Regulated Waters Delineation Report

Northeast Parcel of County Line and Arlington, Indianapolis, Marion County, Indiana

June 2022

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Document Information

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Acronyms

APA	Administrative Procedure Act
BF	Bank Full
CFR	Code of Federal Regulations
CWA	Clean Water Act
DBH	Diameter at Breast Height
DNP	Division of Nature Preserves
DP	Data Point
EPA	U.S. Environmental Protection Agency
EPH	Ephemeral (Stream Type)
ETR	Endangered, Threatened, and Rare
FAC	Facultative Plant
FACU	Facultative Upland Plant
FACW	Facultative Wetland Plant
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographical Information System
HHEI	Headwater Habitat Evaluation Index
IC	Indiana Code

Acronyms (continued)

IDEM	Indiana Department of Environmental Management
IDNR	Indiana Department of Natural Resources
INT	Intermittent (Stream Type)
MS4	Municipal Separate Storm Water Sewer Systems
NHD	National Hydrography Dataset
NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
NWI	National Wetland Inventory
NWP	Nationwide Permit
NWPL	National Wetland Plant List
OBL	Obligate Wetland Plant
OHWM	Ordinary High Water Mark
PEM	Palustrine Emergent Wetland
PER	Perennial (Stream Type)
PFO	Palustrine Forested Wetland
PSS	Palustrine Shrub Scrub Wetland
PUB	Palustrine Unconsolidated Bottom
RGP	Regional General Permit
SNE	Significant Nexus
SWANCC	Solid Waste Agency of Northern Cook County
TNW	Traditional Navigable Water
TOB	Top of Bank
UPL	Upland Plant
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WOTUS	Waters of the United States
WQC	Water Quality Certification

1 Introduction

Cardno now Stantec (Cardno) was contracted to perform a regulated waters delineation, including wetlands and streams, which are located at the Northeast Parcel of County Line and Arlington Study Area in Section 23, Township 14 North, Range 4 East, in Marion County, Indiana (Figure 1, Appendix A). Field work was performed on May 12, 2022. The total size of the Study Area was approximately 95.7 acres. The Study Area was an agricultural and prairie field. Four wetlands were identified within the Study Area.

This report identifies the jurisdictional status of the Study Area based on Cardno's best professional understanding and interpretation of the Corps of Engineers' Wetland Delineation Manual (Environmental Laboratory, 1987) and U.S. Army Corps of Engineers' (USACE) guidance documents and regulations. Jurisdictional determinations for other "waters of the U.S." were made based on definitions and guidance found in 33 CFR 328.3, USACE Regulatory Guidance Letters, and the wetland delineation manual. The USACE administers Section 404 of the Clean Water Act (CWA), which regulates the discharge of fill or dredged material into all "waters of the U.S.," and is the regulatory authority that must make the final determination as to the jurisdictional status of the Study Area.

2 Regulatory Definitions

2.1 Wetlands

Wetlands are a category of "waters of the U.S." for which a specific identification methodology has been developed. As described in detail in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987), wetland boundaries are delineated using three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. In addition to the criteria defined in the 1987 Manual, the procedures described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Environmental Laboratory, 2010) were used to evaluate the Study Area for the presence of wetlands.

2.1.1 Hydrophytic Vegetation

On June 1, 2012, the National Wetland Plant List (NWPL), formerly called the National List of Plant Species that Occur in Wetlands (Reed 1988), went into effect after being released by the U.S. Army Corps of Engineers (USACE) as part of an interagency effort with the U.S. Fish and Wildlife Service (USFWS), the U.S. EPA, and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (Lichvar and Kartesz, 2009). This list is periodically updated, with the most recently published list dated 2018. The NWPL, along with the information implied by its wetland plant species status ratings, provides general botanical information about wetland plants and is used extensively in wetland delineation, restoration, and mitigation efforts. The NWPL consists of a comprehensive list of wetland plant species that occur within the United States along with their respective wetland indicator statuses by region. An indicator status reflects the likelihood that a particular plant species occurs in a wetland or upland (Lichvar et al. 2012). Definitions of the five indicator categories are presented below.

OBL (Obligate Wetland Plants): almost always occur in wetlands. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.

FACW (Facultative Wetland Plants): usually occur in wetlands, but may occur in non-wetlands. These plants predominately occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.

FAC (Facultative Plants): occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.

FACU (Facultative Upland Plants): usually occur in non-wetlands, but may occur in wetlands. These plants predominately occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.

UPL (Upland Plants)*:* almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

According to the USACE's Midwest Regional Supplement, plants that are rated as FAC, FACW, or OBL are classified as wetland plant species. The percentage of dominant wetland species in each of the four vegetation strata (tree, shrub/sapling, herbaceous, and woody vine) in the sample area determines the hydrophytic (wetland) status of the plant community. Dominant species are chosen independently from each stratum of the community. In general, dominants are the most abundant species that individually or collectively account for more than 50 percent of the total coverage of vegetation in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total.

For the purposes of determining dominant plant species, the four vegetation strata are defined. Trees consist of woody species 3 inches or greater in diameter at breast height (DBH). Shrubs and saplings are woody species that are over 1 meter in height and less than 3 inches DBH. Herbaceous species consist of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 1 meter tall. Woody vines consist of vine species greater than 1 meter in height, such as wild grapes.

2.1.2 Hydric Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. In general, hydric soils are flooded, ponded, or saturated for a week or more during the growing season when soil temperatures are above 32 degrees Fahrenheit. The anaerobic conditions created by repeated or prolonged saturation or flooding result in permanent changes in soil color and chemistry, which are used to differentiate hydric from non-hydric soils.

In this report, soil colors are described using the Munsell notation system. This method of describing soil color consists of separate notations for hue, value, and chroma that are combined in that order to form the color designation. The hue notation of a color indicates its relation to red, yellow, green, blue, and purple; the value notation indicates its lightness, and the chroma notation indicates its strength or departure from a neutral of the same lightness.

The symbol for hue consists of a number from 1 to 10, followed by the letter abbreviation of the color. Within each letter range, the hue becomes more yellow and less red as the numbers increase. The notation for value consists of numbers from 0 for absolute black, to 10 for absolute white. The notation for chroma consists of numbers beginning with /0 for neutral grays and increasing at equal intervals. A soil described as 10YR 3/1 soil is more gray than a soil designated 10YR 3/6.

2.1.3 Wetland Hydrology

Wetland hydrology is defined as the presence of water for a significant period of time at or near the surface (within the root zone) during the growing season. Wetland hydrology is present only seasonally in many cases, and is often inferred by indirect evidence. Hydrology is controlled by such factors as seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage. Primary indicators of hydrology are inundation, soil saturation in the upper 12 inches of the soil, watermarks, sediment deposits, and drainage patterns. Secondary indicators such as oxidized root channels in the upper 12 inches of the soil, water-stained leaves, local soil survey data, and the FAC-neutral vegetation test are sometimes used to identify hydrology. A primary indicator or two or more secondary indicators are required to establish a positive indication of hydrology.

2.1.4 **Wetland Definition Summary**

In general, an area must meet all three criteria to be classified as a wetland. In certain problem areas such as seasonal wetlands, which are not wet at all times, or in recently disturbed (atypical) situations, areas may be considered a wetland if only two criteria are met. In special situations, an area that meets the wetland definition may not be within the USACE's jurisdiction due to a specific regulatory exemption.

2.2 Streams, Rivers, Watercourses & Jurisdictional Ditches

With non-tidal waters, in the absence of adjacent wetlands, the extent of the USACE's jurisdiction is defined by the OHWM. USACE regulations define the term "ordinary high water mark" for purposes of the CWA lateral jurisdiction at 33 CFR 328.3(e), which states:

> The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Waterways were classified by the following flow regimes:

- Perennial streams have a well-defined channel and typically have water flowing in them year-round. Most of the water comes from smaller upstream waters or groundwater while runoff from rainfall or other precipitation is supplemental. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.
- Intermittent streams have a well-defined channel and flow during certain times of the year when smaller upstream waters are flowing and when groundwater provides enough water for stream flow. Runoff from rainfall or other precipitation supplements the flow of seasonal stream. During dry periods, seasonal streams may not have flowing surface water. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the conveyance of water.
- Ephemeral streams may or may not have a well-defined channel and flow only during and for a short duration after precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Runoff from rainfall is the primary source of water for these streams. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water

Streams, rivers, watercourses, and ditches within the Study Area were evaluated using the above definitions and documented. Waterways that did exhibit an OHWM were recorded and evaluated using the Ohio EPA's Primary Headwater Habitat Evaluation Index (HHEI) or Qualitative Habitat Evaluation Index (QHEI) methodology. A combination of the HHEI, climate data, stream basin analysis, and the field conditions were utilized to determine the stream flow type. If applicable, the results of the stream assessments are presented in section 4.2. and the summary table; the datasheets are provided in Appendix D.

3 Background Information

3.1 Existing Maps

Several sources of information were consulted to identify potential wetlands and wetland soil units within the Study Area. These include the USFWS's *National Wetland Inventory* (NWI), the USGS's *National Hydrography Dataset* (NHD), and the NRCS *Soil Survey* for this county. These maps identify potential wetlands and wetland soil units within the Study Area. The NHD maps are used to identify low-lying areas, historical waterways, drainage patterns, and potential surface waters. The NHD maps are not field verified, and do not always account for human alteration such as ditching and tiling. The NWI maps were prepared from high altitude photography and in most cases were not field checked. Because of this, wetlands are sometimes erroneously identified, missed, or misidentified. Additionally, the criteria used in identifying these wetlands were different from those currently used by the USACE. The county soil maps, on the other hand, were developed from actual field investigations. However, they address only one of the three required wetland criteria and may reflect historical conditions rather than current site conditions. The resolution of the soil maps limits their accuracy as well. The mapping units are often generalized based on topography and many mapping units contain inclusions of other soil types for up to 15 percent of the area of the unit. The USACE does not accept the use of either of these maps to make wetland determinations. Additional data sources utilized to support analysis of streams and wetlands included the National Flood Hazard Layer, compiled by the Federal Emergency Management Agency (FEMA) and StreamStats, a spatial analysis tool provided by USGS.

3.1.1 National Wetland Inventory

The NWI map of the area (Figure 2) identified one wetland complex within the Study Area. The wetland was identified as a palustrine unconsolidated bottom wetland.

3.1.2 National Flood Hazard Layer

The FEMA floodplain digital mapping of the area (Figure 3) identified no areas of flood hazard within the Study Area.

3.1.3 Stream Stats Basin Analysis

No streams were identified within the Study (Figure 3).

3.1.4 National Hydrography Dataset

The NHD map of the area (Figure 4) identified four NHD Flowlines within the Study Area.

3.1.5 Soil Survey

The NRCS Soil Survey of Marion County identified 6 soil series within the Study Area (Figure 4). The following table identifies the soil unit symbol, soil unit name, and whether or not the soil type contains components that meet the hydric soil criteria.

Table 3-1 Soil Types Within the Northeast Parcel of County Line and Arlington Study Area

Symbol	Description	Hydric
CrA	Crosby silt loam, fine-loamy subsoil,0 to 2 percent slopes	No
MmB2	Miami silt loam, 2 to 6 percent slopes, eroded	No
ThrA	Treaty silty clay loam, 0 to 1 percent slopes	Yes
YbvA	Brookston silty clay loam- Urban land complex, 0 to 2 percent slopes	Yes
YclA	Crosby silt loam, fine-loamy subsoil- Urban land complex, 0 to 2 percent slopes	No
YcmB2	Crosby-Urban land-Miami silt loams complex, 2 to 4 percent slopes, eroded	No

3.2 Climate Data

A “typical year” considers the normal periodic range of precipitation and other climactic variables for that waterbody. Factors utilized in determining if conditions meet the definition of “typical year” includes comparing precipitation, drought and other climatic factors from a period of interest (e.g., from the past season or year) with the normal range of those factors that would be expected, based on the past 30 years of data. The data below provides information on drought conditions at the time of the field survey and antecedent precipitation.

The May 10, 2022 US Drought Monitor map for Indiana indicated that the Study Area was not exhibiting drought conditions during the May 12, 2022 field survey (US Drought Monitor 2022).

The USACE’s Antecedent Precipitation Tool (version 1.0.19) compiles information from weather stations within 30 miles of the Study Area to determine if conditions were dry, normal, or wet using antecedent precipitation conditions

Table 3-2 Calculation of Normal Weather Conditions (WET)

30 Days Ending	<30%	>30%	Actual	Condition	Condition Value	Month Weight Value	Condition Value X Month Weight
2022-05-12	2.90”	5.20”	4.43”	Normal	2	3	6
2022-04-12	3.15”	4.23”	3.85”	Normal	2	2	4
2022-03-13	2.27”	3.49”	4.78”	Wet	3	1	3
						***Sum:**	**13**

*6 to 9: drier than normal
10 to 14: normal
15 to 18: wetter than normal

condition values:
(1) Dry
(2) Normal
(3) Wet

No precipitation occurred during the field survey completed on May 12, 2022. A total of 0.49 inches of precipitation occurred the seven (7) days prior to the field survey and the most recent rain event (0.02 inches) occurred on May 7, 2022.

Conditions observed within the Study Area during the delineation completed on May 12, 2022 were considered to be normal for this time of year.

4 Methodology and Description

4.1 Regulated Waters Investigation

The delineation of regulated waters within the Study Area was based on the methodology described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Environmental Laboratory, 2010) as required by current USACE policy.

Prior to the field work, the background information was reviewed to establish the probability and potential location of wetlands and regulated waters within the Study Area. Next, a general reconnaissance of the Study Area was conducted to determine site conditions. The site was then walked with the specific intent of determining wetland and jurisdictional stream boundaries. Data stations were established at locations within and near the wetland areas to document soil characteristics, evidence of hydrology and dominant vegetation. Note that no attempt was made to examine a full soil profile to confirm any soil series designations; however, when possible, soils were examined to a depth of at least 16 inches to assess soil characteristics and site hydrology. Complete descriptions of typical soil series can be found in the soil survey for this county.

4.1.1 Site Photographs

Photographs of the site are located in Appendix B. These photographs are the visual documentation of site conditions at the time of inspection. The photographs are intended to provide representative visual samples of any wetlands or other special features identified within the Study Area.

4.1.2 Delineation Data Sheets

Where stations represent a wetland boundary point they are typically presented as paired data points, one each documenting the wetland and upland sides of the wetland boundary. The routine wetland delineation data sheets used in the jurisdictional delineation process are located in Appendix C. These forms are the written documentation of how representative sample stations met or did not meet each of the wetland criteria. For plant species included on the National Wetlands Plant List, nomenclature will follow their lead. For all other plants not listed in the NWPL, nomenclature will follow the USDA's Plants Database. Data point locations are shown on Figure 5.

4.1.3 Stream Data Sheets

Waterways that exhibited an OHWM were recorded and evaluated using the Ohio EPA's Primary Headwater Habitat Evaluation Index (HHEI) or Qualitative Habitat Evaluation Index (QHEI) methodology. A combination of the HHEI, climate data, stream basin analysis, and the field conditions were utilized to determine the stream flow type. If applicable, the results of the stream assessments are presented in section 4.2. and the summary table; the datasheets are provided in Appendix D.

4.2 Technical Descriptions

Complete field data sheets from the site investigation are located in Appendix C. The site is located in Marion County, Indiana, DIRECTIONS (Figure 1). The area investigated was approximately 95.7 acres. The Study Area was an agricultural and prairie field.

4.2.1 Data Point and Wetland Descriptions

Wetland 01 (0.08 Acres)

This wetland was an emergent wetland located in an agricultural field. This wetland appears to consist entirely of a depressional area located within a farm field. No surface water connection with any "waters of the United States" was observed. This wetland should be considered a "waters of the state".

Wetland Data Point

Data Point 01 (dp01)

Dominant vegetation in the vicinity of dp01 included Tufted Meadow-Foxtail (*Alopecurus carolinianus*, FACW), and Neckweed (*Veronica peregrina*, FACW). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 5/1 with concentrations in the matrix at 2 percent, and a texture of Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and met the Depleted Matrix (F3) hydric soil criteria. Primary indicators of hydrology included Surface Water (A1), Saturation (A3), and secondary indicators of hydrology observed included Surface Soil Cracks (B6), Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 02 (dp02)

Dominant vegetation in the vicinity of dp02 included Shepherd's-Purse (*Capsella bursa-pastoris*, FACU), Field Pennycress (*Thlaspi arvense*, FACU), and Common Chickweed (*Stellaria media*, FACU). In addition, non-dominant vegetation observed included Eastern Daisy Fleabane (*Erigeron annuus*, FACU), Spiny-Leaf Sow-Thistle (*Sonchus asper*, FACU), and Crow Garlic (*Allium vineale*, FACU). The plants at this data point did not qualify as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 4/3 with a texture of Silt Loam. The soil at the data point was mapped as Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes (CrA), and did not meet any hydric soil criteria. No indicators of hydrology were observed. This data point did not meet wetland criteria.

Upland Data Point

Data Point 03 (dp03)

Dominant vegetation in the vicinity of dp03 included Cress-Leaf Groundsel (*Packera glabella*, FACW), and Curly Dock (*Rumex crispus*, FAC). In addition, non-dominant vegetation observed included Neckweed (FACW), and Tufted Meadow-Foxtail (FACW). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 4/1 with a texture of Silt Loam. The soil from 0 to 16 inches had a matrix soil color of 10YR 4/2 with a texture of Silt Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to

1 percent slopes (ThrA), and did not meet any hydric soil criteria. Primary indicators of hydrology included Saturation (A3), and secondary indicators of hydrology observed included Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point did not meet wetland criteria.

Wetland 02 (0.69 Acres)

This wetland was an emergent wetland located in an agricultural field. No surface water connection with any "waters of the United States" was observed. This wetland should be considered a "waters of the state".

Wetland Data Point

Data Point 04 (dp04)

Dominant vegetation in the vicinity of dp04 included Tiny Mousetail (*Myosurus minimus*, FACW), Tufted Meadow-Foxtail (FACW), and Neckweed (FACW). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 8 inches had a matrix soil color of 10YR 4/2 with a texture of Clay Loam. The soil from 8 to 16 inches had a matrix soil color of 10YR 5/1 with concentrations in the matrix at 2 percent, and a texture of Clay Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and met the Depleted Matrix (F3) hydric soil criteria. Secondary indicators of hydrology observed included Surface Soil Cracks (B6), Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Wetland 03 (3.69 Total Acres, 2.45 acres Emergent & 1.24 acres Forested)

This wetland was an emergent and forested wetland, with the emergent portion located in an agricultural field and the forested portion located in an adjacent woodlot. The wetland appears to drain to the south or west generally, but there was no observed pathway to a downstream "water of the US" identified during field activities. Because there was no identified hydrologic connection to another "waters of the U.S.," this feature should not be considered a "waters of the U.S."

Wetland Data Point

Data Point 05 (dp05)

Dominant vegetation in the vicinity of dp05 included Tufted Meadow-Foxtail (FACW), and Neckweed (FACW). In addition, non-dominant vegetation observed included Tiny Mousetail (FACW), Cursed Buttercup (*Ranunculus sceleratus*, OBL), and Blunt Spike-Rush (*Eleocharis obtusa*, OBL). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 5/1 with concentrations in the matrix at 3 percent, and a texture of Clay Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and met the Depleted Matrix (F3) hydric soil criteria. Primary indicators of hydrology included Surface Water (A1), Saturation (A3), Algal Mat or Crust (B4), and secondary indicators of hydrology observed included Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 06 (dp06)

Dominant vegetation in the vicinity of dp06 included Tufted Meadow-Foxtail (FACW), and Neckweed (FACW). In addition, non-dominant vegetation observed included Kidney-Leaf

Buttercup (*Ranunculus abortivus*, FACW), Shepherd's-Purse (FACU), and Canadian Horseweed (*Erigeron canadensis*, FACU). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 5/1 with a texture of Silt Loam. The soil at the data point was mapped as Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes (CrA), and met the Depleted Matrix (F3) hydric soil criteria. Only the secondary indicator the FAC-Neutral Test (D5) was observed. This data point did not meet wetland criteria.

Wetland Data Point

Data Point 07 (dp07)

Dominant vegetation in the vicinity of dp07 included Rough-Leaf Dogwood (*Cornus drummondii*, FAC), and Eastern Woodland Sedge (*Carex blanda*, FAC). In addition, non-dominant vegetation observed included Spring Avens (*Geum vernum*, FACU), Harvestlice (*Agrimonia parviflora*, FACW), Hooded Blue Violet (*Viola sororia*, FAC), and Eastern Poison Ivy (*Toxicodendron radicans*, FAC). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 4/1 with concentrations in the matrix at 3 percent, and a texture of Silt Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and met the Depleted Matrix (F3) hydric soil criteria. The primary indicators of hydrology observed were Surface Water (A1), Saturation (A3), and the secondary indicator of hydrology was Geomorphic Position (D2). This data point qualified as a wetland.

Upland Data Point

Data Point 08 (dp08)

Dominant vegetation in the vicinity of dp08 included Common Hackberry (*Celtis occidentalis*, FAC), Amur honeysuckle (*Lonicera maackii*, UPL) in multiple strata, and Eastern Woodland Sedge (FAC). In addition, non-dominant vegetation observed included Shag-Bark Hickory (*Carya ovata*, FACU), Rough-Leaf Dogwood (FAC), Common Hackberry (FAC), Spring Avens (FACU), and Eastern Poison Ivy (FAC). The plants at this data point did not qualify as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 4/2 with a texture of Silt Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and did not meet any hydric soil criteria. No indicators of hydrology were observed. This data point did not meet wetland criteria.

Wetland Data Point

Data Point 09 (dp09)

Dominant vegetation in the vicinity of dp09 included Cursed Buttercup (OBL), and Blunt Spike-Rush (OBL). In addition, non-dominant vegetation observed included Tufted Meadow-Foxtail (FACW), and Neckweed (FACW). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 5/1 with concentrations in the matrix at 4 percent, and a texture of Clay Loam. The soil at the data point was mapped as Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes (CrA), and met the Depleted Matrix (F3) hydric soil criteria. The primary indicators of hydrology observed were Surface Water (A1), High Water Table (A2), Saturation (A3), Algal Mat or Crust (B4), and the secondary indicator of hydrology was the FAC-Neutral Test (D5). This data point qualified as a wetland.

Wetland 04 (21.18 Acres, 19.38 acres Emergent & 1.80 acres Forested)

This wetland was an emergent and forested wetland, with the emergent portion located in an agricultural field and the forested portion located in an adjacent woodlot. The wetland appears to drain to the northeast generally based on surface contours, but there was no observed pathway to a downstream "water of the US" identified during field activities. There is a Marion County Legal drain running northeast to southwest through this wetland. No direct input to this legal drain was observed during field investigations. For these reasons there does not appear to be a hydrologic outlet for this wetland. Because there was no identified hydrologic connection to another "waters of the U.S.," this feature should not be considered a "waters of the U.S."

Wetland Data Point

Data Point 10 (dp10)

Dominant vegetation in the vicinity of dp10 included Blunt Spike-Rush (OBL), and Common Spike-Rush (*Eleocharis palustris*, OBL). In addition, non-dominant vegetation observed included Reed Canary Grass (*Phalaris arundinacea*, FACW), American Water-Plantain (*Alisma subcordatum*, OBL), and Devil's-Pitchfork (*Bidens frondosa*, FACW). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 3/1 with concentrations in the matrix at 4 percent, and a texture of Clay Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and met the Redox Dark Surface (F6) hydric soil criteria. The primary indicators of hydrology observed were Surface Water (A1), Saturation (A3), Algal Mat or Crust (B4), and the secondary indicator of hydrology was the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 11 (dp11)

Dominant vegetation in the vicinity of dp11 included Pin Oak (*Quercus palustris*, FACW), Green Ash (*Fraxinus pennsylvanica*, FACW), Common Hackberry (FAC), Silver Maple (*Acer saccharinum*, FACW), and White Panicled American-Aster (*Symphyotrichum lanceolatum*, FAC). In addition, non-dominant vegetation observed included American Elm (*Ulmus americana*, FACW), Common Hackberry (FAC), and Small-Spike False Nettle (*Boehmeria cylindrica*, OBL). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 2/2 with concentrations in the matrix at 2 percent, and a texture of Clay Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and did not meet any hydric soil criteria. Primary indicators of hydrology included Saturation (A3), Water-Stained Leaves (B9), and secondary indicators of hydrology observed included Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point did not meet wetland criteria.

Upland Data Point

Data Point 12 (dp12)

Dominant vegetation in the vicinity of dp12 included Honey-Locust (*Gleditsia triacanthos*, FACU), Common Hackberry (FAC), Red Maple (*Acer rubrum*, FAC), Amur honeysuckle (UPL), Aniseroot (*Osmorhiza longistylis*, FACU), Spotted Touch-Me-Not (*Impatiens capensis*, FACW), and Garlic-Mustard (*Alliaria petiolata*, FAC). In addition, non-dominant vegetation observed included Slippery

Elm (*Ulmus rubra*, FAC), Rough-Leaf Dogwood (FAC), and Spring Avens (FACU). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 3/1 with a texture of Silt Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and did not meet any hydric soil criteria. No indicators of hydrology were observed. This data point did not meet wetland criteria.

Wetland Data Point

Data Point 13 (dp13)

Dominant vegetation in the vicinity of dp13 included Tufted Meadow-Foxtail (FACW). In addition, non-dominant vegetation observed included Cress-Leaf Groundsel (FACW), Little Barley (*Hordeum pusillum*, FAC), Neckweed (FACW), Cursed Buttercup (OBL), and Late Goldenrod (*Solidago gigantea*, FACW). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 3 inches had a matrix soil color of 10YR 2/1 with a texture of Silt Loam. The soil from 3 to 16 inches had a matrix soil color of 10YR 4/1 with concentrations in the matrix at 2 percent, and a texture of Silt Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and met the Depleted Below Dark Surface (A11), and Depleted Matrix (F3) hydric soil criteria. Primary indicators of hydrology included Saturation (A3), and secondary indicators of hydrology observed included Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 14 (dp14)

Dominant vegetation in the vicinity of dp14 included Norwegian Cinquefoil (*Potentilla norvegica*, FAC), and Curly Dock (FAC). In addition, non-dominant vegetation observed included Lesser Poverty Rush (*Juncus tenuis*, FAC), Carolina geranium (*Geranium carolinianum*, UPL), Little Barley (FAC), Lance-Leaf Gayfeather (*Liatris lancifolia*, FACW), and Neckweed (FACW). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 3/1 with a texture of Silt Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and did not meet any hydric soil criteria. No indicators of hydrology were observed. This data point did not meet wetland criteria.

Upland Data Point

Data Point 15 (dp15)

Dominant vegetation in the vicinity of dp15 included White Bedstraw (*Galium mollugo*, FACU), Kentucky Blue Grass (*Poa pratensis*, FAC), and Red Clover (*Trifolium pratense*, FACU). In addition, non-dominant vegetation observed included Tall False Rye Grass (*Schedonorus arundinaceus*, FACU), and Common Dandelion (*Taraxacum officinale*, FACU). The plants at this data point did not qualify as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 5/3 with a texture of Silt Loam. The soil at the data point was mapped as Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded (YmsB2), and did not meet any hydric soil criteria. No indicators of hydrology were observed. This data point did not meet wetland criteria.

Upland Data Point

Data Point 16 (dp16)

Dominant vegetation in the vicinity of dp16 included American Sycamore (*Platanus occidentalis*, FACW), Common Hackberry (FAC), Rough-Leaf Dogwood (FAC), Amur honeysuckle (UPL), Eastern Cottonwood (*Populus deltoides*, FAC), and winter creeper (*Euonymus fortunei*, UPL). The plants at this data point qualified as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 4/2 with a texture of Silt Loam. The soil at the data point was mapped as Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes (YclA), and did not meet any hydric soil criteria. No indicators of hydrology were observed. This data point did not meet wetland criteria.

Upland Data Point

Data Point 17 (dp17)

Dominant vegetation in the vicinity of dp17 included Rough-Leaf Dogwood (FAC), Honey-Locust (FACU), Tall Goldenrod (*Solidago altissima*, FACU), and Kentucky Blue Grass (FAC). In addition, non-dominant vegetation observed included Green Ash (FACW), Callery pear (*Pyrus calleryana*, UPL), autumn olive (*Elaeagnus umbellata*, UPL), Giant Ironweed (*Vernonia gigantea*, FAC), and Eastern Poison Ivy (FAC). The plants at this data point did not qualify as hydrophytic vegetation. The soil from 0 to 16 inches had a matrix soil color of 10YR 4/1 with a texture of Silt Loam. The soil at the data point was mapped as Treaty silty clay loam, 0 to 1 percent slopes (ThrA), and did not meet any hydric soil criteria. No indicators of hydrology were observed. This data point did not meet wetland criteria.

5 Jurisdictional Analysis

5.1 U.S. Army Corps of Engineers

The USACE has authority over the discharge of fill or dredged material into “waters of the U.S.”. This includes authority over any filling, mechanical land clearing, or construction activities that occur within the boundaries of any “waters of the U.S.”. A permit must be obtained from the USACE under Section 404 of the CWA before any of these activities occur. Permits can be divided into three general categories: Individual Permits, Nationwide Permits (NWP), and the Regional General Permits for Indiana.

Individual Permits are required for projects that do not fall into one of the specific NWP or the Regional General Permit (RGP) or are deemed to have significant environmental impacts. These permits are much more difficult to obtain and receive a much higher level of regulatory agency and public scrutiny and may require several months to more than a year for processing.

NWP have been developed for projects which meet specific criteria and are deemed to have minimal impact on the aquatic environment. In Indiana, however, most NWP's have been rescinded and replaced by the RGP.

The RGP for Indiana authorizes activities associated with the construction or installation of new facilities or structures as well as for agriculture or mining. Proposed wetland impacts must be less than 1 acre and meet specific criteria in order to qualify for these permits. Section 401 WQC must be obtained from IDEM before the USACE will finalize their permit review.

5.2 Indiana Department of Environmental Management

5.2.1 401 Water Quality Certification

IDEM is responsible for issuing CWA Section 401 WQCs in conjunction with the USACE Section 404 permits. IDEM requires notification for all permanent non-isolated wetland impacts less than 0.10 acre, which entails a brief notification form that must be signed by the applicant. If only temporary wetland impacts are proposed, then notification is also required for the cumulative wetland temporary impacts that exceed 0.10 acre. However, for non-isolated wetland impacts greater than 0.10 acre, an application for WQC must be submitted concurrently with a wetland mitigation plan. IDEM will not initiate their review process until both the application and wetland mitigation plan have been submitted.

5.2.2 Isolated Wetland Law

Applicants proposing an impact to an “isolated wetland,” which is a wetland that the USACE has determined to be a non-federally jurisdictional wetland, are required to apply for and obtain Isolated Wetland Permits from IDEM. Isolated wetland permits are required under Indiana’s State Isolated Wetland Law (Indiana Code 13-18-22 and 327 Indiana Administrative Code 17). Under Indiana’s Isolated Wetlands Law, certain activities are exempt from permitting, and certain wetlands are considered to be “exempt isolated wetlands”. Actions exempt from permitting are explained under 327 IAC 17-1-7 and wetlands exempt from permitting are defined under IC 13-11-2-74.5, as amended by P.L.113-2014, Section 47, [EFFECTIVE JULY 1, 2021].

5.3 Indiana Department of Natural Resources

Indiana Department of Natural Resources (IDNR) has jurisdiction over mapped floodways, floodplains where there is no mapped floodway (Figure 3), and the floodway of ditches and streams with a watershed greater than one (1) square mile (Figure 3). If impacts are proposed to jurisdictional floodways, a Construction-In-A-Floodway Permit may be required from IDNR.

6 Summary and Conclusion

6.1 Summary

Cardno now Stantec inspected the Northeast Parcel of County Line and Arlington Study Area on May 12, 2022. Delineated features are shown on Figure 5 and in Table 6-1. Four wetlands were identified within the Study Area.

6.1.1 Wetlands and Waterways

Table 6-1 Features Identified Within the Northeast Parcel of County Line and Arlington Study Area

Feature Name	USGS/NWI Identified	Feature Class [1]	Regulatory Status [2]	Dimensions (FT)		QHEI/HHEI Score	Linear Feet (LF)	Acreage (AC)
				Width	Depth			
Wetland 01	No	PEM	Non-JD	-	-	-	-	0.08
Wetland 02	No	PEM	Non-JD	-	-	-	-	0.69
Wetland 03	Yes	PEM/PFO	Non-JD	-	-	-	-	3.69
Wetland 04	No	PEM/PFO	Non-JD	-	-	-	-	21.18
TOTALS		**WETLAND**		**PEM**		**Non-JD**	**-**	**22.60**
				PFO				**3.04**

[1] Feature Class is based on our professional judgement and experience, however, the USACE makes the final determination on stream classes and non-isolated wetland classes, and IDEM makes the final determination on isolated wetland classes.

[2] Regulatory Status is based on our professional judgment and experience; however, the USACE makes the final determination

6.1.2 Floodways and Floodplains

The FEMA floodplain digital mapping of the area (Figure 3) identified no areas of flood hazard within the Study Area.

6.2 Conclusion

Four wetlands were identified within the Study Area. While this report represents our best professional judgment based on our knowledge and experience, it is important to note that the Louisville District of the U.S. Army Corps of Engineers has final discretionary authority over all jurisdictional determinations of 'waters of the U.S.' including wetlands under Section 404 of the CWA in this region. It is therefore, recommended that a copy of this report be furnished to the Louisville District of the U.S. Army Corps of Engineers to confirm the results of our findings.

7 References

Environmental Laboratory. 1987. U.S. Army Corps of Engineers' Wetland Delineation Manual, Technical Report Y-87-1, U.S. Waterways Experiment Station, Vicksburg, MS.

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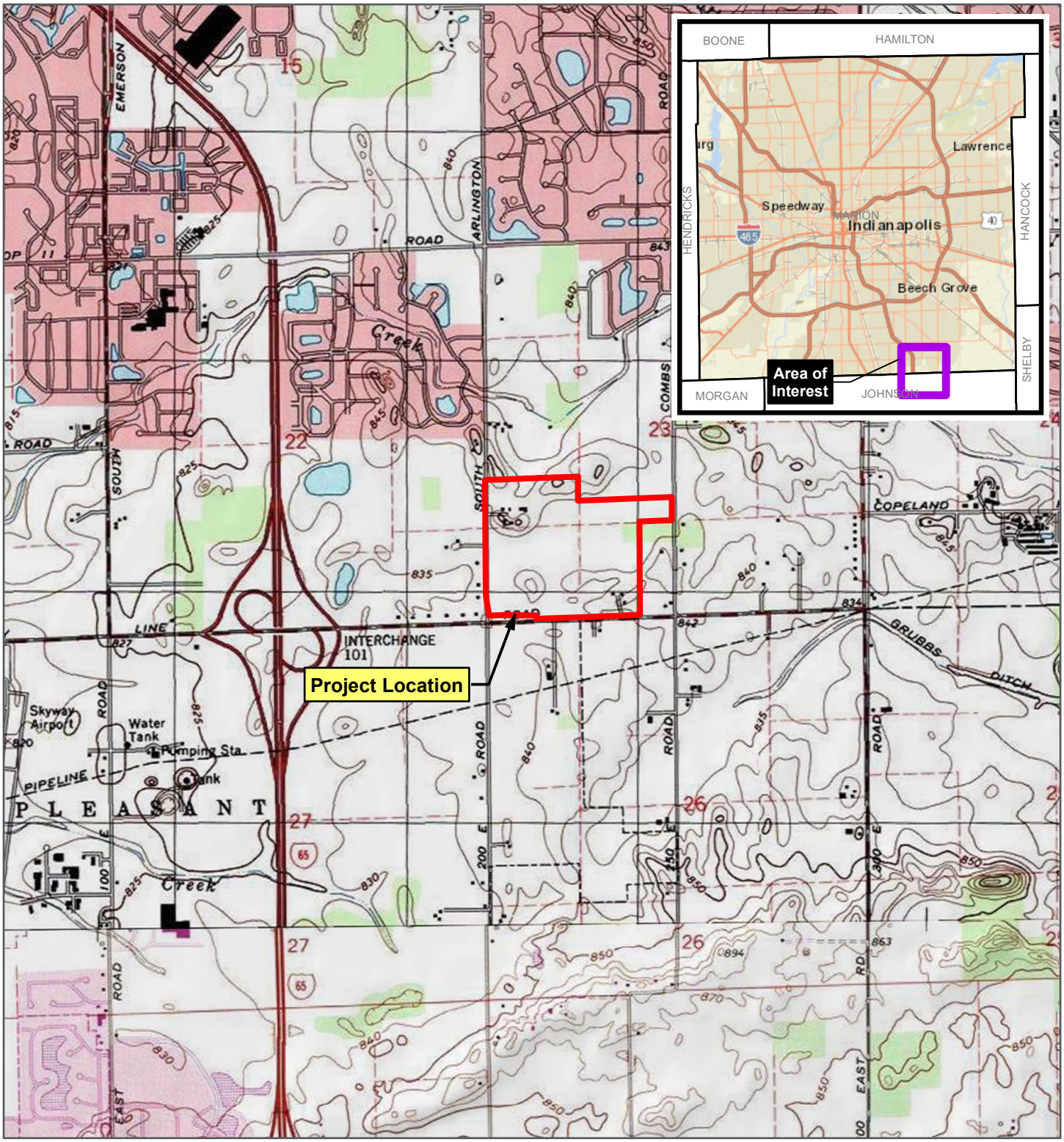
Northeast Parcel of County Line and Arlington, Indianapolis, Marion County, Indiana

APPENDIX A

FIGURES



0 500 1,000 2,000 Feet

0 100 200 300 400 500 600 Meters

Project Location

N
W E
S

7.5' Quadrangle:
BEACH GROVE
T14n R4e Sec23
Project No.
j193137m36

Figure 1: Project Location

NEC of County Line Rd and Arlington Rd
Regulated Waters Delineation Report
Kimley-Horn and Associates, Inc.
Marion County, Indiana

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Stantec
3901 Industrial Blvd.,Indianapolis, IN 46254
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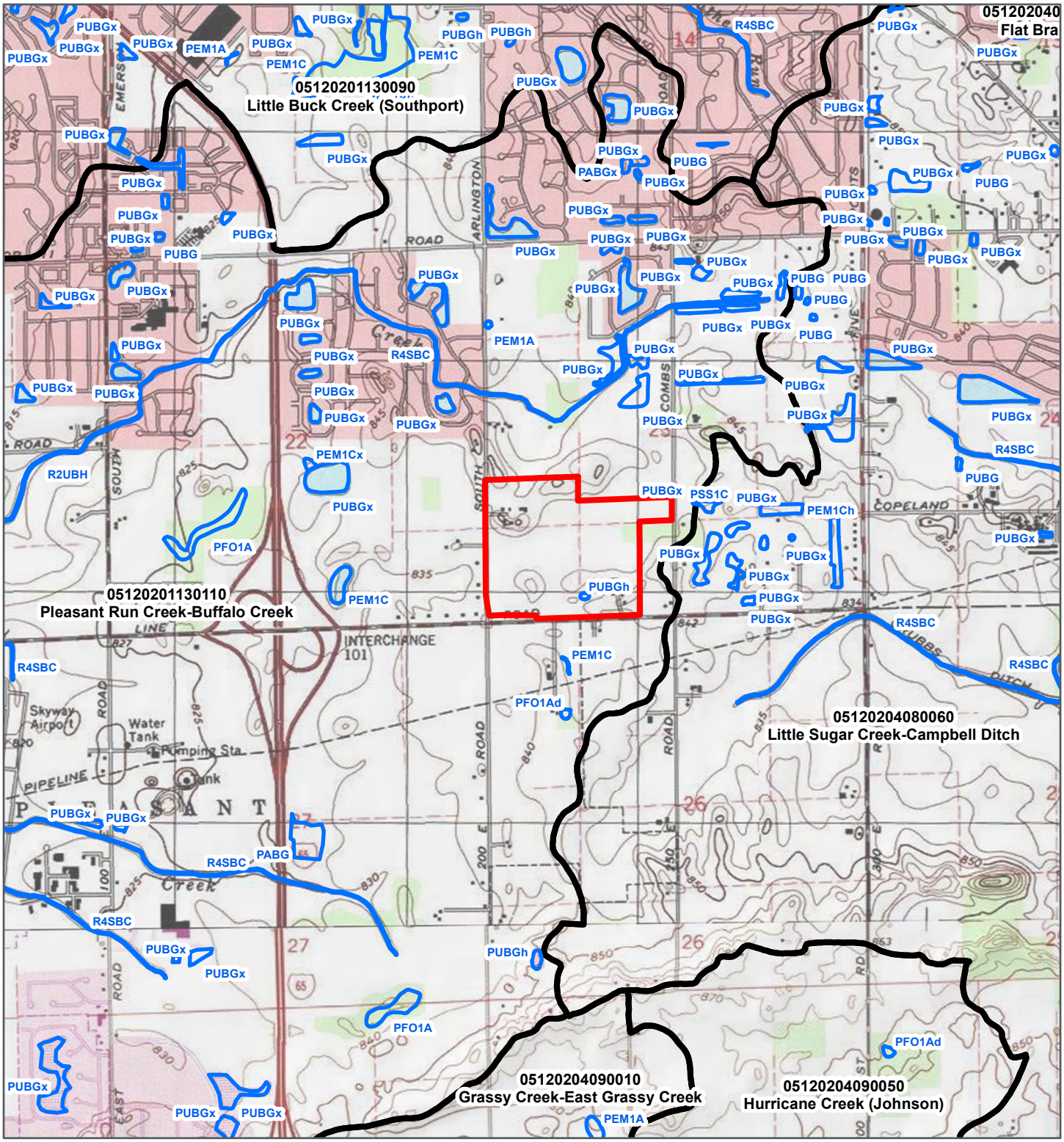
Date: 5/25/2022 File Path: R:\Projects\19\193\193137M_KimleyHorn_Master\36_Arlington&CoLineRd\GIS\MXD\Delineation\F1_Location.mxd Saved By: ben.harvey



N
W E
S

7.5' Quadrangle:
BEACH GROVE
T14n R4e Sec23
Project No.
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Figure 2: NWI and Watersheds

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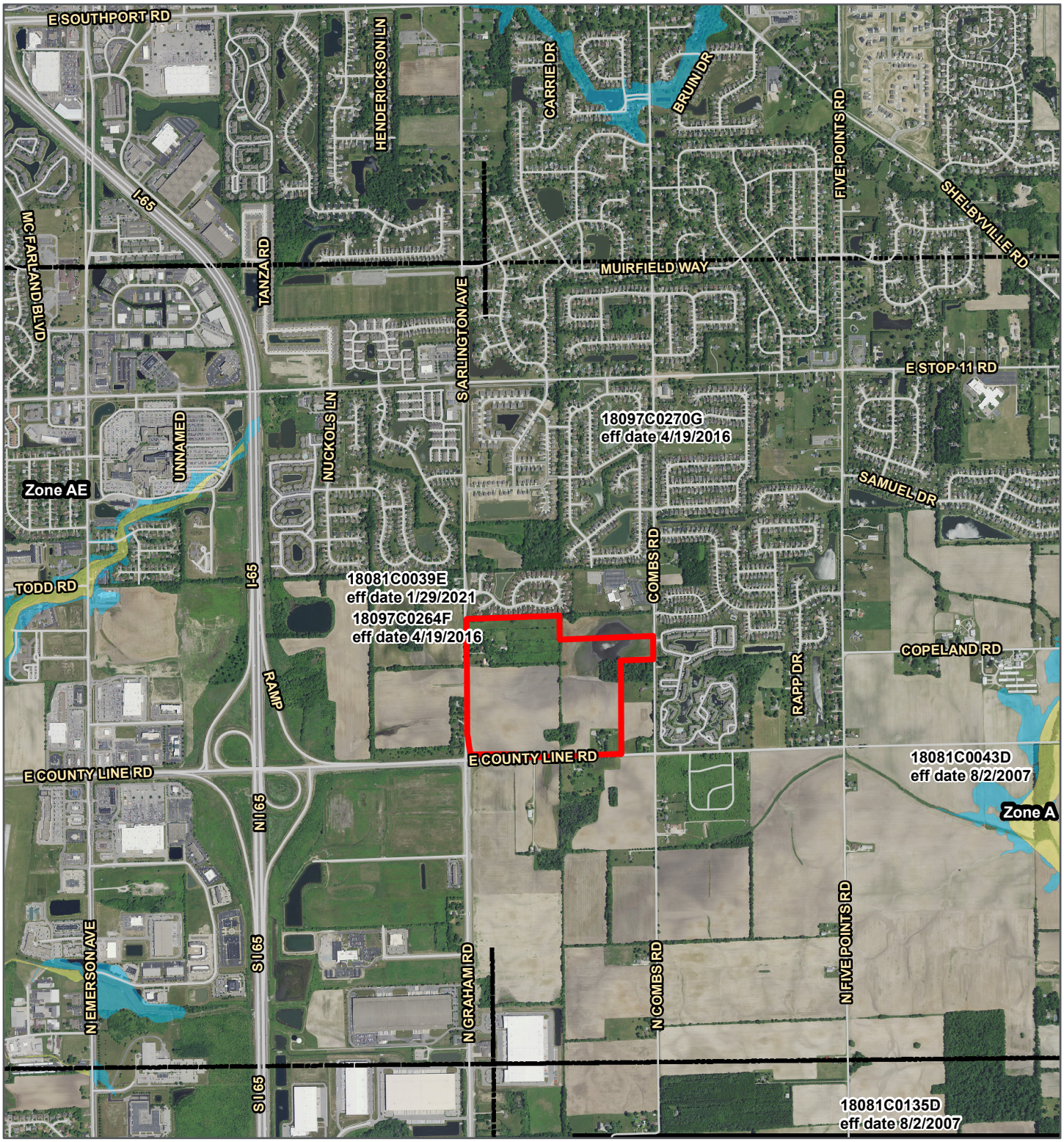

0 500 1,000 2,000 Feet
0 100 200 300 400 500 600 Meters

- Mapped 100-year Floodplain
- Approximate Floodway
- Floodway
- National Flood Hazard - FIRM Panels
- Project Location

N W E S

7.5' Quadrangle:
BEACH GROVE
T14n R4e Sec23
Project No.
j193137m36

Figure 3: CIF Constraints

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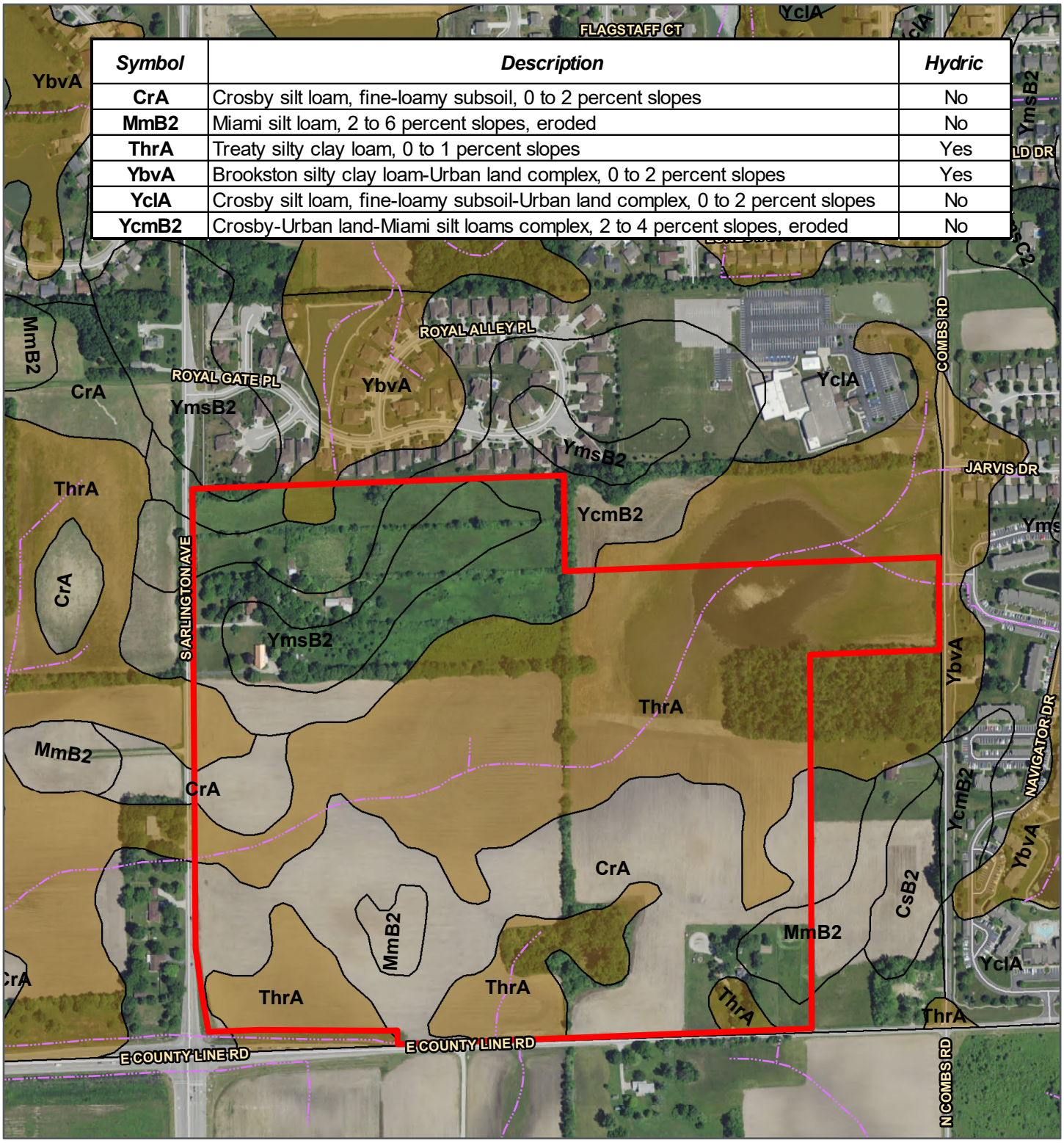
Date: 5/25/2022
Basemap:
File Path: R:\Projects\19\193\193137M_KimleyHorn_Master\36_Arlington&CoLineRd\GIS\MXD\Delineation\F3_CIF_Constraints.mxd
Saved By: ben.harvey

Symbol	Description	Hydric
CrA	Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	No
MmB2	Miami silt loam, 2 to 6 percent slopes, eroded	No
ThrA	Treaty silty clay loam, 0 to 1 percent slopes	Yes
YbvA	Brookston silty clay loam-Urban land complex, 0 to 2 percent slopes	Yes
YclA	Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	No
YcmB2	Crosby-Urban land-Miami silt loams complex, 2 to 4 percent slopes, eroded	No



0 250 500 Feet
0 50 100 150 Meters

NHD Flowline
Soil Unit
Soil Unit - Hydric
Project Location

N
W E
S

7.5' Quadrangle:
BEACH GROVE
T14n R4e Sec23
Project No.
j193137m36

Figure 4: Soil Survey

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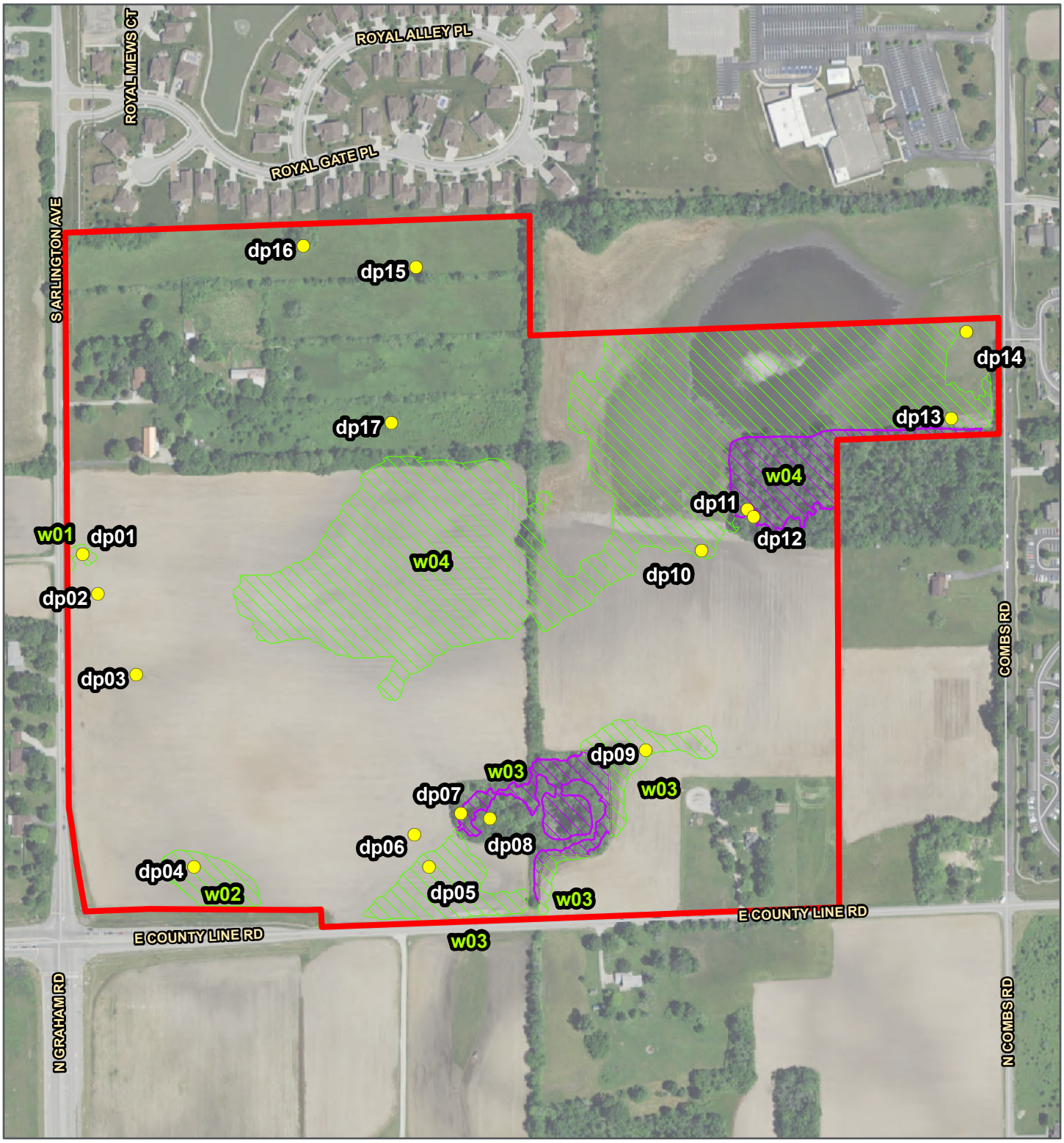

0 200 400 Feet
0 40 80 120 Meters

Project Location
Data Point
Delineated Wetland
PFO
PEM

N W E S

7.5' Quadrangle:
BEACH GROVE
T14n R4e Sec23
Project No.
j193137m36

Figure 5: Delinated Features

NEC of County Line Rd and Arlington Rd
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File Path: R:\Projects\19\193\193137M_KimleyHorn_Master\36_Arlington&CoLineRd\GIS\MXD\Delineation\F5_DelinatedFeatures.mxd
Saved By: ben.harvey

Northeast Parcel of County Line and Arlington, Indianapolis, Marion County, Indiana

APPENDIX

B

SITE PHOTOGRAPHS

DP01, View Looking North

DP01, View Looking East

DP01, View Looking South

DP01, View Looking West

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DP02, View Looking North

DP02, View Looking East

DP02, View Looking South

DP02, View Looking West

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DP03, View Looking North

DP03, View Looking East

DP03, View Looking South

DP03, View Looking West

Project Number:
J193137M36

Site Photographs
County Line Road and S. Arlington Ave, Northeast Parcels
Regulated Waters Delineation Report
Kimely-Horn and Associates
Marion County, Indiana

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DP04, View Looking North

DP04, View Looking East

DP04, View Looking South

DP04, View Looking West

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DP05, View Looking North

DP05, View Looking East

DP05, View Looking South

DP05, View Looking West

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DP06, View Looking North

DP06, View Looking East

DP06, View Looking South

DP06, View Looking West

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DP07, View Looking North

DP07, View Looking East

DP07, View Looking South

DP07, View Looking West

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DP08, View Looking North

DP08, View Looking East

DP08, View Looking South

DP08, View Looking West

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DP09, View Looking North

DP09, View Looking East

DP09, View Looking South

DP09, View Looking West

Project Number:
J193137M36

Site Photographs
County Line Road and S. Arlington Ave, Northeast Parcels
Regulated Waters Delineation Report
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DP10, View Looking North

DP10, View Looking East

DP10, View Looking South

DP10, View Looking West

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DP11, View Looking North

DP11, View Looking East

DP11, View Looking South

DP11, View Looking West

Site Photographs
County Line Road and S. Arlington Ave, Northeast Parcels
Regulated Waters Delineation Report
Kimely-Horn and Associates
Marion County, Indiana

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DP12, View Looking North

DP12, View Looking East

DP12, View Looking South

DP12, View Looking West

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DP13, View Looking North

DP13, View Looking East

DP13, View Looking South

DP13, View Looking West

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Site Photographs
County Line Road and S. Arlington Ave, Northeast Parcels
Regulated Waters Delineation Report
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DP15, View Looking West

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DP16, View Looking North

DP16, View Looking East

DP16, View Looking South

DP16, View Looking West

Site Photographs

County Line Road and S. Arlington Ave, Northeast Parcels
Regulated Waters Delineation Report
Kimely-Horn and Associates
Marion County, Indiana

Project Number:
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DP17, View Looking West

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Northeast Parcel of County Line and Arlington, Indianapolis, Marion County, Indiana

APPENDIX C

WETLAND DELINEATION DATA SHEETS – MIDWEST REGION

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp01

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.63984257 | Long: -86.06345175 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Alopecurus carolinianus*	5%	Yes	FACW
2. *Veronica peregrina*	5%	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	10%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species		x1 =	
FACW species	10%	x2 =	0.20
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	10% (A)		0.20 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp01

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 5/1	98	10YR 5/6	2	C	M	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X 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)

- X 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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	1"
Water Table Present?	Yes ___ No X	Depth (inches):	>18"
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp02

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.63953101 | Long: -86.06330334 | Datum: NAD83 UTM16N

Soil Map Unit Name: Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes (CrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Capsella bursa-pastoris*	40%	Yes	FACU
2. *Thlaspi arvense*	40%	Yes	FACU
3. *Stellaria media*	30%	Yes	FACU
4. *Erigeron annuus*	5%	No	FACU
5. *Sonchus asper*	5%	No	FACU
6. *Allium vineale*	5%	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	125%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	125%	x4 =	5.00
UPL species		x5 =	
Column Totals:	125% (A)		5.00 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes No X

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

SOIL

Sampling Point: dp02

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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 X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp03

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 2% | Lat: 39.63889944 | Long: -86.06292519 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Packera glabella*	60%	Yes	FACW
2. *Rumex crispus*	25%	Yes	FAC
3. *Veronica peregrina*	10%	No	FACW
4. *Alopecurus carolinianus*	5%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species 75%	x2 =	1.50
FAC species 25%	x3 =	0.75
FACU species	x4 =	
UPL species	x5 =	
Column Totals: 100% (A)		2.25 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- **X** 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp03

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/1	100					Silt Loam	Mixed
0-16"	10YR 4/2	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp04

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 0% | Lat: 39.63739554 | Long: -86.06236431 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Myosurus minimus*	5%	Yes	FACW
2. *Alopecurus carolinianus*	5%	Yes	FACW
3. *Veronica peregrina*	10%	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	20%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species	x1 =
FACW species 20%	x2 = 0.40
FAC species	x3 =
FACU species	x4 =
UPL species	x5 =
Column Totals: 20% (A)	0.40 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp04

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8"	10YR 4/2	100					Clay Loam	
8-16"	10YR 5/1	98	10YR 4/6	2	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

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)

- X 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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp05

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.63737676 | Long: -86.05999453 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Myosurus minimus*	1%	No	FACW
2. *Alopecurus carolinianus*	5%	Yes	FACW
3. *Veronica peregrina*	10%	Yes	FACW
4. *Ranunculus sceleratus*	2%	No	OBL
5. *Eleocharis obtusa*	4%	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	22%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species	6%	x1 =	0.06
FACW species	16%	x2 =	0.32
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	22% (A)		0.38 (B)

Prevalence Index = B/A = 1.73

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp05

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 5/1	97	10YR 7/6	3	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 1"

Water Table Present? Yes ___ No X Depth (inches): N/A

Saturation Present? Yes X No ___ Depth (inches): Surface

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp06

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.63763178 | Long: -86.06013674 | Datum: NAD83 UTM16N

Soil Map Unit Name: Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes (CrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area within a Wetland?** Yes No X
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes	No X	

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Ranunculus abortivus*	10%	No	FACW
2. *Alopecurus carolinianus*	40%	Yes	FACW
3. *Veronica peregrina*	25%	Yes	FACW
4. *Capsella bursa-pastoris*	5%	No	FACU
5. *Erigeron canadensis*	1%	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	81%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species 75%	x2 =	1.50
FAC species	x3 =	
FACU species 6%	x4 =	0.24
UPL species	x5 =	
Column Totals: 81% (A)		1.74 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp06

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 5/1	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp07

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.63779278 | Long: -86.05966551 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Cornus drummondii*	100%	Yes	FAC
2.			
3.			
4.			
5.			
	100%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Carex blanda*	60%	Yes	FAC
2. *Geum vernum*	5%	No	FACU
3. *Agrimonia parviflora*	5%	No	FACW
4. *Viola sororia*	5%	No	FAC
5. *Toxicodendron radicans*	10%	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	85%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species		x1 =	
FACW species	5%	x2 =	0.10
FAC species	175%	x3 =	5.25
FACU species	5%	x4 =	0.20
UPL species		x5 =	
Column Totals:	185% (A)		5.55 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp07

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/1	97	10YR 6/8	3	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 1"

Water Table Present? Yes ___ No X Depth (inches): N/A

Saturation Present? Yes X No ___ Depth (inches): Surface

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp08

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 3% | Lat: 39.63774853 | Long: -86.05937598 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Celtis occidentalis*	70%	Yes	FAC
2. *Carya ovata*	10%	No	FACU
3.			
4.			
5.			
	80%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Cornus drummondii*	10%	No	FAC
2. *Celtis occidentalis*	5%	No	FAC
3. *Lonicera maackii*	90%	Yes	UPL
4.			
5.			
	105%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Carex blanda*	10%	Yes	FAC
2. *Geum vernum*	5%	No	FACU
3. *Lonicera maackii*	10%	Yes	UPL
4. *Toxicodendron radicans*	5%	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	30%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
	That Are OBL, FACW, or FAC:	A/B
OBL species		x1 =
FACW species		x2 =
FAC species	100%	x3 = 3.00
FACU species	15%	x4 = 0.60
UPL species	100%	x5 = 5.00
Column Totals:	215% (A)	8.60 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes No X

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

SOIL

Sampling Point: dp08

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/2	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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 X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp09

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 2% | Lat: 39.63826813 | Long: -86.05779524 | Datum: NAD83 UTM16N

Soil Map Unit Name: Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes (CrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Ranunculus sceleratus*	45%	Yes	OBL
2. *Eleocharis obtusa*	20%	Yes	OBL
3. *Alopecurus carolinianus*	5%	No	FACW
4. *Veronica peregrina*	10%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	80%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species	65%	x1 =	0.65
FACW species	15%	x2 =	0.30
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	80% (A)		0.95 (B)

Prevalence Index = B/A = 1.19

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp09

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 5/1	96	10YR 5/6	4	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	2"
Water Table Present?	Yes X No ___	Depth (inches):	3"
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp10

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.63982065 | Long: -86.05721341 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Phalaris arundinacea*	5%	No	FACW
2. *Eleocharis obtusa*	10%	Yes	OBL
3. *Eleocharis palustris*	15%	Yes	OBL
4. *Alisma subcordatum*	2%	No	OBL
5. *Bidens frondosa*	2%	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	34%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species	27%	x1 =	0.27
FACW species	7%	x2 =	0.14
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	34% (A)		0.41 (B)

Prevalence Index = B/A = 1.21

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp10

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 3/1	96	10YR 5/6	4	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	1"
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp11

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.64014022 | Long: -86.05674374 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes ____ No X
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus palustris*	20%	Yes	FACW
2. *Fraxinus pennsylvanica*	30%	Yes	FACW
3. *Ulmus americana*	10%	No	FACW
4. *Celtis occidentalis*	10%	No	FAC
5.			
	70%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Celtis occidentalis*	5%	Yes	FAC
2. *Acer saccharinum*	10%	Yes	FACW
3.			
4.			
5.			
	15%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Symphyotrichum lanceolatum*	65%	Yes	FAC
2. *Boehmeria cylindrica*	10%	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	75%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species	10%	x1 =	0.10
FACW species	70%	x2 =	1.40
FAC species	80%	x3 =	2.40
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	160% (A)		3.90 (B)

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:

- ____ 1-Rapid Test for Hydrophytic Vegetation
- **X** 2-Dominance Test is >50%
- ____ 3-Prevalence Index is ≤3.0[1]
- ____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** X **No** ____

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

SOIL

Sampling Point: dp11

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 2/2	98	10YR 7/8	2	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X 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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp12

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): convex

Slope (%): 2% | Lat: 39.64008176 | Long: -86.05668292 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Gleditsia triacanthos*	25%	Yes	FACU
2. *Ulmus rubra*	15%	No	FAC
3. *Celtis occidentalis*	20%	Yes	FAC
4. *Acer rubrum*	20%	Yes	FAC
5.			
	80%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Lonicera maackii*	85%	Yes	UPL
2. *Cornus drummondii*	5%	No	FAC
3.			
4.			
5.			
	90%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Osmorhiza longistylis*	10%	Yes	FACU
2. *Impatiens capensis*	10%	Yes	FACW
3. *Alliaria petiolata*	20%	Yes	FAC
4. *Geum vernum*	5%	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	45%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species		x1 =	
FACW species	10%	x2 =	0.20
FAC species	80%	x3 =	2.40
FACU species	40%	x4 =	1.60
UPL species	85%	x5 =	4.25
Column Totals:	215% (A)		8.45 (B)

Prevalence Index = B/A = 3.93

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- **X** 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp12

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 3/1	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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 X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp13

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.64082918 | Long: -86.05468009 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X No
Wetland Hydrology Present?	Yes X	No		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Packera glabella*	15%	No	FACW
2. *Alopecurus carolinianus*	60%	Yes	FACW
3. *Hordeum pusillum*	10%	No	FAC
4. *Veronica peregrina*	15%	No	FACW
5. *Ranunculus sceleratus*	5%	No	OBL
6. *Solidago gigantea*	5%	No	FACW
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	110%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species	5%	x1 =	0.05
FACW species	95%	x2 =	1.90
FAC species	10%	x3 =	0.30
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	110% (A)		2.25 (B)

Prevalence Index = B/A = 2.05

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp13

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	10YR 2/1	100					Silt Loam	
3-16"	10YR 4/1	98	10YR 5/6	2	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): N/A

Water Table Present? Yes ___ No X Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp14

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 1% | Lat: 39.64150265 | Long: -86.05451685 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Potentilla norvegica*	55%	Yes	FAC
2. *Rumex crispus*	20%	Yes	FAC
3. *Juncus tenuis*	5%	No	FAC
4. *Geranium carolinianum*	10%	No	UPL
5. *Hordeum pusillum*	10%	No	FAC
6. *Liatris lancifolia*	5%	No	FACW
7. *Veronica peregrina*	5%	No	FACW
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	110%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species		x1 =	
FACW species	10%	x2 =	0.20
FAC species	90%	x3 =	2.70
FACU species		x4 =	
UPL species	10%	x5 =	0.50
Column Totals:	110% (A)		3.40 (B)

Prevalence Index = B/A = 3.09

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- **X** 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp14

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 3/1	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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 X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp15

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 4% | Lat: 39.64205393 | Long: -86.06006061 | Datum: NAD83 UTM16N

Soil Map Unit Name: Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded (YmsB2) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Galium mollugo*	35%	Yes	FACU
2. *Poa pratensis*	60%	Yes	FAC
3. *Schedonorus arundinaceus*	10%	No	FACU
4. *Trifolium pratense*	30%	Yes	FACU
5. *Taraxacum officinale*	5%	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	140%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
That Are OBL, FACW, or FAC:		A/B
OBL species		x1 =
FACW species		x2 =
FAC species	60%	x3 = 1.80
FACU species	80%	x4 = 3.20
UPL species		x5 =
Column Totals:	140% (A)	5.00 (B)

Prevalence Index = B/A = 3.57

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes No X

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

SOIL

Sampling Point: dp15

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 5/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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 X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Northeast Corner of County Line & Arlington | City/County: Indianapolis/Marion | Sampling Date: 5/12/2022

Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp16

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 4% | Lat: 39.64222705 | Long: -86.06119523 | Datum: NAD83 UTM16N

Soil Map Unit Name: Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes (YclA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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 X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Platanus occidentalis*	60%	Yes	FACW
2. *Celtis occidentalis*	30%	Yes	FAC
3.			
4.			
5.			
	90%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Cornus drummondii*	30%	Yes	FAC
2. *Lonicera maackii*	30%	Yes	UPL
3.			
4.			
5.			
	60%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Populus deltoides*	20%	Yes	FAC
2. *Euonymus fortunei*	30%	Yes	UPL
3.			
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16.			
17.			
18.			
19.			
20.			
	50%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species		x1 =	
FACW species	60%	x2 =	1.20
FAC species	80%	x3 =	2.40
FACU species		x4 =	
UPL species	60%	x5 =	3.00
Column Totals:	200% (A)		6.60 (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- **X** 2-Dominance Test is >50%
- 3-Prevalence Index is ≤3.0[1]
- 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: dp16

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/2	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators[3]:

- ___ 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Test Indicators of Hydric Soils:

- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]The hydric soil indicators have been updated to comply with the *Field Indicators of Hydric Soils in the United States* , Version 8.0, 2016.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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 X	Depth (inches):	N/A
Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

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Applicant/Owner: Kimley Horn | State: IN | Sampling Point: dp17

Investigator(s): Ben Hess & Paige Eichelberger | Section, Township, Range: S23 T14N R4E

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none

Slope (%): 2% | Lat: 39.6408397 | Long: -86.06032801 | Datum: NAD83 UTM16N

Soil Map Unit Name: Treaty silty clay loam, 0 to 1 percent slopes (ThrA) | NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? | Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N 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	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Cornus drummondii*	20%	Yes	FAC
2. *Gleditsia triacanthos*	20%	Yes	FACU
3. *Fraxinus pennsylvanica*	5%	No	FACW
4. *Pyrus calleryana*	10%	No	UPL
5. *Elaeagnus umbellata*	10%	No	UPL
	65%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Solidago altissima*	40%	Yes	FACU
2. *Vernonia gigantea*	5%	No	FAC
3. *Poa pratensis*	20%	Yes	FAC
4. *Toxicodendron radicans*	10%	No	FAC
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18.			
19.			
20.			
	75%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species 5%	x2 =	0.10
FAC species 55%	x3 =	1.65
FACU species 60%	x4 =	2.40
UPL species 20%	x5 =	1.00
Column Totals: 140% (A)		5.15 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- 2-Dominance Test is >50%
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Water Table Present?	Yes ___ No X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

TOGETHER we can do great things

Community

When we say community, we don't just mean the neighborhoods that people call home. We mean everyone and everything with a stake in the work that we do—from our Stantec and industry colleagues to the clients we collaborate with and the people and places we impact.

Whether creating, sustaining, or revitalizing a community, we help diverse cultures and perspectives work together toward shared successes.

Although our work helps to create physical communities, our ultimate goal is to create something far more meaningful—a sense of community.

Creativity

For us, creativity is driven by purpose. Knowing that transformation is truly possible inspires us to approach every situation with a fresh perspective.

Our inventive and collaborative approach to problem-solving helps bring big ideas to life through creative solutions.

Whether our contribution is a design that strikes the perfect balance between function and aesthetics, a feat of engineering that redefines what's possible, or a project management approach that delivers results, we strive for outcomes that transcend the challenges they solve and shape the communities we serve for the better.

Client Relationships

We're better together. This belief shapes how we collaborate with our clients, our partners, and our communities.

We listen so we can deeply understand our clients' needs, communicate with purpose so we maintain alignment, and remain open and flexible so we never miss an opportunity to strengthen a project and positively transform a community.

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