of wooded open space and farm fields. The network is interested in constructing a 150' (total) high Doppler radome tower facility in the central portion of the property. The facility area, 3.2 acres in size, would be approximately 250' from the east edge of Route 47 and screened by existing old growth trees from the west and north. The remaining 50 acres would be left in its current, natural and agricultural uses. The new radome facility would provide WLS with more detailed and faster weather data than can currently be provided by the National Weather Service. The nearest existing Doppler radar facilities are located in Robbins, Illinois and Lockport, Illinois, both located south and east of Kane County. This proposed facility will provide data for the western suburbs.

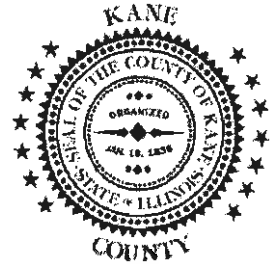
Analysis: The Kane County 2040 Land Resource Management Plan designates this area as Proposed Open Space and Countryside Estate Residential. Since a only a small portion of the overall property would be impacted by the proposed tower facility, the remaining property would meet the intent of the Proposed Open Space category in terms of maintaining open space. Further, the petitioners will keep the remaining property in its current, natural and agricultural uses.

Findings of Fact:

1. The Special Use would apply to only 3.2 acres of the 53 acre property.
2. The new radar facility will allow the petitioner to create faster, more detailed weather data than can currently be obtained through the National Weather Service.

Attachments: Location Map
Township Map

Findings of Fact Sheet- Special Use



WLS Television, Inc.
Special Use Request

May 11, 2015
Date

- *The Kane County Zoning Board is required to make findings of fact when considering a special use.*
 - *Special Uses shall be considered at a public hearing before the Zoning Board of Appeals. In its report of findings of facts, recommendations shall be made to the County Board following the public hearing. The Zoning Board **will not** recommend a special use **unless** the following items are addressed:*
6. Explain how the establishment, maintenance or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort or general welfare.

The proposed Doppler weather radar tower and related equipment will be located on an approximate 3.2-acre site, within a larger 53-acre parcel. The weather radar tower itself will be located within a fenced area that is centrally located on the 53-acre parcel. Access will be through a gated, gravel roadway connected to State Route 47. No increased traffic is expected as this operation is self-supported, except for construction and incidental maintenance operations. There are no public health issues associated with Doppler weather radar towers. See the attached WLS-TV Doppler Radar Site Radio Frequency Safety Summary. The tower and related equipment are licensed through the Federal Communications Commission (FCC). See the attached FCC Radio Station Authorization dated February 10, 2015. The applicant is willing to provide a feed from the Doppler weather radar to Kane County's Emergency Management Department.

7. Explain how the special use will not be injurious to the use, enjoyment and value of other property in the immediate vicinity.

The proposed SUP parcel is an approximate 3.2-acre site, within a larger 53-acre parcel. The SUP parcel will be accessed off of State Route 47. There will be a 30-foot wide gate at the entrance. The proposed structures on the site include an approximate 120-foot open tower, on top of which will be mounted a 30-foot tall radome housing the Doppler weather radar antennae, microwave antennae and several two-way and scanner whip antennae and their associated transmission lines. A lightning rod and obstruction lighting will be mounted on top of the radome. One or more telecommunications antennae and associated equipment may be located on the tower in the future. The maximum height of the Doppler weather radar tower,

with the radome, lightning rod and obstruction lighting, will be 152 feet.

The Doppler weather radar tower will be located within a fenced 1/2-acre site, which is centrally located within a larger 53-acre site and will be set back from any public roads (State Routes 64 and 47). There will also be located within the 1/2-acre fenced area the follows: an equipment shelter, measuring approximately 14' x 22'; a generator shelter; an above ground propane fuel storage tank; and a barn, which will be used as a garage, measuring approximately 40' x 40'. The entire fenced area will have a gravel surface. The tower and improvements will be barely visible from surrounding properties, given the topography and existing mature trees and vegetation.

Up to three (3) satellite antennae, measuring approximately 4.5 meters in diameter, will be located on concrete pads within a separate fenced-in area inside the 3.2-acre site. This area is southwest of the Doppler weather radar tower. These satellite antennae must be located with a clear view of the southern sky and, therefore, needed to be located away from the existing trees and vegetation. WLS-TV will provide landscape screening of the satellite antennae from views of drivers heading northbound on Route 47. A gravel roadway will connect all of the improvements to Route 47.

This site was chosen by WLS-TV for several reasons. First, the Doppler weather radar tower needed to be located on the west side of the Chicago metropolitan area, as the weather arrives from the west. The radar needs to see the weather coming. Second, the Doppler weather radar tower needed to be located west of the Fox River Valley because of the higher elevation of that area. Third, from a safety standpoint, the tower needed to be located due west of Chicago, which has a statistically lower risk of tornadoes than either southwest or northwest of Chicago. Finally, WLS-TV wanted to locate the tower on a larger site, to provide a buffer and less possible visual impact to the surrounding area. The proposed SUP site is a 53-acre parcel, which is wooded and well-screened.

8. Explain how the special use will not impede the normal, orderly development and improvement of the surrounding property.

The special use will be centrally located on an approximate 3.2-acre site within a larger 53-acre parcel. Apart from the special use, approximately 94% of the 53-acre property will remain wetlands or will continue to be farmed.

9. Will adequate utility, access roads, drainage and other necessary facilities be provided?
Please explain:

A dedicated gravel access roadway that is securely gated off of State Route 47 will provide access to the site. The applicant will obtain appropriate permits from Illinois Department of Transportation for access design and location. A stormwater detention basin will be constructed just south of the barn to handle stormwater runoff. Other utilities shall be provided

as necessary along the access roadway.

10. Will adequate measures be provided for ingress and egress so designed to minimize the traffic and congestion? Please explain:

Yes. A gated, gravel access roadway connecting at State Route 47 will provide ingress and egress. There is expected to be minimal traffic, as the system is self-supported, except for construction and incidental maintenance operations. The applicant expects only 1-2 trips per month to the site while it is operational. The applicant will obtain appropriate permits from the Illinois Department of Transportation for access location and design.

11. Will the special use conform to the regulations of the district in which it is located? Please explain:

Yes. The special use will conform to the minimum setbacks from adjoining property lines and from road right-of-way lines.

WLS-TV Doppler Radar Site Radio Frequency Safety Summary

WLS-TV Proposes to build an S Band Doppler weather radar facility on a small portion of the 53-acre property on the southeast corner of Hwy 64 and 47 in Kane County. This radar system will provide more accurate, complete and timely weather information for the Chicago metropolitan area than is otherwise available from the government.

As part of the Kane County Special Use Permit application process, WLS-TV provides this summary of radio frequency (RF) energy to address the question of whether the proposed Doppler weather radar facility will be detrimental to or endanger the public health or general welfare. As discussed below, there are no public health issues associated with Doppler weather radar facilities.

Radar systems emit a form of electromagnetic energy known as non-ionizing radiation. It is also known as radio frequency (RF) energy. This is the same type of energy emitted by radio and television transmitters and cellular phones. At low levels, it is completely harmless. RF energy at very high levels causes tissue damage by inducing a heating effect. This is why microwave ovens cook so well. RF energy behaves in accordance with the inverse square law, so power density levels drop off very fast with distance. The key determining factors in understanding whether or not an RF energy source is dangerous are: 1. Power density (how much field density an RF energy emitter develops at a specific location); 2. The frequency of the RF energy (energy in the 30 – 300MHz range is most effectively absorbed by human tissue); and 3. The duration of exposure (tissue damage from RF energy is not cumulative; if the power density exceeds the maximum safe exposure threshold, longer exposure causes more damage and removal of exposure “resets” the exposure clock).

Power density is determined by a number of factors that vary with each situation. These factors include the amount of RF energy radiated from an antenna, the gain and directionality of the transmitting antenna, the distance from the antenna (RF energy falls off according to the inverse square law, so energy density levels drop off very quickly as distance increases) and the duration of time that the antenna points at the target. For the proposed site, areas where RF energy levels will exceed the maximum levels allowed by Federal regulation will originate at the antenna (136' above ground) and rise at a minimum of a half a degree elevation as it travels away from the site. Only people at 136' in the air and within several hundred feet of the antenna could risk exposure to levels that exceed Federal guidelines.

The frequency of the RF energy has a dramatic impact on the way that the energy causes heating effects in tissue. Frequencies between 30 and 300MHz (.03-.3GHz) are the most dangerous and therefore industry and Federal standards require the strictest limits on exposure when these frequencies are involved. As the frequency of the energy increases, the effect is reduced, so exposure standards rise to reflect this. At millimeter frequencies (those exceeding 20GHz or so), the effect is primarily limited to heating of the skin and has an effect similar to sunburn depending on the level of exposure. The proposed radar site will operate at 3GHz, where higher levels of exposure are allowable, but care must still be taken to avoid excessive exposure in very close proximity (a few hundred feet directly in front of

the antenna) to the antenna. WLS plans to secure the site so that unintentional close contact will be impossible.

The duration of exposure is also very important to control. With omni directional antenna, energy is dispersed somewhat evenly in all directions from the radiating antenna. This is the case with broadcast transmission antennae and antennae on cellular towers. In contrast, point to point microwave “dishes” and other parabolic antenna (like radar antennae) radiate energy in very narrow horizontal and vertical patterns. Most parabolic antenna systems are fixed in one location and do not move. If the person exposed to the energy from this type of antenna is standing directly in the beam of such an antenna, their exposure is constant and the length of exposure is determined by how long they stand there and how far they are from the antenna. The duty cycle of the system (how long it transmits vs how long it receives) is also critical when determining the duration of exposure. The proposed radar system has a very short duty cycle of 1/360 (it transmits for 1/360th of the time and receives during the rest of the time). The antenna also rotates almost continuously when radiating. For a fixed or slowly moving target, this means that RF energy exposure is very low even in close proximity and at the elevation of the antenna (136’ above ground). Ground level exposure will be virtually un-measurable.

There are several examples of Doppler radar antennae that are located in close proximity to residential neighborhoods and schools. These include the FAA radar site in Robbins, Illinois; the University of Oklahoma Research Park in Norman, Oklahoma; and the WFLD radar site in Lockport, Illinois. Attached are pictures of these Doppler radar facilities, using Google Maps, which show the location of the facilities in relation to nearby residential neighborhoods and schools.

In summary, the proposed weather radar system will not be detrimental to or endanger the public health or general welfare. The system will not present any RF energy hazard to nearby residents. Given the power density, duty cycle, frequency and duration of potential exposure, the proposed system is not capable of developing situations on the ground where exposures above the Federal guidelines are possible. If more information on the topic of RF energy exposure is desired, please see the following web sites for detailed information on the topic.

<http://transition.fcc.gov/oet/rfsafety/rf-faqs.html#Q6>

http://www.rfsafetysolutions.com/RF%20Radiation%20Pages/Biological_Effects.html

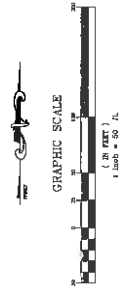
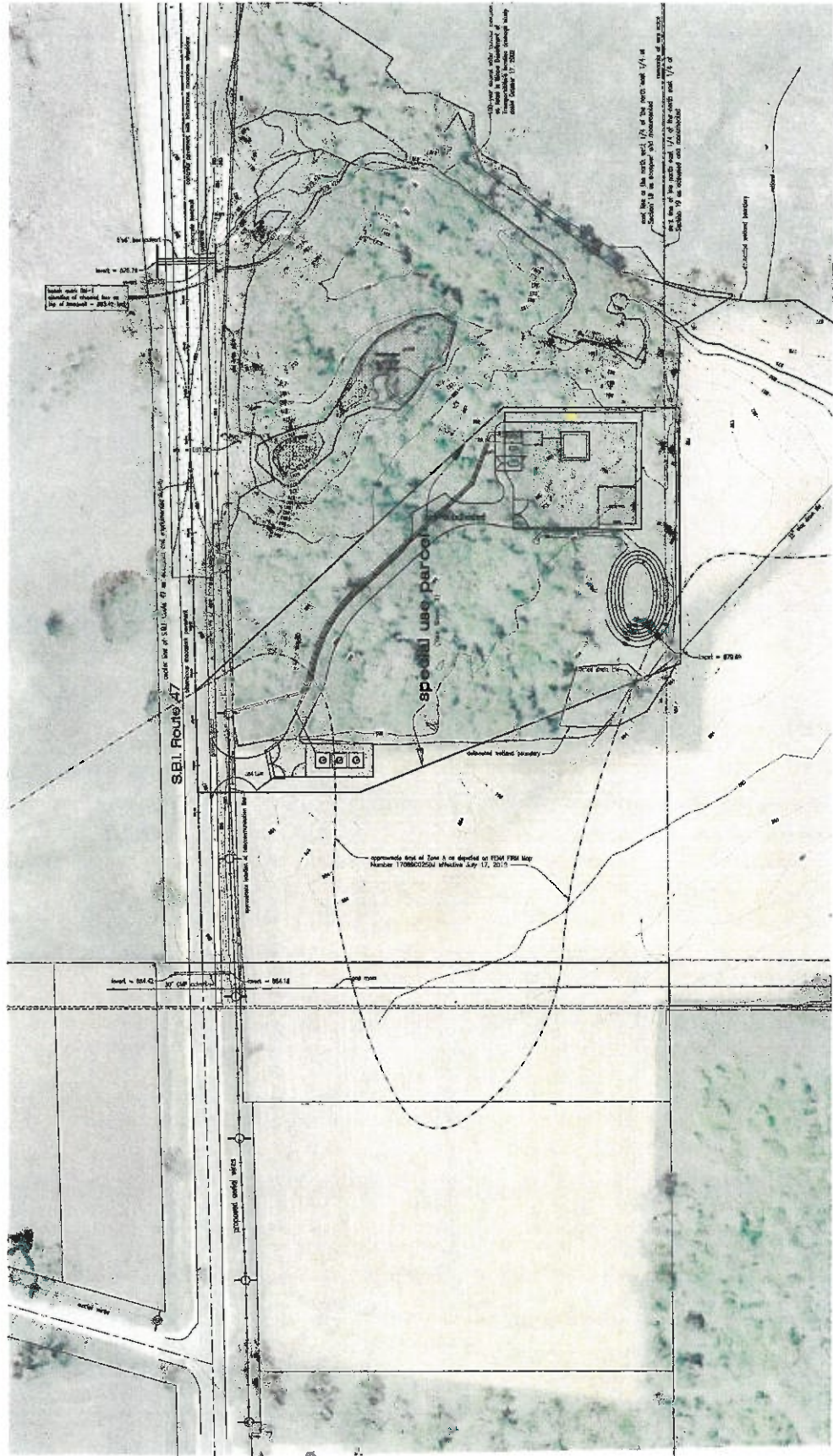
<http://h-e.com/faq/category/rf-exposure-faqs#t34n207>

<http://www.rfcafe.com/references/electrical/fcc-maximum-permissible-exposure.htm>

<http://www.who.int/peh-emf/publications/facts/fs226/en/>



EXAMPLE



For underground utility
 J.U.L.E.
 1-800-898-0129

for review only
 field work completed on page 31, 32, 33, 34

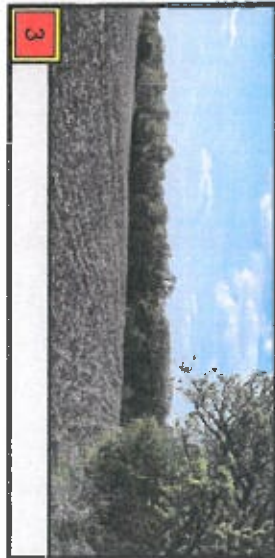
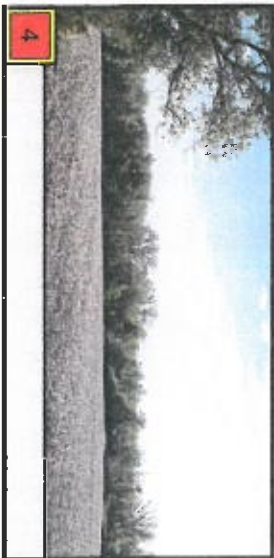
Order No. 12827
 Date 03/11/2015
 Sheet 2 of 3
 File No. 12827-2015

JAMES ANDERSON COMPANY
 300 West 106th Street
 Suite 100
 New York, NY 10025
 Contract No. 12827-2015
 Professional Engineer No. 130105
 Professional Engineer No. 130105

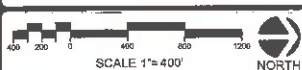
The Walt Disney Company
 Disney Corporate Real Estate
 77 West 86th Street
 New York, New York, 10023

DATE	BY	DESCRIPTION
5-7-15	JUL	Field work and some off site work completed

offsite site plan



SITE AERIAL

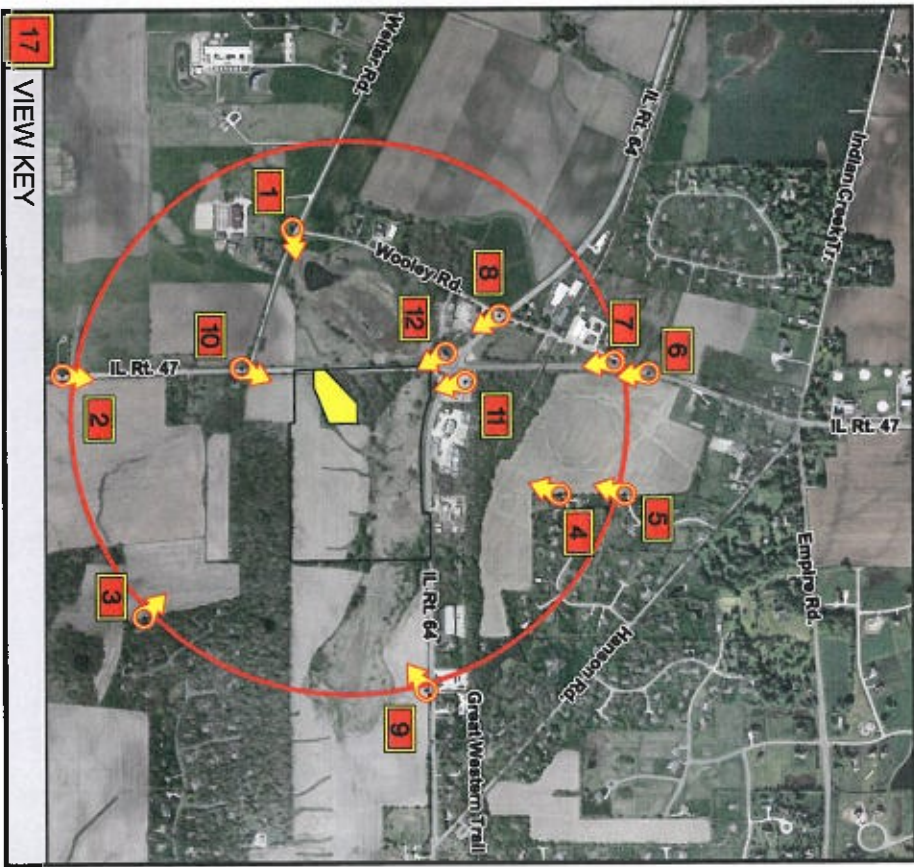


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 Fax (630) 208-9050
<http://www.lannert.com>
 215 Fulton Street
 Geneva, Illinois 60134

JAMES ANDERSON COMPANY
 820 WEST NORTH SHORE DRIVE
 LAKE BLUFF, ILLINOIS 60044
 847.295.3322

JOB NO.	1504
DATE	05.28.15
REVISIONS	
DESIGNED BY	
CHECKED BY	
DATE PLOTTED	
SCALE	

SHEET NUMBER
 1
 OF 4



17 VIEW KEY

SIGHT LINE VIEWS

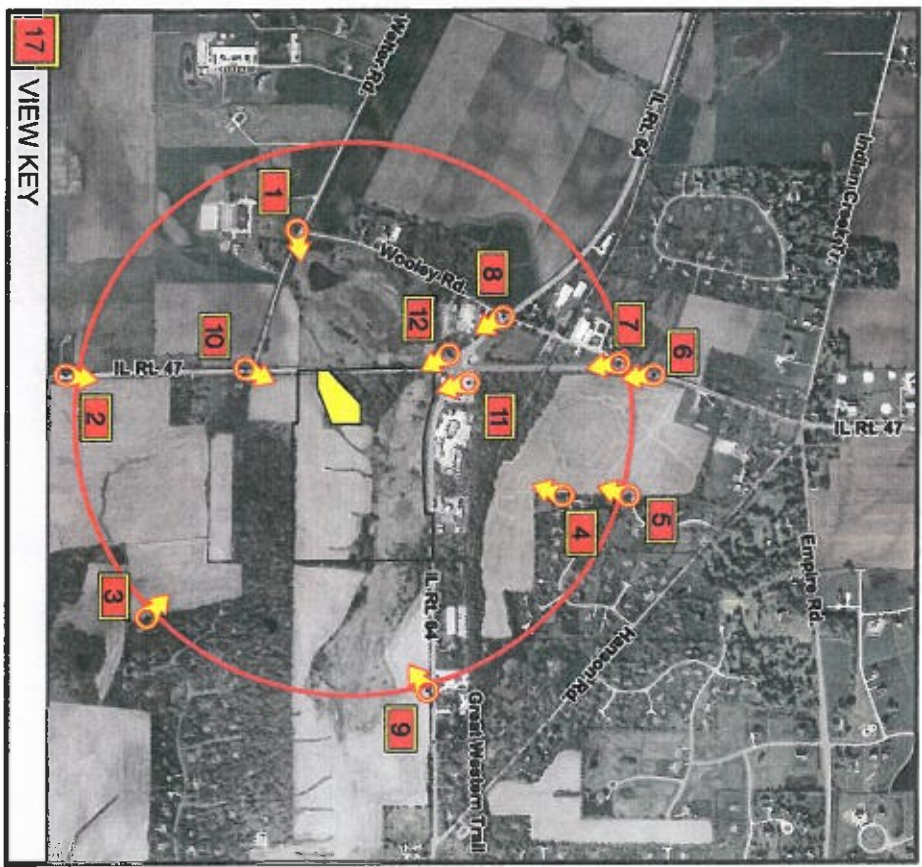
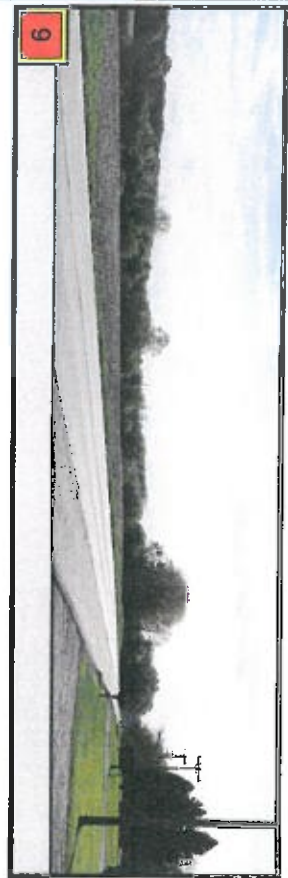
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OF 3



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 lg @ lannert.com

JAMES ANDERSON COMPANY
 920 WEST NORTH SHORE DRIVE
 LAKE BLUFF, ILLINOIS 60044
 847.285.3322

DATE	02.28.15
REVISIONS	
DESIGNED BY	FL
CHECKED BY	
DATE PLOTTED	
SCALE	
TITLE	
PROJECT NO.	1505

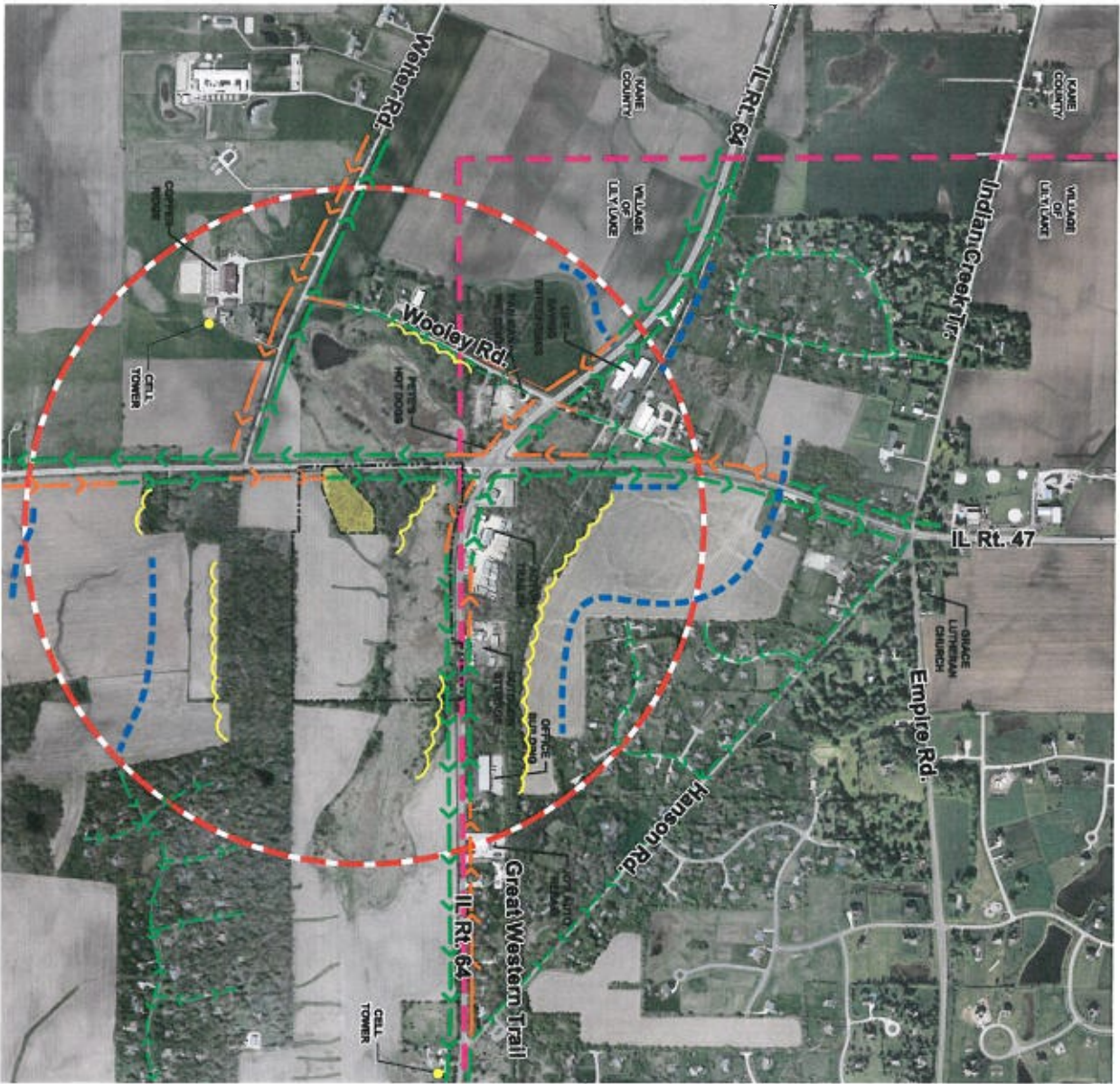


17 VIEW KEY

SIGHT LINE VIEWS
 SHEET NUMBER
 3
 OF 4

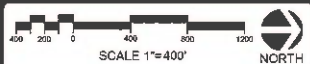
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JAMES ANDERSON COMPANY
 920 WEST NORTH SHORE DRIVE
 LAKE BLUFF, ILLINOIS 60044
 847.205.3322
 DRAWN BY: J.L.
 DATE: 05.28.15
 REVISIONS:



- LEGEND**
- ILL. LAKE CORPORATE LIMITS
 - PROPERTY BOUNDARY
 - SPECIAL USE SITE LIMITS
 - 1 MILE RADIUS FROM RADOME TOWER
 - TOPOGRAPHIC RIDGE LINE
 - TREE LINE
 - OPEN VIEW TO RADOME TOWER
ARROWS INDICATE DIRECTION OF TRAVEL.
 - BLOCKED VIEW TO RADOME TOWER
ARROWS INDICATE DIRECTION OF TRAVEL.
 - OPEN VIEW TO RADOME TOWER
IN BOTH DIRECTIONS OF TRAVEL.
 - BLOCKED VIEW TO RADOME TOWER
IN BOTH DIRECTIONS OF TRAVEL.

VIEW ANALYSIS

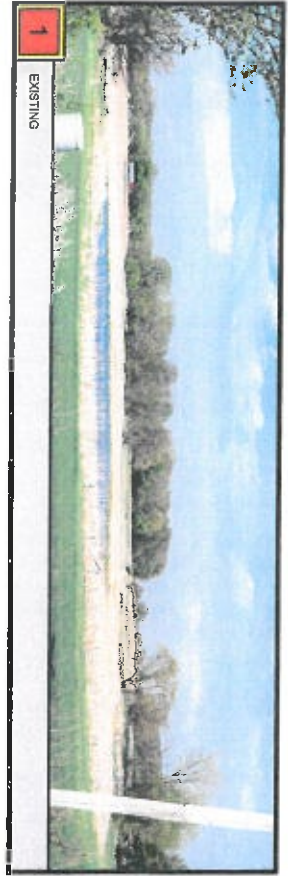


SHEET NUMBER
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OF 8

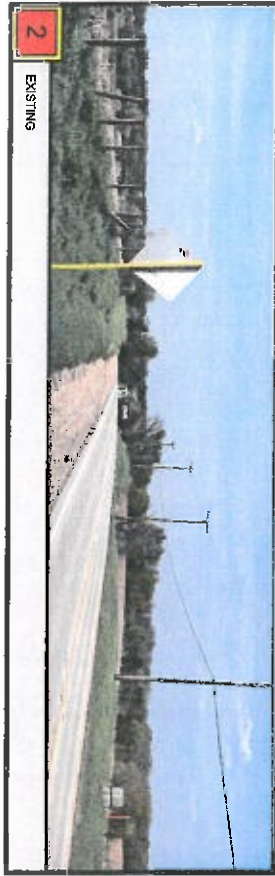
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 http://www.lannert.com
 lg @ lannert.com

JAMES ANDERSON COMPANY
 820 WEST NORTH SHORE DRIVE
 LAKE BLUFF, ILLINOIS 60044
 847.295.3322

DATE	05/26/15
DESIGNED BY	
DRAWN BY	JL
CHECKED BY	
DATE	
PROJECT NO.	
DRAWING NO.	
DATE	
SCALE	
SHEET NUMBER	4 OF 8



1 EXISTING



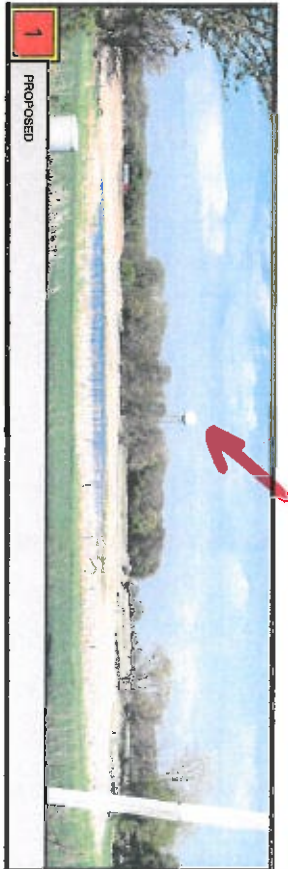
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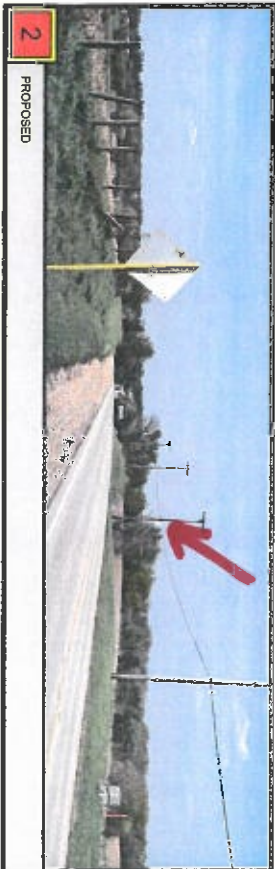
3 EXISTING



4 EXISTING



1 PROPOSED



2 PROPOSED



3 PROPOSED



4 PROPOSED

SIGHT LINE VIEWS

SHEET NUMBER
5
OF 8



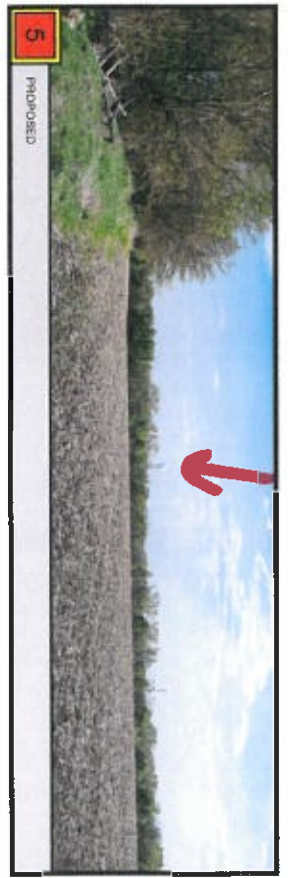
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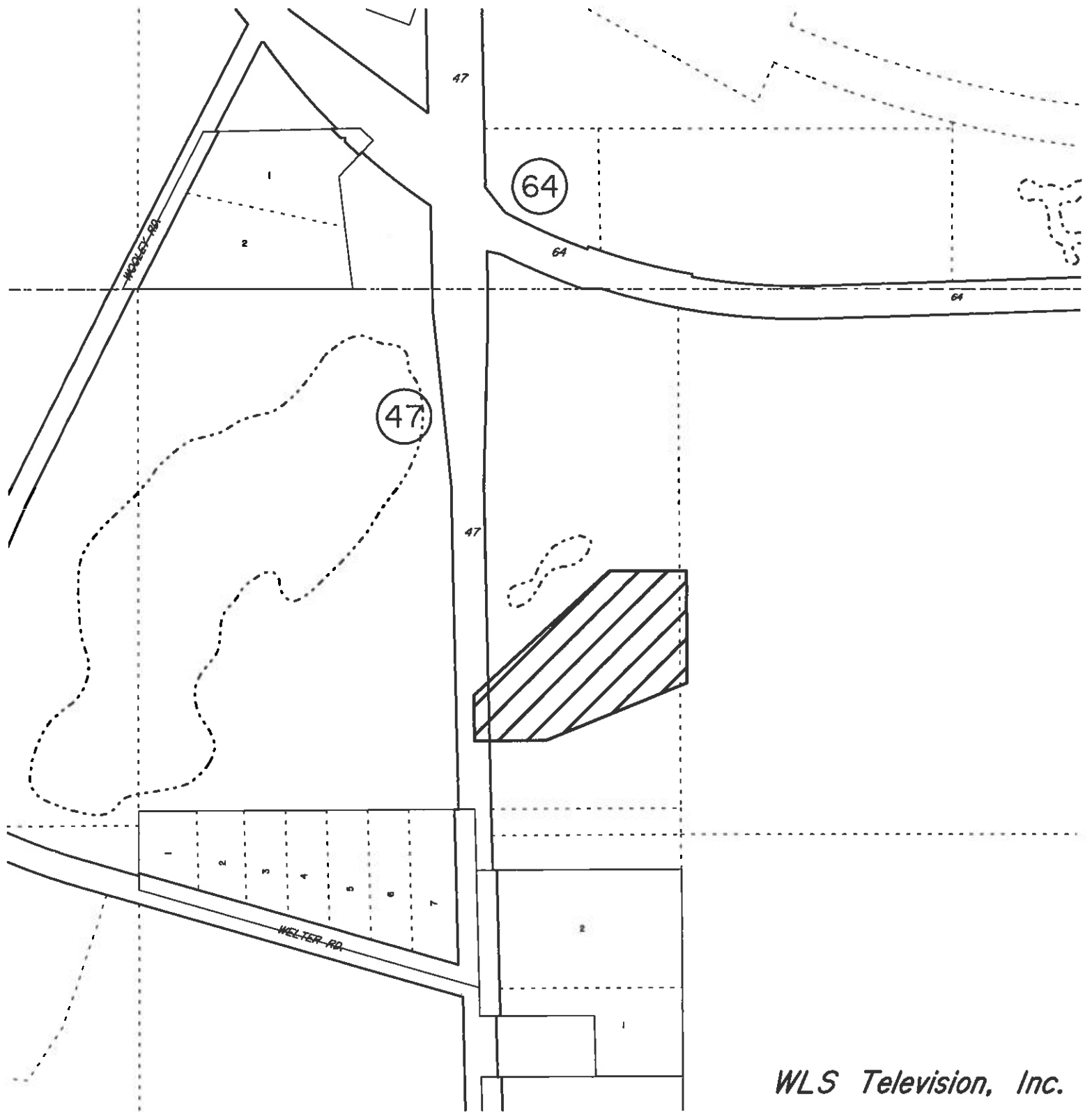
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JAMES ANDERSON COMPANY

920 WEST NORTH SHORE DRIVE
LAKE BLUFF, ILLINOIS 60064
847.295.3322

DATE:	06/25/16
REVISION:	
DESIGNER:	
CHECKER:	
DATE:	10/05
SCALE:	

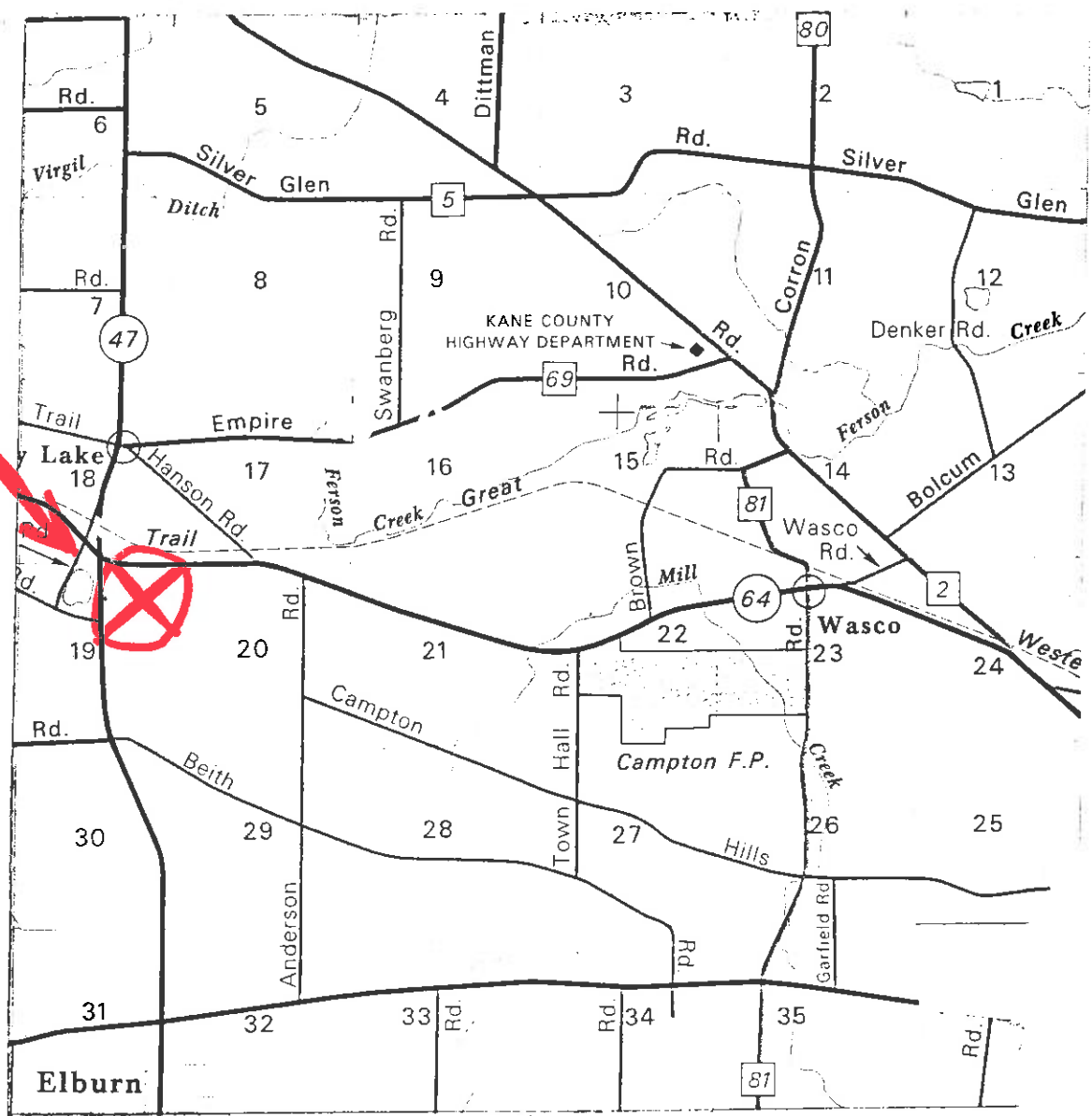




WLS Television, Inc.

CAMPTON twp.
T.40N - R.7E

map 8



1" = MILE

JAMES ANDERSON COMPANY
ENGINEERS, PLANNERS, AND SURVEYORS
920 WEST NORTH SHORE DRIVE
LAKE BLUFF, ILLINOIS, 60044

— • —
847-295-3322
847-295-0734 (FAX)

May 1, 2015

Order No. 17967

**WETLAND DELINEATION REPORT FOR A 55-ACRE
PROPERTY LOCATED SOUTHEAST OF THE
INTERSECTION OF ILLINOIS ROUTES 47 AND 64 IN
ELBURN, KANE COUNTY, ILLINOIS**

for

Disney Corporate Real Estate
Attn: Projects Control Manager
500 S. Buena Vista Street
Burbank, California, 91521-2591

**WETLAND DELINEATION REPORT FOR A 55-ACRE PROPERTY LOCATED
SOUTHEAST OF THE INTERSECTION OF ILLINOIS ROUTES 47 AND 64 IN
ELBURN, KANE COUNTY, ILLINOIS**

May 1, 2015

Order No. 17967

Table of Contents

<u>Section</u>	<u>Page</u>
Background	1
Permitting Considerations	1
Map Review	3
Results	4
Exhibits	6 - 11
Exhibit 1 – Project Location	6
Exhibit 2a – Kane County ADID	7
Exhibit 2b – National Wetlands Inventory	7
Exhibit 3 – Flood Insurance Rate Map	8
Exhibit 4 – Topography	9
Exhibit 5 – Kane County Soil Survey	10
Exhibit 6 – Watershed Map	11
Exhibit 7 – Aerial Photograph with wetland boundaries and data-point locations	12
Photos	13 - 17
Data-sheets	18 - 33
Appendixes	34 - 40
Appendix 1 – Wetland delineation and floristic quality assessment methodologies	34
Appendix 2 – Bibliography	40

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INTRODUCTION

James Anderson Company conducted a wetland delineation for part of the 55-acre property located southeast of the Illinois Route 47 and Illinois Route 64 intersection in Elburn, Campton Township, Kane County, Illinois (NE ¼ of Section 19, T-40N, R-7E, 3rd P.M. – PINs: 08-19-226-002 and 08-19-201-005). Field-work for said delineation was conducted on April 15th and April 22nd of 2015.

The subject property encompasses approximately 55 acres. The southern portion of this property (24 acres +/-) is used for crop production. The remainder of the property includes approximately 26 acres of mostly emergent wetland (Wetland No. 1) and 5 acre of mostly forested upland. Two small wetlands (Wetland Nos. 2 and 3) are located within the forested area. The southern portion of the property which is used for crop production is subject to artificial drainage and, as such, may be considered free of wetland features.

At the time of the site visit, the farmed area was dominated by corn stubble, while the upland, forested area was dominated by Linden (*Tilia americana*, FACU), Red Oak (*Quercus rubra*, FACU), and Shag Bark Hickory (*Carya ovata*, FACU). The forested areas within or immediately adjacent to the wetland areas were dominated by more water-tolerant tree species – in particular Eastern Cottonwood (*Populus deltoides*, FAC), and Box Elder (*Acer negundo*, FAC). Canopy height was estimated at 60' +/- 20' using the similar triangles method (See Photo 8).

PERMITTING CONSIDERATIONS

Wetland Jurisdiction

The map resources reviewed in this report indicate that the large wetland feature within the northern portion of the property (Wetland No. 1) drains directly into a tributary of Ferson Creek. Ferson Creek is a recognized Water of the United States and, as such, developments impacting Wetland No. 1 are likely to require review by the U.S. Army Corps of Engineers. Final jurisdictional determinations, however, can only be made by U.S. Army Corps of Engineers personnel.

Wetland No. 2 does not appear to have significant connections to any recognized Waters of the United States and, as such, developments effecting this wetland are unlikely to require review by the U.S. Army Corps of Engineers and are, instead, likely to fall under Kane County's jurisdiction.

A drain tile runs through the center of Wetland No. 3 toward Wetland No. 1. The USACE is likely to conclude that this drain tile represents a "Significant Hydrologic Nexus" to Wetland No. 1 and, hence to Ferson Creek. For this reason, any activities potentially impacting Wetland No. 3 are likely to be regulated by the USACE.

Buffers

Wetland No. 1 has been given an ADID ("Advanced Identification") designation as a high functional value wetland. As such, both Kane County and the USACE are likely to require a minimum buffer width of fifty feet around said wetland. Since buffers are required only for wetlands greater than 0.25 acres in size Wetland No. 3, which encompasses 0.14 acres (5,886 square feet), is unlikely to require a buffer. Wetland No. 2, which encompasses approximately 0.27 acres (11,970 square feet), will require a buffer of 15 feet.

In some cases, "buffer averaging" may be employed. This means that buffer width may be reduced by as much as 20% in selected locations as long as the average width of the remaining buffer is at least 50-feet. According to Article 4, Section 418.B.i of the Kane County Stormwater Ordinance, total buffer width may be reduced by as much as 10% if certain agency-approved protective measures are used. Protective measures may consist of fencing, sediment basins, biological filter strips or other methods approved by the Stormwater Management Division and / or the U.S. Army Corps of Engineers. Said reductions cannot be implemented where buffer averaging has been used.

Mitigation for wetland impacts

Any wetland impacts will require approval by the Kane County Water Resources Division and / or the U.S. Army Corps of Engineers. Wetland impacts will require mitigation in accordance with the site's floristic quality. Impacts to wetlands greater than one-quarter of an acre with an FQI of less than 7 must be mitigated at a minimum ratio of 1:1. Wetlands with an FQI greater than 7, but less than 16 must be mitigated at a ratio of 2:1. Wetlands with an FQI of 16 but less than 25 shall be mitigated at a ratio of 3:1. Wetlands with an FQI of 25 shall be mitigated at a minimum ratio of 10:1, while wetlands with FQI values greater than 25 shall be mitigated at a ratio 10:1 plus one half for each point by which the FQI exceeds 25 rounded up to the nearest whole number (Article 15, Section 1503). In order to have any relevance, floristic quality assessments must be conducted during the growing season between June 1st and October 15th (Article 4, Section 404(f)). Methodologies for assessing floristic quality are described in Appendix 1 at the end of this report.

If impacts are proposed to these wetlands, floristic inventories will be required. It is important to recognize that floristic inventories should be conducted after June 1st or before October 15th. Inventories conducted outside of this time-frame shall be considered to be preliminary.

Table 1. Permitting considerations

Wetland No.	Size (acres)	ADID Status?	Anticipated buffer width (feet)	Probable jurisdiction
1	26 (+/-)	Yes	50	USACE
2	0.28	No	15	Kane County
3	0.14	No	0	USACE

MAP REVIEW

Wetland Inventories – Exhibits 2a and 2b

Kane County Advanced Identification of Aquatic Resources (ADID) – Exhibit 2a

The Kane County ADID study is a cooperative effort between federal, state, and local agencies to inventory, evaluate and map high quality wetland and stream resources within Kane County. This study places wetlands in three categories:

- 1) high habitat value wetlands and high quality streams – which includes wetlands and streams with high quality wildlife habitat, high floristic quality, or high quality aquatic habitat.
- 2) high functional value wetlands – which includes wetlands that were identified as providing very important water quality and stormwater storage benefits to Kane County.
- 3) other wetlands and streams – which include wetlands that did not fall into the above two categories, were not thoroughly studied, typically due to small size

The northern portion of the property (approximately 28 acres) contains part of a wetland that has been determined to be “high functional value”.

US Fish and Wildlife Service – National Wetlands Inventory – Exhibit 2b

The National Wetland Inventory is a comprehensive inventory of wetlands throughout the United States. Wetlands, once identified on aerial photographs, are classified by hydrology, vegetation / habitat type and other characteristics. According to this exhibit, the wetland complex consists primarily of emergent vegetation with some open water and forest / shrub dominated areas.

Flood Insurance Rate Map – Exhibit 3

The Flood Insurance Rate Map indicates that approximately the northern two-thirds of the property lies within Zone A, or 100-year floodplain. All mapped wetland features lie within this area.

Site Topography – Exhibit 4

According to the topographic map, elevations within the subject property range from a low of approximately 872 feet to a high of approximately 900 feet. The northern half of the property, which is mostly mapped as both wetland and flood-plain, is shown as relatively flat and depressional, while the southern half of the property, which is typically farmed, consists of a gradual, north-facing slope.

Soils – Exhibit 5

Approximately half of the property (approximately 28 acres) is mapped as Houghton Muck, which is recognized as a hydric series. The remaining acreage consists of non-hydric soils. The aerial photographs (See Exhibits 7 and 8) indicate that nearly all of the areas mapped as non-hydric soils are kept under cultivation, while very little of the area mapped as hydric soil (Houghton muck) is cultivated.

Watershed – Exhibit 6

Exhibit 6 consists of a watershed map prepared by the Chicago Metropolitan Agency for Planning and the Illinois State Water Survey (2005). According to this map, the subject property is located near the southwestern edge of Ferson Creek a sub-watershed of the Fox River.

Aerial Photograph with wetland boundaries and data-point locations – Exhibit 7

Exhibit 7 consists of an aerial photograph showing wetland boundaries and data-point locations.

RESULTS

Wetland No. 1

Wetland No. 1 is a large wetland complex extending off-site for an indeterminate distance. Approximately 90% of this wetland consists of emergent vegetation – in particular reed canary grass and cattails. The remaining 10% consists of forested wetland dominated by Black Willow (*Salix nigra*, OBL) and Box-elder (*Acer negundo*, FAC).

Vegetation

As stated above, a quick visual inspection of Wetland No. 1 reveals that this feature is dominated by hydrophytic vegetation (Reed Canary Grass (*Phalaris arundinaceae*, FACW), Cattails (*Typha spp.*, OBL), Black Willow (*Salix nigra*, OBL) and Box Elder (*Acer negundo*, FAC)). Dominants specific to Data-point 7 include Box Elder (*Acer negundo*, FAC), Elderberry (*Sambucus canadensis*, FACW), and Reed Canary Grass (*Phalaris arundinaceae*, FACW). Since all of these species are hydrophytes, the vegetation criterion is met.

Soils

Soils throughout Wetland No. 1 are mapped as “Houghton muck” which is recognized as a hydric series. Specific primary hydric soil indicators observed at Data-point 7 include a preponderance of partially decomposed organic material (“Histosol”), low chroma (“Black Histic”), a distinct “rotten egg” odor (“Hydrogen sulfide”), and “Thick Dark Surface”. The soil criterion is met on the basis of these observations.

Hydrology

The soil throughout Wetland No. 1 is saturated to the surface and the surface appears somewhat “springy” - which is characteristic of mucky or boggy conditions. The site's topography suggests that this feature functions as a “slough” - gradually moving water away from Lily Lake toward Ferson Creek. Specific primary and secondary wetland hydrology indicators observed at Data-point 7 include high water table, saturation, water marks, sediment deposits, water-stained leaves, hydrogen sulfide odor, drainage patterns, saturation visible on aerial imagery, and a preponderance of hydrophytic vegetation (“Positive FAC-Neutral Test”).

Wetland No. 2

Wetland No. 2 consists of a small pond located approximately parallel and north of the northwestern edge of the “proposed special use parcel”.

Vegetation

At the time of the site visits vegetation in and around the pond was sparse. In all likelihood the vegetation will become considerably denser as the growing season progresses. Dominant species throughout Wetland No. 2 include Eastern Cottonwood (*Populus deltoides*, FAC), American Elm, (*Ulmus americana*, FACW) Red-osier Dogwood (*Cornus stolonifera*, FACW), and Reed Canary Grass (*Phalaris arundinaceae*, FACW). Since all of these species are hydrophytes, the vegetation criterion is met.

Soils

The soils throughout Wetland No. 2 appear to have been substantially altered. The ponds appear to have been excavated – probably several decades ago – in either upland soil or fill material. Nonetheless, the soils along the pond margins have developed a dark, organic rich surface layer (“Histic epipedon”) - which is a primary hydric soil indicator.

Hydrology

Multiple primary and secondary wetland hydrology indicators were observed – including near-surface saturation, sediment deposits, low relative geomorphic position, and a preponderance of hydrophytic vegetation (“Positive FAC-Neutral Test”).

Wetland No. 3

Wetland No. 3 is a small feature located at the approximate center of the southeastern boundary of the proposed special use parcel.

Vegetation

Dominant species observed within Wetland No. 3 include Silver Maple (*Acer saccharinum*, FACW), Box elder (*Acer negundo*, FACW), Elderberry (*Sambucus canadensis*, FACW), and Garlic Mustard (*Alliaria petiolata*, FAC). Since all of these species are hydrophytes, the vegetation criterion is met.

Soils

The soil at Data-point 5 contains a thick dark surface (10 YR 2/2 to a depth of 16 inches). Since "Thick Dark Surface" is a primary hydric soil indicator, the soil criterion is met.

Hydrology

The hydrology throughout Wetland No. 3 has been manipulated through the installation of drain tiles – nonetheless, the wetland hydrology criterion is met on the basis of multiple secondary indicators including "Saturation visible on aerial photographs" (See Exhibit 7) and preponderance of hydrophytic vegetation ("Positive FAC-Neutral Test").

EXHIBIT 1 – PROJECT LOCATION
Elburn Quadrangle (USGS, 1993)

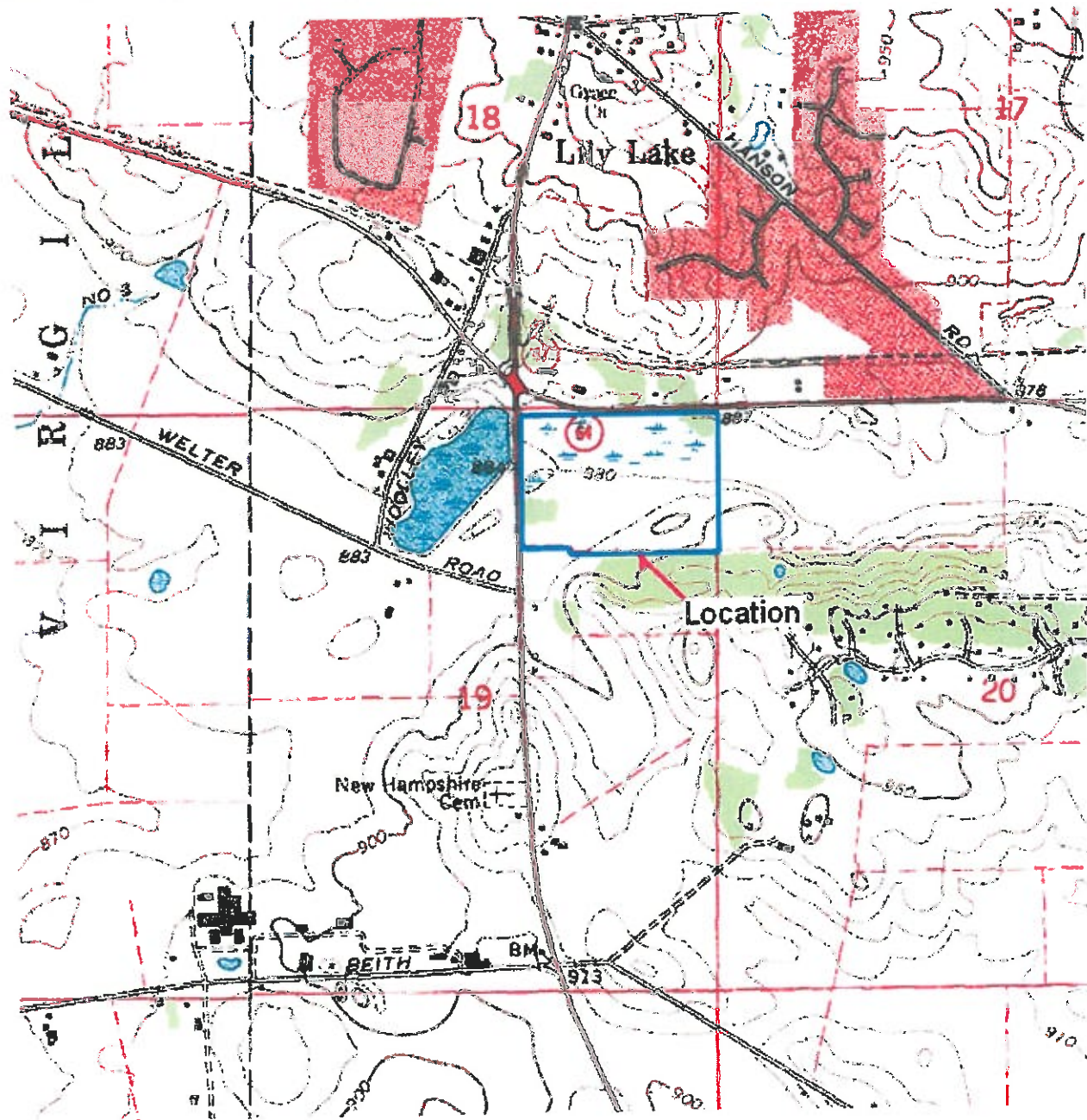
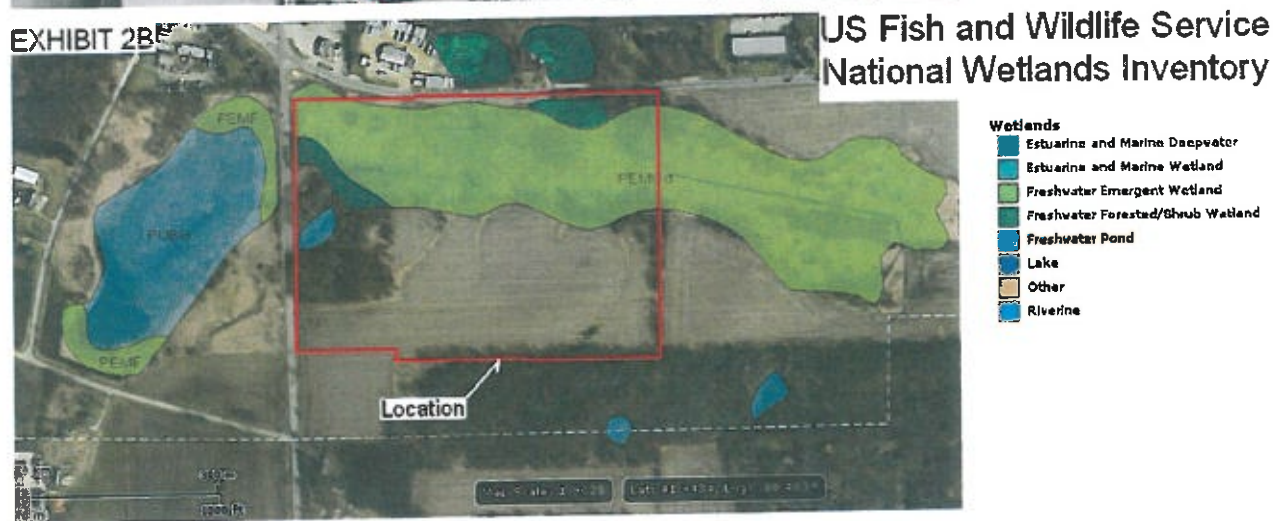
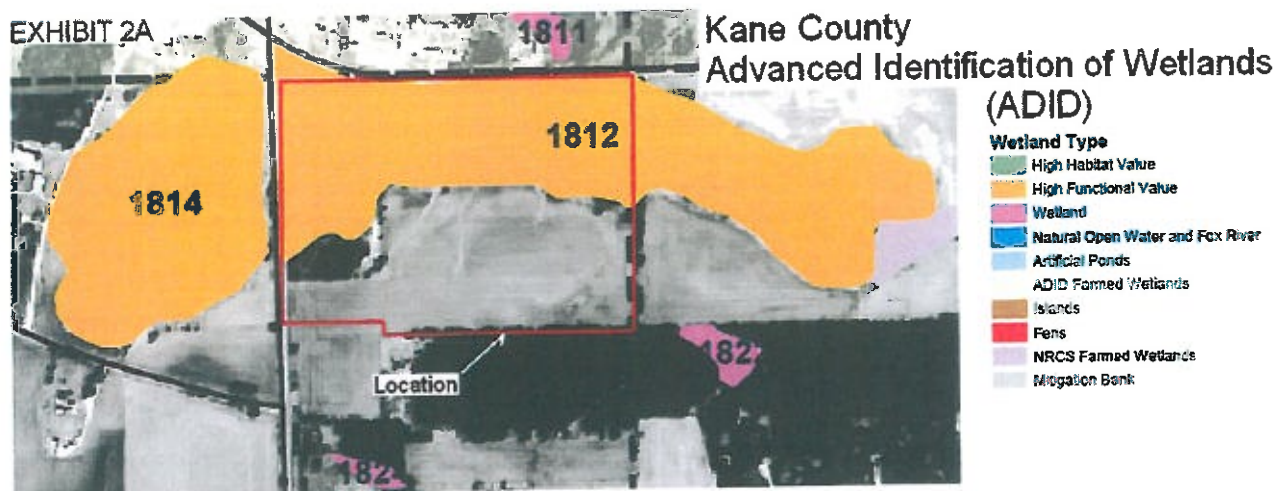


EXHIBIT 2 – WETLAND MAPS

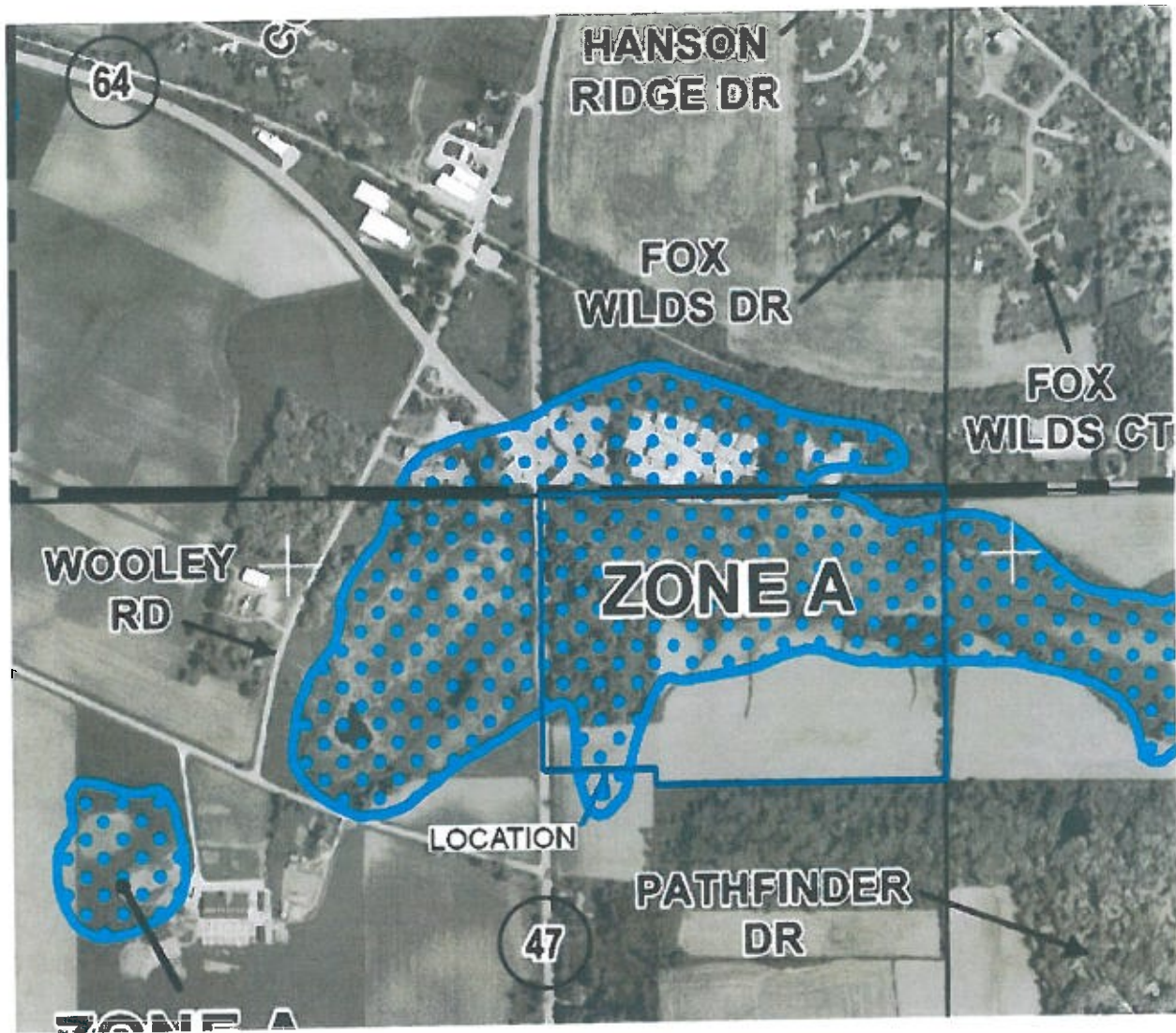


SOURCES:

Exhibit 2A – Advanced Identification (ADID) Study Kane County, Illinois – Final Report, August 2004. Prepared by Northeastern Illinois Planning Commission, U.S. Fish and Wildlife Service Chicago Illinois Field Office, U.S. Environmental Protection Agency, Region 5, Kane County Department of Environmental Management

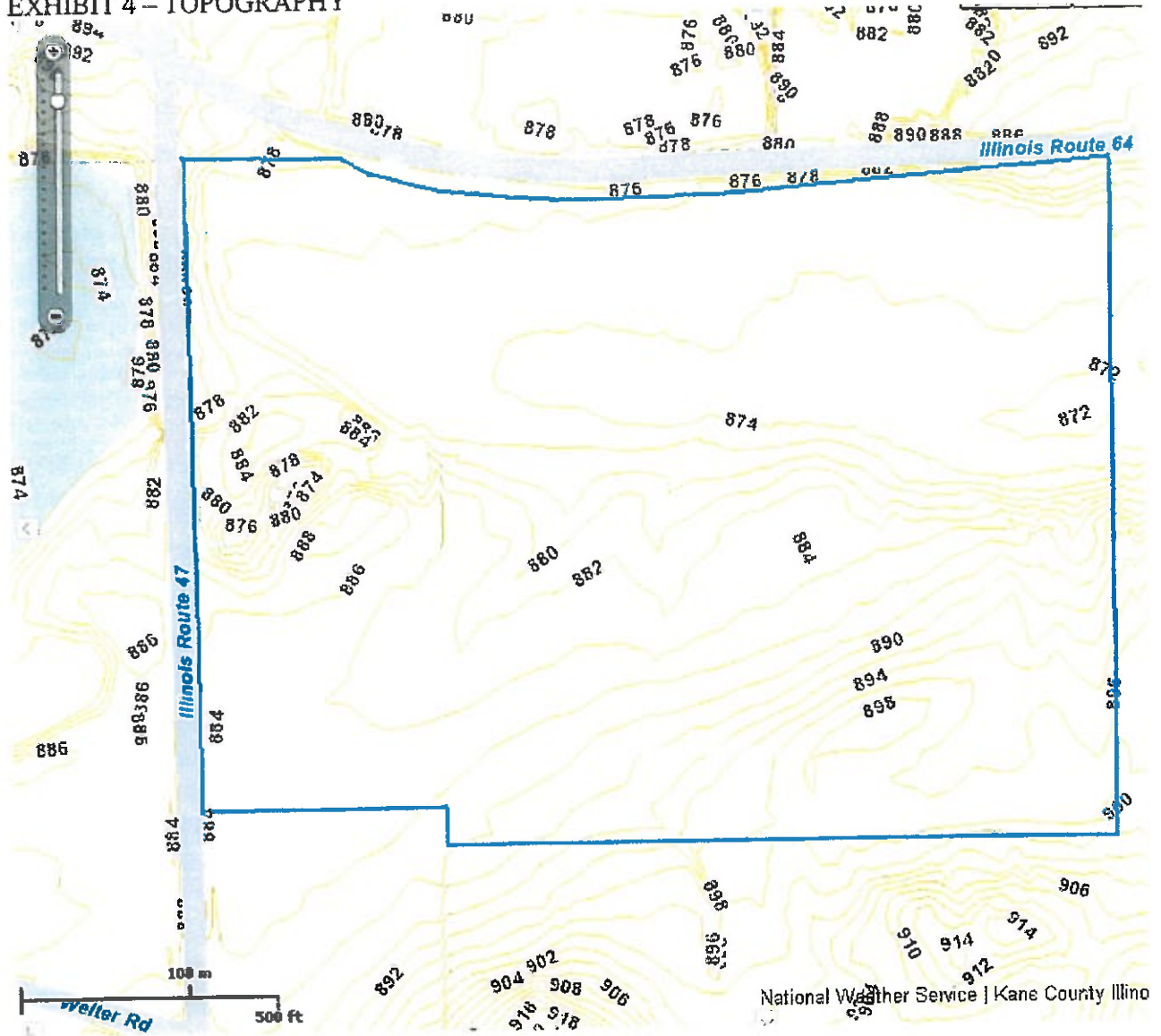
Exhibit 2B – US Fish and Wildlife Service – Data mapper: fws.gov/wetlands/data/mapper

EXHIBIT 3 – FLOOD INSURANCE RATE MAP



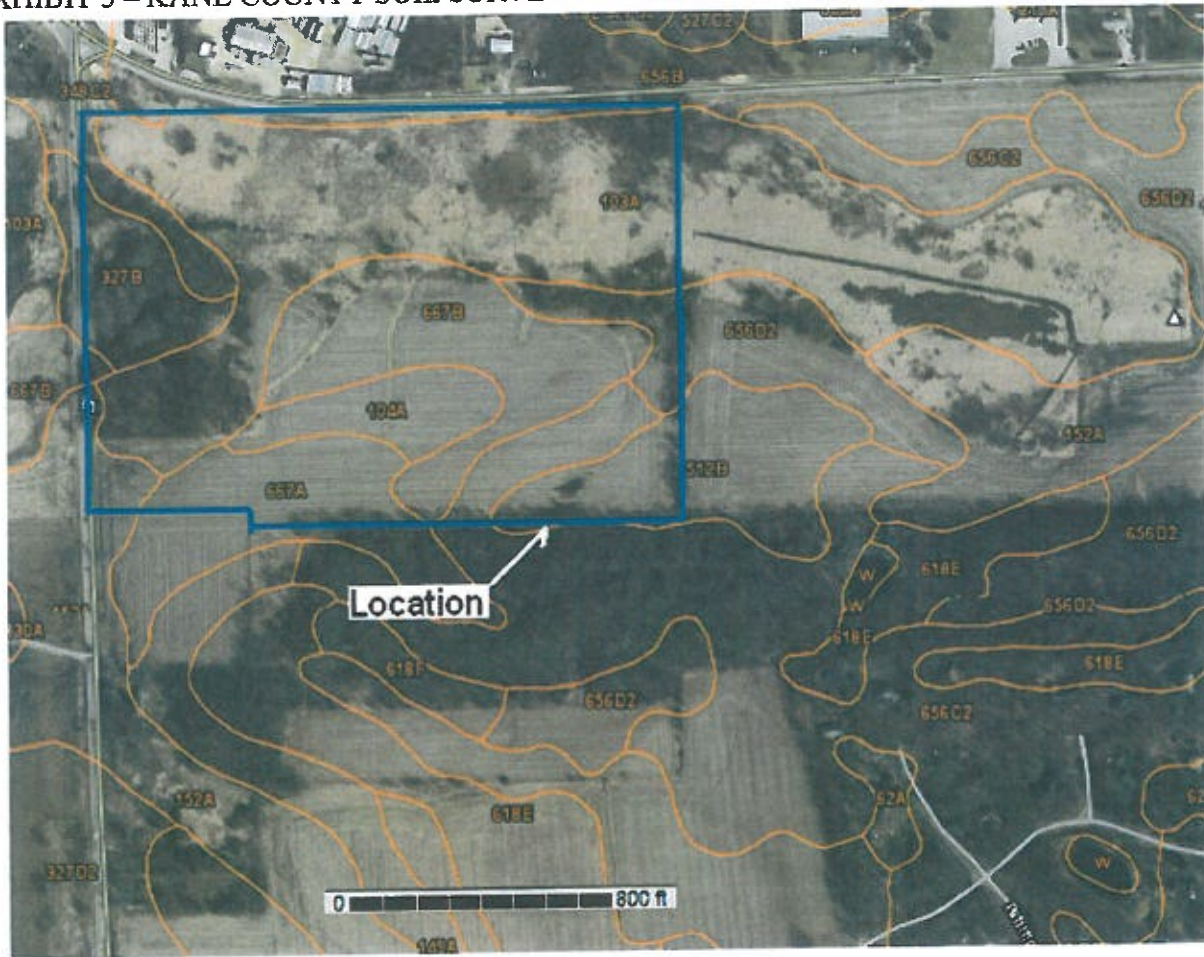
Source: Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Map – Kane County, Illinois and incorporated areas. Map No. 17089C0250J, revised July 17, 2012.

EXHIBIT 4 – TOPOGRAPHY



Source: Kane County Virtual GIS – gitech.countyofkane.org

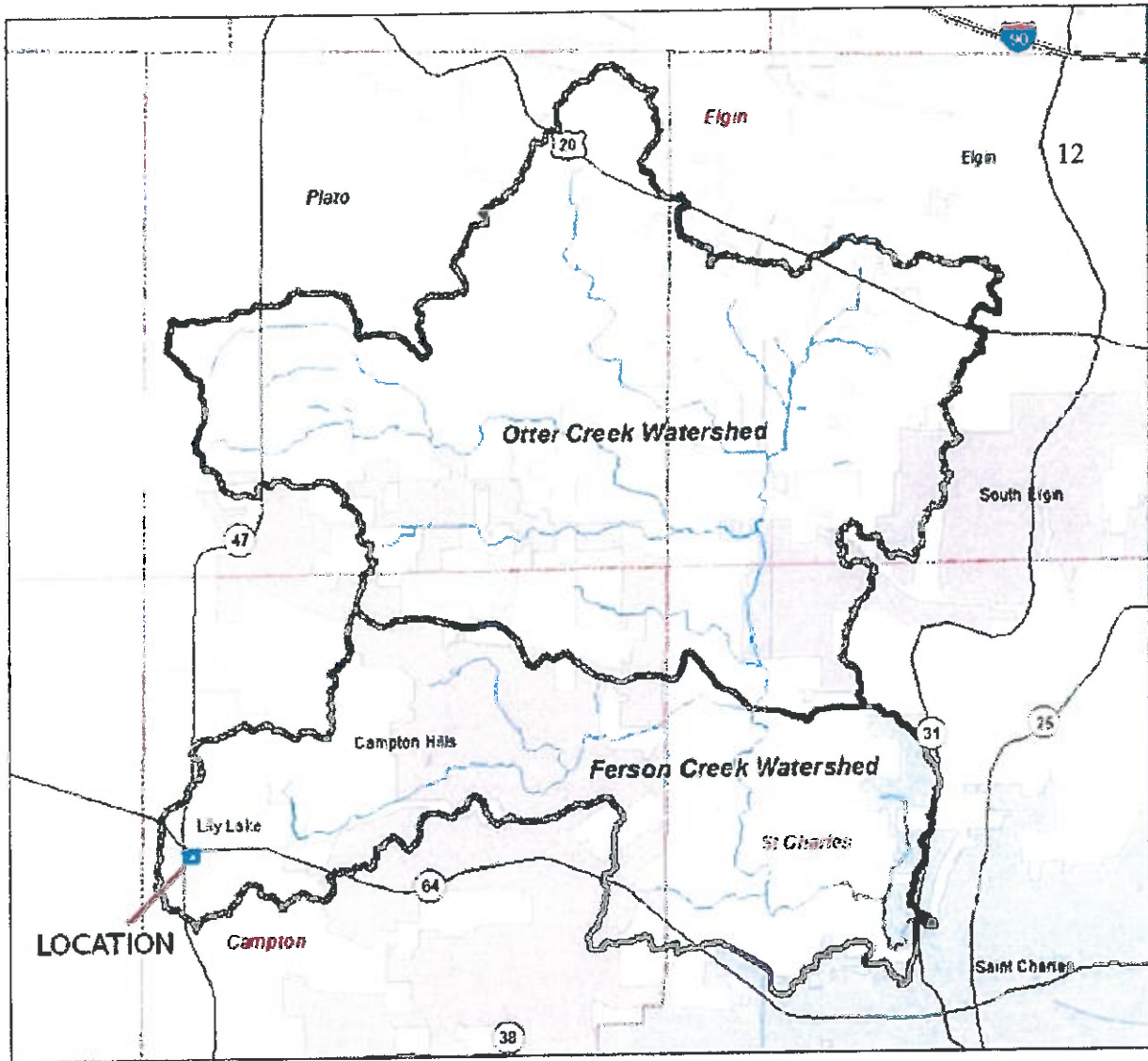
EXHIBIT 5 – KANE COUNTY SOIL SURVEY



MAP CODE	SERIES NAME	HYDRIC?
103 A	Houghton muck, 0 – 2% slopes	Yes
104 A	Virgil silt loam, 0 – 2% slopes	No
152 A	Drummer silty clay loam, 0 – 2% slopes	No
327 B	Fox silt loam, 2 – 4% slopes	No
348 C2	Wingate silt loam, 5 – 10% slopes, eroded	No
512 B	Danabrook silt loam, 2 – 5% slopes	No
656 B	Octagon silt loam, 2 – 4% slopes	No
656 C2	Octagon silt loam, 4 – 6% slopes, eroded	No
656 D2	Octagon silt loam, 6 – 12% slopes, eroded	No
667 A	Kaneville silt loam 0 – 2% slopes	No
667 B	Kaneville silt loam 2 – 5% slopes	No

Source: U.S. Department of Agriculture, Natural Resources Conservation Service, 2004
www.nrcs.usda.gov/wps/portal/nrcs

EXHIBIT 6 – WATERSHED MAP



Source: Watershed Planning Area - Illinois State Water Survey (2005); Major Roads - ESRI 2000; Kane County, Advance Identification Study (AID) (2004); Municipal Boundaries, CMAP (2010)

**SEE EXHIBIT 7 – AERIAL PHOTOGRAPH WITH WETLAND
BOUNDARIES AND DATA-POINT LOCATIONS**

DATA-POINT PHOTOS

Photo No. 1. This photo was taken facing eastward toward the south edge of Wetland No. 2. Data-point No. 1 (Wetland) is shown.

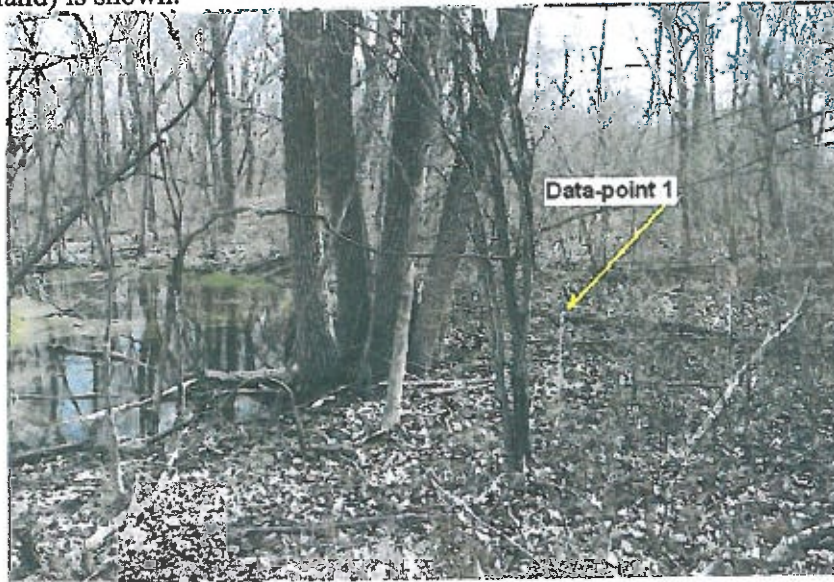


Photo No. 2. This photo was taken facing eastward toward Data-point 2 – upland data-point adjacent to Data-point No. 1.

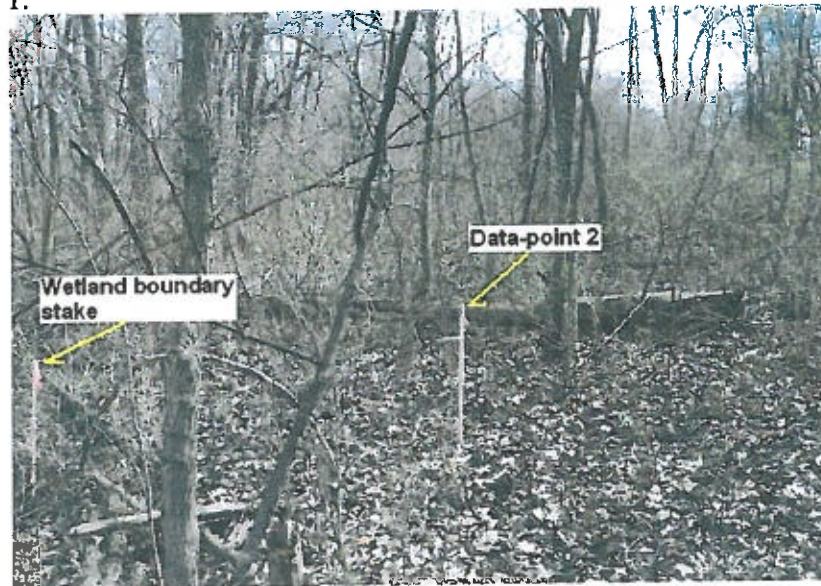


Photo 3. This photo was taken facing eastward toward Data-point No. 3. Note that this data-point is located at the approximate center of Wetland No. 2.



Photo 4. This photo was taken facing eastward toward Data-point No. 4. This data-point is located in upland.



Photo 5. This photo was taken facing eastward toward Data-point No. 5 in Wetland No. 3.



Photo 6. This photo was taken facing westward toward Data-point No. 6. This data-point is located in upland.



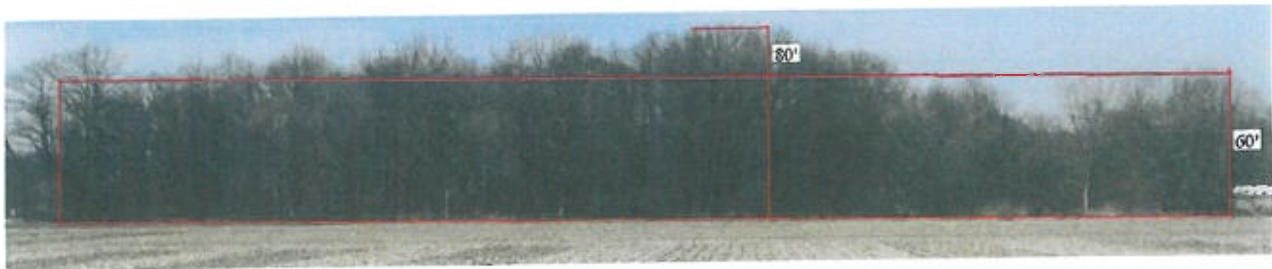
Photo 7. This photo was taken facing westward toward Data-point 7. Data-point 7 is located in Wetland No. 1.



Photo 8. This photo was taken facing northward toward Data-point 8. Data-point 8 is located in upland



Photo 8. This photo was taken facing northward across the agricultural field toward the forested upland. Canopy height was estimated at around 60' +/- 20' using the "similar triangles" method.



WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Routes 47 and 64 City/County: Elburn / Kane County Sampling Date: April 15, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 1
 Investigator(s): David Johannesen Section, Township, Range: NE 1/4 of Section 19, T-40N, R-7E
 Landform (hillslope, terrace, etc.): slope adjacent to pond Local relief (concave, convex, none): concave
 Slope (%): 10% Lat: 41° 56' 13.94011" Long: 88° 28' 44.92311" Datum: WGS 84
 Soil Map Unit Name: Fox silt loam 2-4% NWI classification: Freshwater pond

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: Community type: <u>Pond</u>					
Data-point was taken at lightly forested margin of shallow, apparently excavated pond.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <i>Populus deltoides</i>	55	Y	FAC	
2. <i>Ulmus americana</i>	12		FACW	
3. <i>Acer saccharum</i>	3		FACU	
4. _____				
5. _____				
	70	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>32</u> x 2 = <u>64</u> FAC species <u>55</u> x 3 = <u>165</u> FACU species <u>3</u> x 4 = <u>12</u> UPL species <u>0</u> x 5 = _____ Column Totals: <u>90</u> (A) <u>241</u> (B) Prevalence Index = B/A = <u>2.68</u>
1. <i>Cornus stolonifera</i>	10	Y	FACW	
2. _____				
3. _____				
4. _____				
5. _____				
	10	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Phalaris arundinacea</i>	10	Y	FACW	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	10	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____				
2. _____				
		= Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)
 Herbaceous vegetation is sparse due to the time of year in which this data was collected.

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10 YR 2/2							Silt Loam w/ high organic
3 - 15	10 YR 4/4	95%	10 YR 2/2	5%				Sandy Clay Loam
<15								Gravelly / impenetrable

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)

- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Dark Surface (S7)
- Iron-Manganese Masses (F12)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

This area appears to have been excavated at some point in the past. The silty loam at the surface of the gravelly substrate appears to have accumulated from past inundation events.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 6"

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Routes 47 and 64 City/County: Elburn / Kane County Sampling Date: April 15, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 2
 Investigator(s): David Johannesen Section, Township, Range: NE 1/4 of Section 19, T-40N, R-7E
 Landform (hillslope, terrace, etc.): edge of pond Local relief (concave, convex, none): concave
 Slope (%): 4-5 Lat: 41° 56' 13.85411" Long: 88° 28' 44.92199" Datum: WGS 84
 Soil Map Unit Name: Fox silt loam 2-4% NWI classification: Freshwater Pond

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: Community type: <u>Upland forest</u>					
<u>Lightly forested area upslope from pond.</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:															
1. <i>Tilia americana</i>	27	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)															
2. <i>Acer saccharum</i>	24	Y	FACU																
3. <i>Ulmus americana</i>	13		FACW																
4. <i>Morus alba</i>	6		FAC																
5. <i>Carya ovata</i>	2		FACU																
	72	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>14</u></td> <td>x 2 = <u>28</u></td> </tr> <tr> <td>FAC species <u>17</u></td> <td>x 3 = <u>51</u></td> </tr> <tr> <td>FACU species <u>68</u></td> <td>x 4 = <u>272</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>109</u> (A)</td> <td><u>401</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.68</u>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>14</u>	x 2 = <u>28</u>	FAC species <u>17</u>	x 3 = <u>51</u>	FACU species <u>68</u>	x 4 = <u>272</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>109</u> (A)	<u>401</u> (B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>14</u>	x 2 = <u>28</u>																		
FAC species <u>17</u>	x 3 = <u>51</u>																		
FACU species <u>68</u>	x 4 = <u>272</u>																		
UPL species <u>10</u>	x 5 = <u>50</u>																		
Column Totals: <u>109</u> (A)	<u>401</u> (B)																		
Sapling/Shrub Stratum (Plot size: 15 ft radius)																			
1. <i>Lonicera tatarica</i>	15	Y	FACU																
2. <i>Ribes missouriensis</i>	10		UPL																
3. <i>Rhamnus cathartica</i>	10		FAC																
4. _____																			
5. _____																			
	35	= Total Cover																	
Herb Stratum (Plot size: 5 ft radius)																			
1. _____																			
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
		= Total Cover																	
Woody Vine Stratum (Plot size: 30 ft radius)																			
1. <i>Vitis riparia</i>	1		FACW																
2. <i>Rhus radicans</i>	1		FAC																
	2	= Total Cover																	

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 2	10 YR 2/2						SC	
2 - 20	10 YR 4/4						SCL	Very loose.

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No evidence of saturation

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Routes 47 and 64 City/County: Elburn / Kane County Sampling Date: April 15, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 3
 Investigator(s): David Johannesen Section, Township, Range: NE 1/4 of Section 19, T-40N, R-7E
 Landform (hillislope, terrace, etc.): Pond Local relief (concave, convex, none): Concave
 Slope (%): 0 Lat: 41° 56' 14.80130" Long: 88° 28' 14.13492" Datum: WGS 84
 Soil Map Unit Name: Fox silt loam 2-4% NWI classification: Freshwater pond

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Community type: <u>Pond</u>						
Flood-prone area between two shallowly ponded areas.						

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus deltoides</u>	20	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. <u>Ulmus americana</u>	17	Y	FACW	
3. <u>Salix nigra</u>	4		FACW	
4. _____				
5. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>28</u> x 2 = <u>52</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>46</u> (A) <u>112</u> (B) Prevalence Index = B/A = <u>2.43</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1. _____				
2. _____				
3. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input checked="" type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	5	Y	FACW	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____				
2. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				
Several trees show buttressing.				

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 2/1						SL	
4 - 20	10 YR 4/3						SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Fore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³:
<input checked="" type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>18</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>3</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Between two shallow, ponded areas.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Routes 47 and 64 City/County: Elburn / Kane County Sampling Date: April 15, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 4
 Investigator(s): David Johannesen Section, Township, Range: NE 1/4 of Section 19, T-40N, R-7E
 Landform (hillslope, terrace, etc.): Slope adjacent to pond Local relief (concave, convex, none): concave
 Slope (%): 10% Lat: 41° 56' 14.59388" Long: 88° 28' 43.94733" Datum: _____
 Soil Map Unit Name: Fox silt loam 2-5% NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: Community type: <u>Upland forest</u>					
<u>Lightly forested area upslope from pond</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <i>Tilia americana</i>	27	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)	
2. <i>Prunus serotina</i>	3		FACU	Total Number of Dominant Species Across All Strata: <u>0</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
4. _____					
5. _____					
6. _____					
	<u>30</u>	= Total Cover			
Sapling/Shrub Stratum (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:	
1. <i>Ribes missouriense</i>	7	Y	UPL	OBL species <u>0</u>	x 1 = <u>0</u>
2. <i>Lonicera tatarica</i>	7	Y	FACU	FACW species <u>3</u>	x 2 = <u>6</u>
3. <i>Rhamnus cathartica</i>	3		FAC	FAC species <u>3</u>	x 3 = <u>9</u>
4. <i>Cornus stolonifera</i>	3		FACW	FACU species <u>37</u>	x 4 = <u>148</u>
5. _____				UPL species <u>7</u>	x 5 = <u>35</u>
6. _____				Column Totals: <u>50</u> (A)	<u>198</u> (B)
	<u>20</u>	= Total Cover		Prevalence Index = B/A = <u>3.96</u>	
Herb Stratum (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
Woody Vine Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
1. _____					
2. _____					

Remarks: (Include photo numbers here or on a separate sheet.)
Assessment was done early in the growing season, as such herb strata is poorly represented.

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10 YR 3/2						SL	
>3	10 YR 4/4						SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Routes 47 and 64 City/County: Elburn / Kane County Sampling Date: April 15, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 5
 Investigator(s): David Johannesen Section, Township, Range: NE 1/4 Section 19, T-40N, R-7E
 Landform (hill/slope, terrace, etc.): more or less flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41° 56' 11.50219" Long: 88° 28' 40.74078" Datum: WGS 84
 Soil Map Unit Name: Houghton Muck NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (if needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: Community type: <u>Forested wetland</u>			
This area contains an excavated drain tile that is in the process of being repaired.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Acer saccharinum</i>	56	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. <i>Acer negundo</i>	24	Y	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
80 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>67</u> x 2 = <u>134</u> FAC species <u>69</u> x 3 = <u>207</u> FACU species <u>23</u> x 4 = <u>92</u> UPL species <u>1</u> x 5 = <u>5</u> Column Totals: <u>160</u> (A) <u>438</u> (B) Prevalence Index = B/A = <u>2.74</u>
Sapling/Shrub Stratum (Plot size: 15 ft radius)				
1. <i>Sambucus canadensis</i>	9	Y	FACW	
2. <i>Rubus occidentalis</i>	1		UPL	
3. _____	_____	_____	_____	
10 = Total Cover				
Herb Stratum (Plot size: 5 ft radius)				
1. <i>Alliaria petiolata</i>	45	Y	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0' <input checked="" type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Setaria faberi</i>	15		FACU	
3. <i>Bromus inermis</i>	7		FACU	
4. <i>Urtica procera</i>	2		FACW	
5. <i>Gallium aparine</i>	1		FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
70 = Total Cover				
Woody Vine Stratum (Plot size: 30 ft radius)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	10 YR 2/2						SL	
16 - 28	10 YR 4/2						SCL	
>28	10 YR 5/3	95	10 YR 4/6	5			SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input checked="" type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S8) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>16</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Routes 47 and 64 City/County: Elburn / Kane Sampling Date: April 15, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 3
 Investigator(s): David Johannessen Section, Township, Range: NE 1/4 Section 19, T-40N, R-7E
 Landform (hillslope, terrace, etc.): more or less flat Local relief (concave, convex, none): None
 Slope (%): 0% Lat: 41° 56' 11.58918" Long: 88° 28' 40.92529" Datum: WGS 84
 Soil Map Unit Name: Houghton Muck NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: Community type: <u>Upland forest</u>					
<u>This area lies immediately west of an excavated drain tile that is in the process of being repaired.</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
1. <u>Quercus alba</u>	<u>29</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Acer negundo</u>	<u>9</u>		<u>FAC</u>	
3. <u>Carya ovata</u>	<u>8</u>		<u>FACU</u>	
4. <u>Prunus serotina</u>	<u>4</u>		<u>FACU</u>	
5. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>2</u> x 2 = <u>4</u> FAC species <u>34</u> x 3 = <u>102</u> FACU species <u>61</u> x 4 = <u>244</u> UPL species <u>18</u> x 5 = <u>90</u> Column Totals: <u>115</u> (A) <u>440</u> (B) Prevalence Index = B/A = <u>3.83</u>
<u>50</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1. <u>Rubus occidentalis</u>	<u>9</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Ribes missouriensis</u>	<u>9</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Sambucus canadensis</u>	<u>2</u>		<u>FACW</u>	
4. _____				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0' <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
<u>20</u> = Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1. <u>Alliaria petiolata</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Bromus inermis</u>	<u>15</u>		<u>FACU</u>	
3. <u>Setaria glauca</u>	<u>5</u>		<u>FAC</u>	
4. <u>Setaria faberi</u>	<u>5</u>		<u>FACU</u>	
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>45</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1. _____				
2. _____				
_____ = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10 YR 3/2						SL	
>12	10 YR 5/3						SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)

- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Dark Surface (S7)
- Iron-Manganese Masses (F12)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Soil is mapped as "Houghton muck", which is a hydric series, but observations do not match this designation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Routs 47 and 64 City/County: Elburn / Kane County Sampling Date: April 22, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 7
 Investigator(s): David Johannesen Section, Township, Range: NE 1/4 of Section 19, T-40, R-7E
 Landform (hillslope, terrace, etc.): Edge of emergent wetland Local relief (concave, convex, none): none
 Slope (%): 0 Lat: 41° 56' 16.1376" Long: 88° 28' 39.2952" Datum: _____
 Soil Map Unit Name: Houghton muck NWI classification: Freshwater Emergent wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: Community type: <u>Marsh</u>					
<u>Southern edge of large, mostly emergent wetland</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Acer negundo</u>	10	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____					
5. _____					
	<u>10</u>	= Total Cover		Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				Total % Cover of:	Multiply by:
1. <u>Sambucus canadensis</u>	5	Y	FACw	OBL species <u>0</u>	x 1 = <u>0</u>
2. <u>Ribes missouriensis</u>	1		UPL	FACW species <u>100</u>	x 2 = <u>200</u>
3. <u>Rubus occidentalis</u>	1		UPL	FAC species <u>10</u>	x 3 = <u>30</u>
4. _____				FACU species _____	x 4 = _____
5. _____				UPL species <u>2</u>	x 5 = <u>10</u>
	<u>7</u>	= Total Cover		Column Totals: <u>112</u> (A)	<u>240</u> (B)
Herb Stratum (Plot size: <u>5 ft radius</u>)				Prevalence Index = B/A = <u>2.14</u>	
1. <u>Phalaris arundinaceae</u>	95	Y	FACW	Hydrophytic Vegetation Indicators:	
2. _____				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
3. _____				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
4. _____				<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
5. _____				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
9. _____					
10. _____					
	<u>95</u>	= Total Cover			
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)					
1. _____					
2. _____					
		= Total Cover			

Remarks: (Include photo numbers here or on a separate sheet.)
 Quick visual inspection indicates that most of marsh is dominated by emergents - in particular cattails (typha spp.) and reed canary grass. Dominant trees are black willow (Salix nigra) and box elder (Acer negundo)

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 15	10 YR 2/1							Houghton muck

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input checked="" type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7)
<input checked="" type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D8)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (BB)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): 4

Saturation Present? Yes No Depth (inches): 0 - 2

(Includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Southeast corner of Illinois Route 47 and 64 City/County: Elburn / Kane Cnty Sampling Date: April 22, 2015
 Applicant/Owner: Disney / ABC 7 State: IL Sampling Point: 8
 Investigator(s): David Johannesen Section, Township, Range: NE 1/4 of Section 19, T-40, R7E
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Convex
 Slope (%): 0-2% Lat: 41°56'16.0166" Long: 88°28'39.61547" Datum: _____
 Soil Map Unit Name: Houghton Muck NWI classification: Freshwater Emergent Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>				
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>				
Remarks: Community type: <u>Floodplain forest</u>						
<u>Lightly forested area adjacent to Wetland No. 1</u>						

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Tilia americana</u>	20	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. <u>Acer negundo</u>	5		FAC	
3. _____				Total Number of Dominant Species Across All Strata: _____ (B)
4. _____				
5. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
	25	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet:
1. <u>Sambucus canadensis</u>	30	Y	FACW	
2. <u>Ribes missouriensis</u>	30	Y	UPL	OBL species <u>0</u> x 1 = <u>0</u>
3. <u>Rhamnus cathartica</u>	10		FAC	FACW species <u>40</u> x 2 = <u>80</u>
4. _____				FAC species <u>15</u> x 3 = <u>45</u>
5. _____				FACU species <u>90</u> x 4 = <u>360</u>
	70	= Total Cover		UPL species <u>30</u> x 5 = <u>150</u>
Herb Stratum (Plot size: <u>5 ft radius</u>)				Column Totals: <u>175</u> (A) <u>635</u> (B)
1. <u>Podophyllum peltatum</u>	60	Y	FACU	Prevalence Index = B/A = <u>3.63</u>
2. <u>Phalaris arundinaceae</u>	10		FACW	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. <u>Solidago canadensis</u>	10		FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	80	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 15	10 YR 2/1							black w/ high organic content

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators:</p> <input checked="" type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<p>Indicators for Problematic Hydric Soils³:</p> <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
--	--	---

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D8) <input type="checkbox"/> Other (Explain in Remarks)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
--	---	---

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): 14

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX 1**WETLAND DELINEATION AND FLORISTIC QUALITY ASSESSMENT
METHODOLOGIES**

The wetland delineation methodology used for this report is outlined in the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual (Technical Report Y-87-1) and its 2008 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. (ERDC/EL TR-08-27). The protocol outlined in these sources requires that **vegetation, hydrology, and soils** be described in detail for a series of points taken in and around all areas likely to be considered "wetlands". In order for an area to be considered "wetland" it must meet all of the following criteria:

Vegetation

In order for an area to meet the wetland vegetation criterion, at least 50% of the dominant species must be hydrophytes (see "Dominants Test" below) or hydrophytes must compose at least 50% of the total cover (see "Prevalence Index" below). The term "hydrophytes" refers to plants which grow preferentially under moist or saturated conditions (see "hydrophytic vegetation descriptors" below).

Hydrophytic Vegetation Descriptors

Swink and Wilhelm's Plants of the Chicago Region, (4th edition, 1994) provides ratings for plants within the Chicago Region using the five descriptors shown in Table 1. These descriptors represent the likelihood that a particular species of plant will be found growing under wetland conditions. Many of the values used in this text have been revised. The revised list entitled "Midwest Region – NWPL Final Draft Ratings" is available on the U.S. Army Corps of Engineers and Lake County Stormwater Management Commission websites (See listing under Appendix II).

Table 1. Hydrophytic vegetation descriptors.

OBL	Obligate Wetland	Occurs almost always in wetlands under natural conditions (estimated >99% probability).
FACW	Facultative Wetland	Usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67%-99%).
FAC	Facultative	Equally likely to occur in wetlands or non-wetlands (estimated 34%-66% probability).
FACU	Facultative Upland	Occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1%-33% probability).
UPL	Upland	Occurs almost never in wetlands under natural conditions (estimated <1% probability).

Dominance Test

The following process is used to assess the vegetation at each data-point:

- 1) Species within the vicinity of each data-point are identified and classed by "strata". The U.S. Army Corps of Engineer's methodology recognizes four discrete strata: Trees, Shrubs, Herbs, and Vines.
- 2) Species dominance is assessed using the "50/20" rule. According to this rule a species is considered dominant if it comprises more that 50% of the total cover, count, or presence for each strata or includes more than 20% of the total cover if none of the species present compose 50% or more of the total cover.
- 3) Each of the dominant plants is assigned a value reflecting its probability of occurring in a wetland (see Table 1). If more than 50% of the dominant species within a given area are classified as hydrophytes (i.e., species growing preferentially under wetland conditions), the vegetation criterion is met.
- 4) In cases where the dominant vegetation is FAC-neutral, or the dominant species are half hydrophytes and half non-hydrophytes, a "prevalence index" is used to determine the status of the vegetation. The procedure for calculating this index is included below.

Prevalence Index

The Prevalence Index (PI) is used to determine the hydric status of vegetation when the vegetation is FAC-neutral, or the dominant species are half hydrophytes and half non-hydrophytes. In order to calculate the PI, the investigated area is sampled using quadrat or transect methodologies to determine frequency or percent coverage (F) for each of the represented species. The F-values are then multiplied by a value representing the coefficient of wetness (OBL = 1, FACW = 2, FAC = 3, FACU = 4, UPL = 5). The resulting values are then added and the resulting sum is divided by the total coverage.

$$PI = \frac{F_{(OBL)} + 2F_{(FACW)} + 3F_{(FAC)} + 4F_{(FACU)} + 5F_{(UPL)}}{F_{(OBL)} + F_{(FACW)} + F_{(FAC)} + F_{(FACU)} + F_{(UPL)}}$$

Where:

PI = Prevalence Index

F(OBL) = Frequency of obligate (OBL) plant species

F(FACW) = Frequency of facultative wet (FACW) plant species

F(FAC) = Frequency of facultative (FAC) species

F(FACU) = Frequency of facultative upland (FACU) plant species

F(UPL) = Frequency of upland (UPL) plant species

Hydrology

In order for an area to meet the hydrology criterion, it must exhibit one or more “primary indicators” and / or a minimum of two “secondary indicators”. Common primary and secondary wetland hydrology indicators are summarized in Table 2.

Table 2. Common primary and secondary wetland hydrology indicators

<u>PRIMARY INDICATORS:</u>	
<u>Descriptor</u>	<u>Explanation</u>
Surface water	Standing water is present at the time of the field visit. (Note: It is important to consider whether normal conditions exist as non-wetland areas may be inundated following significant precipitation events.)
High water table	An area may be considered to have a high water table if water remains within 12 inches of the soils surface for a significant period during a typical year. Confirmation of a high water table may require multiple site visits and / or installation of a monitoring well.
Saturation	This indicator requires observation of soil saturation within 12 inches of the soil's surface. Soil is said to be saturated if water can be seen glistening on the surfaces and broken interior faces of soil samples removed from a soil pit or auger hole. This condition may reflect a high water table or presence of a restrictive soil layer or bedrock within 12 inches of the soil's surface.
Water-marks	High water events will leave water-marks on trees, vegetation and / or debris.
Sediment deposits	Past inundation is implied by the presence of water-borne sediments on the surfaces of leaves and other debris.
Drift-deposits	High water events will cause leaves, twigs and / or debris to accumulate along discrete lines.
Algal mats or crusts	Mats or dried crusts of algae on or near the soil surface are indicative of past inundation.
Iron deposits	Iron deposits may appear as a thin orange or yellow crust or as a gel of oxidized iron on the soil surface or on objects near the surface.
Inundation visible on aerial imagery	Aerial imagery may be used to determine the presence of inundation. When using this indicator, it is important to consider the conditions under which the photograph was taken. In some cases NRCS offices may have sets of photographs that are considered to represent “normal” conditions.
Sparsely vegetated concave surfaces	Prolonged inundation on concave land surfaces (e.g., depressions and swales) will often leave the soil unvegetated or sparsely vegetated.
Water-stained leaves	Fallen leaves will turn gray or blackish after prolonged inundation.
Aquatic fauna	Aquatic fauna, such as clams, aquatic snails, aquatic insects, ostracods, or shrimps, either living or dead, are indicative of inundation or saturation.

True aquatic plants	The term "true aquatic plants" refers to plants that are normally submerged, such as watershield, water-milfoil, pondweed or duckweed. The presence of such plants are indicative of inundation.
Hydrogen sulfide odor	Hydrogen sulfide is a metabolic byproduct of bacteria that thrive under anaerobic (saturated) conditions. This gas, if detected within 12 inches of the soil's surface indicates recent inundation and / or saturation.
Oxidized rhizospheres along living roots	Under reducing soil conditions, oxygen will leak from living roots into the surrounding anoxic soil. This, in turn, will cause iron within the soil to oxidize and form rust colored concentrations or plaques in the vicinity of living roots.
Presence of reduced iron	Presence of a layer containing reduced (ferrous) iron in the upper 12 inches (30 cm) of the soil profile, as indicated by a ferrous iron test or by the presence of a soil that changes color upon exposure to air.
Recent iron reduction in tilled soils	Presence of a layer containing 2 percent or more redox concentrations as pore linings or soft masses in the tilled surface layer of soils cultivated within the last two years. The layer containing redox concentrations must be within the tilled zone or within 12 inches (30 cm) of the soil surface, whichever is shallower.
Thin muck surface	This indicator consists of a layer of muck 1 inch (2.5 cm) or less thick on the soil surface.
SECONDARY INDICATORS:	
Descriptor	Explanation
Surface soil cracks	Fine grained mineral or organic sediments will shrink and form a network of cracks as they dry out. It is important, however, to consider that these structures may form in non-wetland areas following an intense rain.
Drainage patterns	Water, as it moves over a surface, leaves distinct signatures, such as bent vegetation, or soil erosion.
Dry-season water table	During the dry season, or during dry years, a water table that would normally be within 12 inches of the soil's surface may be between 12 and 24 inches.
Crayfish burrows	Crayfish require contact with water in order to keep their gills moist. Although crayfish burrows generally extend to the water table, it is important to consider that these burrows may extend as deep as 10 feet.
Saturation visible on aerial imagery	One or more recent aerial photographs or satellite images indicate soil saturation. Saturated soil signatures must correspond to field-verified hydric soils, depressions or drainage patterns, differential crop management, or other evidence of a seasonal high water table.
Stunted or stressed plants	In agricultural settings or other situations where non-wetland plants may be grown, saturated conditions will result in smaller stature, reduced vigor or a generally stressed condition.
Geomorphic position	This indicator is present if the immediate area in question is located in a depression, drainage-way, concave position within a floodplain, at the toe of a slope, on the low-elevation fringe of a pond or other water body, or in an area where groundwater discharges.
FAC-Neutral test	This means that the vegetation is, on average, hydrophytic.

Soils

Definition

The Corps of Engineers Wetlands Delineation Manual (USACE, 1987) defines hydric soils as soils that are "...saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation" (US Department of Agriculture (USDA) Soil Conservation Service (SCS) 1985, as amended by the National Technical Committee for Hydric Soils (NTCHS) in December 1986).

Field Indicators

In order to rapidly assess the status of potential hydric soils in the field, the USACE data-sheets include a series of common hydric soil indicators. These indicators are summarized below in Table 3.

Table 3. Common hydric soil indicators.

DESCRIPTOR	EXPLANATION
Histosol	Organic soils that have organic materials in more than 50% of the upper 80 centimeters, or any thickness if overlying rock or fragmental materials. This includes peats, mucky peats and mucks.
Histic Epipedon	A thin organic soil horizon that is saturated with water at some period of the year.
Black Histic	A layer of darkly colored peat, mucky peat, or muck (hue 10 YR 2/1 or yellower, value ≤ 3 and chroma ≤ 1) lying within six inches of the soil's surface and at least eight inches thick.
Hydrogen Sulfide (Sulfidic Odor)	Hydrogen sulfide is a gas produced under anaerobic conditions. This, and other "marsh gases" have a distinct and somewhat unpleasant odor. This odor may serve as a hydric soil indicator if evident within 12 inches (30 cm) of the soil's surface.
Muck	Muck is well decomposed organic soil. It typically feels greasy and is dark colored (value ≤ 3 and chroma ≤ 1). Muck may serve as a hydric indicator if a layer of at least one-half inch thickness is found within six inches of the soil's surface. If underlain by sandy soil, a minimum of two inches (5 cm) is required for hydric soil consideration.
Depleted Matrix	Soils with a depleted matrix are typically grayish in color (low chroma, high value) and form under conditions where iron has been removed or transformed through reduction and translocation. Horizons with a depleted matrix are often found underlying a dark surface.
Thick Dark Surface	The presence of a dark surface ($\geq 60\%$ matrix with chroma ≤ 2) twelve or more inches thick may be a hydric indicator, especially if overlying a depleted matrix.
Sandy Mucky Mineral	Sandy mucky mineral soil consists of sand that is darkly colored due to high concentrations of organic carbon (typically between 5% and 14% depending on clay content).
Sandy Gleyed Matrix	Gley colors are characteristically associated with the presence of reducing conditions and the virtual absence of oxidized iron. Gley colors typically have hues of N, 10Y, 5GY, 10GY, 5G, 10G, 5BG, 10 BG, or 5PB and values of 4 or more. In sandy soils, a gleyed matrix qualifies as a hydric soil indicator if it occupies 60% or more of a layer starting within 6 inches (15 cm) of the soil surface. Since soils with gleyed matrices are saturated for significant periods, no minimum thickness is required for the soil to qualify as hydric.
Sandy Redox	This refers to a layer starting within 6 inches (15 cm) of the soil surface that is at least 4 inches (10 cm) thick and has a matrix with 60 percent or more chroma of 2 or less with 2 percent or more distinct or prominent redox concentrations occurring as soft masses and/or pore linings. "Redox concentration" are soil discolorations resulting from the reduction, translocation and/or oxidation of iron and manganese oxides.
Stripped Matrix	A stripped matrix is characterized by the presence faint, diffuse, splotchy, roughly circular features approximately $\frac{1}{2}$ to 1 in (1 – 3 cm) in diameter composing 10% or more of the soil volume. These features are formed through the translocation of oxides and or organic matter. This feature must begin within six inches of the soil surface in order to qualify as a hydric indicator.
Loamy Mucky Mineral	In order to qualify as "mucky", loamy material must contain at least 8% organic material (organic content requirements may be higher depending on clay content). In order to qualify as a hydric soil indicator, this material must be present in a layer at least 4 inches (10 cm) thick starting within 6 inches (15 cm) of the soil's surface.
Loamy Gleyed Matrix	Gley colors are characteristically associated with the presence of reducing conditions and the virtual absence of oxidized iron. Gley colors typically have hues of N, 10Y, 5GY, 10GY, 5G, 10G, 5BG, 10 BG, or 5PB and values of 4 or more. In sandy soils, a gleyed matrix qualifies as a hydric soil indicator if it occupies 60% or more of a layer starting within 6 inches (15 cm) of the soil surface. In order to qualify as a hydric soil indicator for loamy soils, a gleyed matrix must be present within 12 inches of the soil's surface. Since soils with gleyed matrices are saturated for significant periods, no minimum thickness is required for the soil to qualify as hydric.
Redox Dark Surface	A "Redox Dark Surface" is a dark (value ≤ 3 , chroma ≤ 1) layer at least 4 inches (10 cm) thick within 12 inches of a soil's surface that contains at least 2% distinct or prominent redox concentrations as soft masses or pore linings.

Hydric Soil Criteria

The USACE's criteria for hydric soils is as follows:

- a.) All Histosols¹ except Folists²
 - b.) Soils in Aquic³ suborders, Aquic subgroups, Albolls⁴ suborder, Salorthis⁵ great group, or Pell great groups of Vertisols⁶ that are:
 - (1) Somewhat poorly drained and have a water table less than 0.5 feet from the surface for a significant period (usually a week or more) during the growing season, or
 - (2) Poorly drained or very poorly drained and have either:
 1. A water table less than 1.0 feet from the surface for a significant period (usually a week or more) during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within 20 inches; or
 2. A water table at less than 1.5 feet from the surface for a significant period (usually a week or more) during the growing season if permeability is less than 6.0 in / hr in any layer within 20 inches; or
 - c.) Soils that are ponded for long or very long duration during the growing season; or
 - d.) Soils that are frequently flooded for long duration or very long duration during the growing season.
-

1 Histosol: a soil comprised primarily of organic materials.

2 Folist: A suborder of the soil order Histosol, consisting of wet forest litter resting on rock or rubble.

3 Aquic: a type of soil that has features indicating it is saturated to near the surface for a significant portion of the growing season.

4 Albolls: A type of soil that contains distinct horizons, is wet for some part of the year; occurs mostly on upland.

5 Salorthis: A type of haline soil.

6 Vertisol: Clayey soils with high shrink/swell capacity.

FLORISTIC QUALITY INDEX

The Floristic Quality Index is a measure of habitat quality that is often required for permitting purposes – in particular for establishing wetland buffers and mitigation ratios. The methodology used for calculating this index is outlined in Swink and Wilhelm's Plants of the Chicago Region, (4th edition, 1994). This index is calculated as follows:

- 1) Species lists for all wetland areas are compiled on the basis of time-meander searches.
- 2) Each of the species on this list is assigned a “coefficient of conservatism” (“C”). These values, which are between 0 and 10, are based on each specie’s particular ecological amplitude. Plants with a rating of zero typically have wide ecological amplitudes (i.e., occur in a wide variety of habitats), while plants with a rating of ten typically have a narrow ecological amplitude (i.e. occur only under specific ecological conditions). Non-native species are designated with an asterisk (*). These species may either be assigned a “0” for calculating a sites overall floristic quality (FQI) or may be completely excluded for determination of a sites native floristic quality (FQI(native)).

The Native Floristic Quality Index (FQI(native)) is calculated as follows:

$$FQI(native) = \overline{C(native)} \sqrt{N(native)}$$

Where: C(native) = the average C value for all native species within the study site

N(native) = the total number of native species present within the study site

If an area contains an FQI(native) of 20 or more, the area may be classified as a “high quality aquatic resources” by Lake County’s Stormwater Management Commission and the U.S. Army Corps of Engineers.

APPENDIX 2

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U.S. Geological Survey Survey. Elburn quadrangle, Illinois (map). 1993 Waukegan quadrangle, Illinois (map). United States Department of the Interior, USGS.

Linda J. Pitrowski
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(847) 853-5820 fax
lpitrowski@wintrustwealth.com

May 12, 2015

RE: Land Trust No. 12-1016

To Whom It May Concern:

Please be advised that the beneficiary(ies) of the above mentioned Land Trust No. 12-1016, The Chicago Trust Company, N.A., Successor Trustee to Suburban Bank and Trust, dated January 9, 1996, are as follows:

- Laura J. VanGemert
- Richard W. Mockus
- Steven A. Mockus
- Mark A. Mockus, all as joint tenants with the right of survivorship and not as tenants in common

The Power of Direction in this Land Trust is held by Laura J. VanGemert, solely.

Sincerely,



Linda J. Pitrowski
Vice President and Trust Officer

/ljp

Weather and Air Traffic Control Radar Sites
Near Residences and Schools
April 28, 2015

FAA Radar Site in Robbins, IL
4300 Lincoln Ln W
Robbins, IL 60472
41.650607 N, 87.726041 W





University of Oklahoma Research Park

1598 Halley Ave

Norman, OK 73069

35.237863 N, 97.461305 W





WFLD Radar Site in Lockport

16138-16338 W 151st St

Lockport, IL 60441

41.612725 N, 88.014519 W







Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: WLS TELEVISION, INC.

ATTN: JOHN W. ZUCKER, ESQ.
WLS TELEVISION, INC.
77 WEST 66TH ST, 16TH FLOOR
NEW YORK, NY 10023

Call Sign WQVG967	File Number 0006627452
Radio Service RS - Land Mobile Radiolocation	
Regulatory Status PMRS	
Frequency Coordination Number	

FCC Registration Number (FRN): 0003471315

Grant Date 02-10-2015	Effective Date 02-10-2015	Expiration Date 02-10-2025	Print Date
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STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

Loc. 1 Address: SE of intersection of Illinois Rts 47 & 64
City: Lily Lake County: KANE State: IL
Lat (NAD83): 41-56-13.8 N Long (NAD83): 088-28-39.6 W ASR No.: Ground Elev: 270.0

Antennas

Loc No.	Ant No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
1	1	002900.00000000-002950.00000000	WDX	1		8M00P0N	2779.700	3013006	35.3		02-10-2016

Control Points

Control Pt. No. 1
Address: 190 N State St
City: Chicago County: COOK State: IL Telephone Number: (312)750-7777

Associated Call Signs

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: WLS TELEVISION, INC.

Call Sign: WQVG967

File Number: 0006627452

Print Date:

Waivers/Conditions:

NONE