



MARX
WETLANDS
LLC

March 10, 2021

Mr. Erick Friestrom
KEBS, Inc.
2116 Haslett Rd,
Haslett, MI 48840

Re: Wetland Report: Airport Road & W. Herbison Road
Parcel 050-018-200-020-60 & 050-018-200-020-56
Section 18, DeWitt Township, Clinton County, MI

Dear Mr. Friestrom:

Pursuant to your request, Marx Wetlands LLC (MW) conducted a wetland determination and delineation for two (2) vacant parcels (Parcel No. **050-018-200-020-60 & 050-018-200-020-56**) totaling approximately 6.0 acres located east of Airport Road and south of W. Herbison Road in Section 18 of DeWitt Township (T5N R2W), Clinton County, Michigan (hereafter referred to as "Site"). The Site is located directly southeast of the intersection of Airport and Herbison Roads.

The intent of this determination is to provide a report of the character of any wetland areas within the Project Corridor and an opinion as to the possible jurisdiction of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and/or local governances over wetland areas identified on-site.

The wetland determination was performed in accordance with the Michigan Department of Environmental Quality Wetland Identification Manual (2001), the Northcentral-Northeast Interim Regional Supplements to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual. The delineation of any wetland depends on three basic parameters. These parameters are: 1) the presence of hydrophytic vegetation (plants adapted to living in saturated soils), 2) hydric soils (distinctive soil types that develop under saturated conditions), and 3) wetland hydrology (the presence of water at or near the surface for a specific period of time). The above parameters are virtually always inter-related and present in wetland systems. The wetland determination consisted of desktop review of available background documentation and mapping followed by an on-site visit performed on March 8, 2021. A review of the findings is provided below.

Background Research & Literature Review

According to the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) *Web Soil Survey*, the Site contains two (2) main soil types: Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil (Gf; 95% hydric rating) and Houghton mucks, 0 to 1 percent slopes (Ho; 100% hydric

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rating). These soil types are considered hydric soils, which generally corresponds to the delineated wetland areas (**Enclosure 1-Background Research**).

The National Wetlands Inventory (NWI) map indicates one (1) emergent wetland and an approximately 0.40-acre freshwater pond are likely within or along the perimeters of the Site (**Enclosure 1-Background Research**). The delineated wetlands generally correspond to the NWI mapped potential wetlands.

In addition, the *Clinton County's Drain Map- DeWitt Twp.* (**Enclosure 1-Background Research**), does not show any on-site county drains; however, the Loesch Drain (southwest of property limits) adjoins a wetland/pond feature that enters the Site.

Site Characteristics

Based on MW's review of aerial photographs and the on-site visit, the Site lies within a rural residential area of DeWitt Township scattered with undeveloped lands. The Site is undeveloped, consisting of upland old field and wetland.

Old field species observed include smooth brome (*Bromus inermis*), Queen Anne's lace (*Daucus carota*), Canada bluegrass (*Poa compressa*), orchard grass (*Dactylis glomerata*), tall goldenrod (*Solidago altissima*), and timothy grass (*Phleum pratense*). Scattered upland trees include box-elder (*Acer negundo*), black walnut (*Juglans nigra*), black cherry (*Prunus serotina*), cottonwood (*Populus deltoides*), trembling aspen (*Populus tremuloides*), redcedar (*Juniperus virginiana*), and ash (*Fraxinus spp.*) trees. Shrub species observed include non-native and native species: Eurasian honeysuckles (*Lonicera spp.*), gray dogwood (*Cornus racemosa*), autumn-olive (*Elaeagnus umbellata*), multiflora rose (*Rosa multiflora*), and blackberry (*Rubus allegheniensis*). Refer to the *Site Photos Log* (**Enclosure 2**).

Wetland Determination & Delineation

Two (2) (Wetlands A and B) were identified within the Site. Wetland B adjoins an open water (pond). No watercourses were identified within site boundaries. Refer to the *Wetland Sketch* (**Enclosure 3**).

Wetlands A and B are primarily emergent wetlands with scattered trees and shrubs. Wetland A is mainly contained within the property; however, extends north and drains into the roadside ditch (south side of W. Herbison Road). Wetland B extends south off-site and adjoins a freshwater pond and presumably the Loesch Drain. Prevalent herbaceous vegetation observed include strict sedge (*Carex stricta*), reed canary grass (*Phalaris arundinacea*), cattails (*Typha spp.*), sensitive fern (*Onoclea sensibilis*), late goldenrod (*Solidago gigantea*), and calico-aster (*Symphyotrichum lateriflorum*). Less

common herbaceous species include curly dock (*Rumex crispus*), soft-stemmed rush (*Juncus effusus*), lake sedge (*Carex lacustris*), and common reed (*Phragmites australis* var. *australis*). Woody vines include riverbank grape (*Vitis riparia*) and poison-ivy (*Toxicodendron radicans*); and shrub species include willows (*Salix interior* and *S. discolor*), and dogwoods (*Cornus amomum* and *C. sericea*). Scattered trees observed include cottonwood, white willow (*Salix alba*), tamarack (*Larix laricina*) and American elm (*Ulmus americana*).

The species within these wetlands range in wetland indicator status from obligate (OBL) to facultative (FAC), indicating species that typically occur in wetlands.

Hydrology

These wetlands appear to receive hydrology from precipitation, runoff from adjacent developed areas, roadways, resulting in seasonally saturated to seasonally inundated water regimes.

Soils

Hydric soil indicators were observed within the soil sample plot taken in the on-site wetlands. Adjacent upland soil sample pits were also taken as well. Please refer to the *USACE Wetland Determination Data Forms* (**Enclosure 3**).

Regulations & Recommendations

Part 301, Inland Lakes and Streams, states that a feature is considered a regulated watercourse by the EGLE if it possesses a defined bed, bank, and evidence of continued flow or a continued occurrence of water. **No watercourses or ponds meeting Part 301 definitions were identified within the Site boundaries. The freshwater pond that adjoins Wetland B will likely be considered a deep-water wetland.**

Although, the Loesch Drain is located off-site to the southwest, it is a Clinton County drain, which may have a permanent drain easement. Typically, no permanent structures can be built within county drain easements. The drain easement is used for any maintenance work or emergency access to the drain. Some activities can be permitted within drain easements through the county drain commissioner. **Be sure to contact the Clinton County Drain Commission office to see if site development requires any approvals or permits through Clinton County.**

Part 31, Water Resources Protection, of the NREPA regulates activities within the 100-year floodplain and floodway of a river, stream, or drain, and within the floodplain of any watercourse with an upstream drainage area of two square miles or larger. A Part 31 permit is required for construction within a regulated floodplain or floodway. MW's preliminary review of FEMA FIRM Panel No. 26037C0303D, (eff. 05/3/2011) revealed that the Site contain a

special flood hazard area mapped as Zone A (without available base flood elevations) associated with the 100-year floodplain of the Looking Glass River. The remaining areas of the Site lie within Zone X, an area with minimal flood hazards (Enclosure 4). **A floodplain elevation request or pre-application meeting through the EGLE can assist with the project development process and/or floodplain permitting, if applicable.**

Part 303, Wetlands Protection, of the NREPA states that if a wetland is five acres in size or larger and/or connected to or located within 500 feet of a river, stream, lake, or pond (open water surface area larger than 1 acre), it is considered regulated by the EGLE.

Wetlands A and B are likely regulated by the EGLE because they are within 500 feet (e.g., contiguous) of an off-site regulating features (Looking Glass River and Loesch Drain- open ditch segment). This determination is based on the site reconnaissance, wetland delineation, and review of available desktop resources (i.e., aerial photography, topographic maps, county soils data, etc.). **Therefore, both on-site wetlands meet the requirements of Part 303, Wetlands Protection, of the NREPA, and therefore, fall under the jurisdiction of the EGLE.**

According to the EGLE's MiWaters website (EGLE 2021), DeWitt Township does not appear to have its own wetland protection ordinance. However, please be sure to contact the DeWitt Township to determine if site development requires any local permits, approvals and/or wetland buffer setback requirements.

A permit is required by the EGLE for any proposed work (e.g., filling, dredging, construction, and draining and/or other development) that takes place within the boundaries of a regulated wetland. Most construction activities that take place outside of these boundaries do not require a wetland permit from the EGLE. **The EGLE has the final authority on the extent, size, shape, and regulatory status of regulated wetlands, lakes, and streams in the State of Michigan.**

Please be advised the information provided in this report is a professional opinion. The ultimate decision on wetland boundary locations and jurisdiction thereof rests with the EGLE and/or Township and, in some cases, the Federal government. Wetland evaluations performed outside the growing season from late-October until late-April may not be consistent with the official EGLE wetland assessment program and therefore are subject to increased potential for change than those performed during the growing season. Therefore, there may be adjustments to boundaries based upon review of a regulatory agency. An agency determination can vary, depending on various factors including, but not limited to, experience of the agency representative making the determination and the season of the year. In addition, the physical

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Airport Road & W. Herbison Road—Dewitt Road, Clinton County, Michigan

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characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage, activities on adjacent parcels, or other events. Any of these factors can change the nature and/or extent of wetlands within the site.

Thank you for the opportunity to provide this wetland determination. If you have any questions, please contact me at your convenience.

Sincerely,



Marx Wetlands LLC

Bryana J. Guevara, PWS

ISA Certified Arborist #MI-4240A

Enclosures:

- 1) Soil Map, National Wetlands Inventory (NWI), & Drain Map (Clinton Co.)
- 2) Site Photographs Log
- 3) Wetland Sketch & USACE Wetland Determination Data forms
- 4) FEMA Floodplain Map

ENCLOSURE I

Hydric Rating by Map Unit—Clinton County, Michigan (Airport and Herbison Road, MI)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

3/10/2021
Page 1 of 5

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Soil Rating Lines

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Soil Rating Points

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clinton County, Michigan
Survey Area Data: Version 17, Jun 1, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 6, 2018—Jul 8, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Gf	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	95	3.0	27.8%
Ho	Houghton muck, 0 to 1 percent slopes	100	6.2	58.0%
MaB	Marlette loam, 2 to 6 percent slopes	2	1.4	13.5%
So	Sloan loam	95	0.1	0.7%
Totals for Area of Interest			10.7	100.0%



U.S. Fish and Wildlife Service

National Wetlands Inventory

Airport and Herbison Roads



March 10, 2021

Wetlands

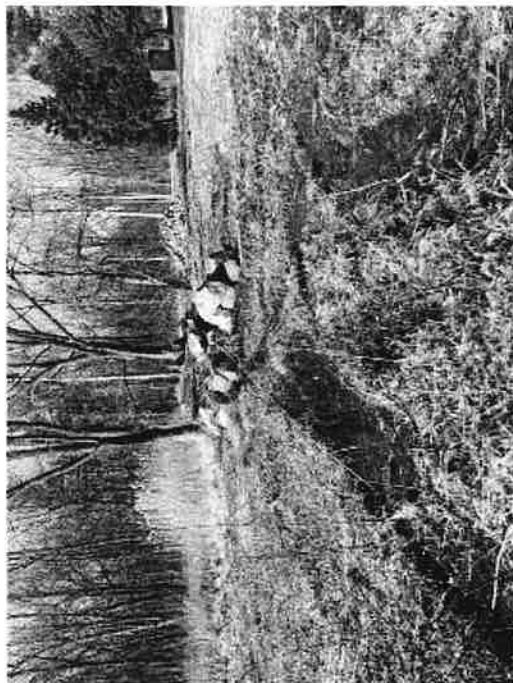
- | | | | | | |
|--|--------------------------------|--|-----------------------------------|--|----------|
| | Estuarine and Marine Deepwater | | Freshwater Emergent Wetland | | Lake |
| | Estuarine and Marine Wetland | | Freshwater Forested/Shrub Wetland | | Other |
| | | | Freshwater Pond | | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

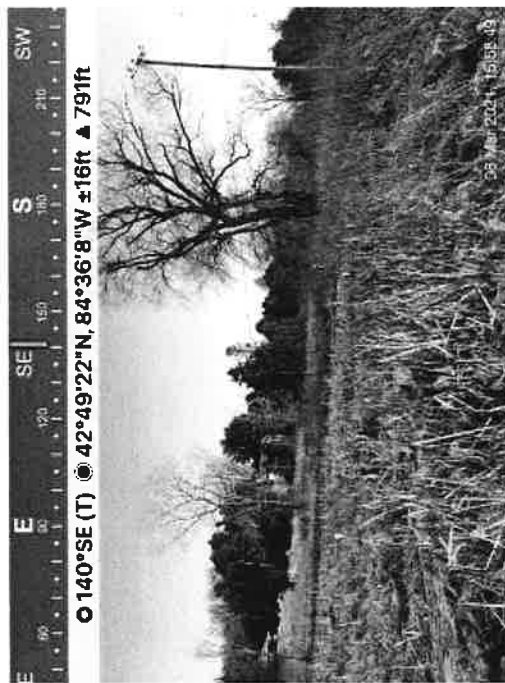


ENCLOSURE II

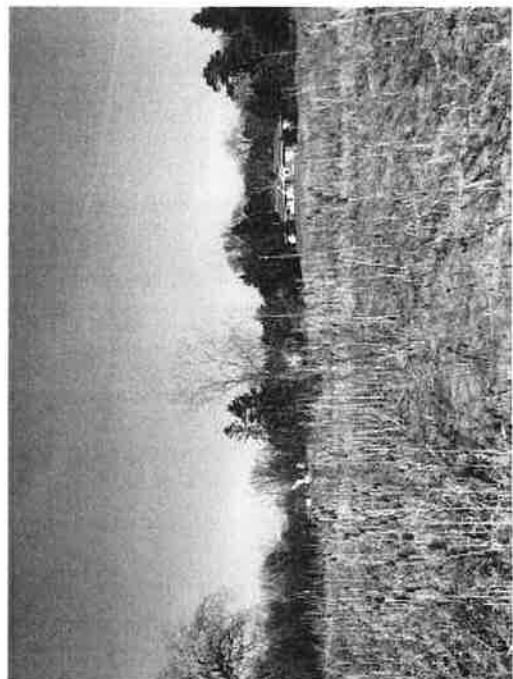
SITE PHOTOGRAPHS LOG



1) A typical view of upland lawn identified West Herbison Road.



3) View of Wetland A, emergent wetland, identified within the majority of the northern parcel.



2) Another view of upland field.



4) Roadside ditch where Wetland A drains into the storm system.

SITE PHOTOGRAPHS LOG



5) View of Wetland B, extending off-site into a large, emergent wetland area.



7) Typical muck soils observed in wetland areas.

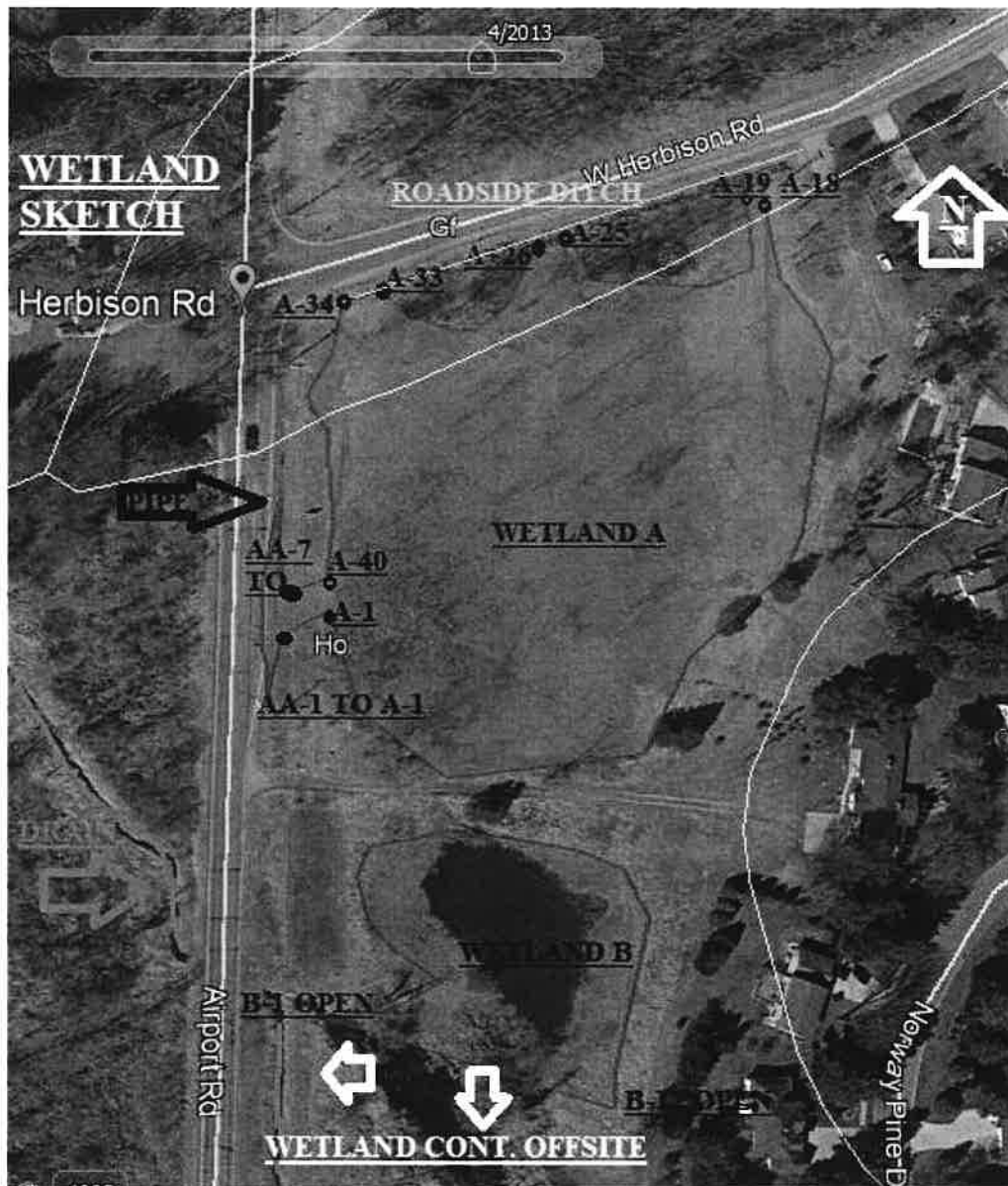


6) Another view of Wetland B and open water pond located along the southern boundary of the site.



8) View of off-site county drain (Loesch Drain).

ENCLOSURE III



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Airport Road & W. Herbison- Vacant City/County: DeWitt Twp/Clinton County Sampling Date: 3/8/2021
 Applicant/Owner: KEBS Inc. State: MI Sampling Point: SP-A
 Investigator(s): B.Guevara; Marx Wetlands LLC Section, Township, Range: S18; T5N R2W
 Landform (hillside, terrace, etc.): lowland/depression Local relief (concave, convex, none): concave Slope (%): 0-2
 Subregion (LRR or MLRA): LRR L Lat: 42.822875 Long: -84.601843 Datum: WGS84
 Soil Map Unit Name: Houghton Muck, 0 to 1 percent slopes (Ho) NWI classification: PEM
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>x</u> No <u> </u> If yes, optional Wetland Site ID: <u>Wetland A</u>
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>x</u> No <u> </u>	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland A is a primarily emergent wetland that drains north into a roadside ditch that eventually drains to the storm sewer system.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>x</u> Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) <u>x</u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u>X</u> Saturation (A3) <u> </u> Marl Deposits (B15) <u>X</u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u>x</u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u>x</u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u>x</u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u>x</u> Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <u>XX</u> No <u> </u> Depth (inches): <u>2</u> Water Table Present? Yes <u>XX</u> No <u> </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>XX</u> No <u> </u> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: This wetland appears to receive hydrology from precipitation, groundwater, runoff from adjacent developed areas, and roadways, resulting in seasonally saturated to seasonally inundated water regime.		

VEGETATION – Use scientific names of plants.

 Sampling Point: SP-A

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30-ft radius</u>)																				
1. <u>Salix alba</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>Populus deltoides</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Ulmus americana</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	<u>=Total Cover</u>																		
Sapling/Shrub Stratum (Plot size: <u>15-ft radius</u>)																				
1. <u>Salix interior</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>25</u></td> <td>x 1 = <u>25</u></td> </tr> <tr> <td>FACW species <u>75</u></td> <td>x 2 = <u>150</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>140</u> (A)</td> <td><u>295</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.11</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>25</u>	x 1 = <u>25</u>	FACW species <u>75</u>	x 2 = <u>150</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>140</u> (A)	<u>295</u> (B)	Prevalence Index = B/A = <u>2.11</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>25</u>	x 1 = <u>25</u>																			
FACW species <u>75</u>	x 2 = <u>150</u>																			
FAC species <u>40</u>	x 3 = <u>120</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>140</u> (A)	<u>295</u> (B)																			
Prevalence Index = B/A = <u>2.11</u>																				
2. <u>Cornus amomum</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Cornus sericea</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>40</u>	<u>=Total Cover</u>																		
Herb Stratum (Plot size: <u>5-ft radius</u>)																				
1. <u>Phalaris arundinacea</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u> </u> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Carex stricta</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>																	
3. <u>Solidago gigantea</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Symphotrichum lateriflorum</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Carex lacustris</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>80</u>	<u>=Total Cover</u>																		
Woody Vine Stratum (Plot size: <u>30-ft radius</u>)																				
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>=Total Cover</u>																			
				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
Remarks: (Include photo numbers here or on a separate sheet.) 																				

Sampling Point: SP-A

Northcentral and Northeast Region – Interim Version (Revised)

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Airport Road & W. Herbison- Vacant City/County: DeWitt Twp/Clinton County Sampling Date: 3/8/2021
 Applicant/Owner: KEBS Inc. State: MI Sampling Point: SP-B
 Investigator(s): B.Guevara; Marx Wetlands LLC Section, Township, Range: S18; T5N R2W
 Landform (hillside, terrace, etc.): lowland/depression Local relief (concave, convex, none): concave Slope (%): 0-2
 Subregion (LRR or MLRA): LRR L Lat: 42.822238 Long: -84.601907 Datum: WGS84
 Soil Map Unit Name: Houghton Muck, 0 to 1 percent slopes (Ho) NWI classification: PEM
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>x</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>x</u> No <u> </u> If yes, optional Wetland Site ID: <u>Wetland B</u>
Hydric Soil Present?	Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u>x</u> No <u> </u>	
Remarks: (Explain alternative procedures here or in a separate report.) Wetland B is a primarily emergent wetland that extends off-site and adjoins an approximately 0.40-acre freshwater pond and the Loesch Drain.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<u>x</u> Surface Water (A1)	<u>X</u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u>x</u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u>x</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u>X</u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u>x</u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u>x</u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u>x</u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <u>XX</u> No <u> </u>	Depth (inches): <u>1.5</u>	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
Water Table Present? Yes <u>XX</u> No <u> </u>	Depth (inches): <u>0</u>	
Saturation Present? Yes <u>XX</u> No <u> </u>	Depth (inches): <u>0</u>	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: This wetland appears to receive hydrology from precipitation, groundwater, runoff from adjacent developed areas, and roadways, resulting in seasonally saturated to seasonally inundated water regime.		

Sampling Point: SP-B

Northcentral and Northeast Region – Interim Version (Revised)

Sampling Point: SP-B

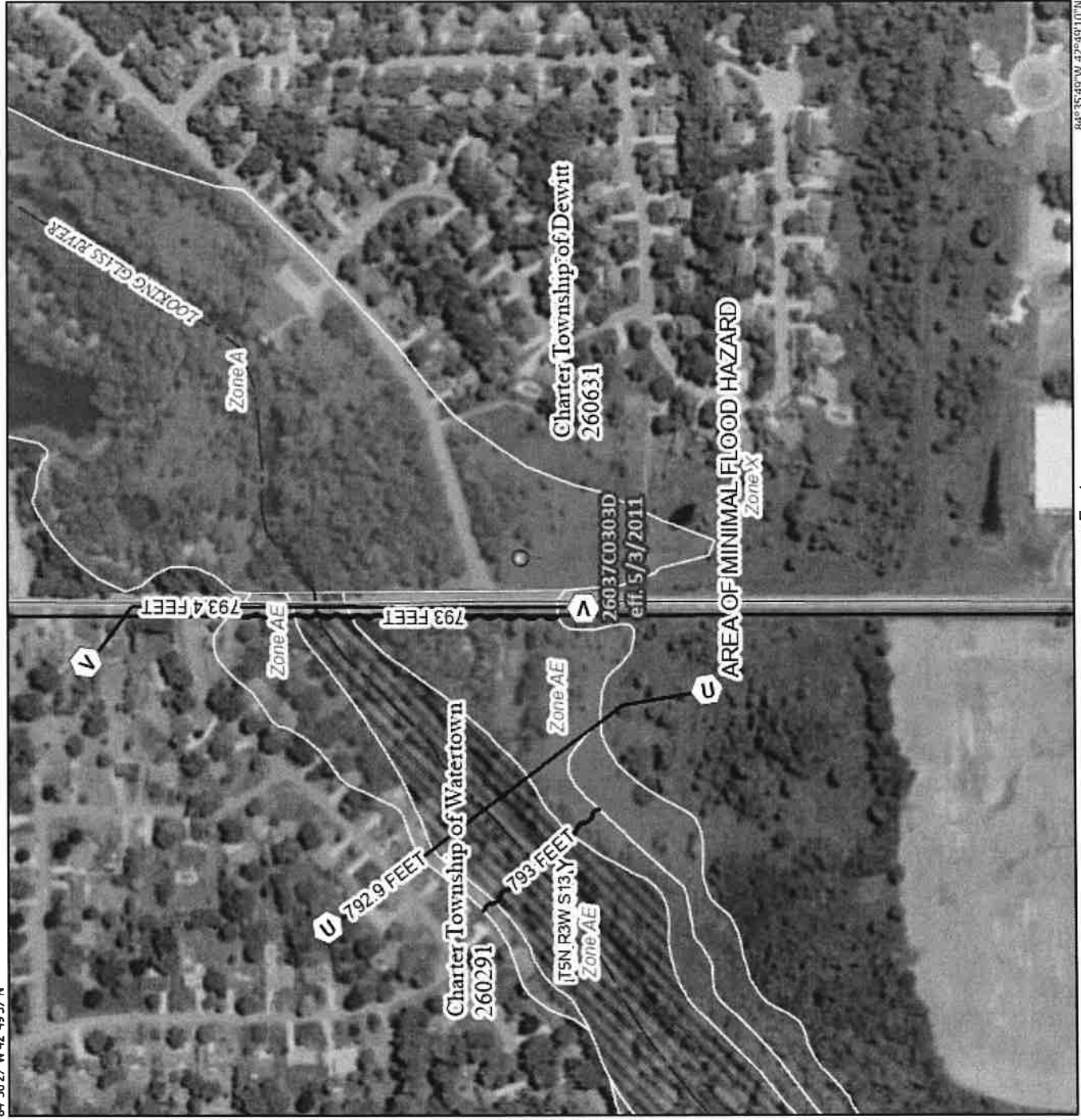
Northcentral and Northeast Region – Interim Version (Revised)

ENCLOSURE IV

National Flood Hazard Layer FIRMette



84°36'27"W 42°49'37"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99 With BFE or Depth Zone AE, AO, AH, VE, AR Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone A Future Conditions 1% Annual Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee. See Notes. Zone X Area with Flood Risk due to Levee Zone D
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
OTHER FEATURES	Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature
MAP PANELS	Digital Data Available No Digital Data Available Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/10/2021 at 3:17 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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