

30. Wetland Investigation – TNT Howard LLC – 5/16/25

A preliminary wetland study was conducted using multiple tools. A wetland specialist will be engaged to conduct a final study. Existing sources consulted were the US Web Soil Survey, the NRCS Wetland determination, and the National Wetlands Inventory. Additionally, historical aerial photos were examined in years with normal rainfall to determine if wetland indicators appeared. As a conservative measure, even years with above normal rainfall were examined. The subject site has a corn and soybean rotation and no wetland species are present. There were no indications of wetland utilizing any or all of these methods and, therefore, it has been determined that no wetland exists in the active project site area. A summary of the analysis follows.

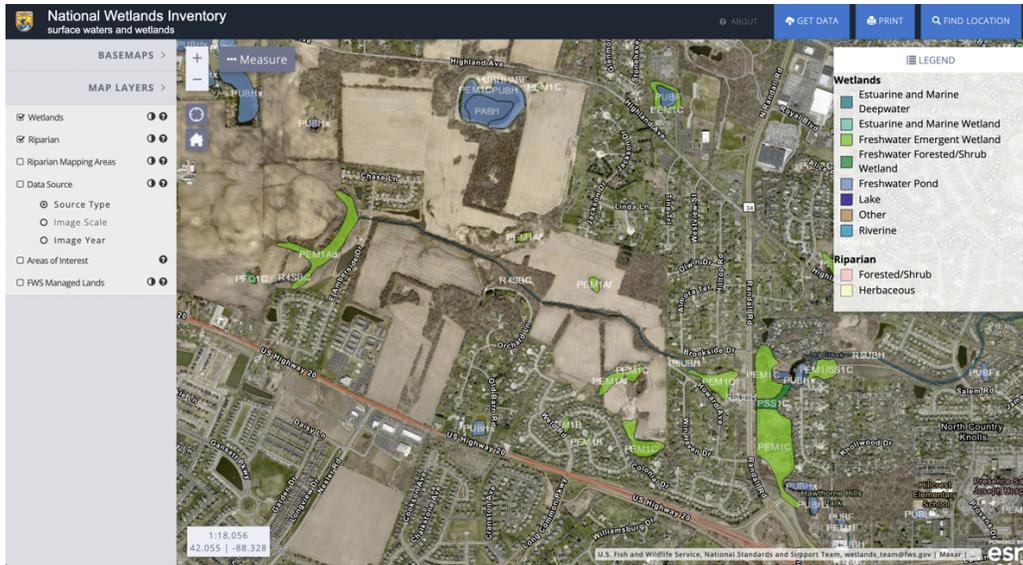
Prepared by:

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Equity Advisors Inc.

The NRCS Wetland determination below shows no wetlands exist in the active project site.

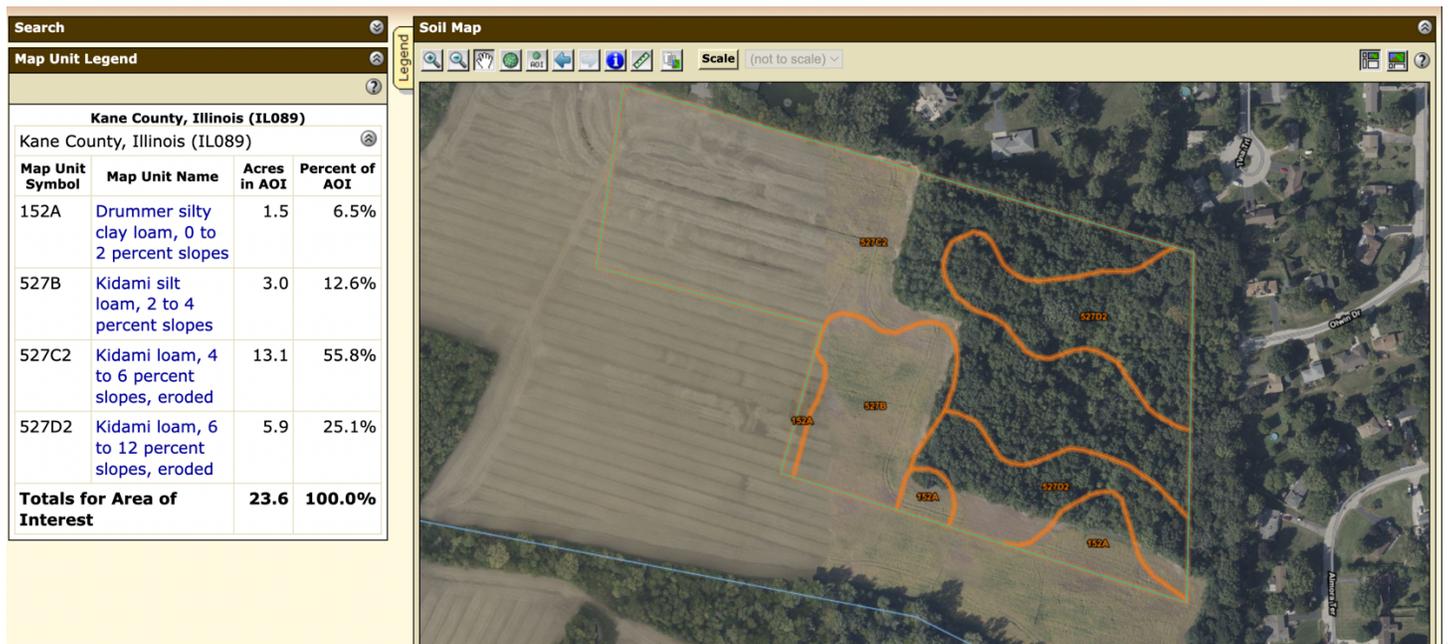


The National Wetlands Inventory below does not show any wetland on the active project site.



The Web Soil Survey classifies the soils as non-hydric (non-wetland) except for a few acres of Drummer (152A), which we will further review next to see if indeed a wetland. Below and on the next page are a summary of the results, a soils map, and soil descriptions taken from the US Web Soil Survey.

Map Symbol	Soil Name	Acres	Soil Classification	Result
527C2	Kidami loam 4-6% slope	13.1	Non-hydric	Non-Wetland
527D2	Kidami loam 4-6% slope	5.9	Non-hydric	Non-Wetland
527B	Kidami loam 4-6% slope	3.0	Non-hydric	Non-Wetland
152A	Drummer silt-clay loam 0-2%	1.5	Hydric	Further review



Soil Types

527C2 Kidami Loam

527C2—Kidami loam, 4 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 93b2
Elevation: 540 to 1,020 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Kidami and similar soils: 90 percent
Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kidami

Setting

Landform: End moraines, ground moraines
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Till

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 30 inches: clay loam
H3 - 30 to 40 inches: loam
H4 - 40 to 60 inches: loam

Properties and qualities

Slope: 4 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Hydric soil rating: No

527D2 Kidami Loam

527D2—Kidami loam, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 93b3
Elevation: 540 to 1,020 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Kidami and similar soils: 90 percent
Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kidami

Setting

Landform: End moraines, ground moraines
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Till

Typical profile

H1 - 0 to 10 inches: loam
H2 - 10 to 27 inches: clay loam
H3 - 27 to 35 inches: loam
H4 - 35 to 60 inches: loam

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Hydric soil rating: No

527B Kidami Loam

Map Unit Setting

National map unit symbol: 93b1
Elevation: 540 to 1,020 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Kidami and similar soils: 90 percent
Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kidami

Setting

Landform: Ground moraines, end moraines
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Thin mantle of loess or other silty material and in the underlying till

Typical profile

H1 - 0 to 3 inches: silt loam
H2 - 3 to 10 inches: silt loam
H3 - 10 to 37 inches: clay loam
H4 - 37 to 45 inches: loam
H5 - 45 to 60 inches: loam

Properties and qualities

Slope: 2 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Hydric soil rating: No

152A Drummer

152A—Drummer silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ssrz
Elevation: 490 to 1,020 feet
Mean annual precipitation: 33 to 43 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 160 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Drummer, drained, and similar soils: 94 percent
Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Drummer, Drained

Setting

Landform: Stream terraces on outwash plains, stream terraces on till plains, swales on outwash plains, swales on till plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, talf
Down-slope shape: Linear
Across-slope shape: Linear, concave
Parent material: Loess over stratified loamy outwash

Typical profile

Ap - 0 to 14 inches: silty clay loam
Btg - 14 to 41 inches: silty clay loam
2Btg - 41 to 47 inches: loam
2Cg - 47 to 60 inches: stratified sandy loam to clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

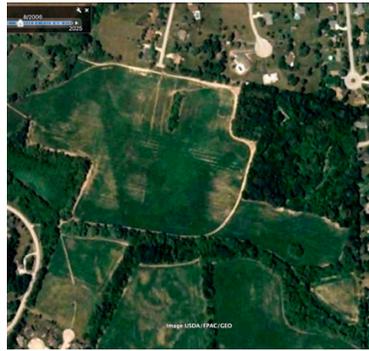
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D

To further review the Drummer soils, we attain the closest weather service data to determine which years in the past were normal, wet, and dry. We look at past photos during normal years to see if there are indications of wetlands. The table included after the photos shows weather history from 1978 to 2014. We will focus on 2000 to the present and where in-season photos were available, which is sufficient for our purposes. A result of our analysis is summarized in the table below. The Drummer soil shows no indication of wetness or ponding in maps during normal precipitation years. Additionally, not in high precipitation seasons either. Therefore, we can conclude that this area of Drummer soils is not a wetland.

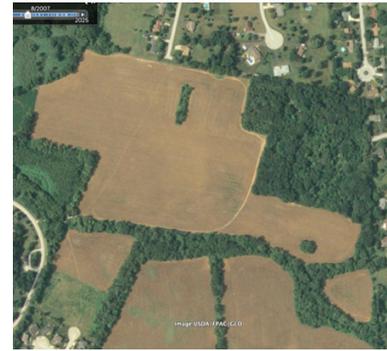
Year	Precipitation – Normal, Wet	Indication of Wetlands
2006	Normal	No
2008	Normal	No
2010	Wet	No
2011	Wet	No



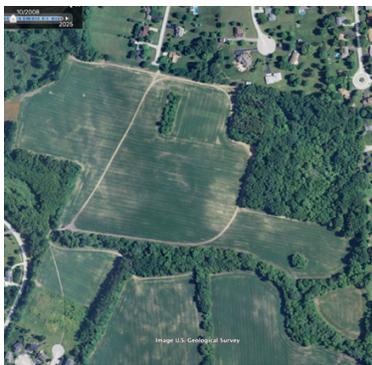
2005 Photo



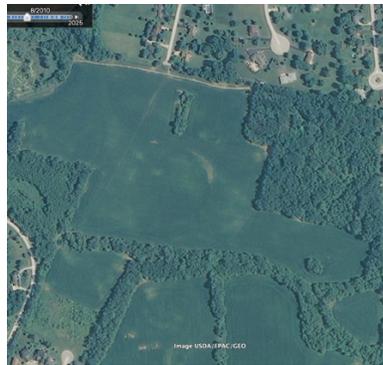
2006 Photo



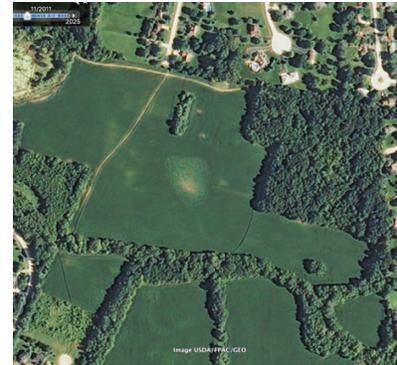
2007 Photo



2008 Photo



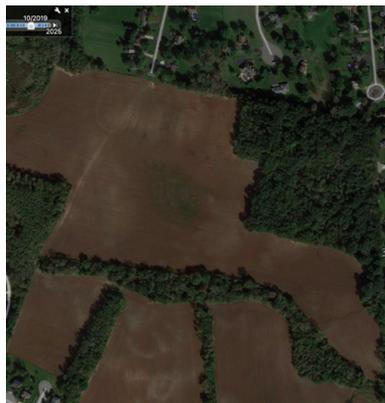
2010 Photo



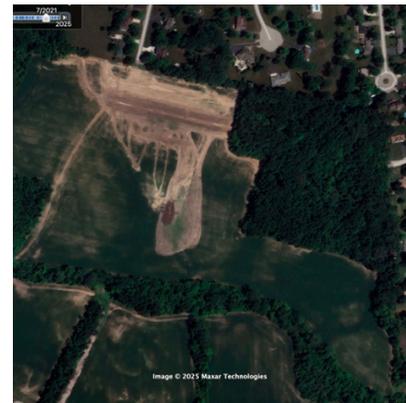
2011 Photo



2018 Photo



2019 Photo



2021 Photo

Precipitation History

Barrington 3 SW_IL0442 Cook County FORM

WETS Station: **IL0442**

Average	<30%	>30%	
April	3.66	2.55	4.36
May	4.02	2.56	4.85
June	4.27	2.79	5.14
July	3.8	2.63	4.53

CLIMATIC EVALUATION OF PRECIPITATION
3 MONTHS BEFORE AERIAL CROP
HISTORY SLIDES

DATE: _____
COUNTY: _____
LANDOWNER: _____
TRACT NO. _____
PREPARED BY: _____

Year	April Precipitation	April Type of Month	May Precipitation	May Type of Month	June Precipitation	June Type of Month	July* Precipitation	July* Type of Month	April Score 1X	May Score 2X	June Score 3X	Score for Year	Type of Year	Year	Best Years
78	3.85	Normal	3.48	Normal	5.25	Wet	5.02	Wet	2	4	9	15	WET	78	
79	5.07	Wet	1.76	Dry	6.48	Wet	1.71	Dry	3	2	9	14	NORMAL	79	79
80		Normal	2.75	Normal	4.17	Normal	5.42	Wet	2	4	6	12	NORMAL	80	80
81	4.3	Normal	5.85	Wet	6.43	Wet	3.65	Normal	2	6	9	17	WET	81	
82	3.1	Normal	4.54	Normal	3.46	Normal	6.06	Wet	2	4	6	12	NORMAL	82	82
83	7.02	Wet	6.23	Wet	2.07	Dry	5.44	Wet	3	6	3	12	NORMAL	83	83
84	4.41	Wet	4.38	Normal	3.55	Normal	2.2	Dry	3	4	6	13	NORMAL	84	84
85	1.08	Dry	3.52	Normal	2.83	Normal	3.56	Normal	1	4	6	11	NORMAL	85	85
86	2.07	Dry	4.51	Normal	4.14	Normal	4.55	Wet	1	4	6	11	NORMAL	86	86
87	2.57	Normal	4.38	Normal	2.25	Dry	5.26	Wet	2	4	3	9	DRY	87	
88	2.67	Normal	0.99	Dry	1.12	Dry	1.75	Dry	2	2	3	7	DRY	88	
89	0.87	Dry	1.59	Dry	4.38	Normal	4.56	Wet	1	2	6	9	DRY	89	
90	2.01	Dry	4.77	Normal	4.98	Normal	2.82	Normal	1	4	6	11	NORMAL	90	90
91	4.13	Normal	5.02	Wet	1.59	Dry	1.55	Dry	2	6	3	11	NORMAL	91	91
92	2.31	Dry	0.28	Dry	1.46	Dry	4.84	Wet	1	2	3	6	DRY	92	
93	4.37	Wet	2.36	Dry	9.18	Wet	5.3	Wet	3	2	9	14	NORMAL	93	93
94	1.84	Dry	1.47	Dry	4.19	Normal	3.68	Normal	1	2	6	9	DRY	94	
95	5.51	Wet	5.18	Wet	1.75	Dry	3.89	Normal	3	6	3	12	NORMAL	95	95
96	2.6	Normal	9.25	Wet	6.11	Wet	4.67	Wet	2	6	9	17	WET	96	
97	1.61	Dry	4.81	Normal	3.04	Normal	4.88	Wet	1	4	6	11	NORMAL	97	97
98	5.29	Wet	4.32	Normal	5.25	Wet	1.04	Dry	3	4	9	16	WET	98	
99	8.57	Wet	3.3	Normal	7.24	Wet	2.33	Dry	3	4	9	16	WET	99	
0	4.5	Wet	4.64	Normal	6.08	Wet	4.1	Normal	3	4	9	16	WET	0	
1	4.2	Normal	3.92	Normal	3.48	Normal	2.6	Dry	2	4	6	12	NORMAL	1	1
2	3.01	Normal	4.12	Normal	4.86	Normal	1.62	Dry	2	4	6	12	NORMAL	2	2
3	2.09	Dry	7.2	Wet	1.34	Dry	5.62	Wet	1	6	3	10	NORMAL	3	3
4	1.53	Dry	7.28	Wet	4.01	Normal	1.38	Dry	1	6	6	13	NORMAL	4	4
5	2.73	Normal	2.5	Dry	0.53	Dry	1.65	Dry	2	2	3	7	DRY	5	
6	3.21	Normal	3.8	Normal	4.31	Normal	3.97	Normal	2	4	6	12	NORMAL	6	6
7	4.27	Normal	2.6	Normal	2.69	Dry	5.82	Wet	2	4	3	9	DRY	7	
8	4.98	Wet	4.22	Normal	4.04	Normal	6	Wet	3	4	6	13	NORMAL	8	8
9	4.84	Wet	3.92	Normal	5.82	Wet	1.62	Dry	3	4	9	16	WET	9	
10	2.82	Normal	8.21	Wet	6.15	Wet	7.18	Wet	2	6	9	17	WET	10	
11	5.08	Wet	6.31	Wet	3.65	Normal	8.69	Wet	3	6	6	15	WET	11	
12	3.27	Normal	2.26	Dry	2.41	Dry	2.58	Dry	2	2	3	7	DRY	12	
13	7.81	Wet	3.17	Normal	7.01	Wet	4.36	Normal	3	4	9	16	WET	13	
14	2.63	Normal	6.51	Wet	7.11	Wet	3.82	Normal	2	6	9	17	WET	14	

SCORE TYPE OF YEAR
 Dry = 1 Dry = 6 to 9
 Normal = 2 Normal = 10 to 14
 Wet = 3 Wet = 15 to 18

* July data is only used if the photo appears to have an unusually high number of sun indicating that the photo was taken soon after an unusually wet period. Otherwise it is taken in late June or early July before most of July's precipitation.

COMMENTS: _____

Next 1	Elgin IL2736 Kane County
Next 2	Chicago OHARE INTL AP IL846 Cook County
Next 3	Chicago Botanical GDN_IL497_Cook County
Next Closest Site	Next 4