

WETLAND RECONNAISSANCE

OC REPAIR & FABRICATION

August 25, 2016

SCOPE

A site investigation was conducted on October 28, 2016, to identify any *potential* wetlands and/or "waters of the US" within the approximately 13 acre project area. The reconnaissance was conducted based on the procedures of the US Army Corps of Engineers 1987 Wetland Delineation Manual (Mid-West Regional Supplement), however, delineation of wetland boundaries was not included in the scope. The site was scouted for areas exhibiting wetland characteristics (hydrology, hydrophytic plant community, hydric soils), or other characteristics consistent with identification of "waters of the United States". The owners are considering a commercial development at the site.

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Photo 1 Dominant site conditions

SITE LOCATION & FEATURES

County: Johnson

Civil Township: Franklin

Section: NE ¼ 2

Township: 12 North

Range: 4 East

Quad: Greenwood, IN

Directions: Southeast corner of CR 300 N (Earlywood Dr) and Hudson Street, in Franklin

Watershed: Driftwood River; 8-Digit HUC#: 05120204

Lat/Long: -86.0504 39.5197 decimal degrees

The majority of the site is agricultural, with a current crop of.

Canary Ditch is indicated on the USGS topographic map and the National Hydrography dataset (NHD), as the closest flowing waterbody, approximately 1/2 miles west of the site. The DFIRM map does not indicate any mapped a floodway or floodway fringe area on the site. Several potential drainage channels are indicated on the NHD Local resolution drainage map. No county regulated drains are mapped at the site, according to the Hamilton County GIS.

The site is characterized by flat to slightly rolling topography, with slopes ranging from 0-6%, and generally drains to the west. A subsurface tile drainage system is likely present to support agricultural production. No wetlands are indicated on the USFWS *National Wetland Inventory* (NWI) map.

The soil types mapped at the site are primarily *Crosby (CrA)*, *Miami (MmB2)*, and *Brookston (Br)*. *Brookston* is listed as a hydric soil, according to USDA, for a seasonally high water table. *Crosby* is a somewhat poorly drained soil that often contains significant hydric inclusions.



Photo 2 North side of site along CR 300, facing east.

FINDINGS

One potential wetland area was observed on the site.

AREA	TYPE	APPROX . SIZE	JURISDICTION	PERMITS REQUIRED
Wetland 1	PEM	3.2 (a)	Corps/IDEM	404/401



Figure 1 Potential Wetlands- 2012 Indiana Map

Wetland 1 is a jurisdictional wetland is approx. 3.2 acres in size and is situated in a depressional area on the extreme northwest corner of the site. Primary wetland hydrological indicators were observed; surface saturation was evident in some areas and free water in a sample pit was encountered at 5 inches. Vegetation is dominated by hydrophytic species, including: cattails, Vervain, *Carex spp.*, *Scirpus spp.*, with a few scattered Cottonwood, Silver Maple trees and Gray Dogwood shrubs. Hydric soil features were encountered in the sample pit; a reduced matrix and redoximorphic features were present in the upper 16", consistent with the *Brookston* mapped unit.

Wetland 1 appears to drain overland into an existing road drainage ditch, parallel to Hudson road. The ditch outlets via a culvert to another drainage channel on the west side of Hudson road, and continues to a retention pond. This wetland appears to maintain a discrete surface water connection to downstream receiving waters, and is likely regulated as a "water of the US".



Photo 3 Wetland 1, from east side facing west.



Photo 4 Hydric soil features in sample pit



Photo 5 Hydrophytic species



Photo 6 Roadside ditch along Hudson Road



Photo 7 Wetland culvert outlet to west side of Hudson Road

CONCLUSIONS

Wetland conditions were observed in one area and could total approximately 3 - 3.5 acres. Presence of a dominant wetland plant community, hydric soils, and wetland hydrology indicators were observed. The wetland maintains a discrete outlet through a road drainage system, and a connection to downstream receiving waters, and therefore, is likely regulated as a “water of the United States”, and will be subject to Corps and/or IDEM permitting requirements.

A Section 404 permit from the US Army Corps of Engineers and a Section 401 Water Quality Certification from the Indiana Department of Environmental Management will be required prior to the discharge of dredged or fill material to the wetland area.

PERMIT CONSIDERATIONS

Any work within “water of the US”, including wetlands, will require the issuance of Section 404 and 401 permits; compensatory mitigation will most likely be required if proposed impacts exceed 0.1 acre.

Impacts to jurisdictional wetlands, exceeding 0.1 acre, but totaling less than 1 acre, can be authorized under the Regional General Permit, which has a streamlined review process for the Corps and typically results in permit issuance within 90-120 days from complete submittal. Mitigation is generally required.

Wetland impacts exceeding one acre, will require the issuance of a US Army Corps of Engineers *Individual Permit*, which is the most rigorous permit mechanism. Submittal and review times for Individual Permits regularly exceed one year.

Inter-agency coordination, particularly concerning endangered species and cultural resources, will be required components of either permit mechanism. Issues with threatened or endangered species at the site are unlikely, based on initial reviews.

Avoidance and minimization of proposed impacts to the stream channel and wetlands must be exhaustively demonstrated as a component of any permit application submittal. Failure to reduce impact to the existing wetland will likely result in permit denial.

Wetland mitigation for above grade fill and/or conversion of wetland types can vary from a 1:1 replacement ratio, up to a 4:1 ratio, depending on wetland type and quality. On-site mitigation is always preferred, however, off-site options can be evaluated. Due to the relatively low functionality of *Wetland 1*, a mitigation ratio of 2:1 is expected.

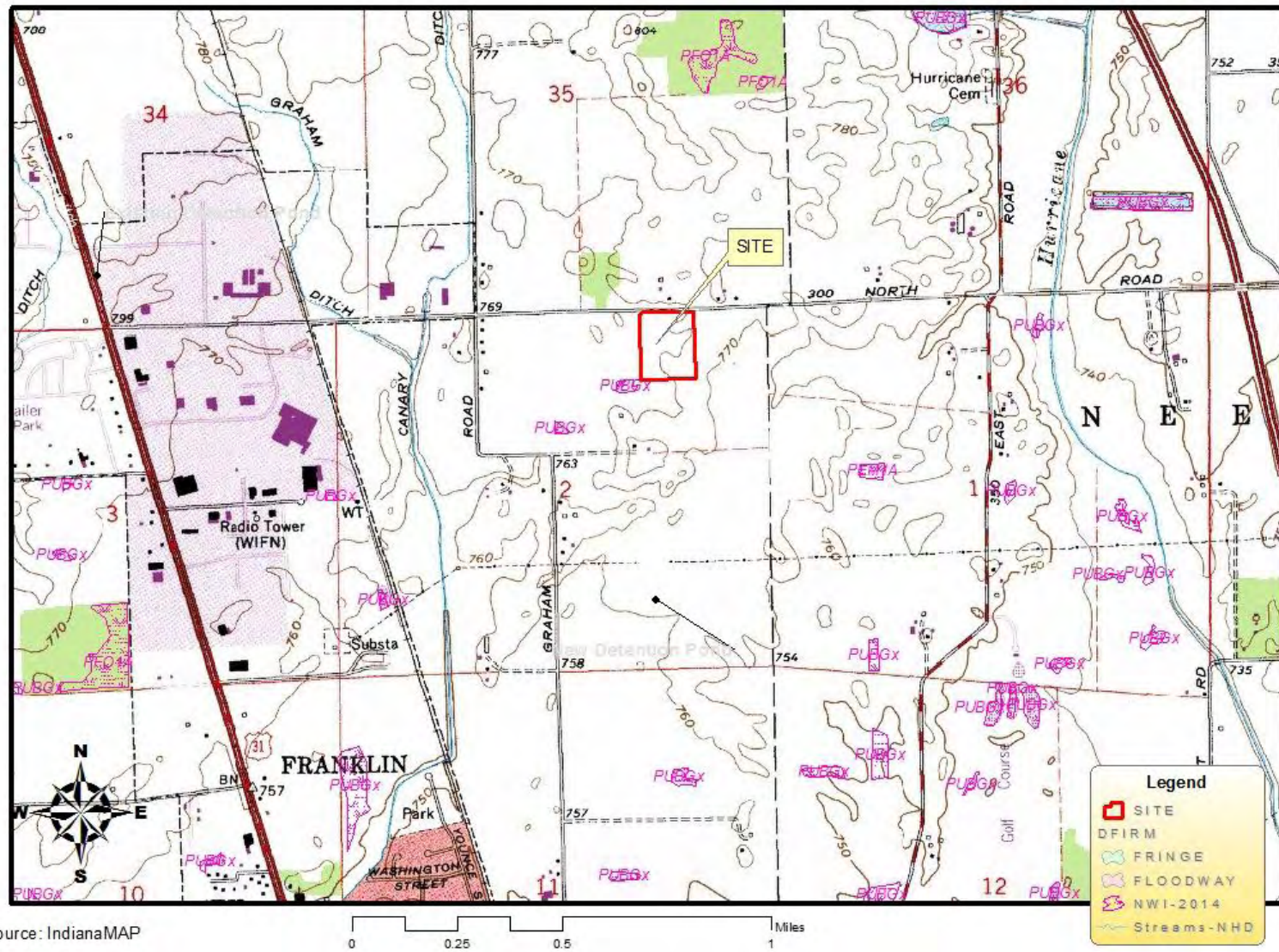
RECOMMENDATIONS

1. Conduct site design to avoid and minimize impacts to existing wetland, as much as possible. I strongly recommend minimizing impacts below the 1 acre wetland, to avoid the Corps Individual Permit (IP) process. Applications for IP's are regularly denied by the Corps without significant alternatives analysis, cumulative effects assessments, and rigid project justification, which often cannot be met by development projects.
2. Conduct a full wetland delineation of the site to identify wetland boundaries.
3. Determine if permit applications will be necessary. If no discharge of fill material is proposed to the wetland area, no further work will be required. (**This is the best option**)
4. Submit Wetland Delineation Report to US Army Corps of Engineers for a Preliminary Jurisdictional Determination if permits are required.
5. Explore potential mitigation options for unavoidable impacts. Prepare and submit permit applications and Compensatory Mitigation Plan.

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Topo/NWI/DFIRM/NHD Map

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Source: IndianaMAP

Soil Map- 2014 NAIP

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Source: USDA


Site Map- 2014 Aerial


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
Source: USDA

Legend

 SITE

 OC-GPS

 Wetland 1

 County Streets