



Overview of upland sample point NWA015A.

Direction: Southwest

Photo ID: delin_photo-20221019-163939.jpg

Date: 10/19/2022



Overview of upland sample point NWA015B.

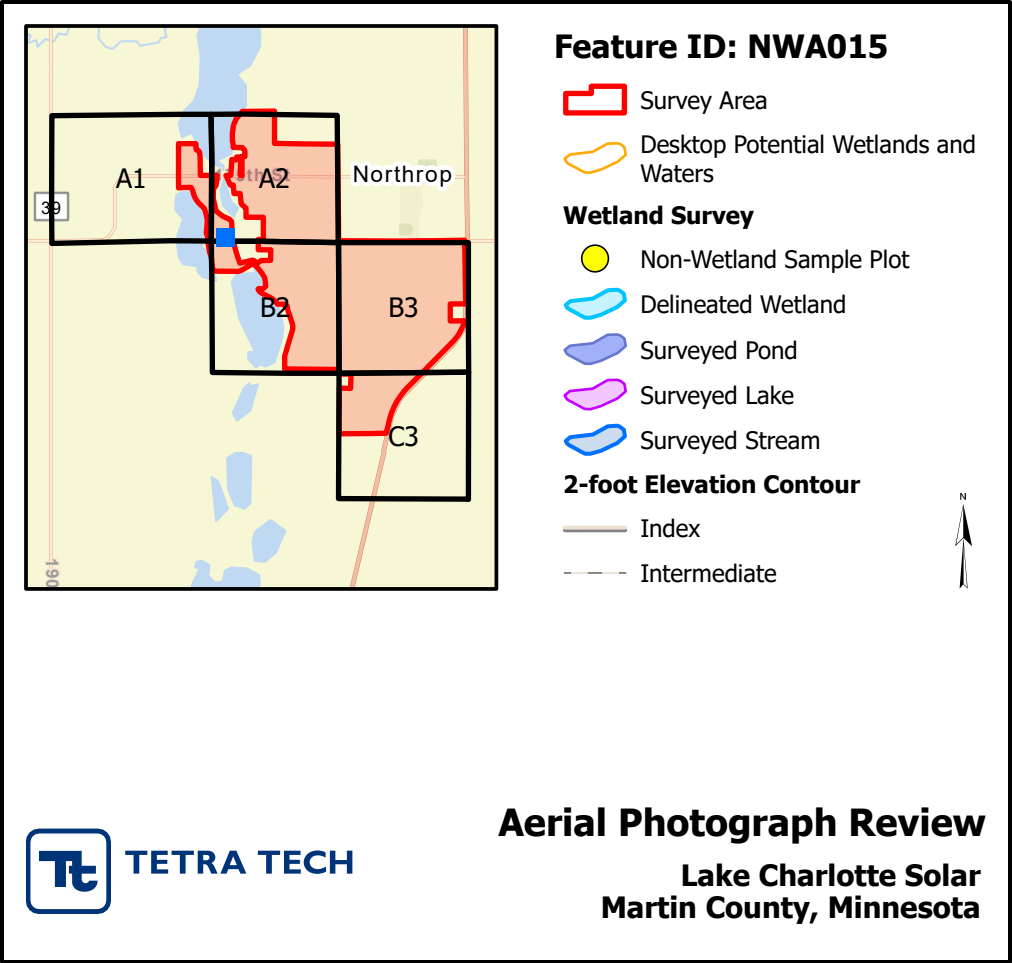
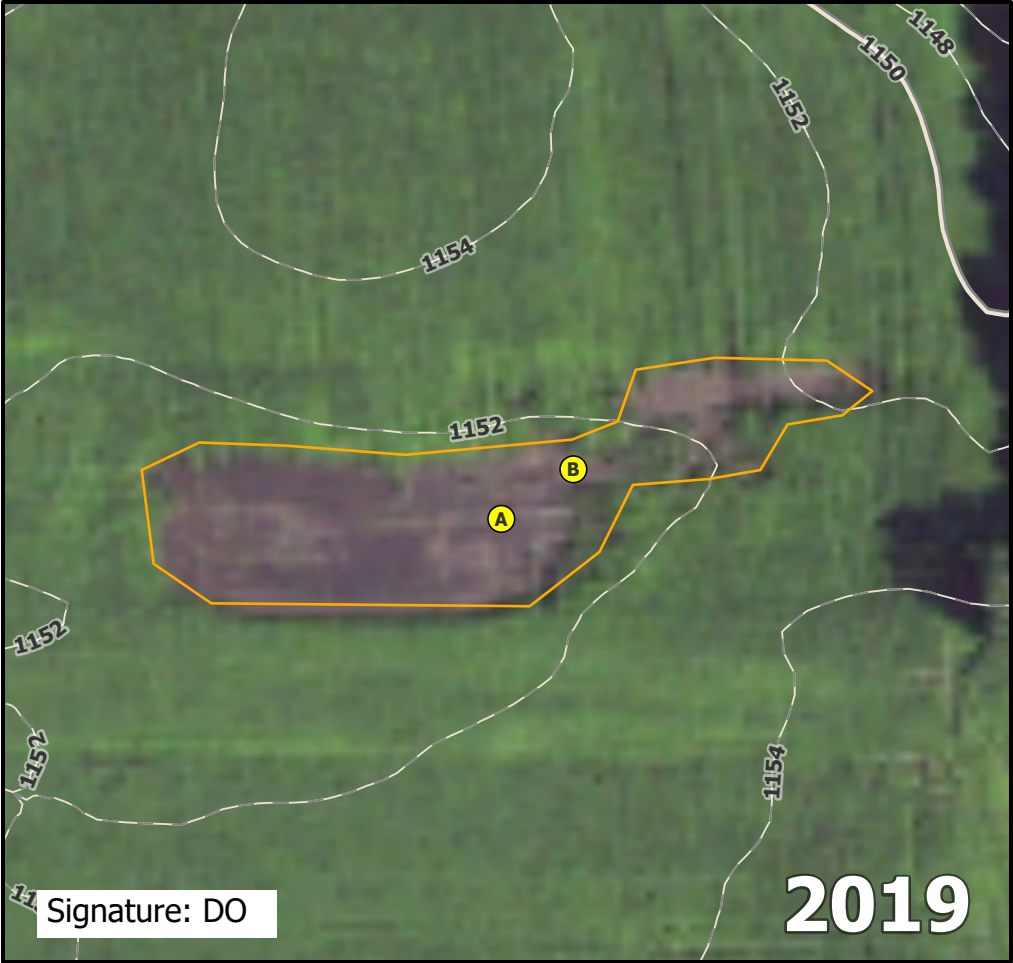
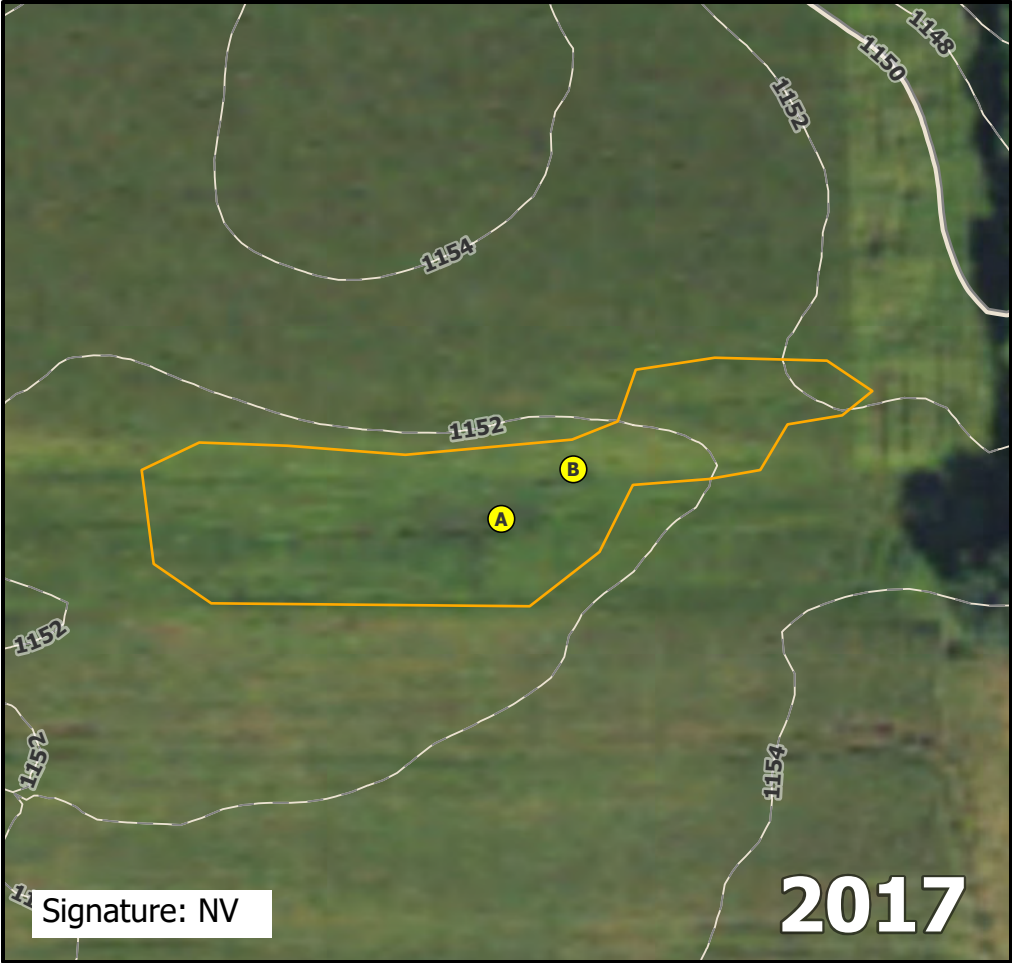
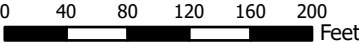
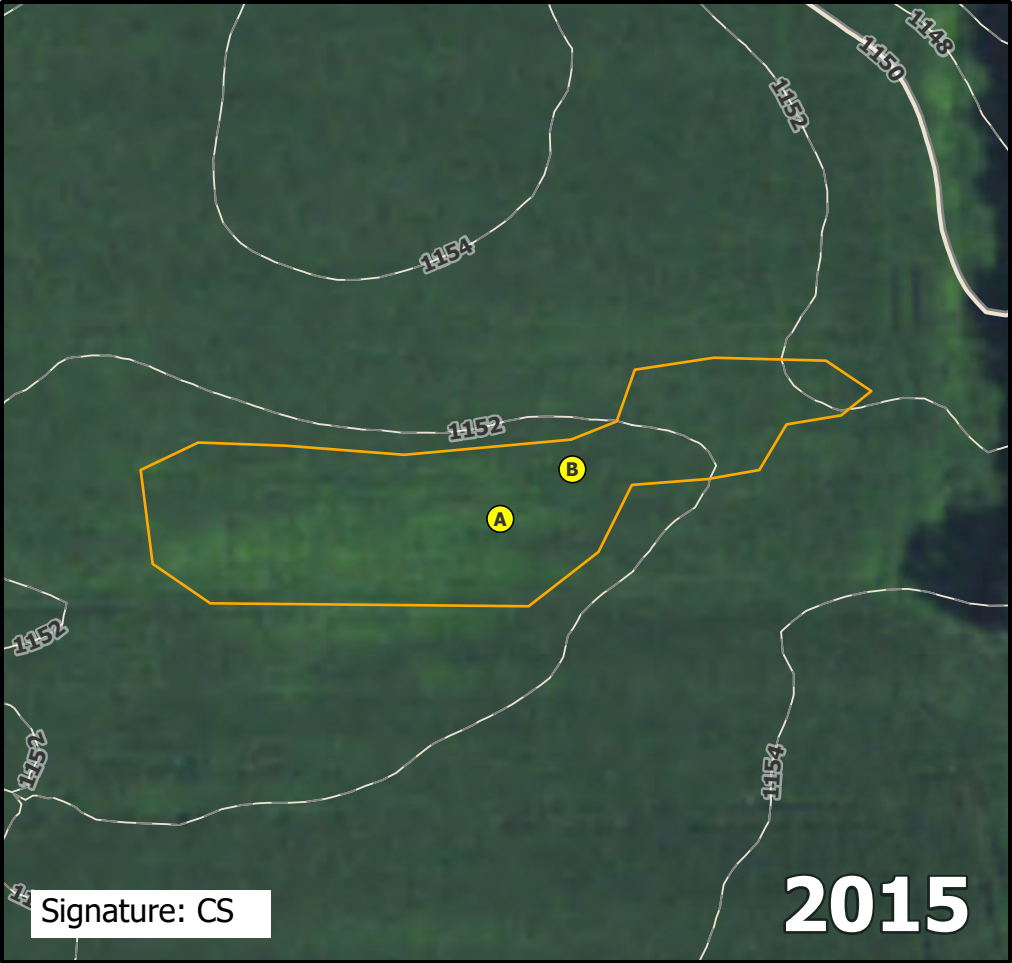
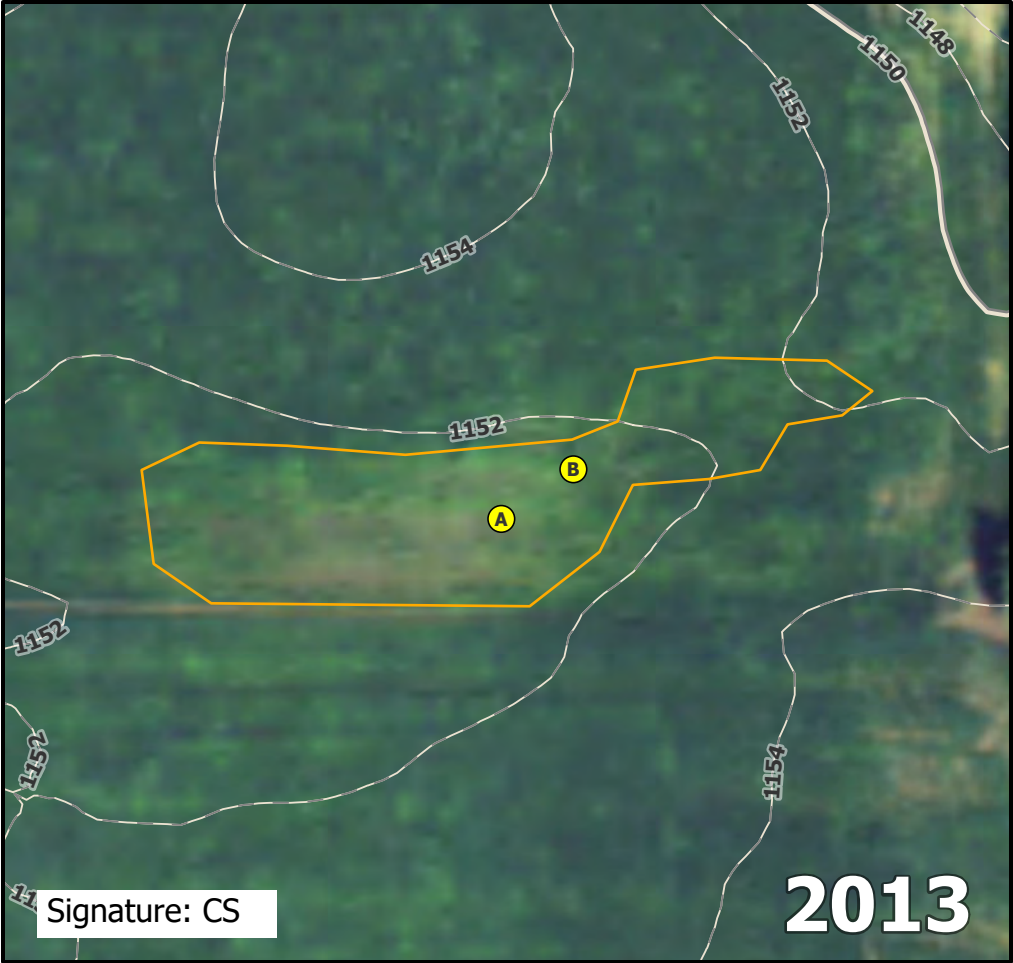
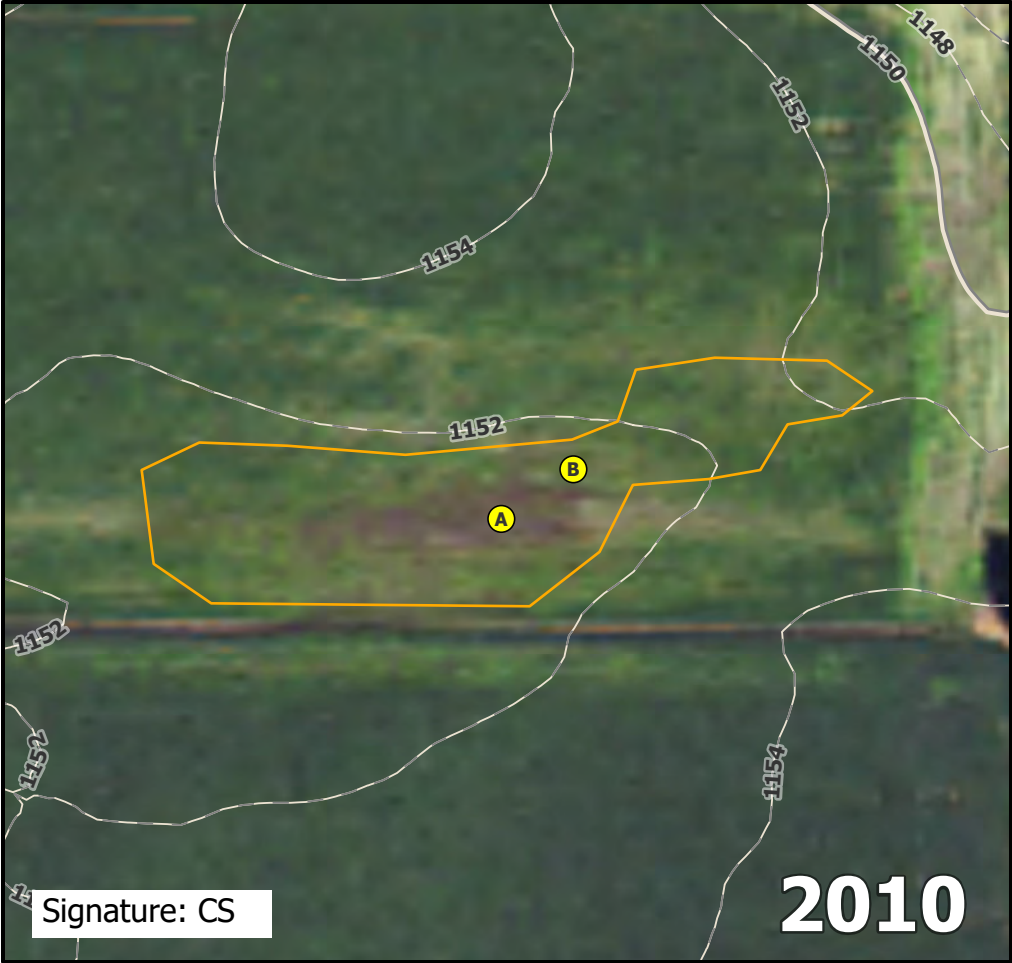
Direction: East

Photo ID: delin_photo-20221019-163209.jpg

Date: 10/19/2022

Project Name: Lake Charlotte

Feature ID: NWA015



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_ReportFigures.aprx apryl.jennrich

Non-Wetland ID

NWA017

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte City/County: Martin Sampling Date: 10/19/2022
 Applicant/Owner: Lake Charlotte Solar, LLC State: MN Sampling Point: NWA017A
 Investigator(s): Apryl Jennrich Section, Township, Range: Sec.17 T103N R30W
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 43.72954 Long: -94.46383 Datum: WGS84
 Soil Map Unit Name: Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded NWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation X, soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
 Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: Recently harvested agricultural field.		

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u>	(Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u> </u> % (A/B)
1.					
2.					
3.					
4.					
5.					Prevalence Index Worksheet Total % Cover of: <u> </u> Multiply by: OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column totals <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
<u> </u> =Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
<u> </u> =Total Cover					Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* <u> </u> (explain)
<u> </u> =Total Cover					
<u>Herb Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
<u> </u> =Total Cover					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Woody Vine Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
<u> </u> =Total Cover					Hydrophytic Vegetation Present? <u>No</u>

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

 Harvested agricultural field. Brome and velvet leaf on field edge. Bare ground: 100%

SOIL

Sampling Point: NWA017A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	2.5Y 3/3	100					Sandy Loam	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? No

Remarks:

Soil is extremely compacted

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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

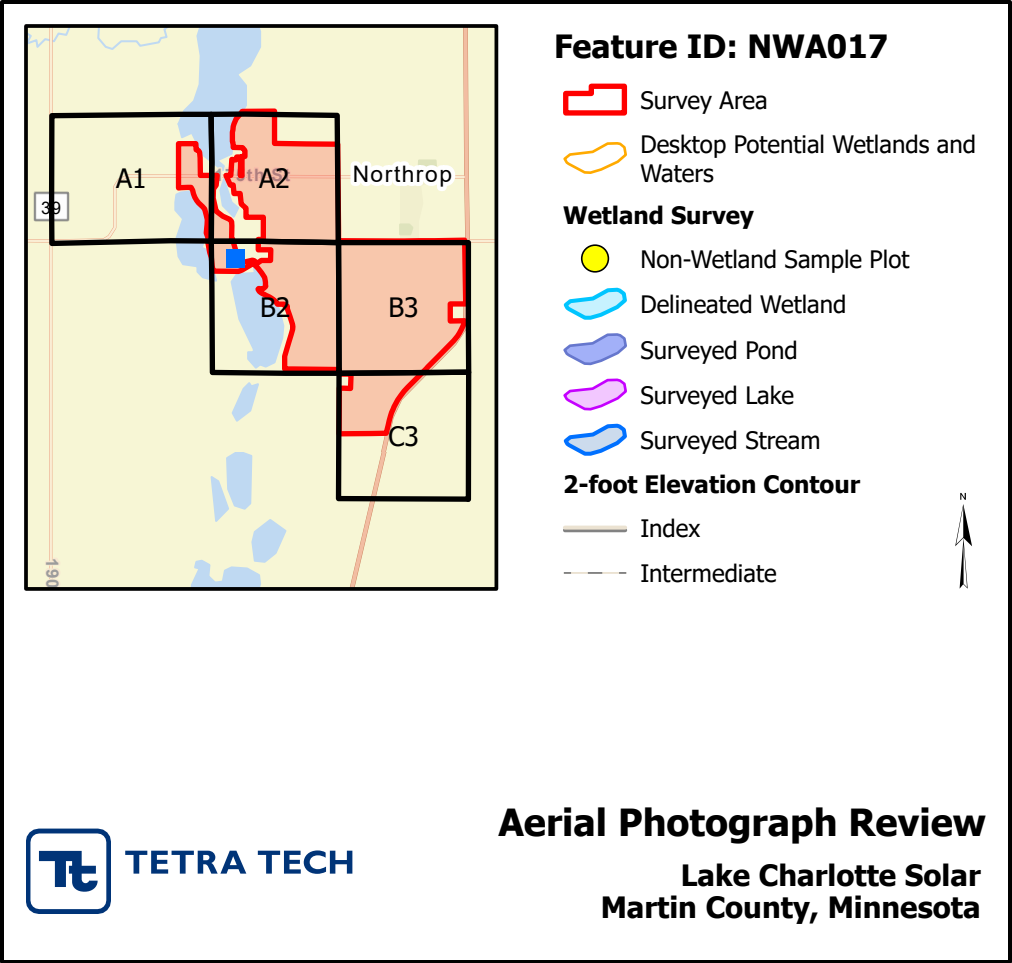
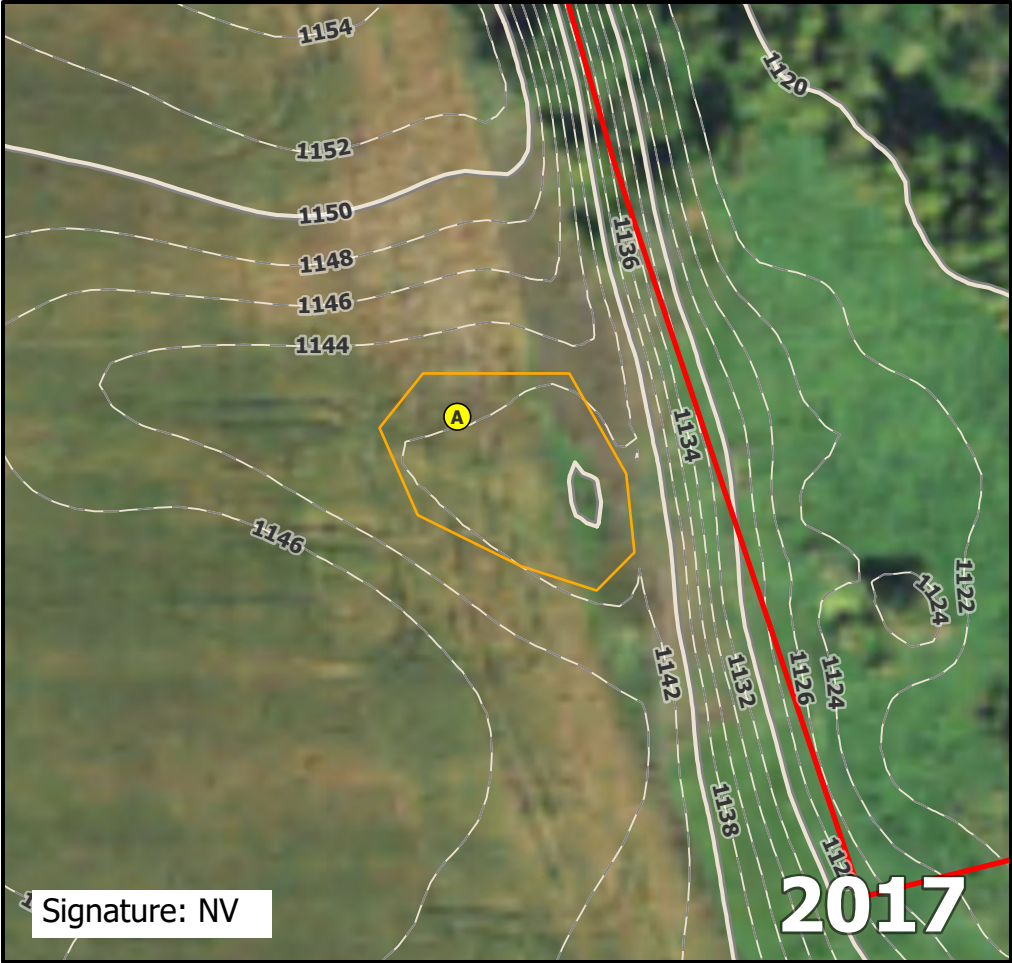
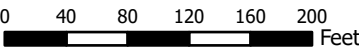
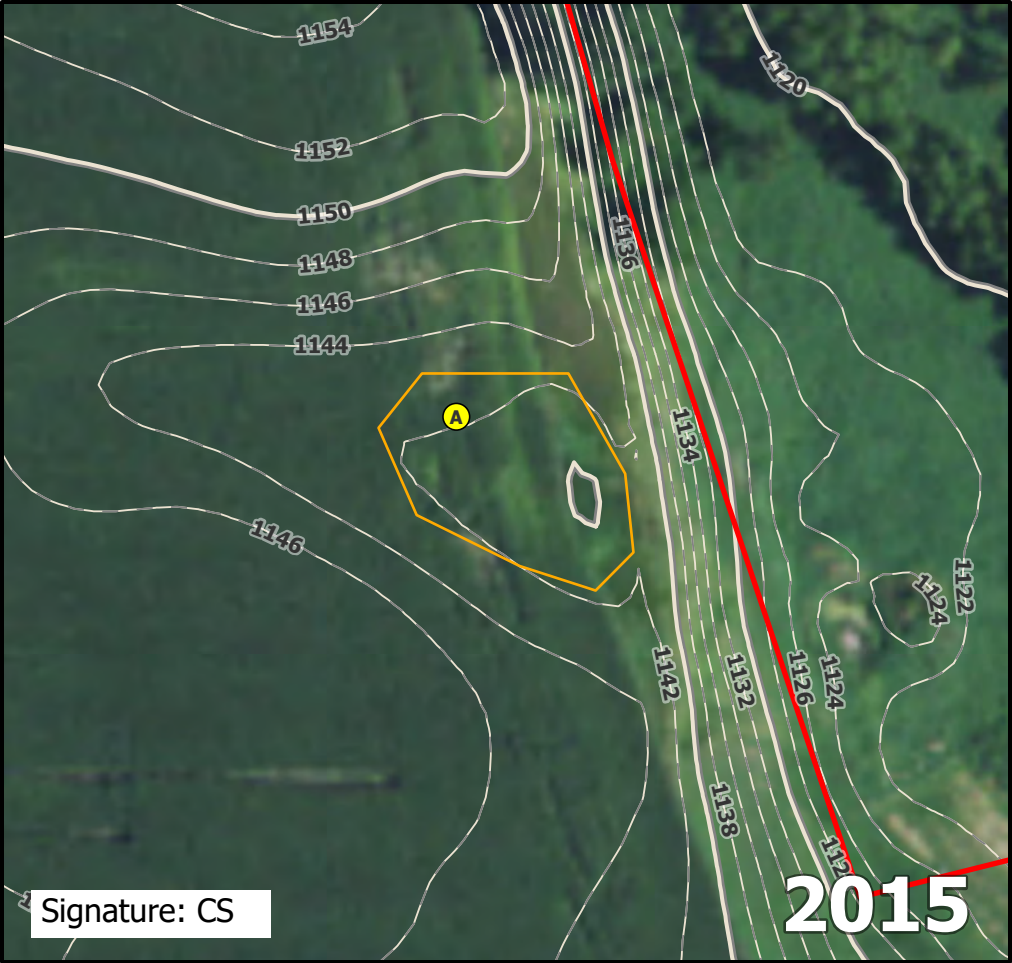
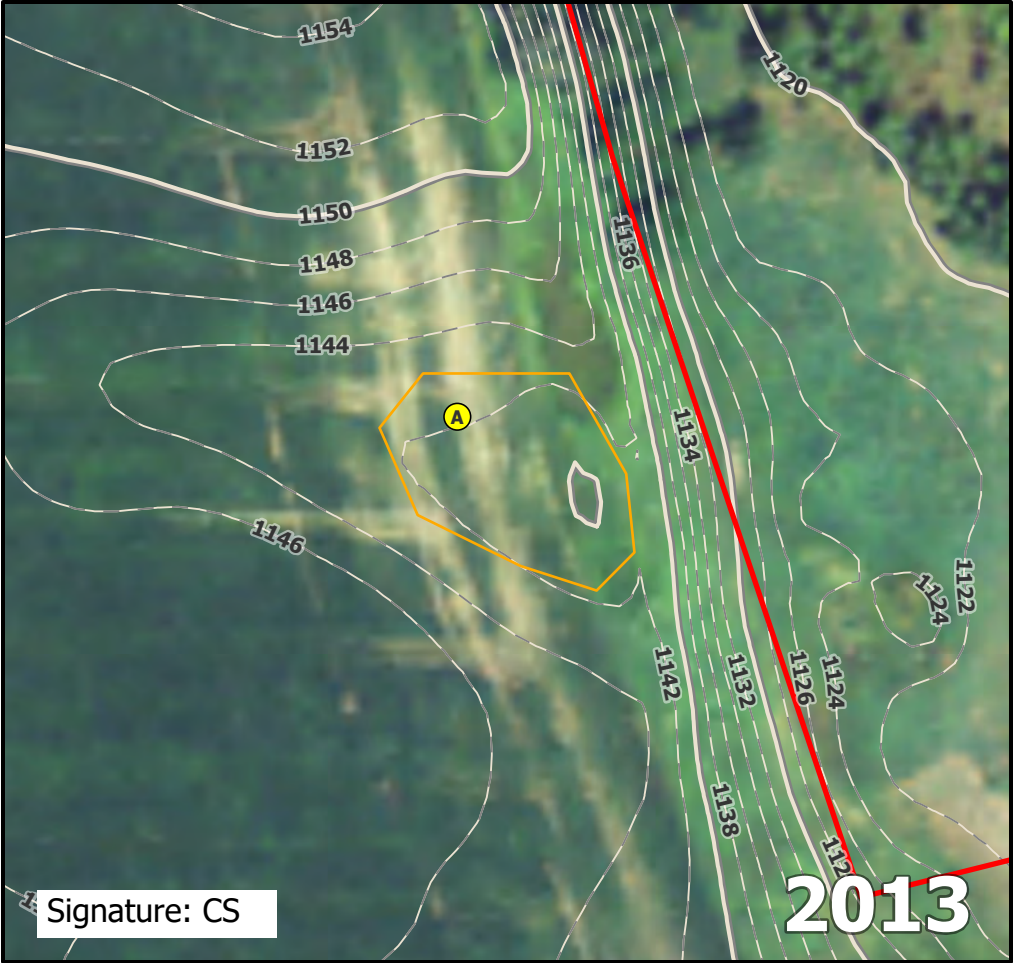
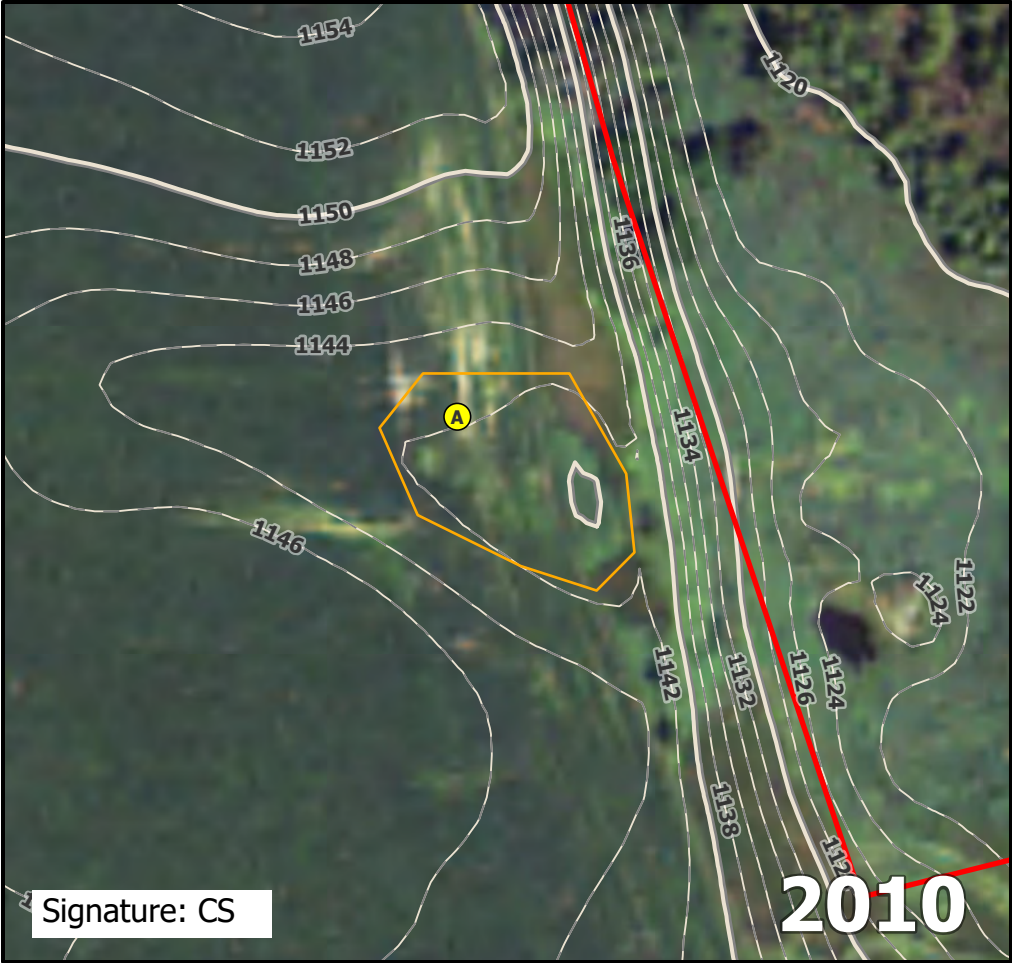
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA017A.

Direction: East	Photo ID: delin_photo-20221019-191050.jpg	Date: 10/19/2022
Project Name: Lake Charlotte	Feature ID: NWA017	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA021

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte City/County: Martin Sampling Date: 10/19/2022
 Applicant/Owner: Lake Charlotte Solar, LLC State: MN Sampling Point: NWA021A
 Investigator(s): Apryl Jennrich Section, Township, Range: Sec.17 T103N R30W
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 20 Lat: 43.72802 Long: -94.46467 Datum: WGS84
 Soil Map Unit Name: Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded NWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation X, soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
 Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: Recently harvested agricultural field.		

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u>	(Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u> </u> % (A/B)
1.					
2.					
3.					
4.					
5.					Prevalence Index Worksheet Total % Cover of: <u> </u> Multiply by: OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column totals <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
<u> </u> =Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
<u> </u> =Total Cover					Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* <u> </u> (explain)
<u> </u> =Total Cover					
<u>Herb Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
<u> </u> =Total Cover					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Woody Vine Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
<u> </u> =Total Cover					Hydrophytic Vegetation Present? <u>No</u>

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

 Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA021A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? No

Remarks:

Obvious not a wetland based on slope.

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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? Yes ☐ No ☐ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present?

No

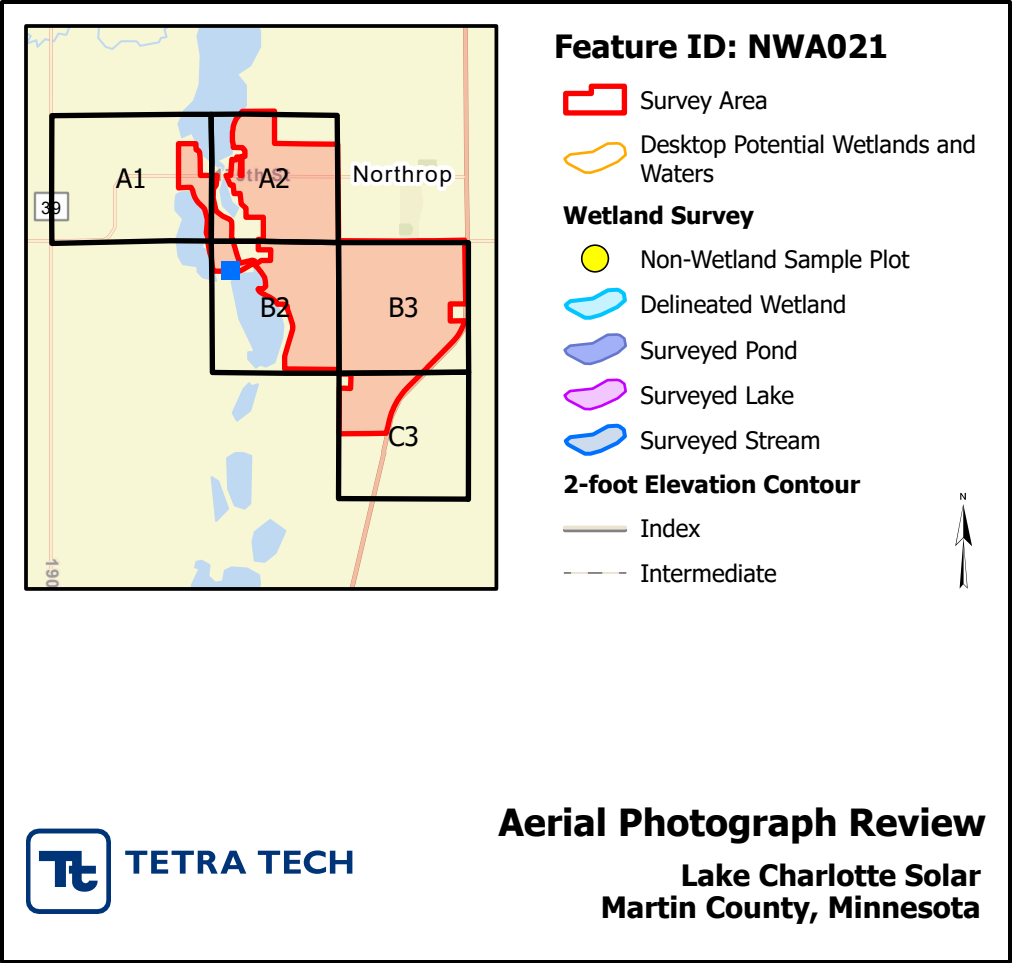
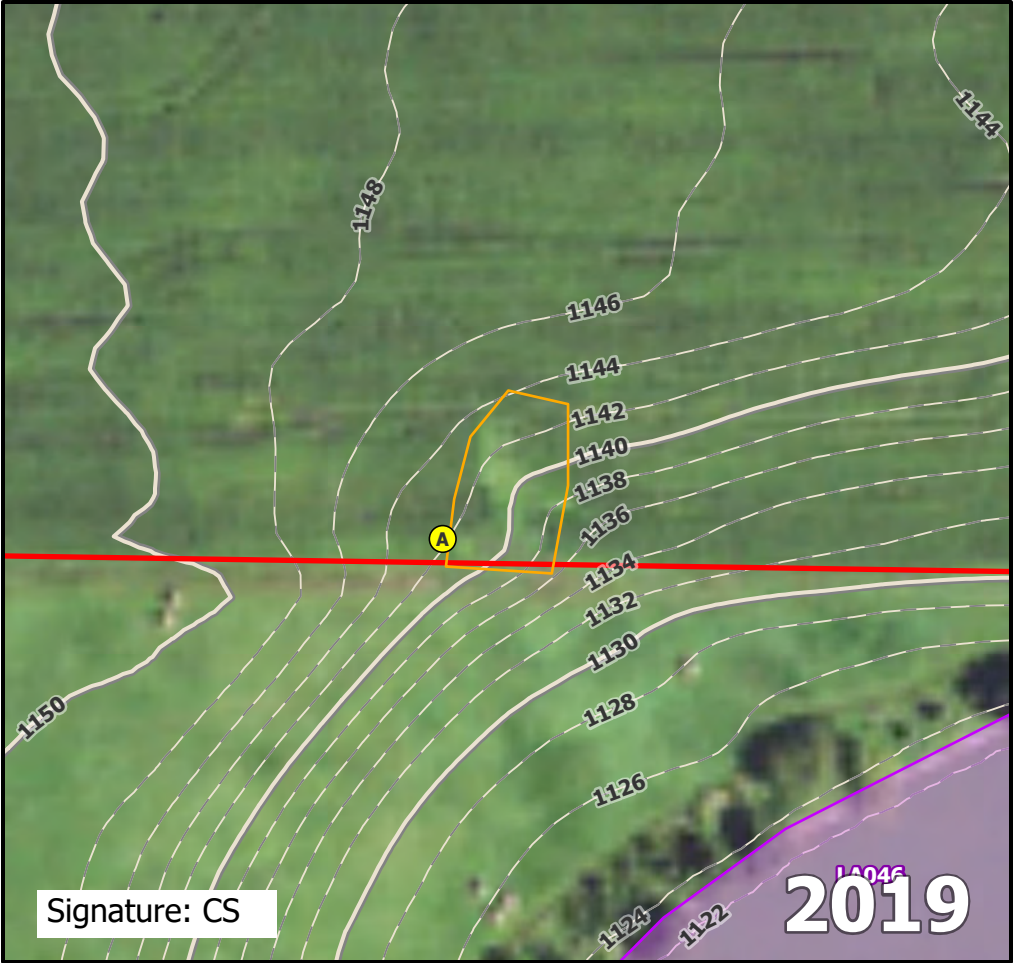
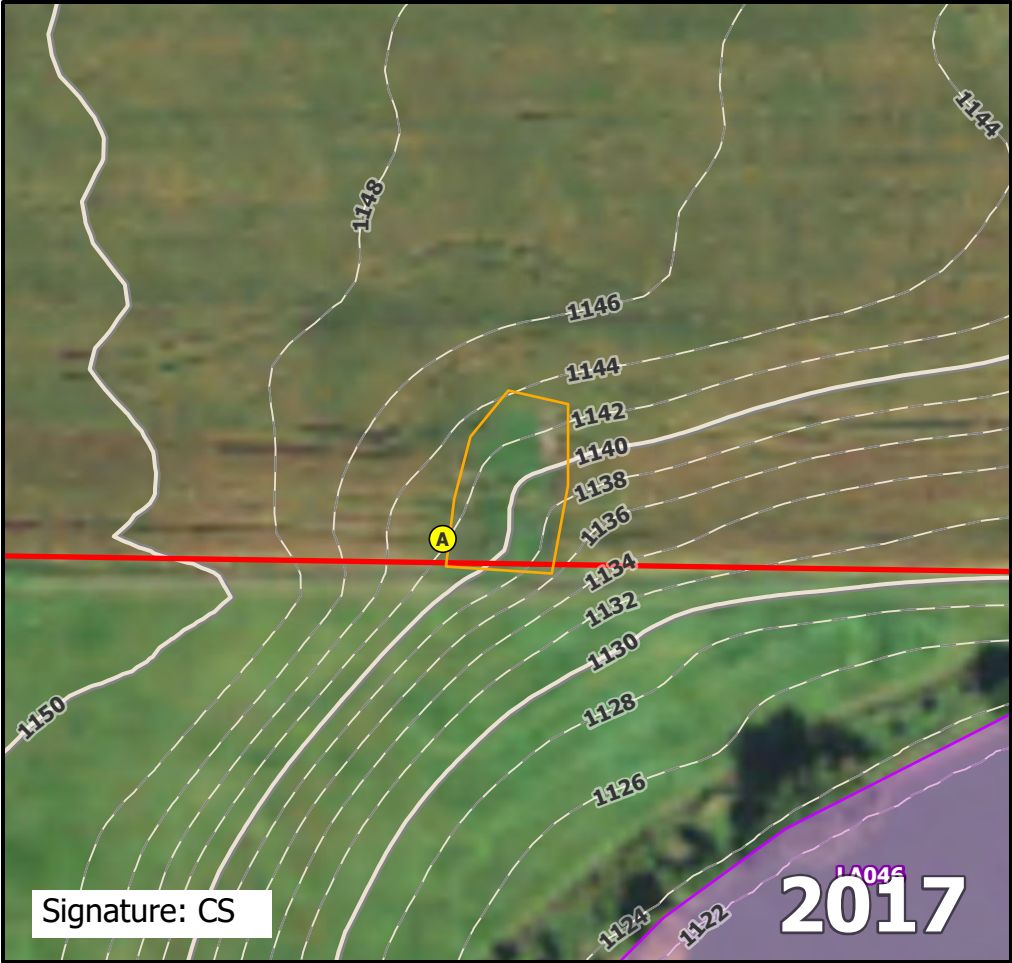
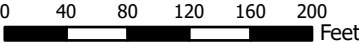
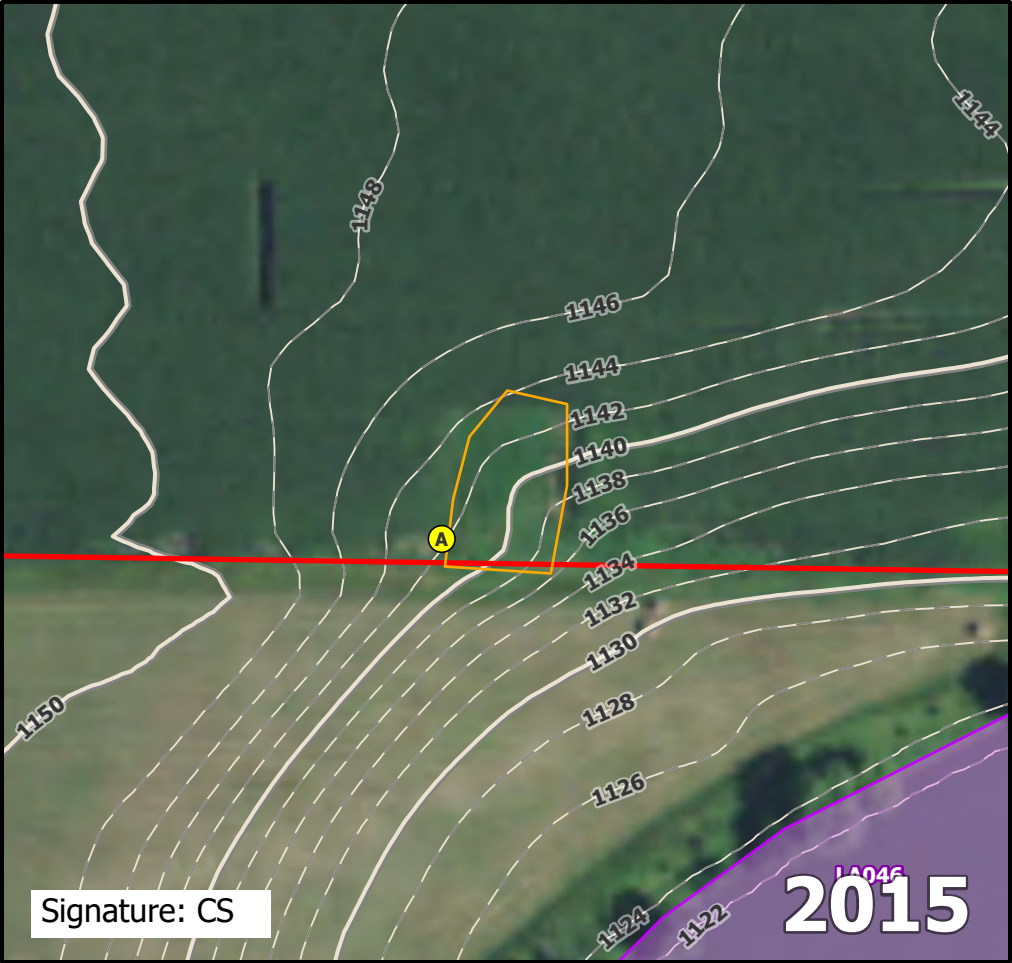
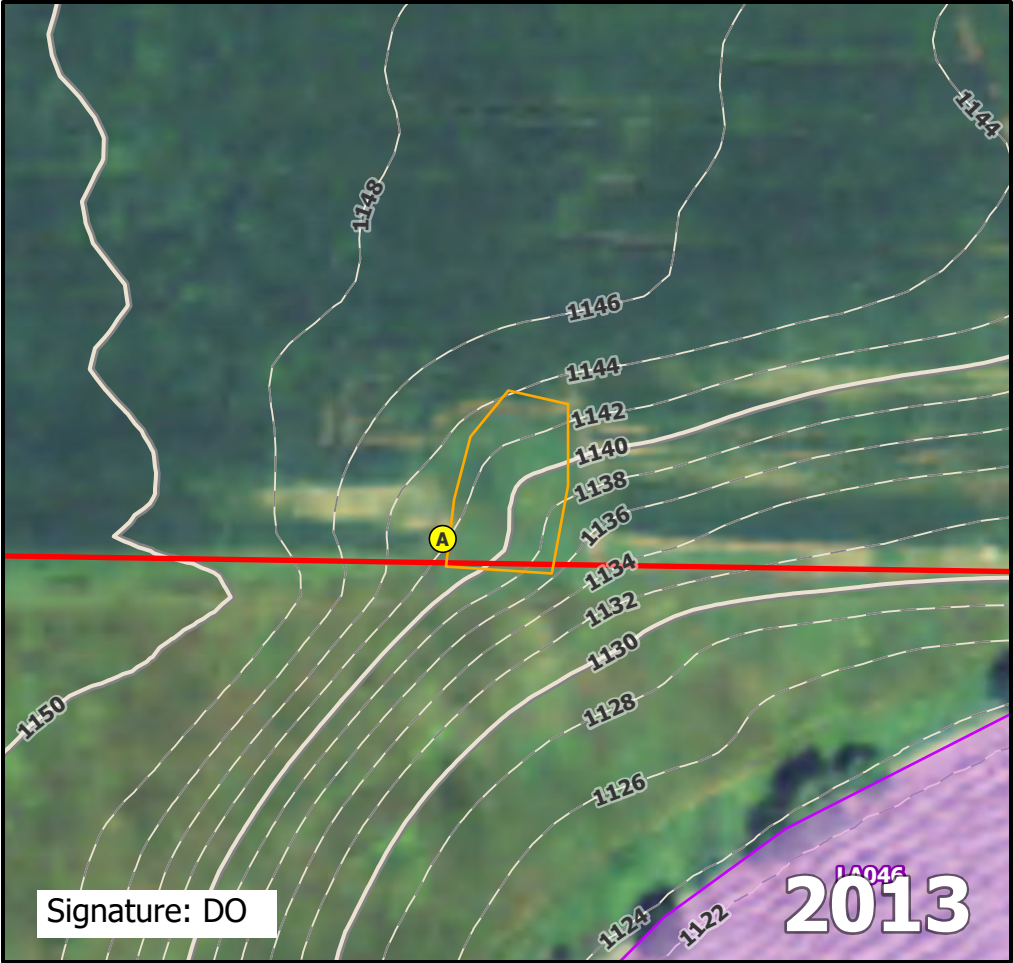
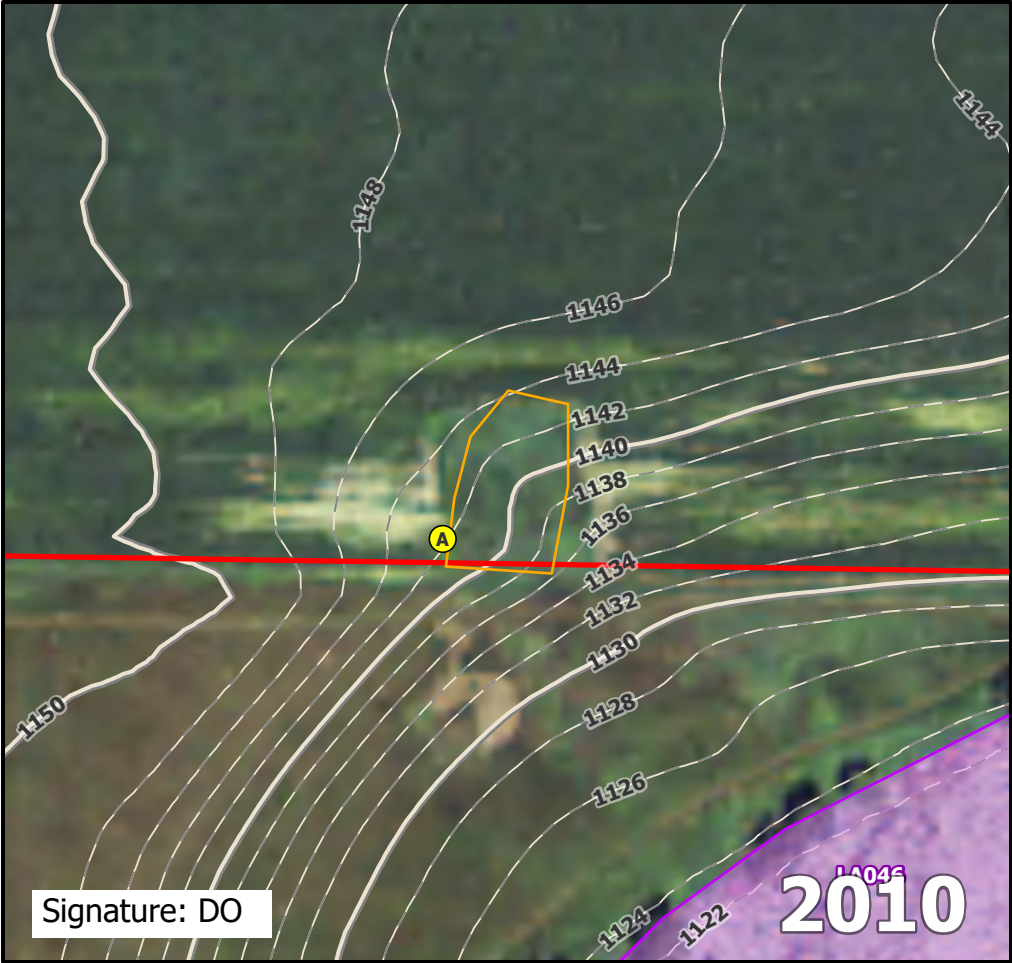
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA021A.

Direction: East	Photo ID: delin_photo-20221019-210840.jpg	Date: 10/19/2022
Project Name: Lake Charlotte	Feature ID: NWA021	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA022

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/19/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA022A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.17 T103N R30W		
Landform (hillslope, terrace, etc.):	Hillslope	Local relief (concave, convex, none):	Concave		
Slope (%):	20	Lat:	43.72812	Long:	-94.46731
				Datum:	WGS84
Soil Map Unit Name:	Water	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>Yes</u>	Is the sampled area within a wetland? <u>No</u> If yes, optional wetland site ID: _____
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks:		

Tree Stratum		Plot size: 30	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet	
1.	<i>Fraxinus pennsylvanica</i>		40	Y	FACW	Number of Dominant Species that are OBL, FACW, or FAC:	4 (A)
2.	<i>Acer negundo</i>		20	Y	FAC	Total Number of Dominant Species Across All Strata:	4 (B)
3.						Percent of Dominant Species that are OBL, FACW, or FAC:	100% (A/B)
4.							
5.							
			60	=Total Cover			
Sapling/Shrub Stratum		Plot size: 15	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet	
1.	<i>Ribes cynosbati</i>		30	Y	FAC	Total % Cover of:	Multiply by:
2.	<i>Rhamnus cathartica</i>		10	Y	FAC	OBL species	0 x 1 = 0
3.						FACW species	40 x 2 = 80
4.						FAC species	60 x 3 = 180
5.						FACU species	0 x 4 = 0
			40	=Total Cover		UPL species	0 x 5 = 0
Herb Stratum		Plot size: 5	Absolute % Cover	Dominant Species	Indicator Status	Column totals	100 (A) 260 (B)
1.						Prevalence Index = B/A =	2.6
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
				=Total Cover			
Woody Vine Stratum		Plot size: 15	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:	
1.						☐ Rapid test for hydrophytic vegetation ☒ Dominance test is >50% ☐ Prevalence index is ≤3.0* ☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ☐ Problematic hydrophytic vegetation* ☐ (explain)	
2.						*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
				=Total Cover		Hydrophytic Vegetation Present? Yes	

Bare ground: 50%

SOIL

Sampling Point: NWA022A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
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☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
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Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? No

Remarks:

Obvious not a wetland based on slope.

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)
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☐ 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? Yes ☐ No ☐ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present?

No

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte City/County: Martin Sampling Date: 10/19/2022
 Applicant/Owner: Lake Charlotte Solar, LLC State: MN Sampling Point: NWA022B
 Investigator(s): Apryl Jennrich Section, Township, Range: Sec.18 T103N R30W
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 20 Lat: 43.72941 Long: -94.46752 Datum: WGS84
 Soil Map Unit Name: Water NWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)

Are vegetation , soil , or hydrology Significantly disturbed? Are "normal circumstances present? Yes

Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
If yes, optional wetland site ID: <u> </u>		
Remarks:		

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. <u>Quercus alba</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Tilia americana</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. <u>Celtis occidentalis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u> </u>				
5. <u> </u>				
<u>100</u> =Total Cover				Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>100</u> (A) <u>390</u> (B) Prevalence Index = B/A = <u>3.9</u>
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u>)				
1. <u> </u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
<u> </u> =Total Cover				Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* <u> </u> (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Herb Stratum</u> (Plot size: <u>5</u>)				
1. <u> </u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
<u> </u> =Total Cover				Hydrophytic Vegetation Present? <u>No</u>
<u>Woody Vine Stratum</u> (Plot size: <u>15</u>)				
1. <u> </u>				
2. <u> </u>				
<u> </u> =Total Cover				

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

Bare ground: 25%

SOIL

Sampling Point: NWA022B

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? No

Remarks:

Obvious not a wetland based on vegetation and slope.

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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA022A.

Direction: West

Photo ID: delin_photo-20221019-212025.jpg

Date: 10/19/2022



Overview of upland sample point NWA022B.

Direction: Northwest

Photo ID: delin_photo-20221019-214612.jpg

Date: 10/19/2022

Project Name: Lake Charlotte

Feature ID: NWA022

Non-Wetland ID

NWA023

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte City/County: Martin Sampling Date: 10/20/2022
 Applicant/Owner: Lake Charlotte Solar, LLC State: MN Sampling Point: NWA023A
 Investigator(s): Apryl Jennrich Section, Township, Range: Sec.7 T103N R30W
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 43.7375 Long: -94.46882 Datum: WGS84
 Soil Map Unit Name: Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded NWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation X, soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
 Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u>	(Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u> </u> % (A/B)
1.					
2.					
3.					
4.					
5.					Prevalence Index Worksheet Total % Cover of: <u> </u> Multiply by: OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column totals <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
<u> </u> =Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
<u> </u> =Total Cover					Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* <u> </u> (explain)
<u> </u> =Total Cover					
<u>Herb Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
<u> </u> =Total Cover					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Woody Vine Stratum</u>	(Plot size: <u> </u>)				
1.					
2.					
<u> </u> =Total Cover					Hydrophytic Vegetation Present? <u>No</u>

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

 Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA023A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-22	10YR 2/1	100					Clay	
22-29	2.5Y 5/2	100					Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

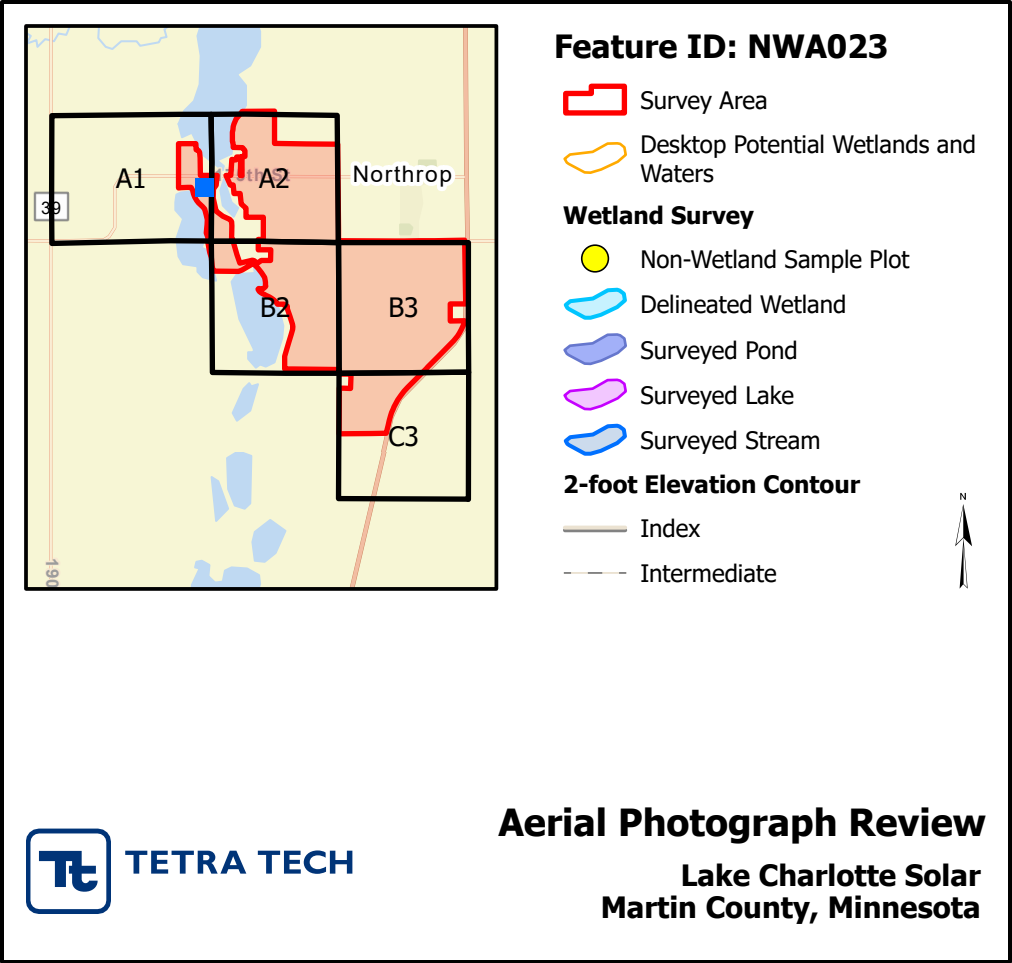
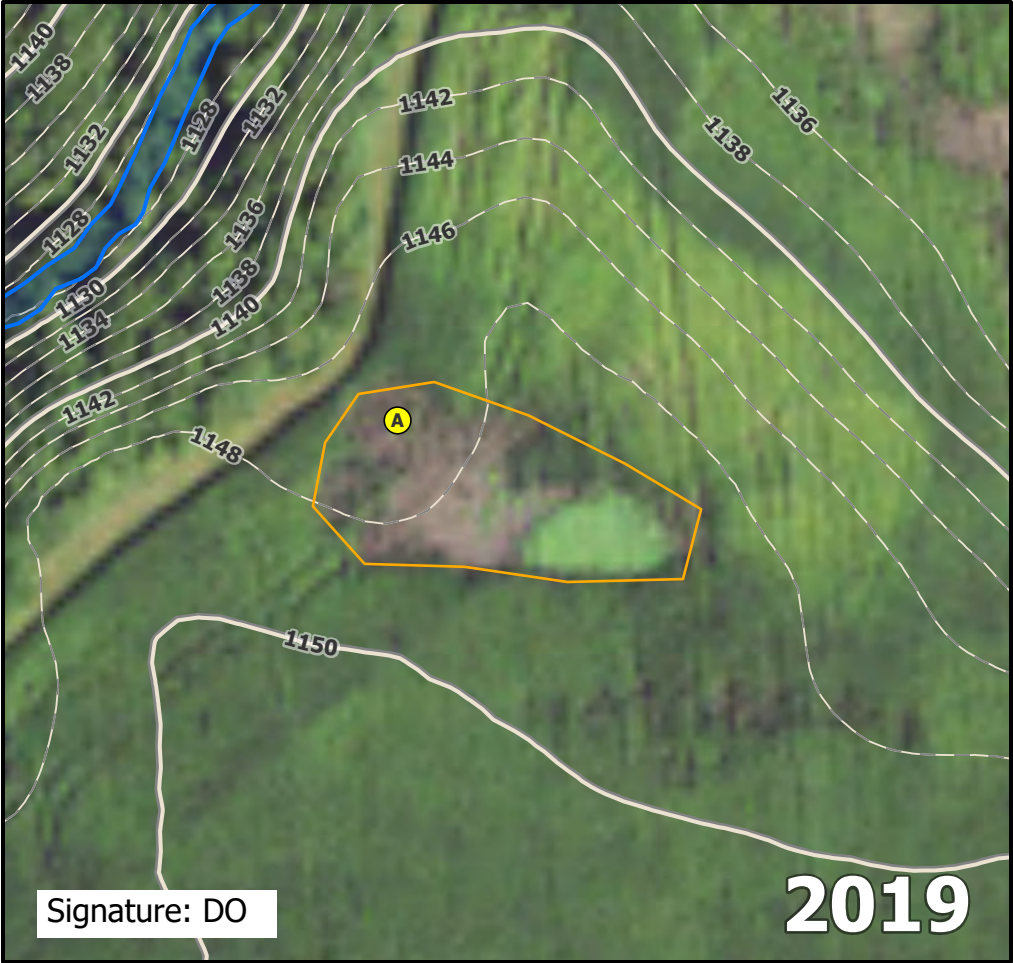
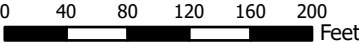
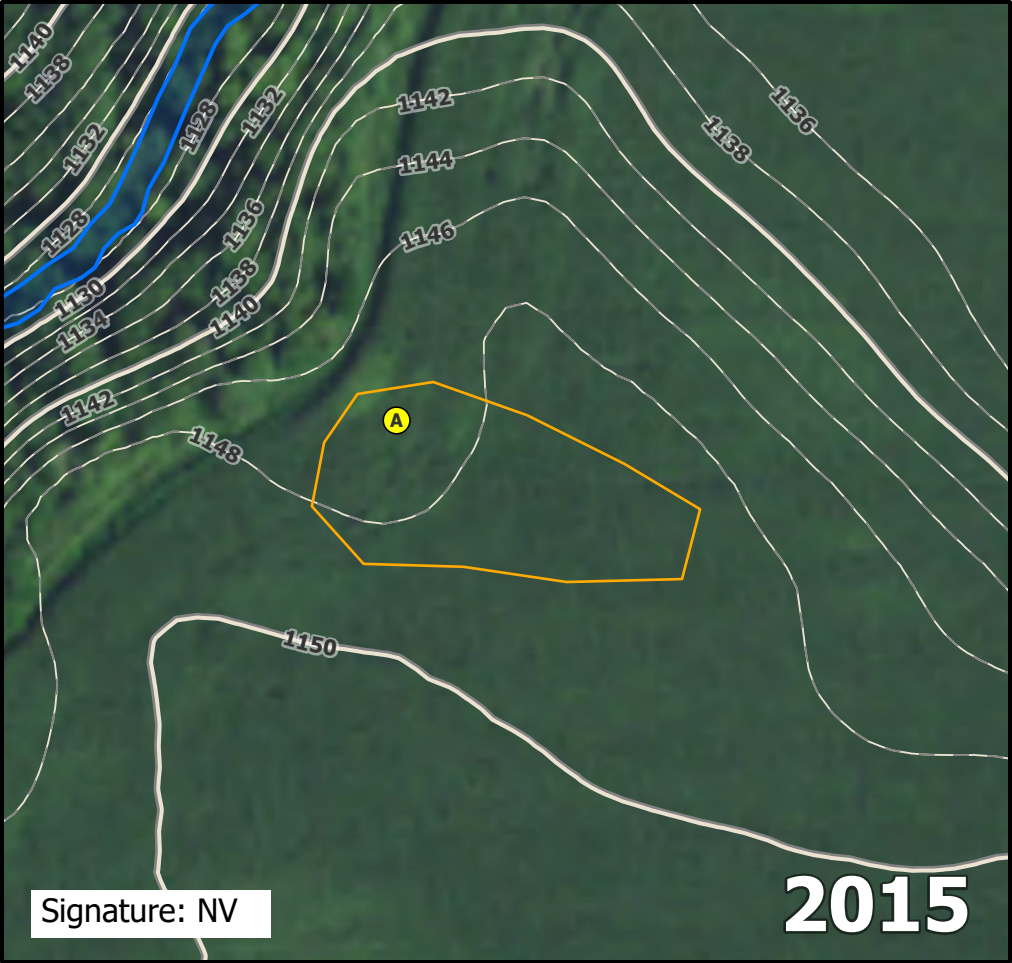
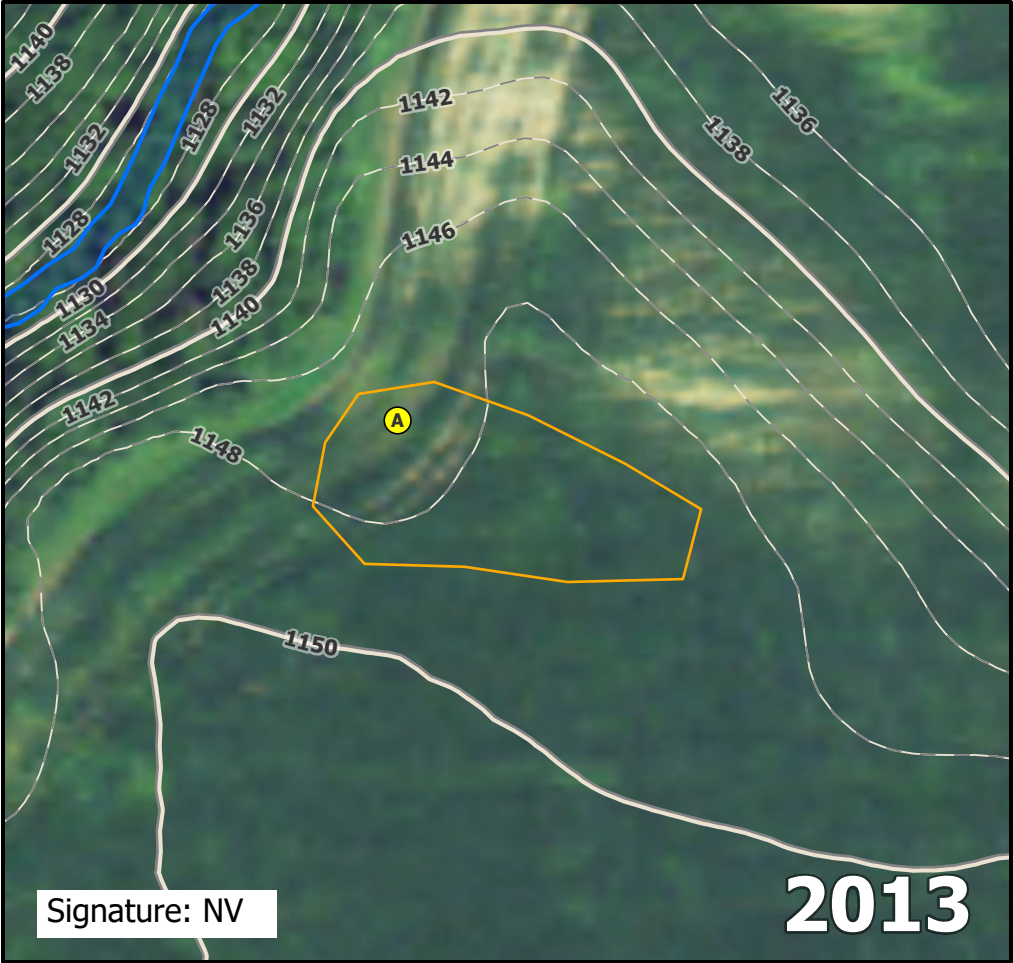
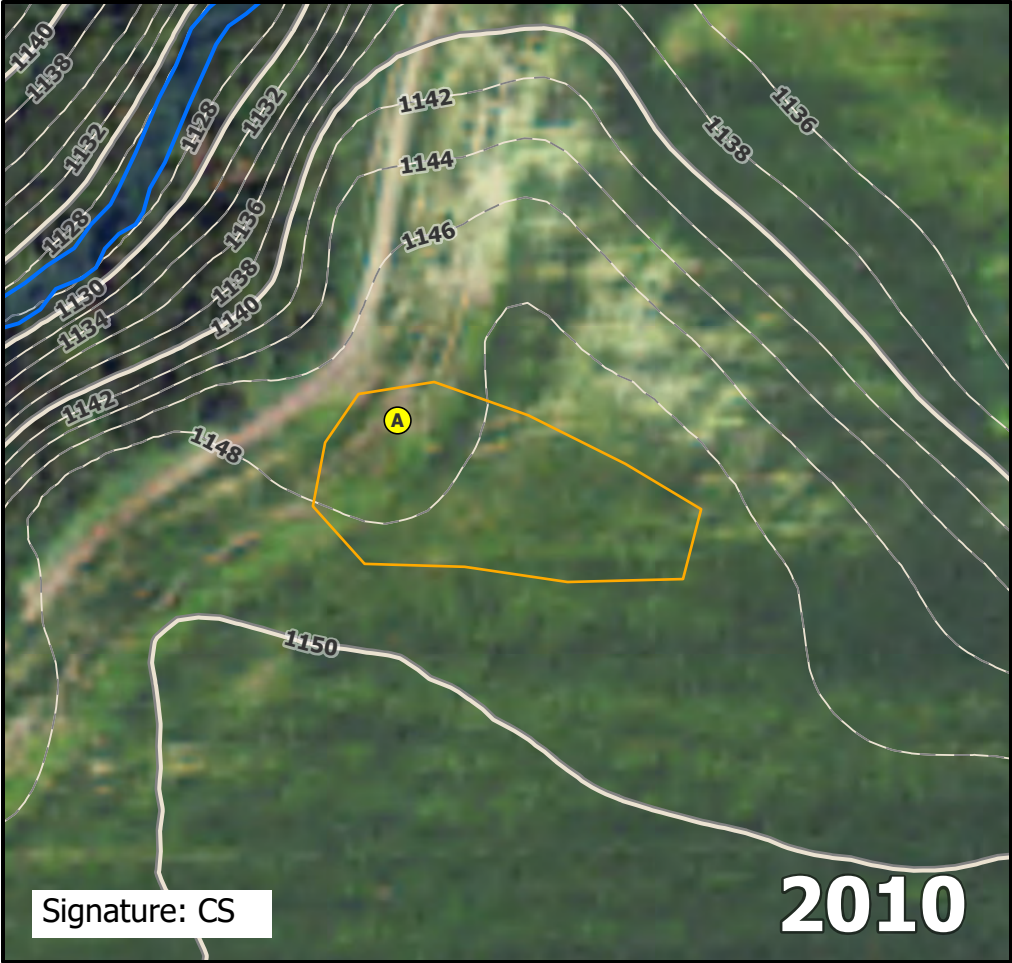
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA023A.

Direction: Northeast	Photo ID: delin_photo-20221020-132708.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA023	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_ReportFigures.aprx apryl.jennrich

Non-Wetland ID

NWA024

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA024A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.7 T103N R30W		
Landform (hillslope, terrace, etc.):	Hillslope	Local relief (concave, convex, none):	Convex		
Slope (%):	15	Lat:	43.73707	Long:	-94.46967
		Datum:	WGS84		
Soil Map Unit Name:	Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks:		

				Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Status	
1.	<i>Fraxinus pennsylvanica</i>	50	Y	FACW	Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)
2.	<i>Acer negundo</i>	15	Y	FAC	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3.					Percent of Dominant Species that are OBL, FACW, or FAC: <u>75%</u> (A/B)
4.					
5.					
		<u>65</u>	=Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>15</u>)				Prevalence Index Worksheet
1.	<i>Ribes cynosbati</i>	20	Y	FAC	Total % Cover of:
2.					Multiply by:
3.					OBL species <u>0</u> x 1 = <u>0</u>
4.					FACW species <u>50</u> x 2 = <u>100</u>
5.					FAC species <u>35</u> x 3 = <u>105</u>
		<u>20</u>	=Total Cover		FACU species <u>40</u> x 4 = <u>160</u>
<u>Herb Stratum</u>	(Plot size: <u>5</u>)				UPL species <u>0</u> x 5 = <u>0</u>
1.	<i>Bromus inermis</i>	40	Y	FACU	Column totals <u>125</u> (A) <u>365</u> (B)
2.					Prevalence Index = B/A = <u>2.9</u>
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
		<u>40</u>	=Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: <u>15</u>)				Hydrophytic Vegetation Indicators:
1.					<u> </u> Rapid test for hydrophytic vegetation
2.					<u>X</u> Dominance test is >50%
		<u> </u>	=Total Cover		<u> </u> Prevalence index is ≤3.0*
					<u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
					<u> </u> Problematic hydrophytic vegetation* (explain)
					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
					Hydrophytic Vegetation Present?
					<u>No</u>

Bare ground: 10%

SOIL

Sampling Point: NWA024A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? No

Remarks:

Obvious not a wetland based on slope.

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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA024A.

Direction: Northwest

Photo ID: delin_photo-20221020-133549.jpg

Date: 10/20/2022

Project Name: Lake Charlotte

Feature ID: NWA024

Non-Wetland ID

NWA025

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte City/County: Martin Sampling Date: 10/20/2022
 Applicant/Owner: Lake Charlotte Solar, LLC State: MN Sampling Point: NWA025A
 Investigator(s): Apryl Jennrich Section, Township, Range: Sec.7 T103N R30W
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 10 Lat: 43.73673 Long: -94.47003 Datum: WGS84
 Soil Map Unit Name: Webster clay loam, 0 to 2 percent slopes NWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)

Are vegetation , soil , or hydrology Significantly disturbed? Are "normal circumstances present? Yes

Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
If yes, optional wetland site ID: <u> </u>		
Remarks:		

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet	
1. <u>Quercus alba</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>		Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)
2. <u>Acer negundo</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. <u> </u>				Percent of Dominant Species that are OBL, FACW, or FAC: <u>33%</u> (A/B)	
4. <u> </u>					
5. <u> </u>					
	<u>65</u>	<u>=Total Cover</u>			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u>)				Prevalence Index Worksheet	
1. <u> </u>					Total % Cover of: Multiply by:
2. <u> </u>				OBL species <u>0</u> x 1 = <u>0</u>	
3. <u> </u>				FACW species <u>0</u> x 2 = <u>0</u>	
4. <u> </u>				FAC species <u>30</u> x 3 = <u>90</u>	
5. <u> </u>				FACU species <u>90</u> x 4 = <u>360</u>	
				UPL species <u>0</u> x 5 = <u>0</u>	
				Column totals <u>120</u> (A) <u>450</u> (B)	
				Prevalence Index = B/A = <u>3.75</u>	
<u>Herb Stratum</u> (Plot size: <u>5</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Bromus inermis</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>		<u> </u> Rapid test for hydrophytic vegetation
2. <u>Asclepias syriaca</u>	<u>10</u>	<u>N</u>	<u>FACU</u>		<u> </u> Dominance test is >50%
3. <u>Setaria pumila</u>	<u>5</u>	<u>N</u>	<u>FAC</u>		<u> </u> Prevalence index is ≤3.0*
4. <u> </u>					<u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5. <u> </u>					<u> </u> Problematic hydrophytic vegetation*
6. <u> </u>					<u> </u> (explain)
7. <u> </u>					
8. <u> </u>					
9. <u> </u>					
10. <u> </u>					
	<u>55</u>	<u>=Total Cover</u>			
<u>Woody Vine Stratum</u> (Plot size: <u>15</u>)				Hydrophytic Vegetation Present? <u>No</u>	
1. <u> </u>					
2. <u> </u>					
		<u>=Total Cover</u>			

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

Bare ground: 0%

SOIL

Sampling Point: NWA025A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? No

Remarks:

Obvious not a wetland based on slope and vegetation.

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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? Yes ☐ No ☐ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present?

No

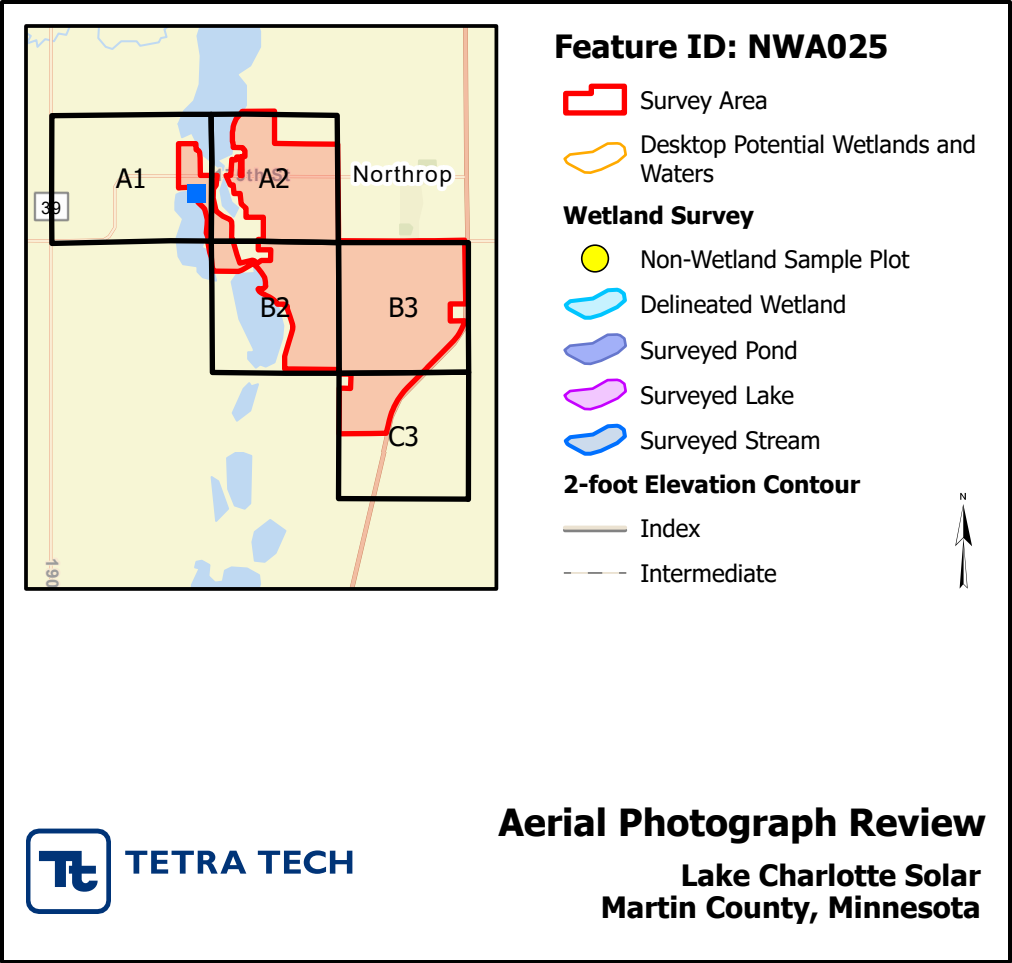
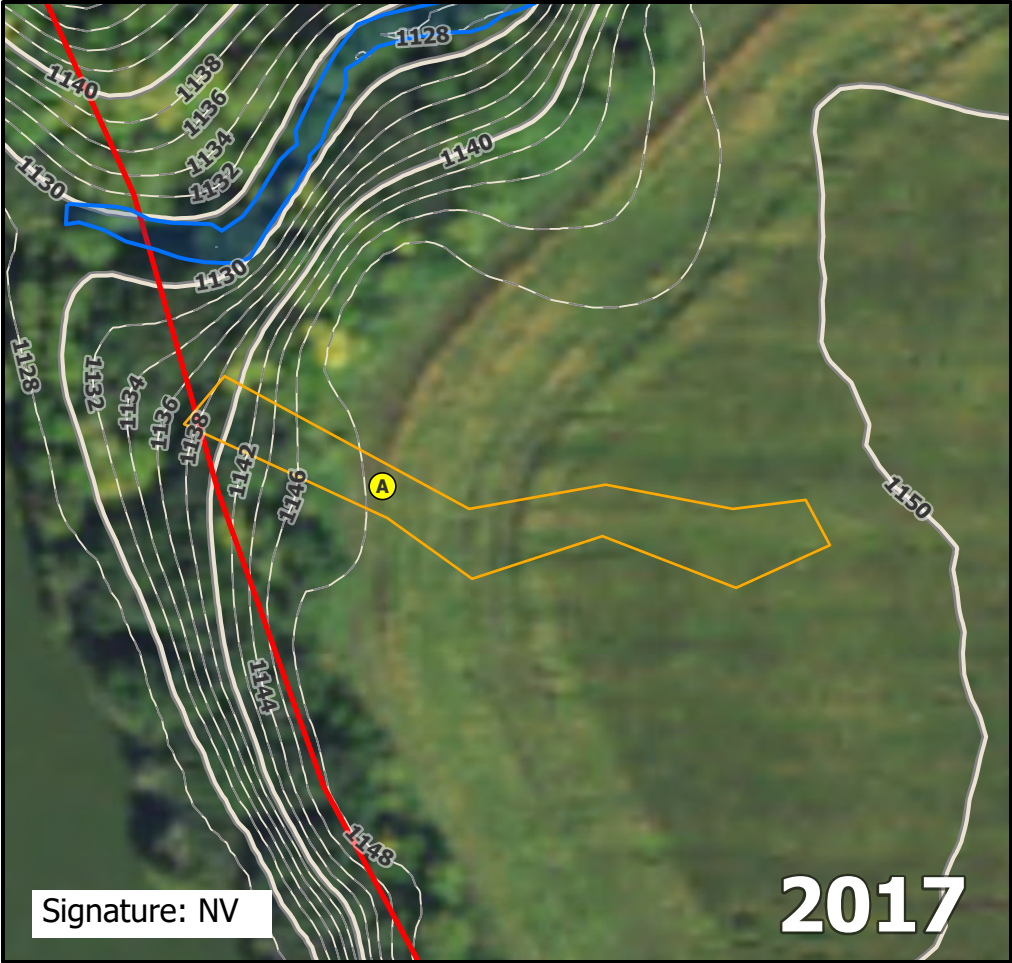
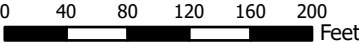
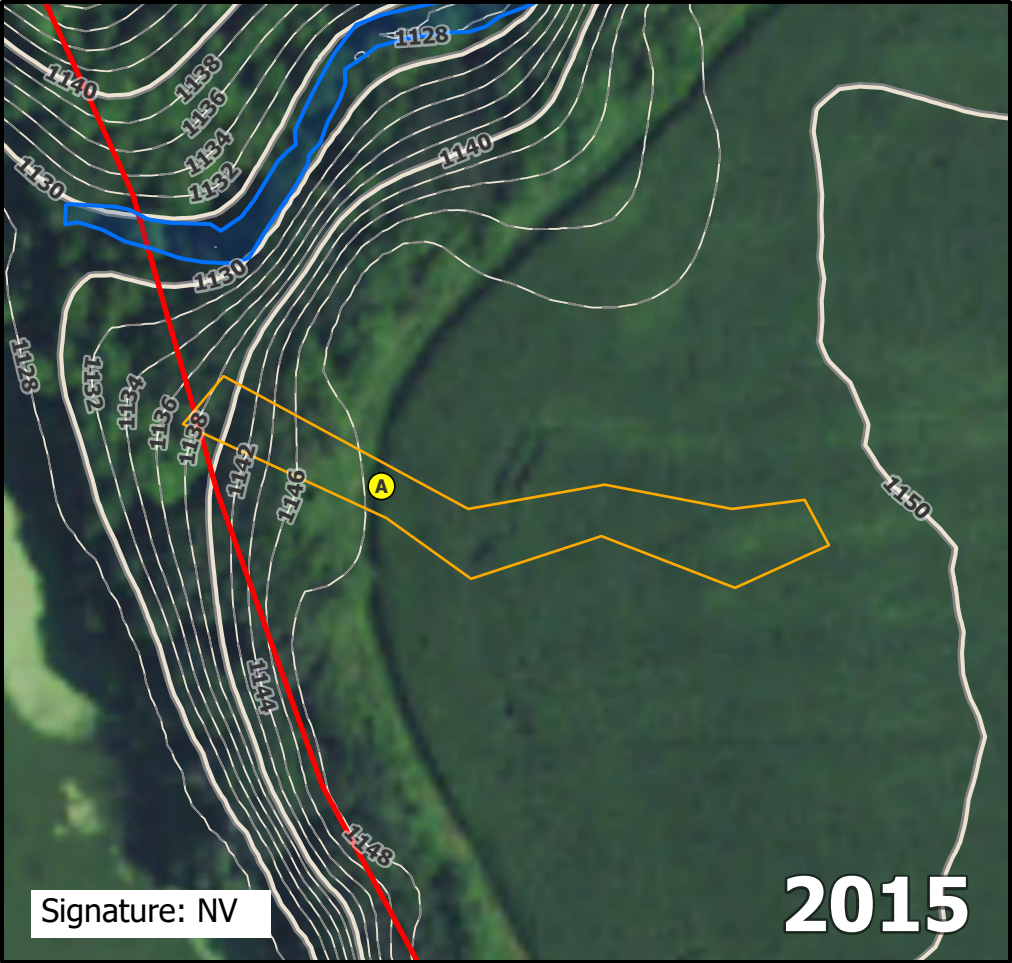
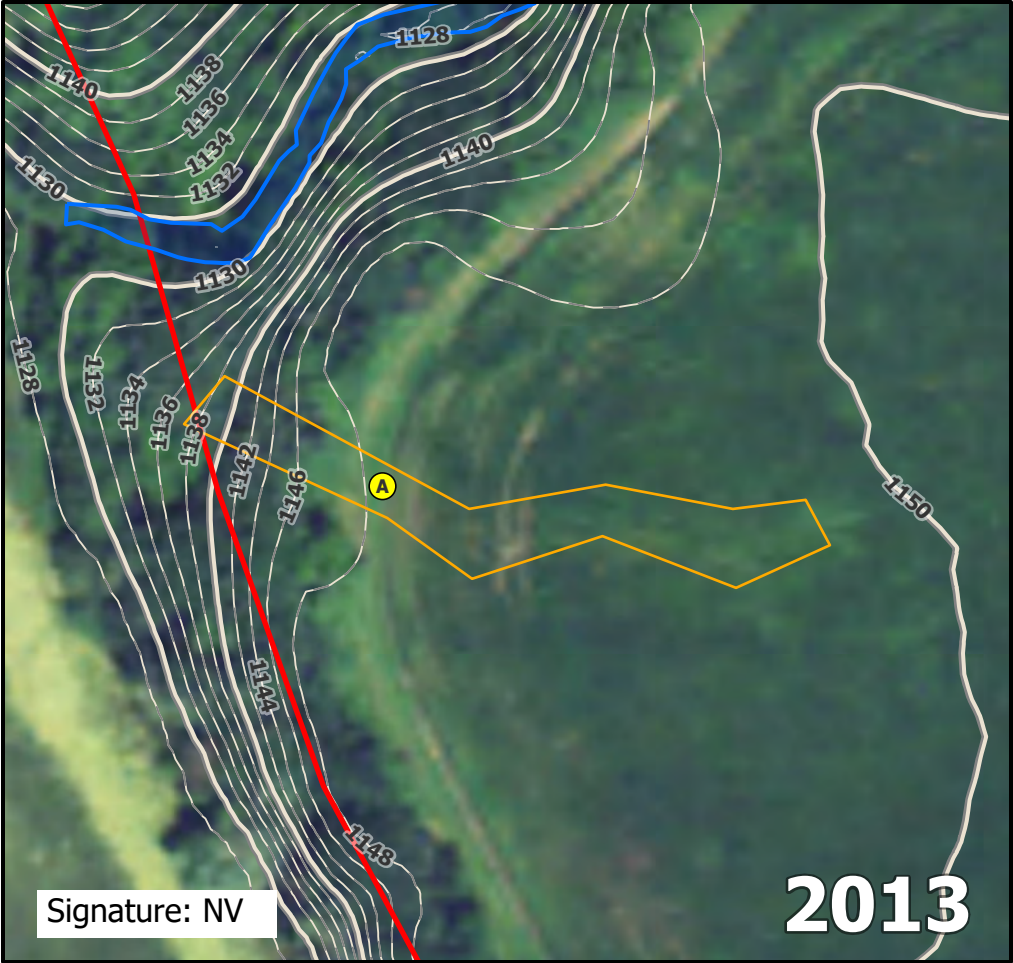
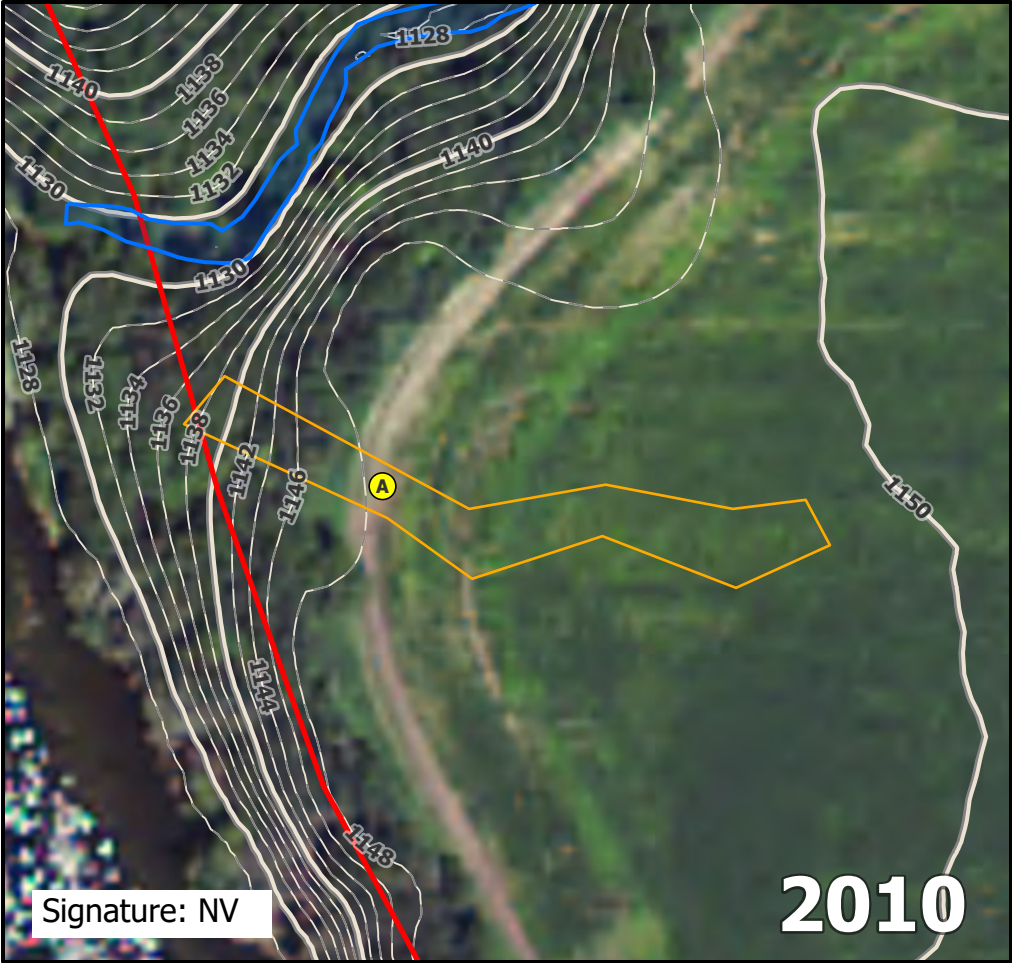
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA025A.

Direction: West	Photo ID: delin_photo-20221020-134048.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA025	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA026

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA026A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.74081	Long:	-94.46326
				Datum:	WGS84
Soil Map Unit Name:	Webster clay loam, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)
1.					
2.					
3.					
4.					
5.					
					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column totals (A) (B) Prevalence Index = B/A =
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
					Hydrophytic Vegetation Indicators: ____ Rapid test for hydrophytic vegetation ____ Dominance test is >50% ____ Prevalence index is ≤3.0* ____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ____ Problematic hydrophytic vegetation* ____ (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Herb Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
6.					Hydrophytic Vegetation Present? No
7.					
8.					
9.					
10.					
<u>Woody Vine Stratum</u>	(Plot size: _____)				
1.					
2.					

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA026A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-37	10YR 2/1	100					Clay	
37-39	2.5Y 3/2	100					Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA026A.

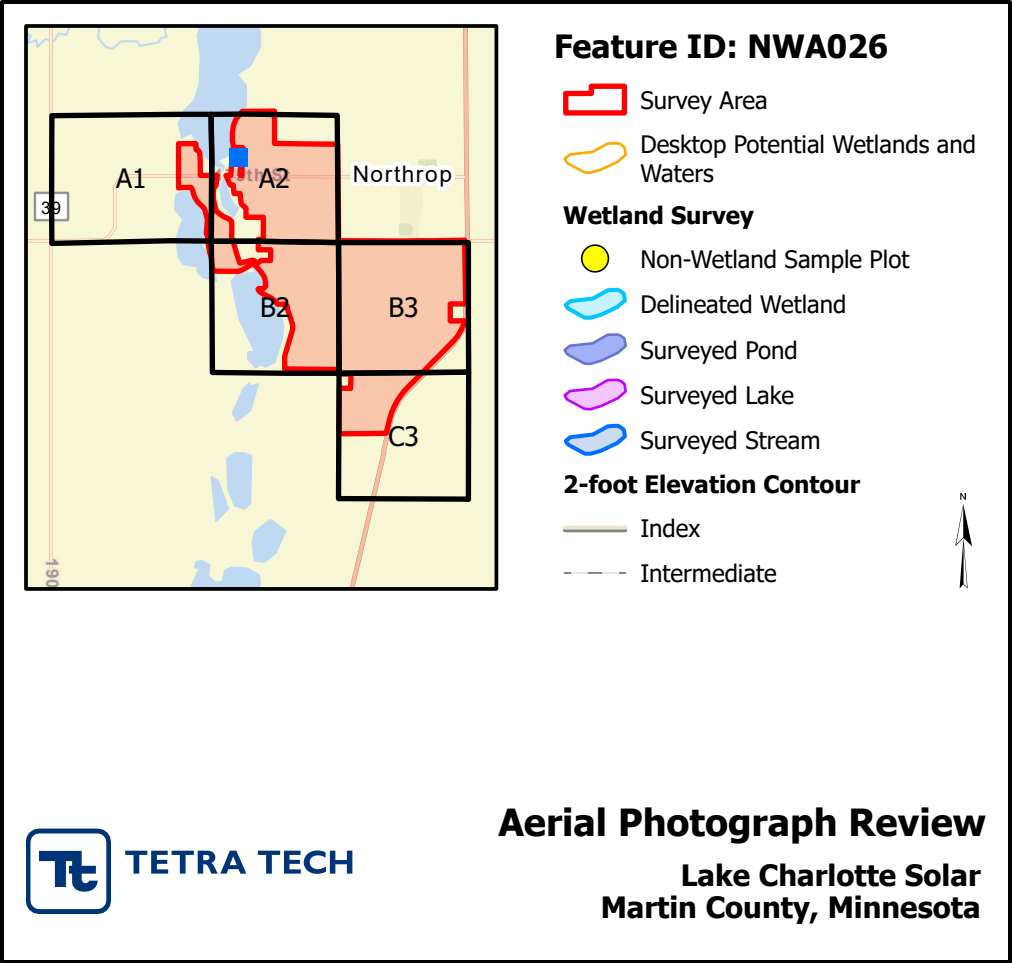
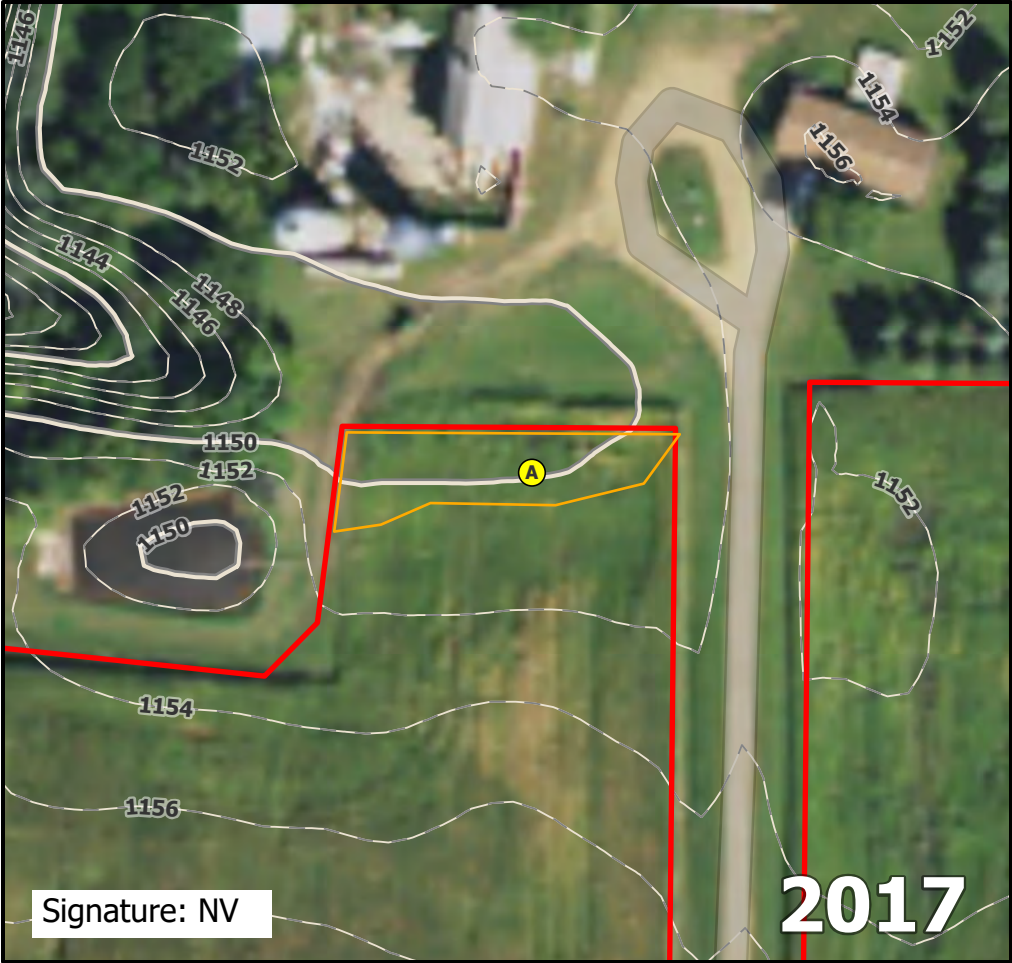
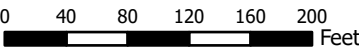
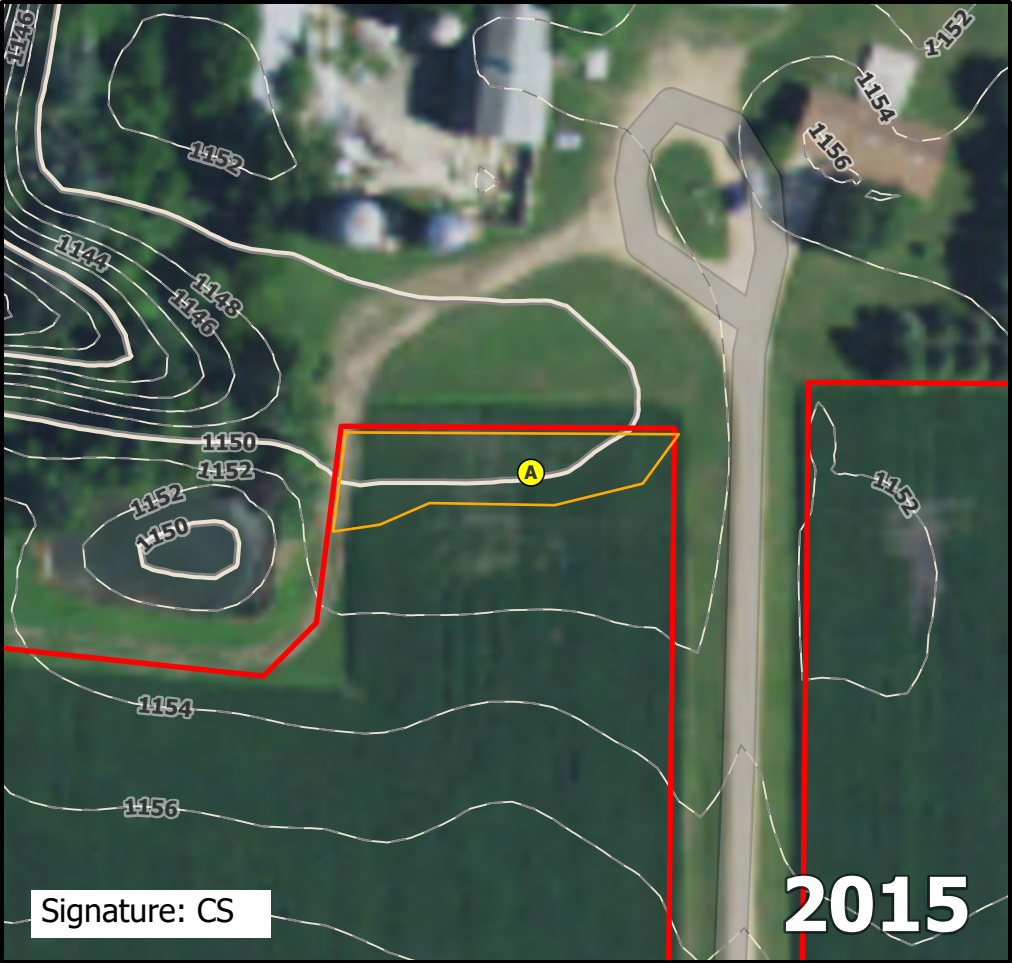
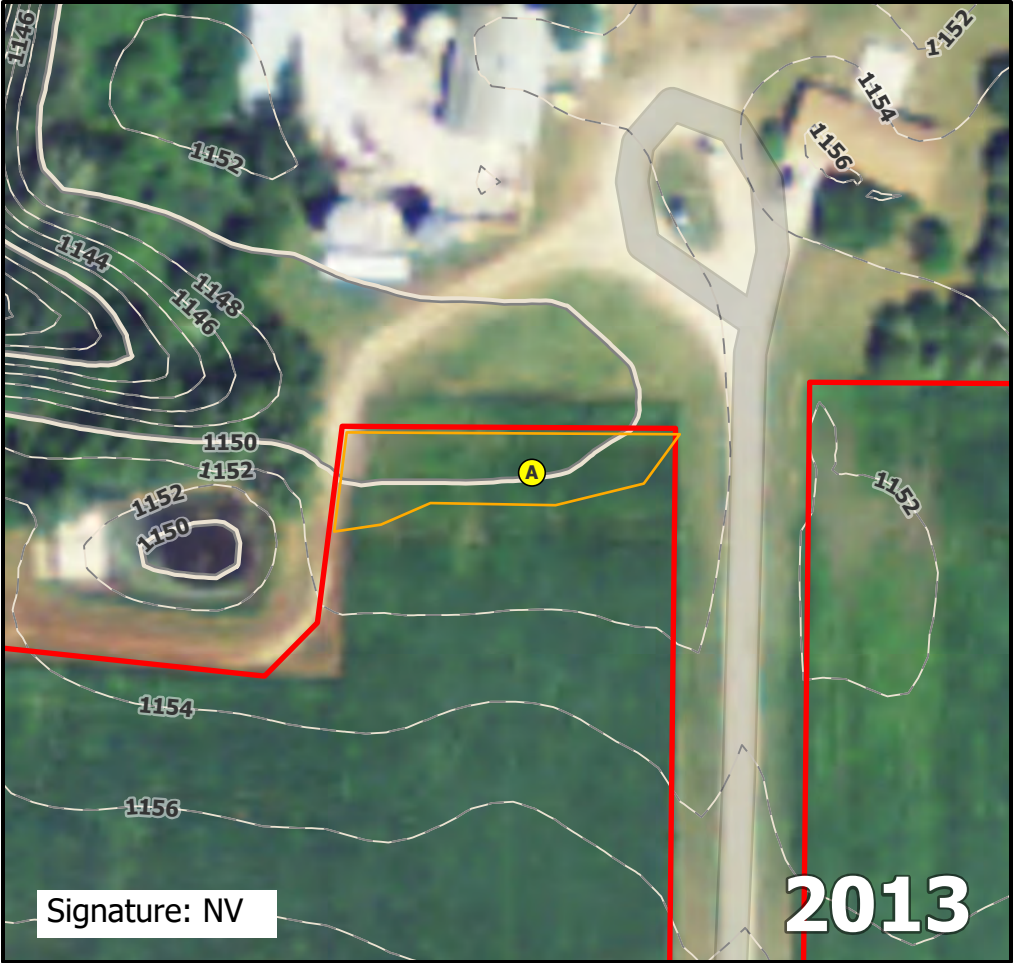
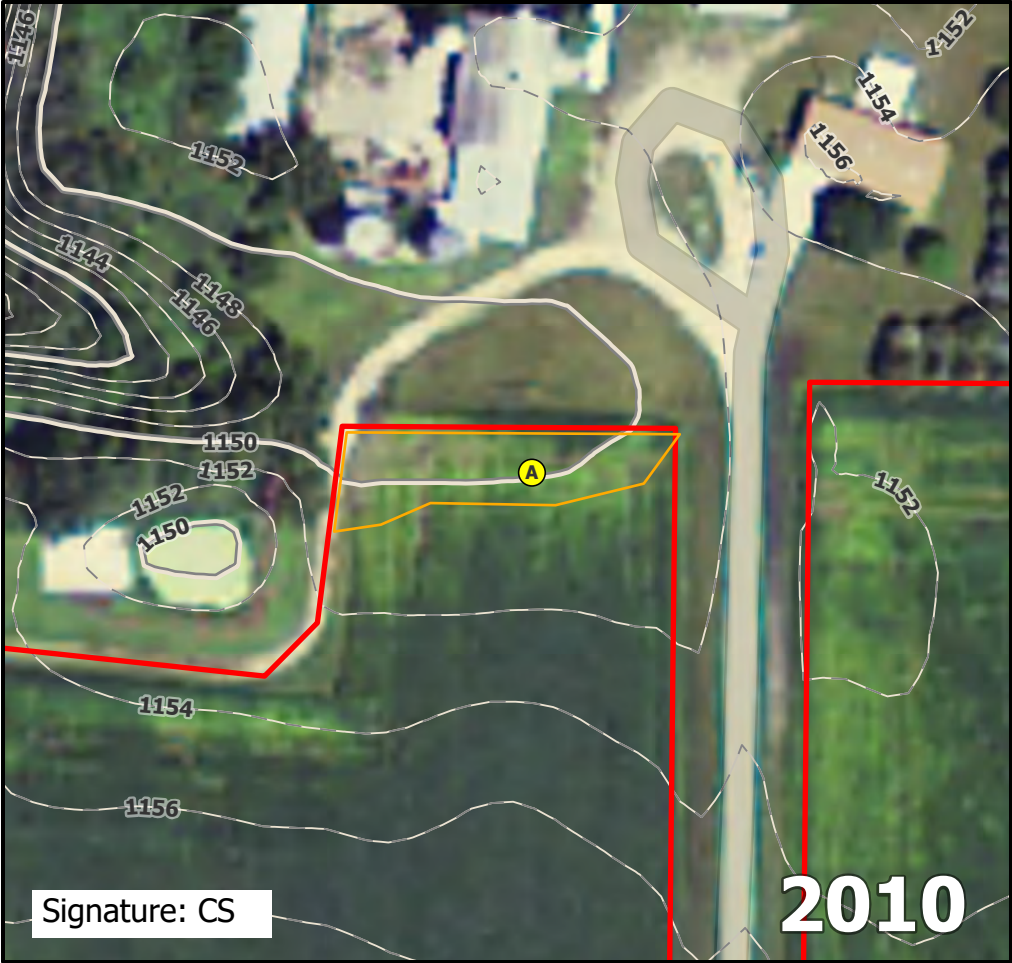
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Photo ID: delin_photo-20221020-140245.jpg

Date: 10/20/2022

Project Name: Lake Charlotte

Feature ID: NWA026



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_Report\Figures.aprx apryl.jennrich

Non-Wetland ID

NWA027

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA027A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.74075	Long:	-94.46258
				Datum:	WGS84
Soil Map Unit Name:	Webster clay loam, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		=Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)					Prevalence Index Worksheet	
1.	_____					Total % Cover of:	Multiply by:
2.	_____					OBL species	_____ x 1 = _____
3.	_____					FACW species	_____ x 2 = _____
4.	_____					FAC species	_____ x 3 = _____
5.	_____					FACU species	_____ x 4 = _____
		=Total Cover		UPL species _____ x 5 = _____			
				Column totals _____ (A) _____ (B)			
				Prevalence Index = B/A = _____			
<u>Herb Stratum</u>	(Plot size: _____)					Hydrophytic Vegetation Indicators:	
1.	_____					____ Rapid test for hydrophytic vegetation	
2.	_____					____ Dominance test is >50%	
3.	_____					____ Prevalence index is ≤3.0*	
4.	_____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5.	_____					____ Problematic hydrophytic vegetation*	
6.	_____					____ (explain)	
7.	_____						
8.	_____						
9.	_____						
10.	_____						
		=Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1.	_____					Hydrophytic Vegetation Present?	
2.	_____					No _____	
		=Total Cover					

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA027A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-16	10YR 2/1	100					Clay	
16-19	2.5Y 3/2	89	2.5Y 5/2	10	D	M	Sandy Clay	
			2.5Y 5/6	1	C	PL		Distinct or Prominent
19-20	2.5Y 5/2	99	2.5Y 5/6	1	C	PL	Sandy Clay	Distinct or Prominent
20-23	2.5Y 6/3	99	2.5Y 5/6	1	C	PL	Sandy Clay Trace Gravel	Distinct or Prominent

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Gleyed Matrix (S4) |
| ☐ Histic Epipedon (A2) | ☐ Sandy Redox (S5) |
| ☐ Black Histic (A3) | ☐ Stripped Matrix (S6) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Stratified Layers (A5) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ 2 cm Muck (A10) | ☐ Depleted Matrix (F3) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Redox Dark Surface (F6) |
| ☐ Thick Dark Surface (A12) | ☐ Depleted Dark Surface (F7) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Redox Depressions (F8) |
| ☐ 5 cm Mucky Peat or Peat (S3) | |

Indicators for Problematic Hydric Soils*:

- | |
|--|
| ☐ Coast Prairie Redox (A16) (LRR K, L, R) |
| ☐ Dark Surface (S7) (LRR K, L) |
| ☐ Iron-Manganese Masses (F12) (LRR K, L, R) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (explain in remarks) |

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

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____
Hydric Soil Present? No

Remarks:

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches): _____
Water Table Present?	Yes ☐	No ☒	Depth (inches): _____
Saturation Present?	Yes ☐	No ☒	Depth (inches): _____

 (includes capillary fringe)
Wetland Hydrology Present?No

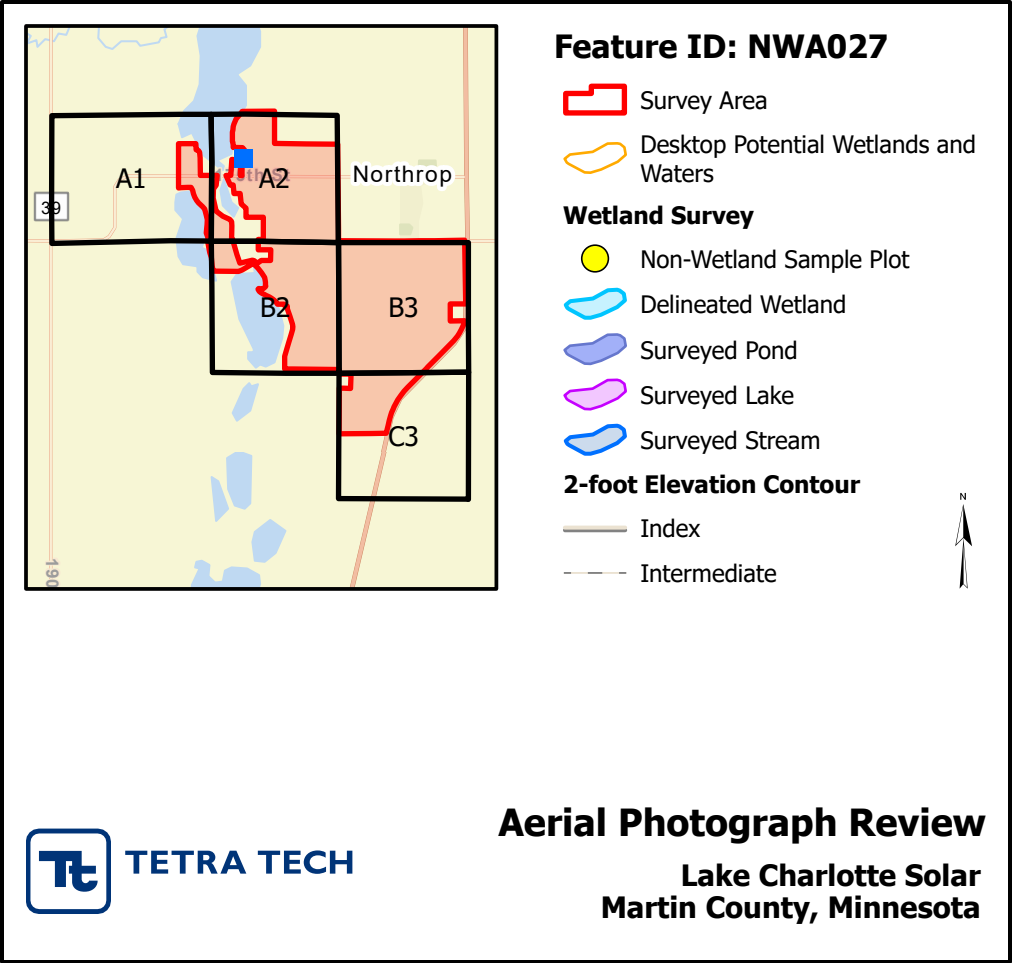
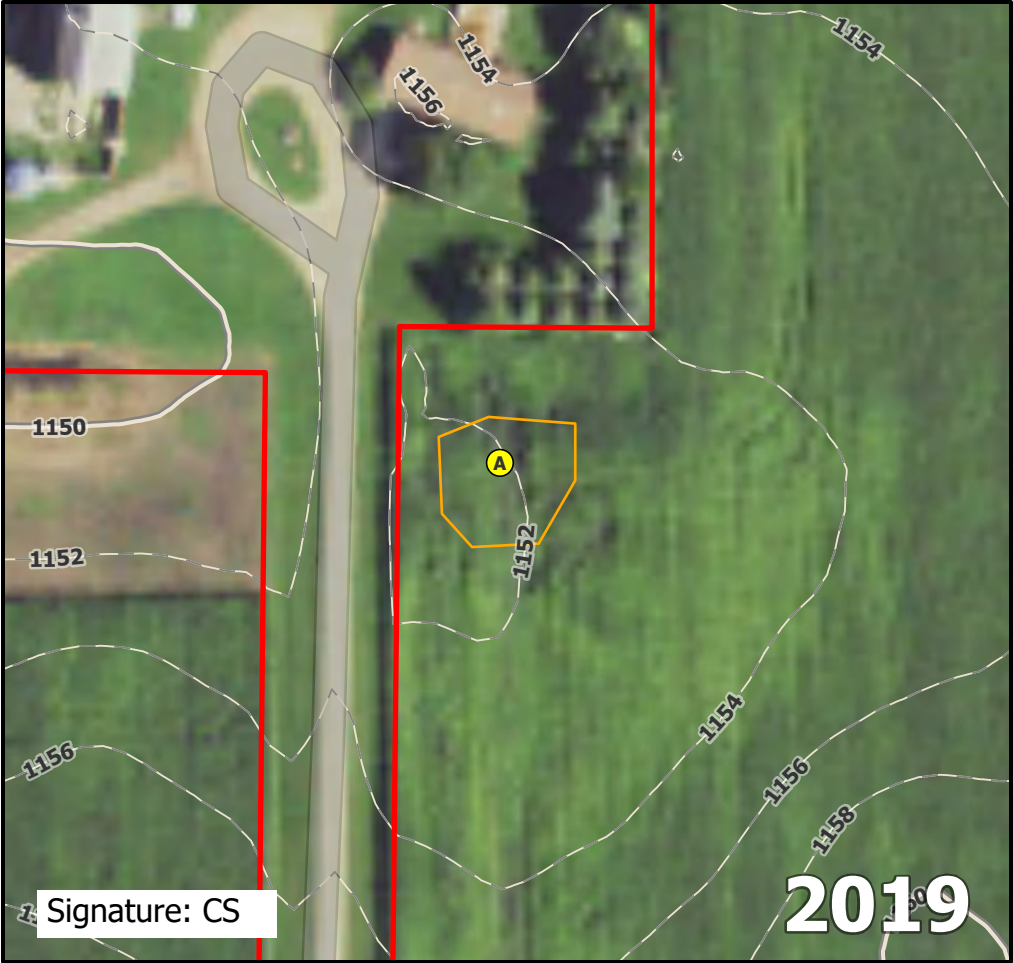
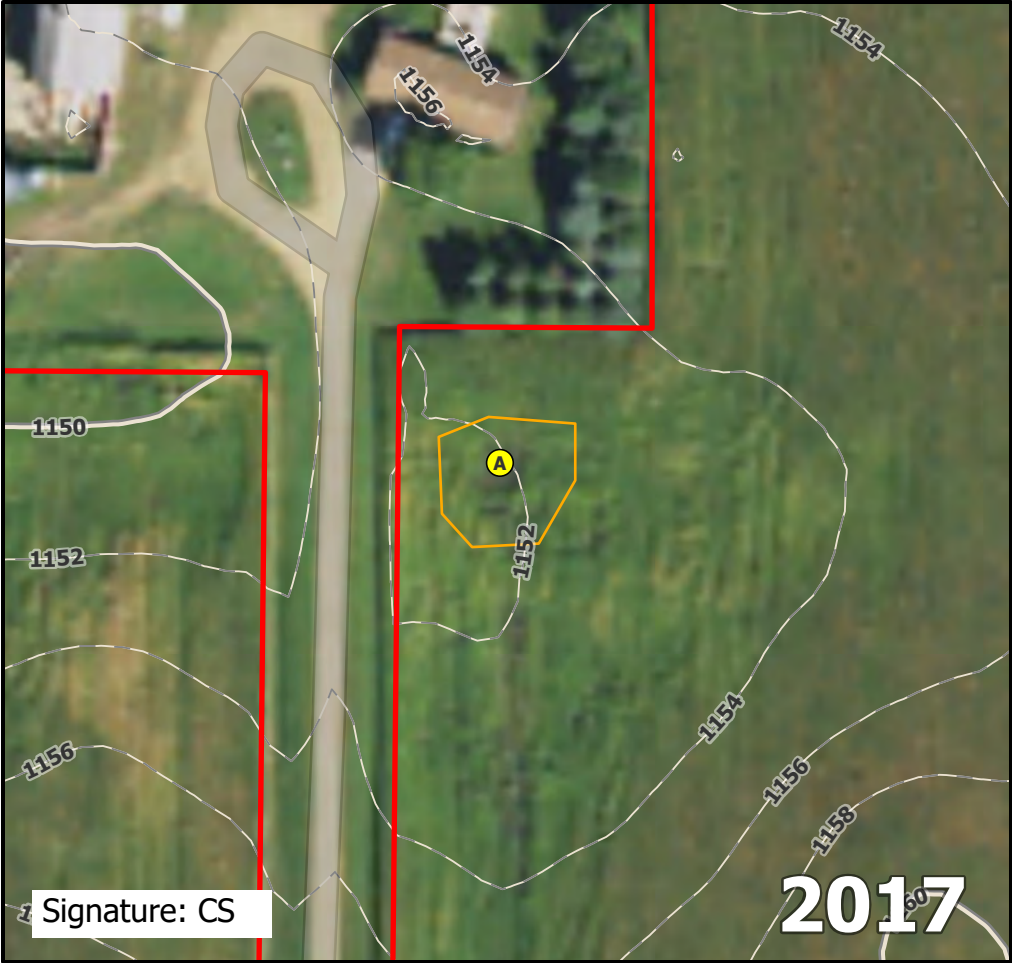
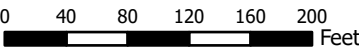
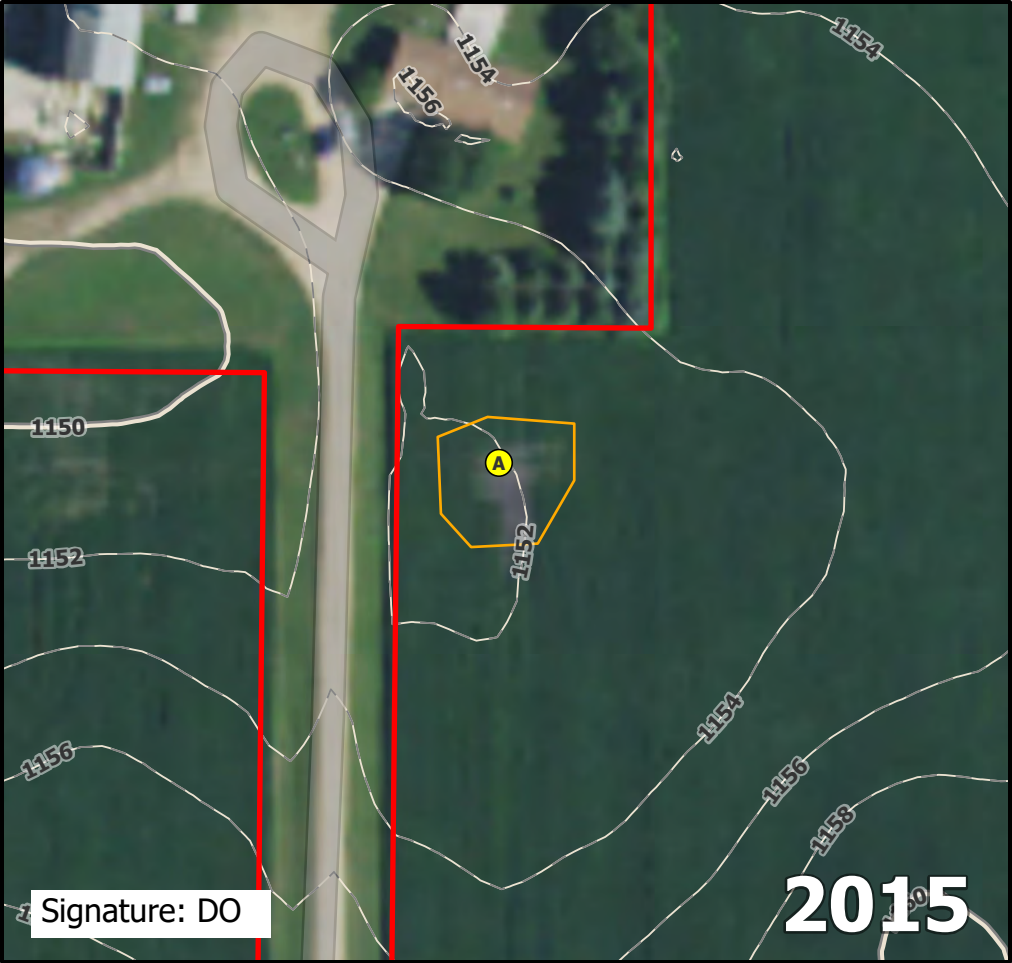
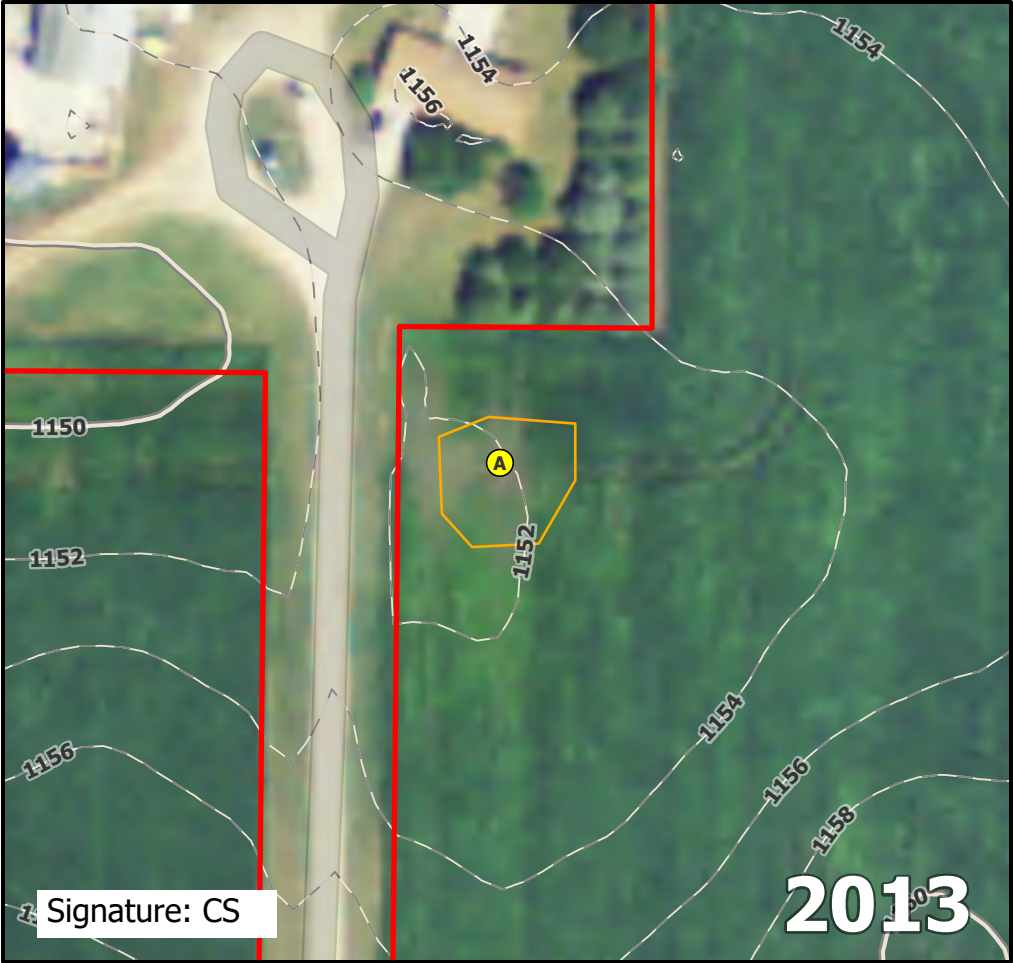
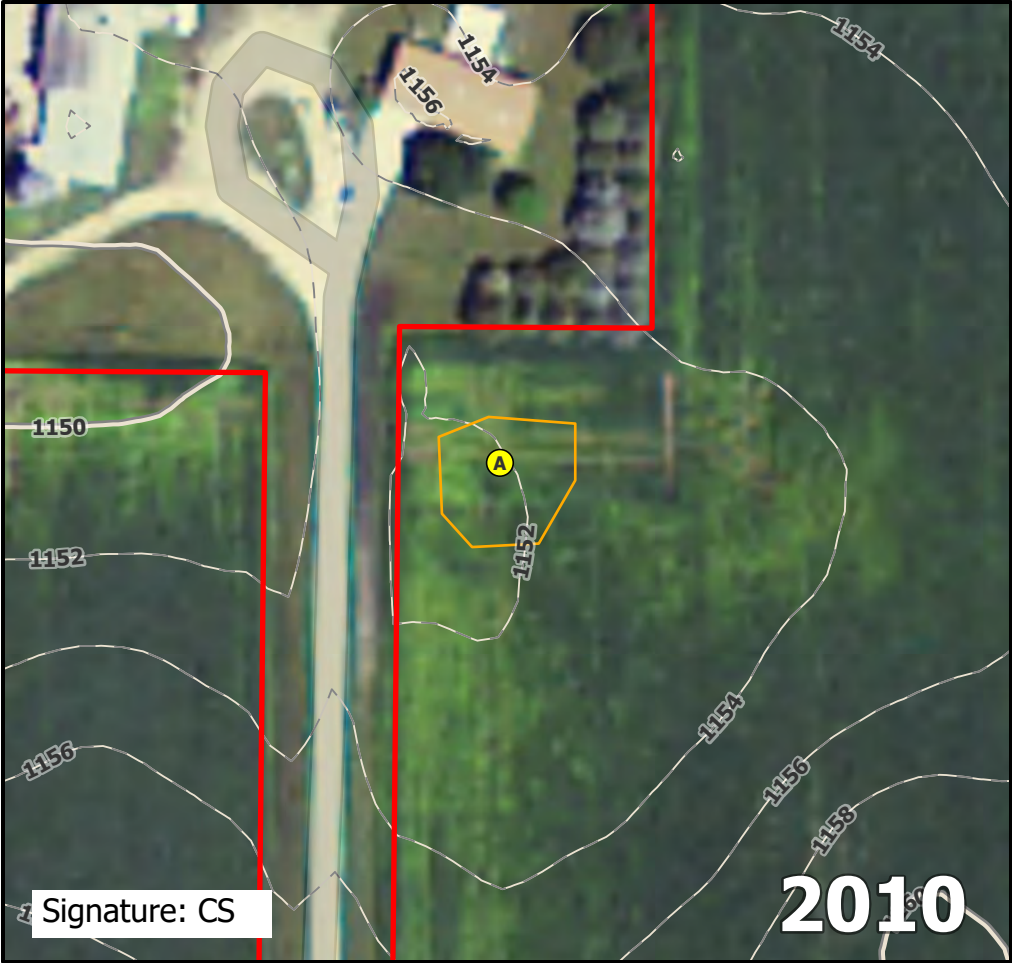
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA027A.

Direction: South	Photo ID: delin_photo-20221020-141323.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA027	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

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Non-Wetland ID

NWA028

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA028A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.74149	Long:	-94.46104
		Datum:	WGS84		
Soil Map Unit Name:	Webster clay loam, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

	Absolute	Dominant	Indicator	
Tree Stratum	(Plot size: _____)	% Cover	Species	Status
1.				
2.				
3.				
4.				
5.				
				=Total Cover
Sapling/Shrub Stratum	(Plot size: _____)			
1.				
2.				
3.				
4.				
5.				
				=Total Cover
Herb Stratum	(Plot size: _____)			
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
				=Total Cover
Woody Vine Stratum	(Plot size: _____)			
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:	_____ 0 _____ (B)
Percent of Dominant Species that are OBL, FACW, or FAC:	_____ % _____ (A/B)

Prevalence Index Worksheet	
Total % Cover of:	Multiply by:
OBL species _____ x 1 =	_____
FACW species _____ x 2 =	_____
FAC species _____ x 3 =	_____
FACU species _____ x 4 =	_____
UPL species _____ x 5 =	_____
Column totals _____ (A) _____ (B)	
Prevalence Index = B/A =	_____

Hydrophytic Vegetation Indicators:	
_____ Rapid test for hydrophytic vegetation	
_____ Dominance test is >50%	
_____ Prevalence index is ≤3.0*	
_____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
_____ Problematic hydrophytic vegetation*	
_____ (explain)	

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

Hydrophytic Vegetation Present?	
No	Yes

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA028A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-19	10YR 2/1	100					Clay Loam	
19-23	10YR 3/2	89	2.5Y 4/3	10	D	M	Sandy Clay Loam	
			7.5YR 4/4	1	C	PL		Distinct or Prominent
23-24	10YR 5/4	100					Sand	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? Yes ☐ No ☒ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present?

No

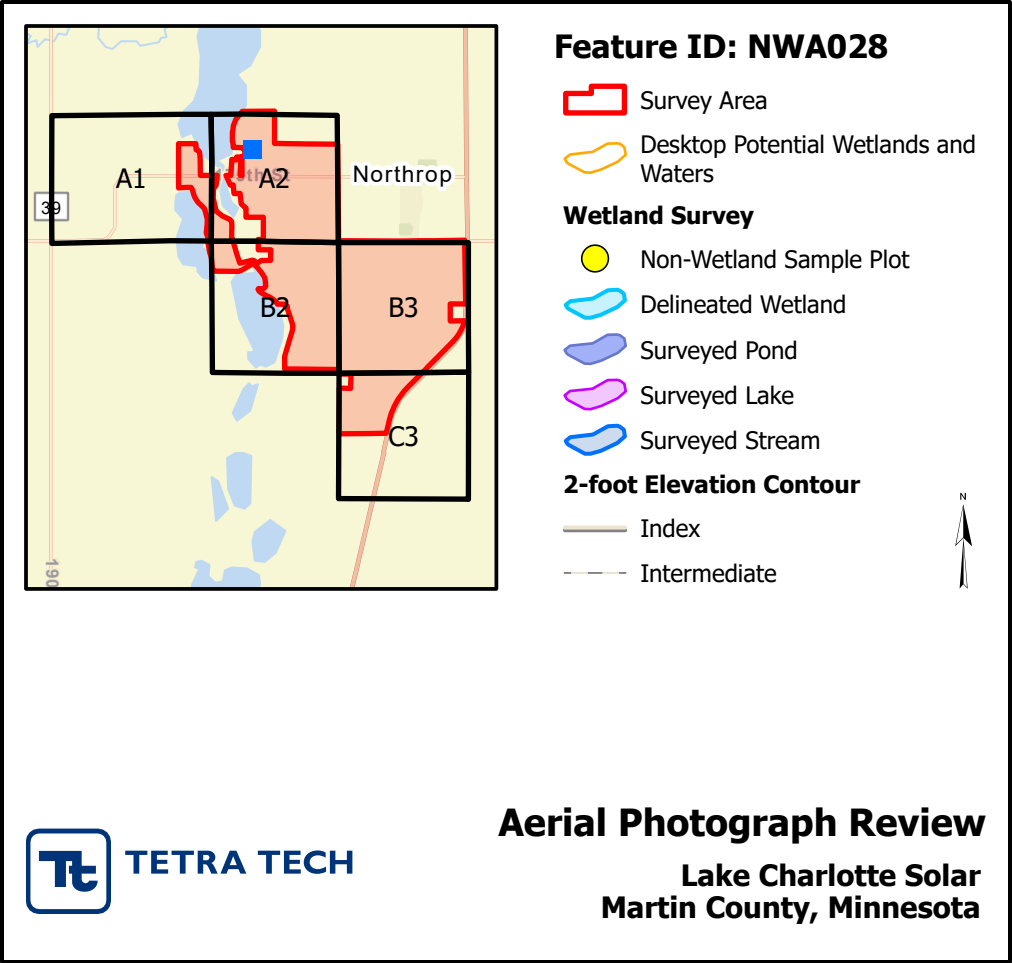
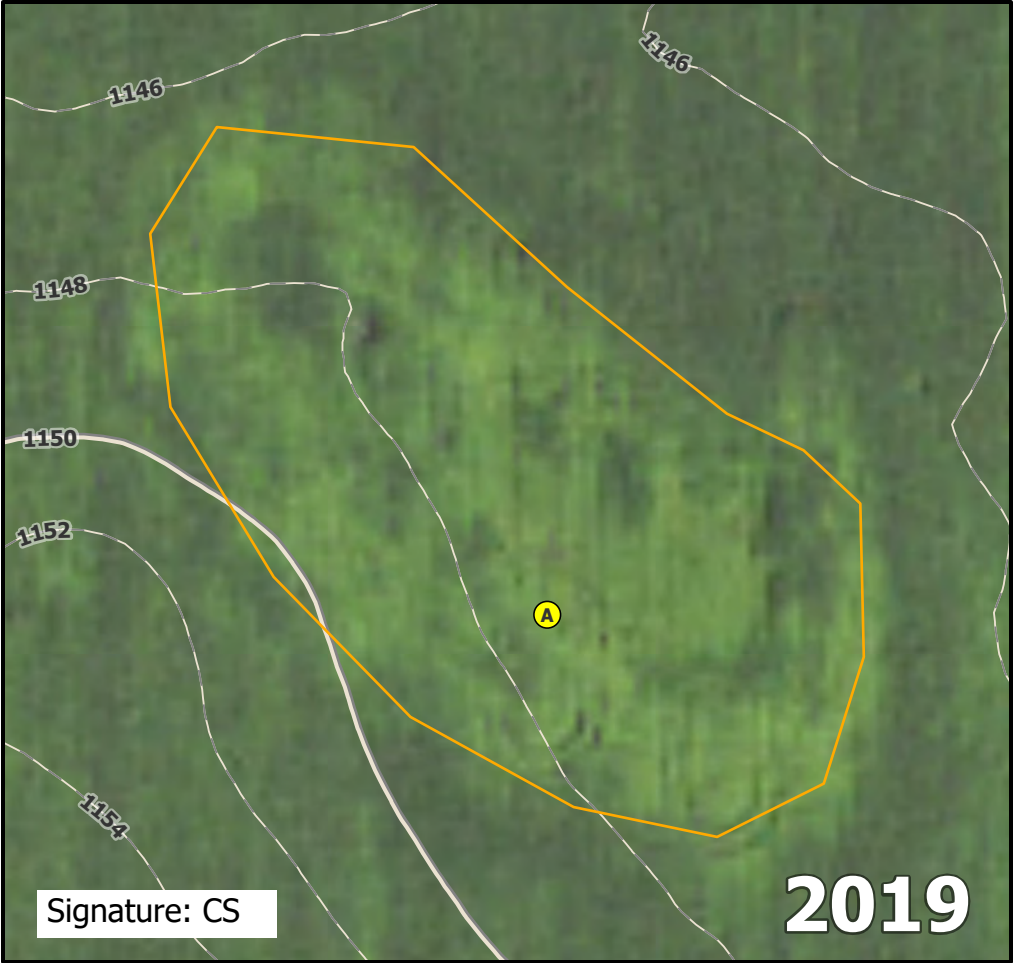
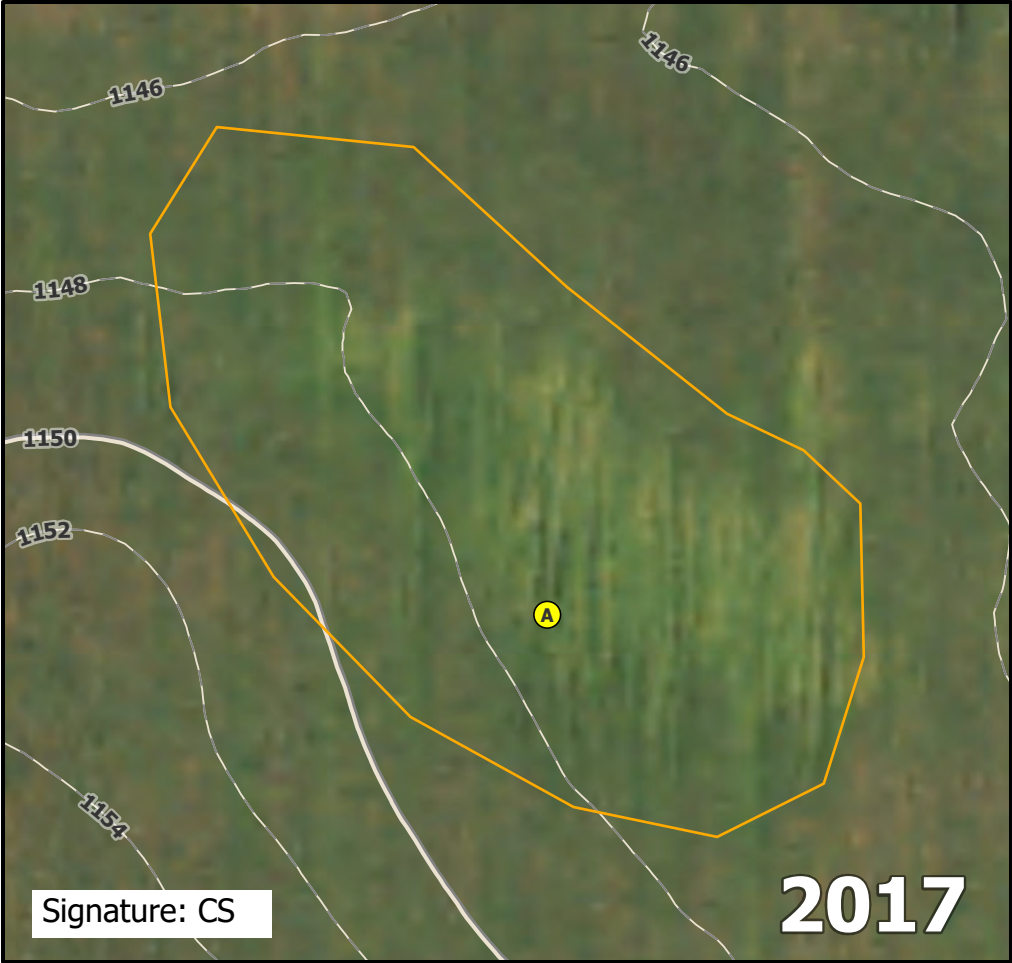
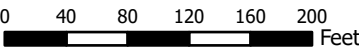
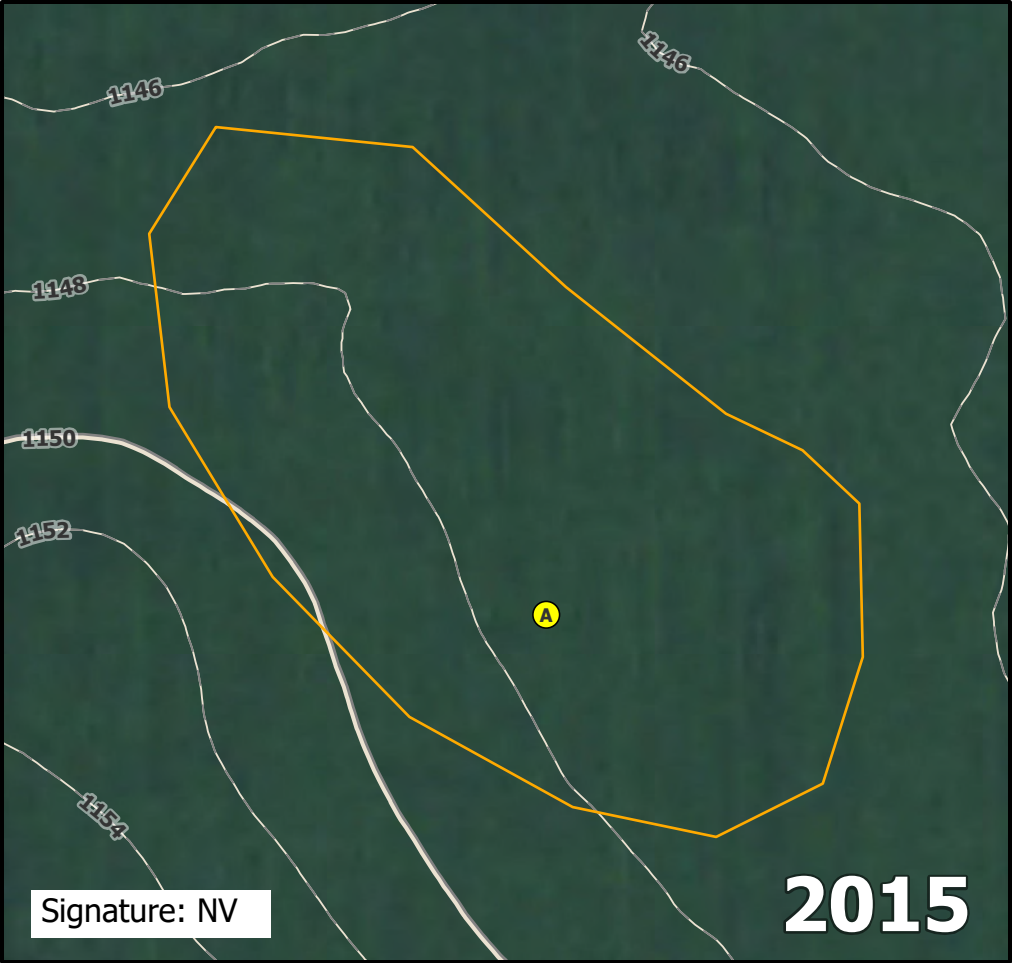
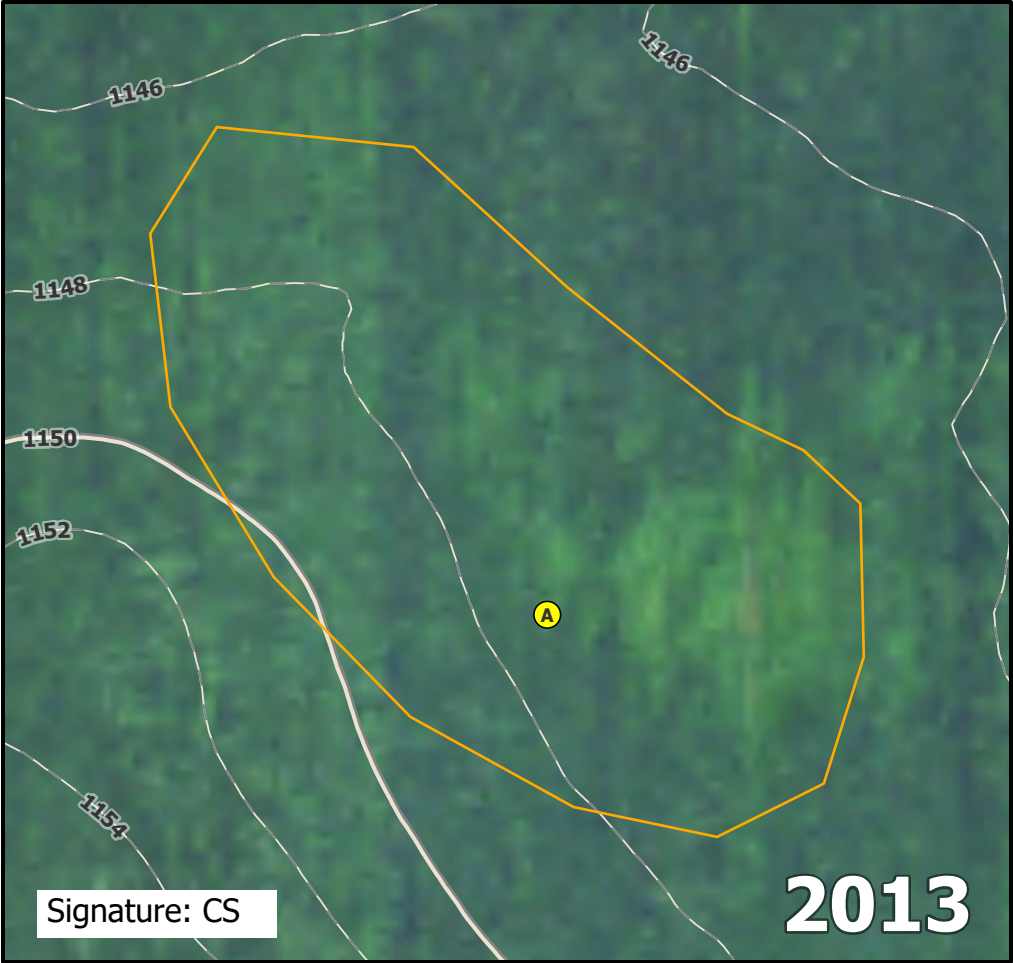
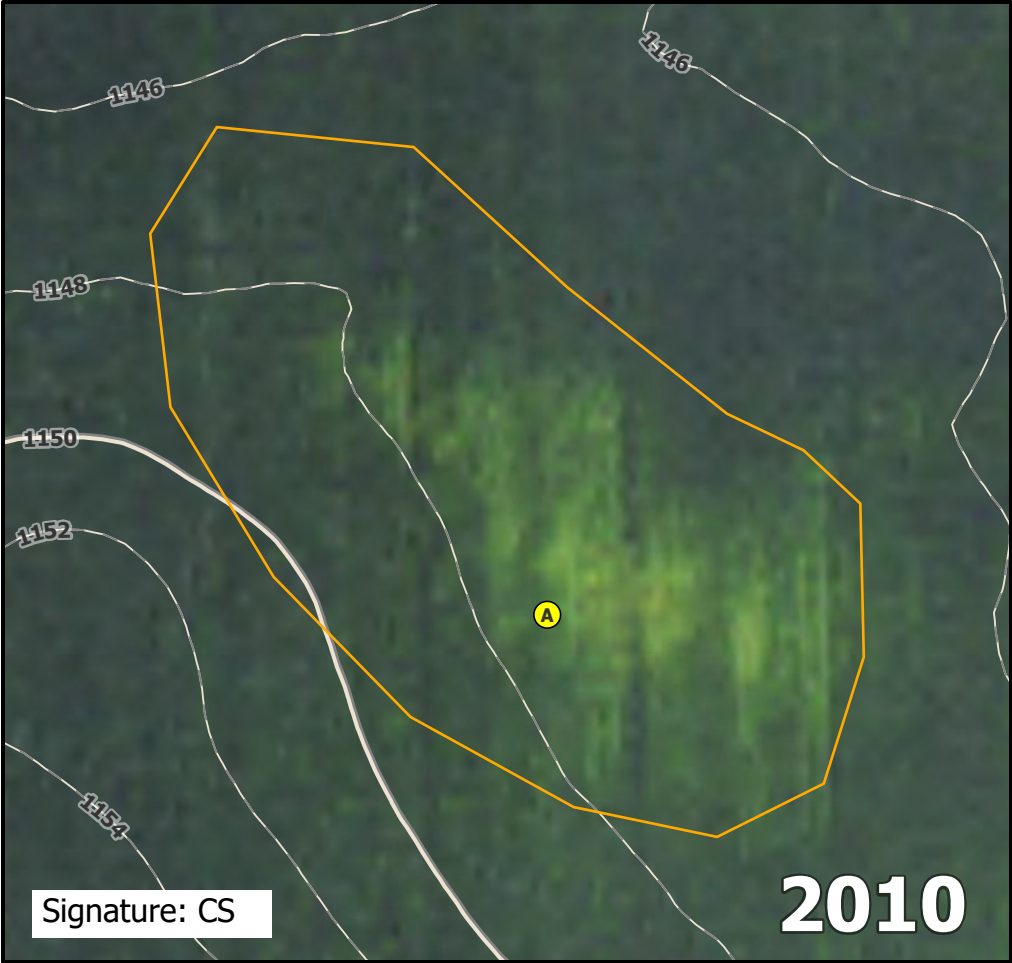
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA028A.

Direction: South	Photo ID: delin_photo-20221020-142318.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA028	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA030

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA030A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.74232	Long:	-94.45756
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

		Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum	(Plot size: _____)	% Cover	Species	Status		
1. _____					Number of Dominant Species that are OBL, FACW, or FAC: _____	0 (A)
2. _____					Total Number of Dominant Species Across All Strata: _____	0 (B)
3. _____					Percent of Dominant Species that are OBL, FACW, or FAC: _____	% (A/B)
4. _____						
5. _____						
					=Total Cover	
Sapling/Shrub Stratum	(Plot size: _____)				Prevalence Index Worksheet	
1. _____					Total % Cover of:	Multiply by:
2. _____					OBL species _____	x 1 = _____
3. _____					FACW species _____	x 2 = _____
4. _____					FAC species _____	x 3 = _____
5. _____					FACU species _____	x 4 = _____
					UPL species _____	x 5 = _____
					Column totals _____	(A) _____ (B)
					Prevalence Index = B/A = _____	
					=Total Cover	
Herb Stratum	(Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. _____					_____ Rapid test for hydrophytic vegetation	
2. _____					_____ Dominance test is >50%	
3. _____					_____ Prevalence index is ≤3.0*	
4. _____					_____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5. _____					_____ Problematic hydrophytic vegetation*	
6. _____					_____ (explain)	
7. _____						
8. _____						
9. _____						
10. _____						
					=Total Cover	
Woody Vine Stratum	(Plot size: _____)				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1. _____						
2. _____						
					=Total Cover	
					Hydrophytic Vegetation Present? No _____	

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA030A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-21	10YR 2/1	100					Clay	
21-23	10YR 2/1	90	10YR 4/2	10	D	M	Sandy Clay	
23-30	2.5Y 4/1	90	2.5Y 3/1	10	D	M	Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? Yes ☐ No ☒ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present?

No

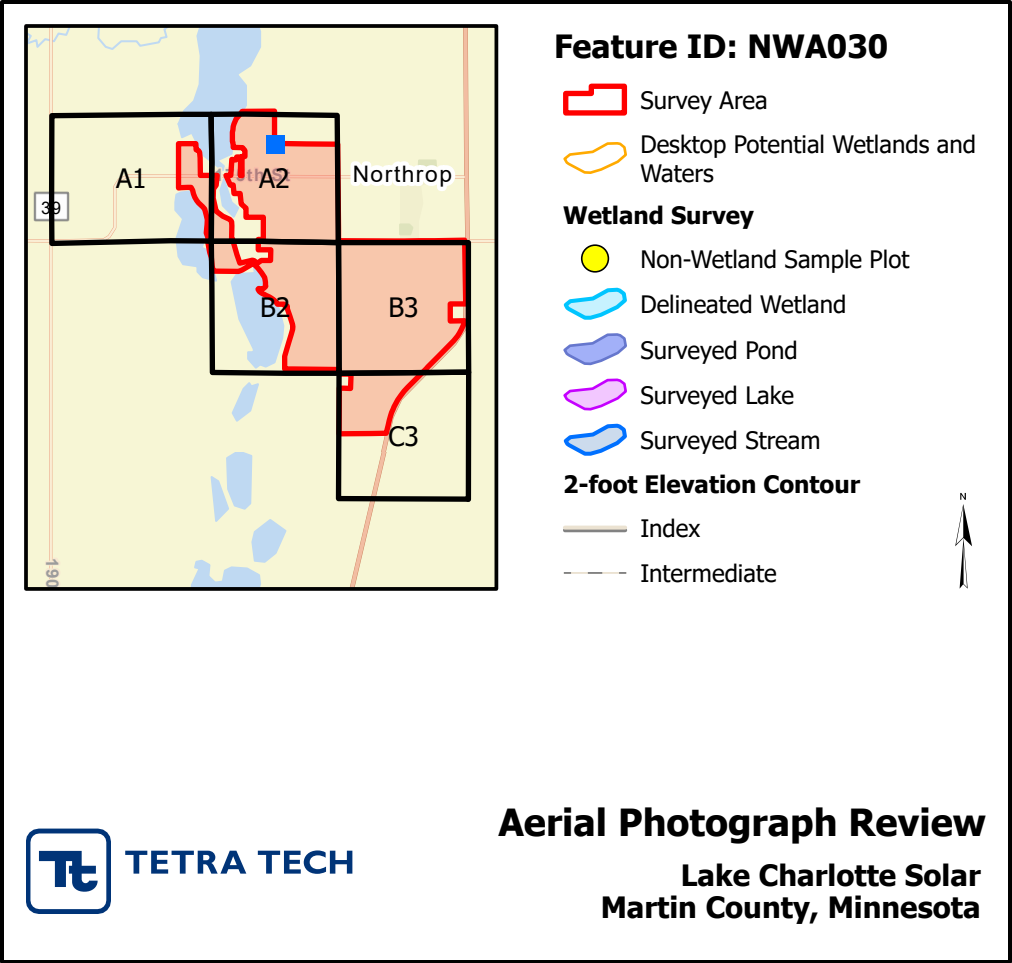
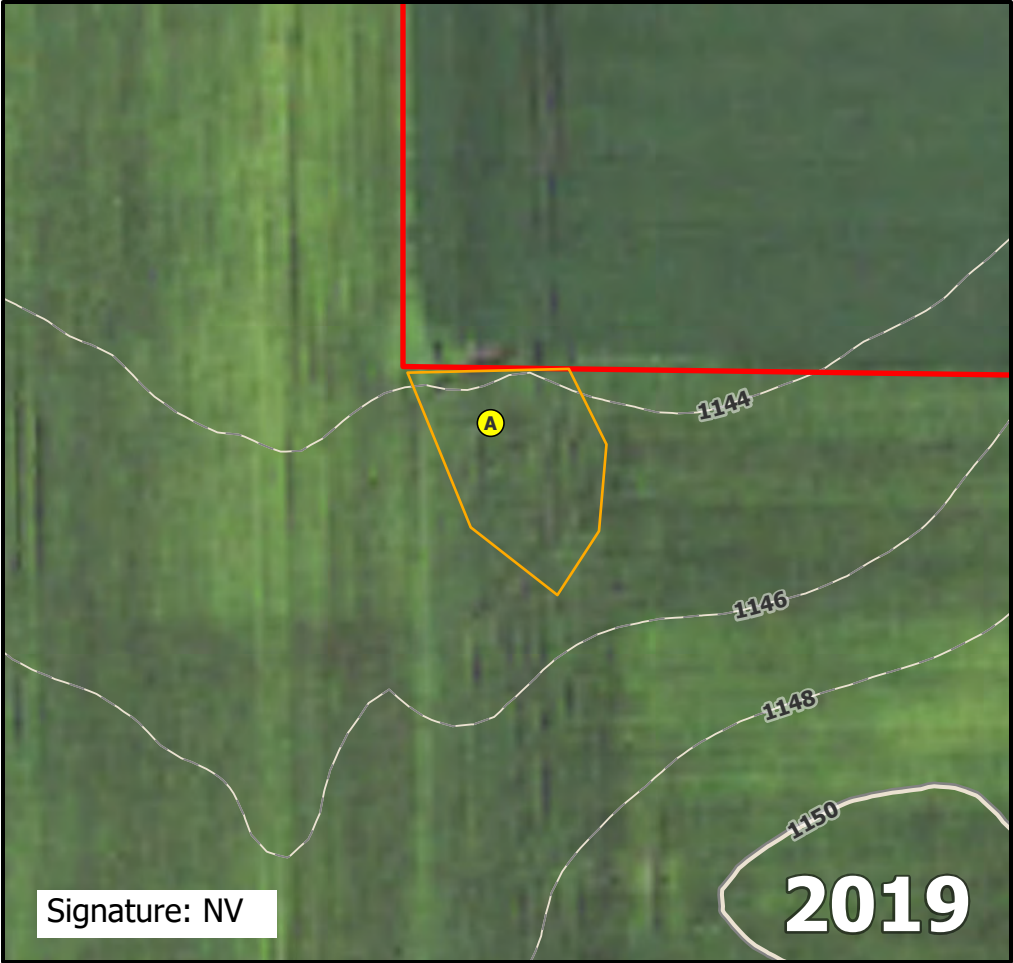
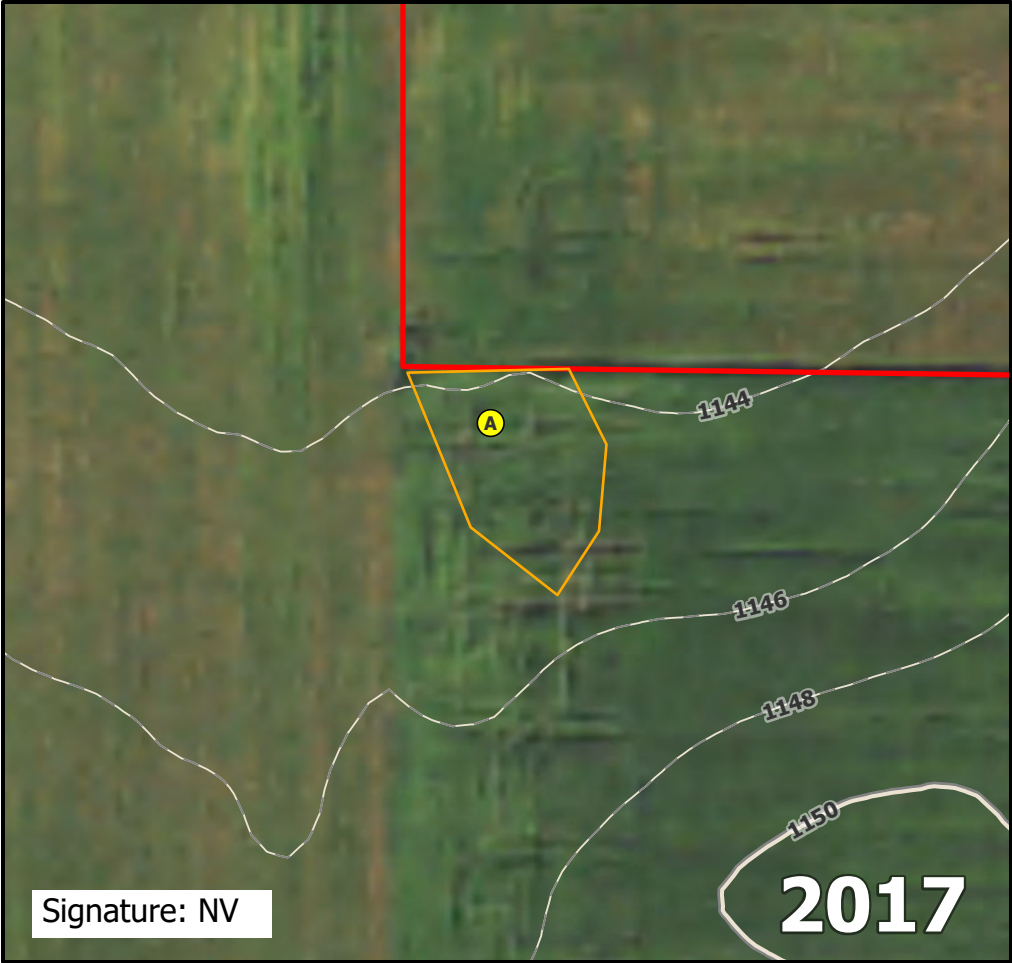
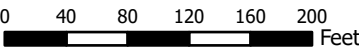
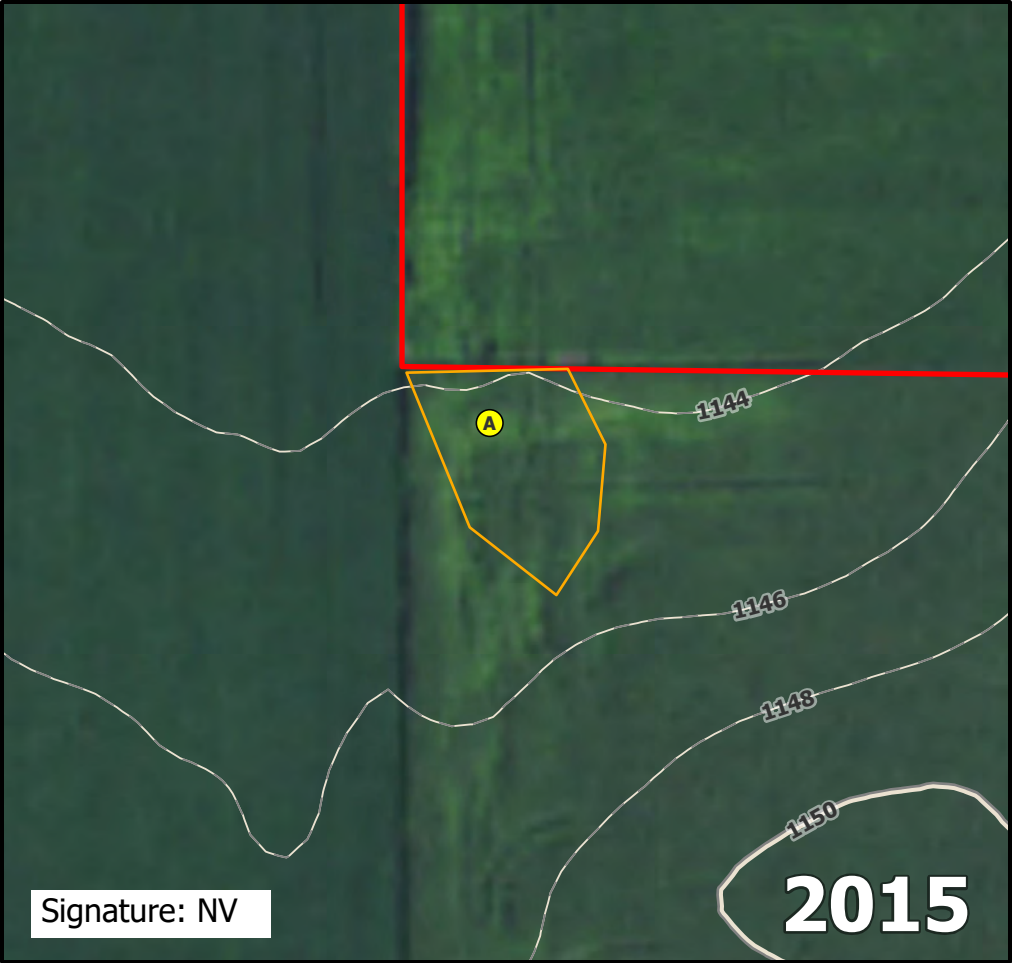
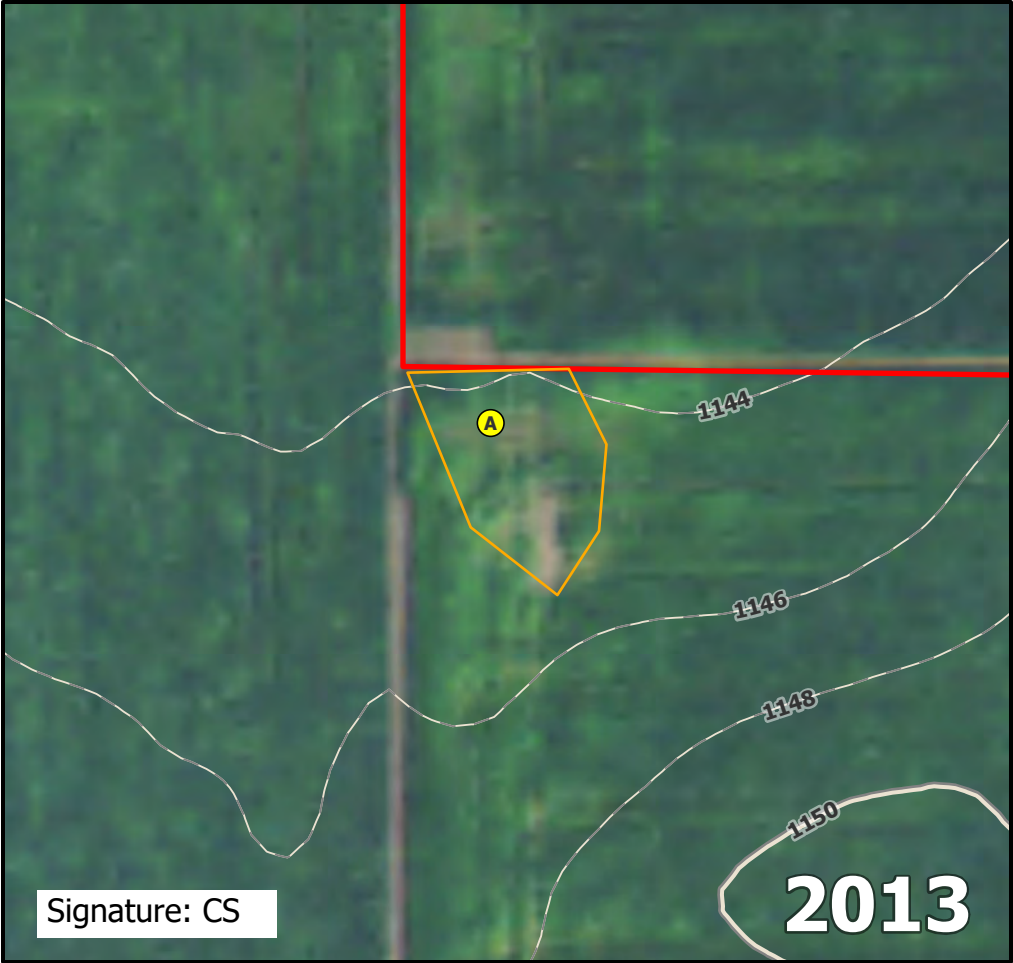
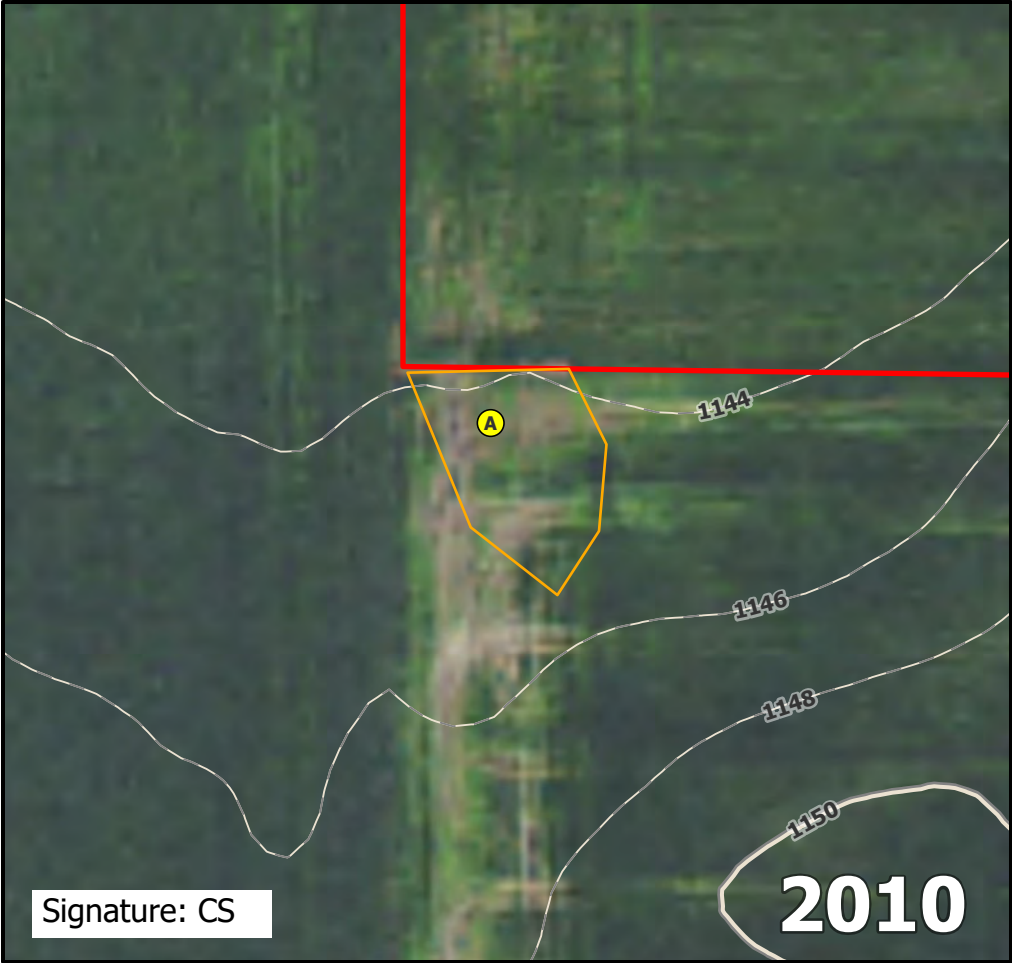
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA030A.

Direction: South	Photo ID: delin_photo-20221020-151101.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA030	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

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Non-Wetland ID

NWA031

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA031A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	2	Lat:	43.73744	Long:	-94.45776
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

						Dominance Test Worksheet		
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status				
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)			
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)			
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)			
4.	_____	_____	_____	_____				
5.	_____	_____	_____	_____				
		=Total Cover						
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)							
1.	_____				Total % Cover of: Multiply by:			
2.	_____				OBL species	_____ x 1 =	_____	
3.	_____				FACW species	_____ x 2 =	_____	
4.	_____				FAC species	_____ x 3 =	_____	
5.	_____				FACU species	_____ x 4 =	_____	
		=Total Cover				UPL species	_____ x 5 =	_____
<u>Herb Stratum</u>	(Plot size: _____)				Column totals	_____ (A)	_____ (B)	
1.	_____				Prevalence Index = B/A = _____			
2.	_____							
3.	_____							
4.	_____							
5.	_____							
6.	_____							
7.	_____							
8.	_____							
9.	_____							
10.	_____							
		=Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: _____)							
1.	_____				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
2.	_____							
		=Total Cover						
					Hydrophytic Vegetation Indicators:			
					____ Rapid test for hydrophytic vegetation			
					____ Dominance test is >50%			
					____ Prevalence index is ≤3.0*			
					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)			
					____ Problematic hydrophytic vegetation*			
					____ (explain)			
					Hydrophytic Vegetation Present?			
					No _____			

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA031A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-16	10YR 2/1	100					Clay Loam	
16-20	10YR 2/1	99	10YR 5/6	1	C	PL	Sandy Clay Loam	Distinct or Prominent
20-25	10YR 3/2	89	10YR 4/2	10	D	M	Sand Trace Gravel	
			10YR 5/6	1	C	PL		Distinct or Prominent

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

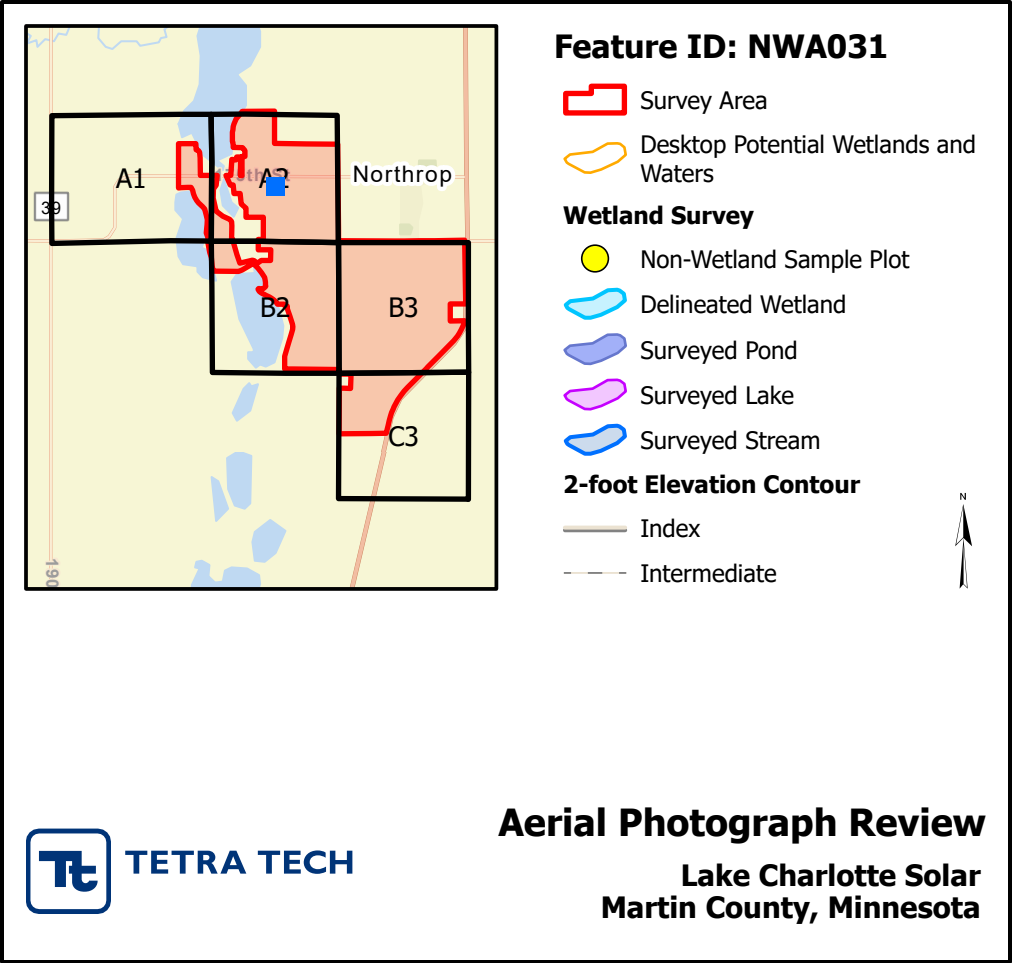
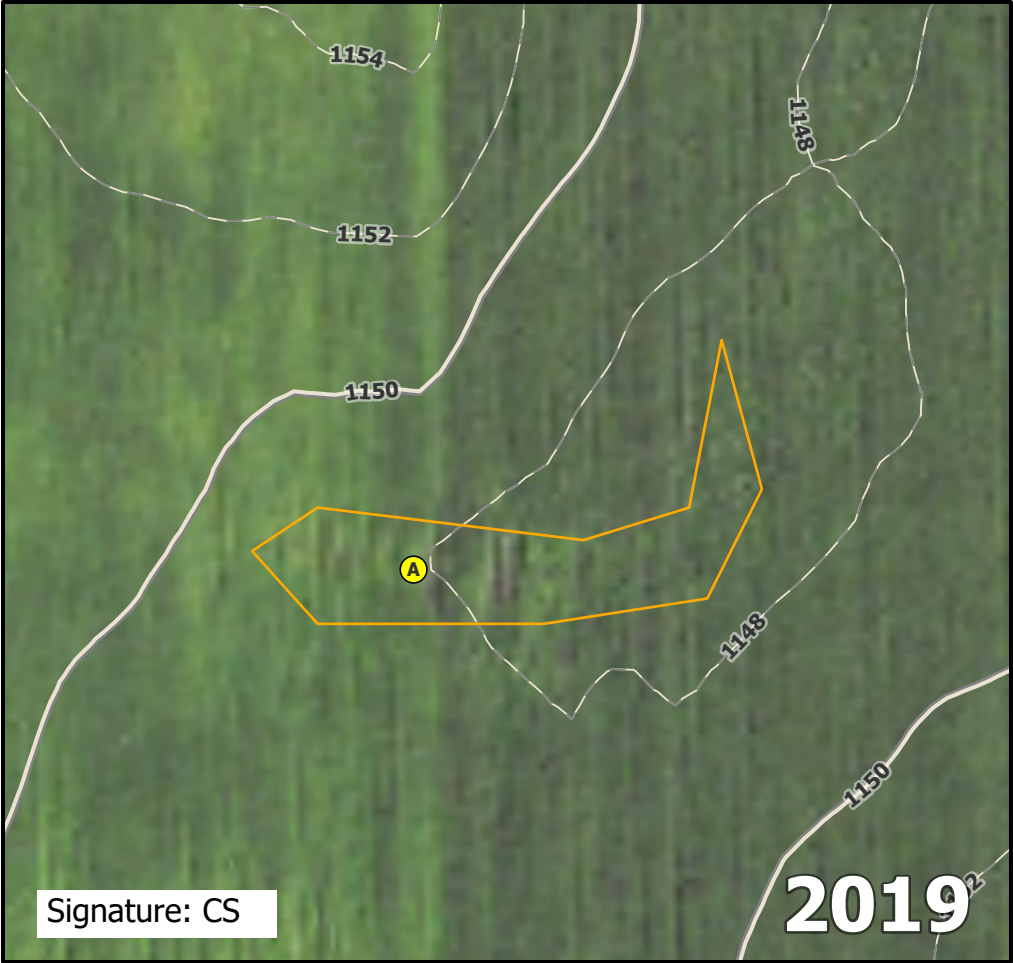
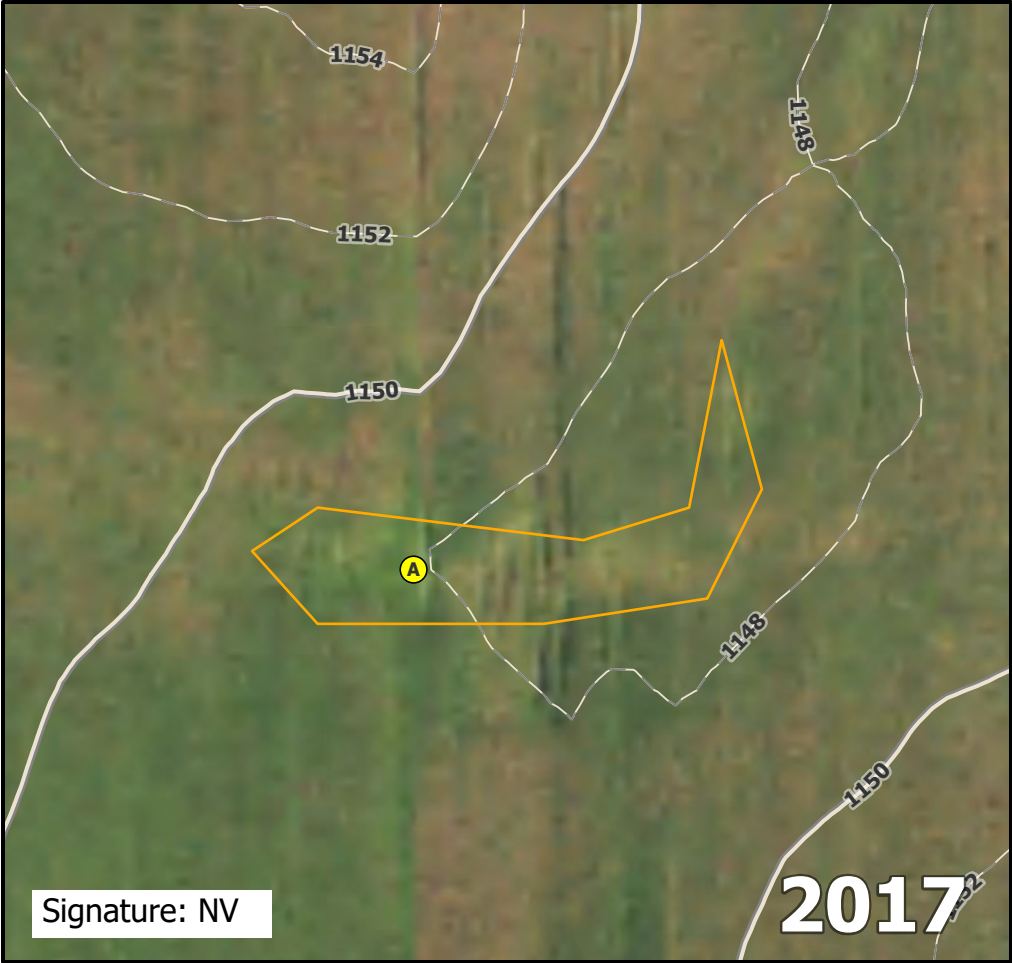
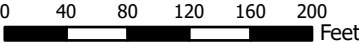
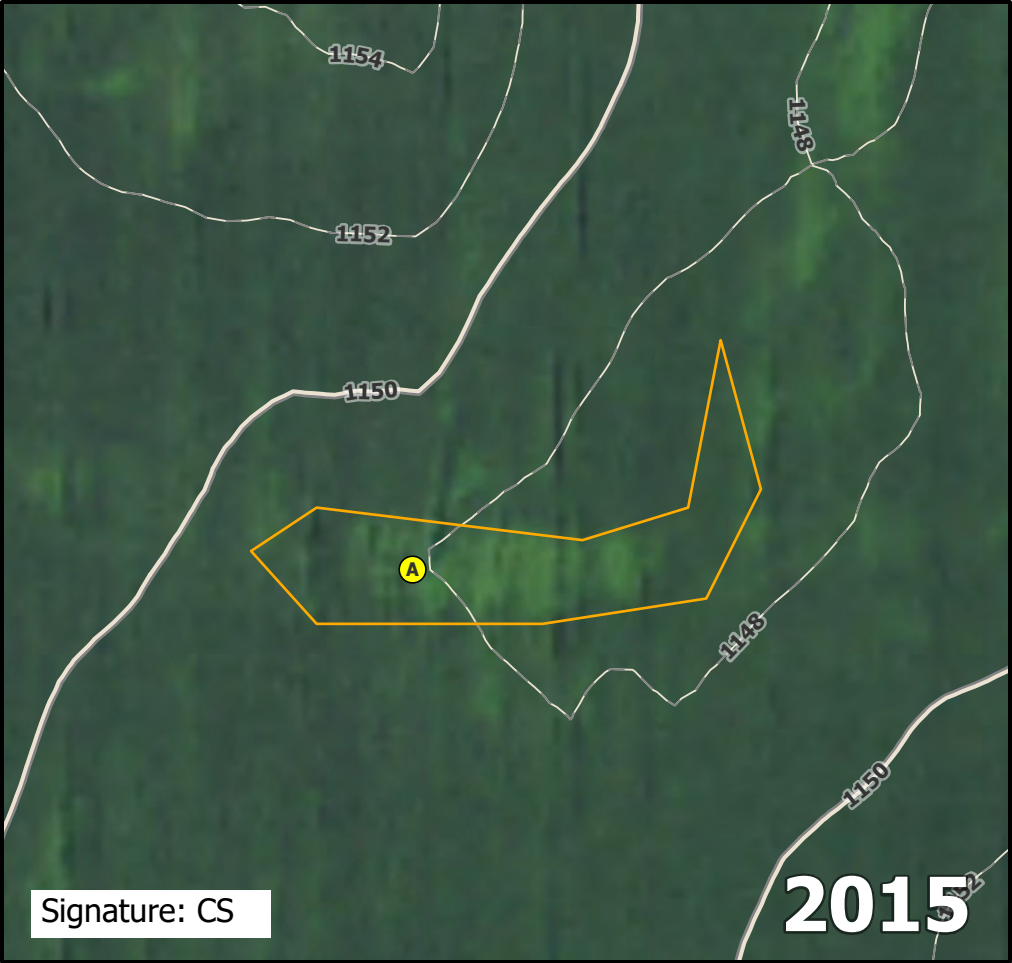
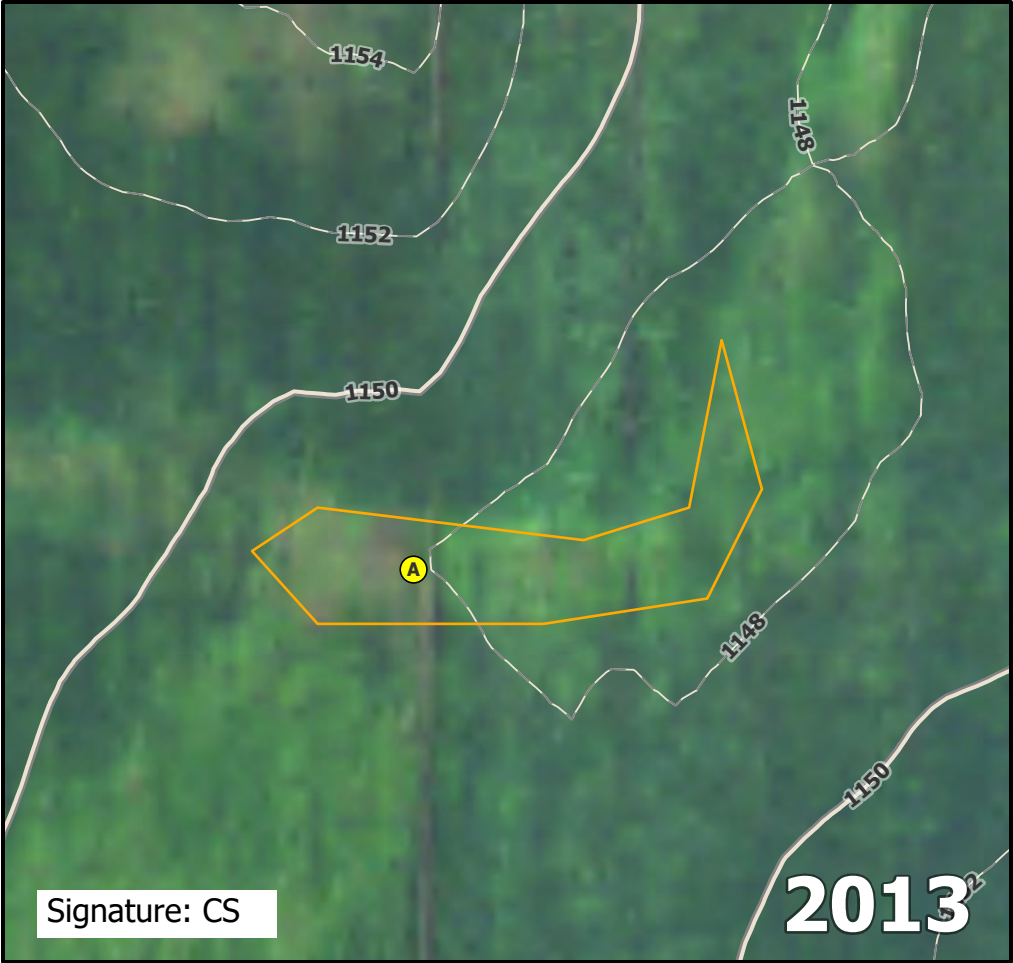
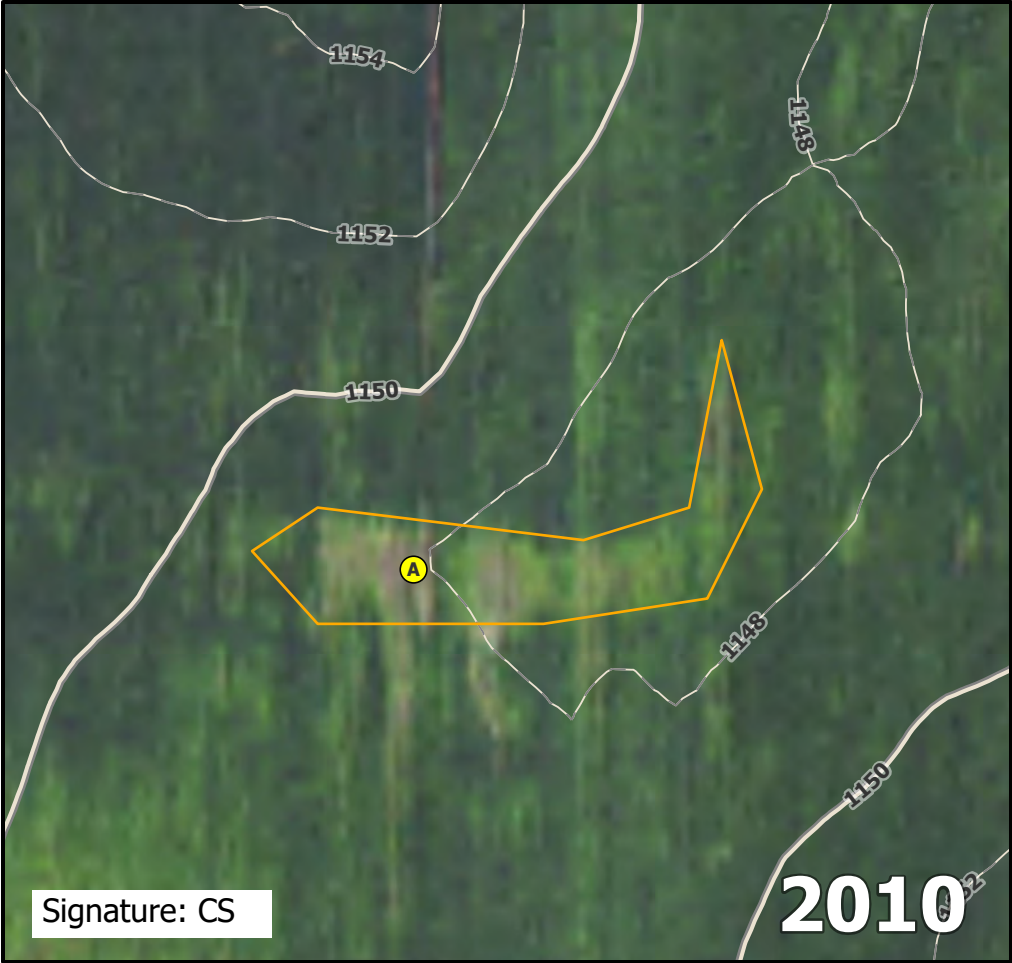
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA031A.

Direction: East	Photo ID: delin_photo-20221020-153656.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA031	



Non-Wetland ID

NWA032

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA032A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.73685	Long:	-94.4587
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

						Dominance Test Worksheet		
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status				
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)			
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)			
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)			
4.	_____	_____	_____	_____				
5.	_____	_____	_____	_____				
		=Total Cover						
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)							
1.	_____				Total % Cover of: Multiply by:			
2.	_____				OBL species	_____ x 1 =	_____	
3.	_____				FACW species	_____ x 2 =	_____	
4.	_____				FAC species	_____ x 3 =	_____	
5.	_____				FACU species	_____ x 4 =	_____	
		=Total Cover				UPL species	_____ x 5 =	_____
						Column totals	_____ (A) _____ (B)	
						Prevalence Index = B/A = _____		
<u>Herb Stratum</u>	(Plot size: _____)							
1.	_____				Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation _____ Dominance test is >50% _____ Prevalence index is ≤3.0* _____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) _____ Problematic hydrophytic vegetation* _____ (explain)			
2.	_____							
3.	_____							
4.	_____							
5.	_____							
6.	_____							
7.	_____							
8.	_____							
9.	_____							
10.	_____							
		=Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: _____)				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
1.	_____				Hydrophytic Vegetation Present? No _____			
2.	_____							
		=Total Cover						

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA032A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-36	10YR 2/1	100					Clay Loam	
36-39	2.5Y 3/2	100					Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

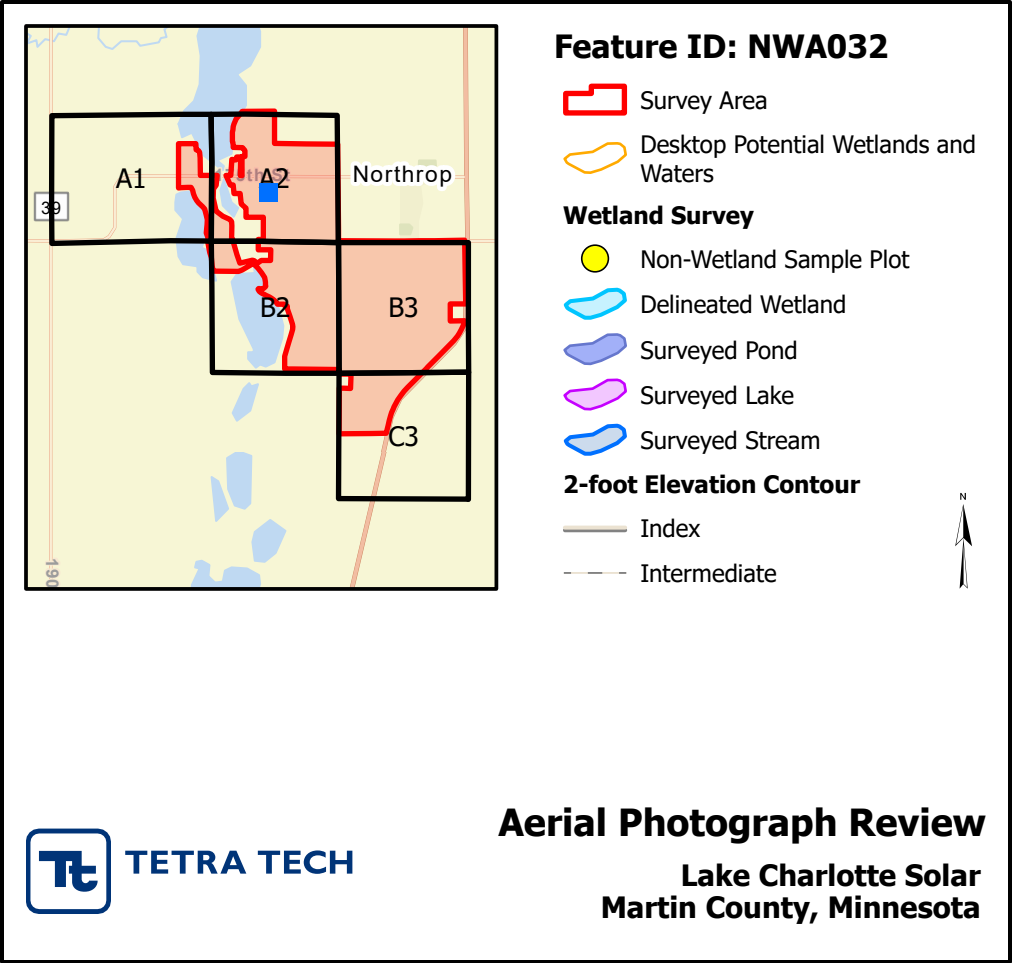
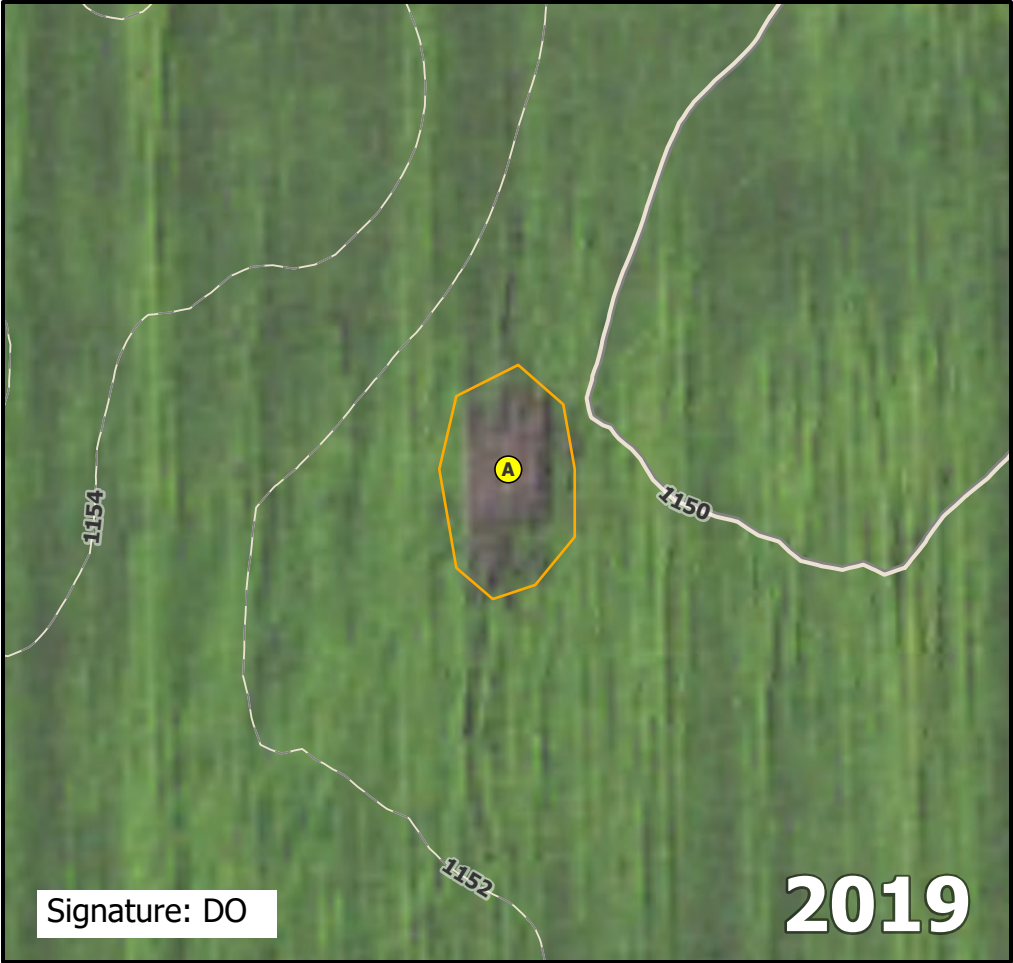
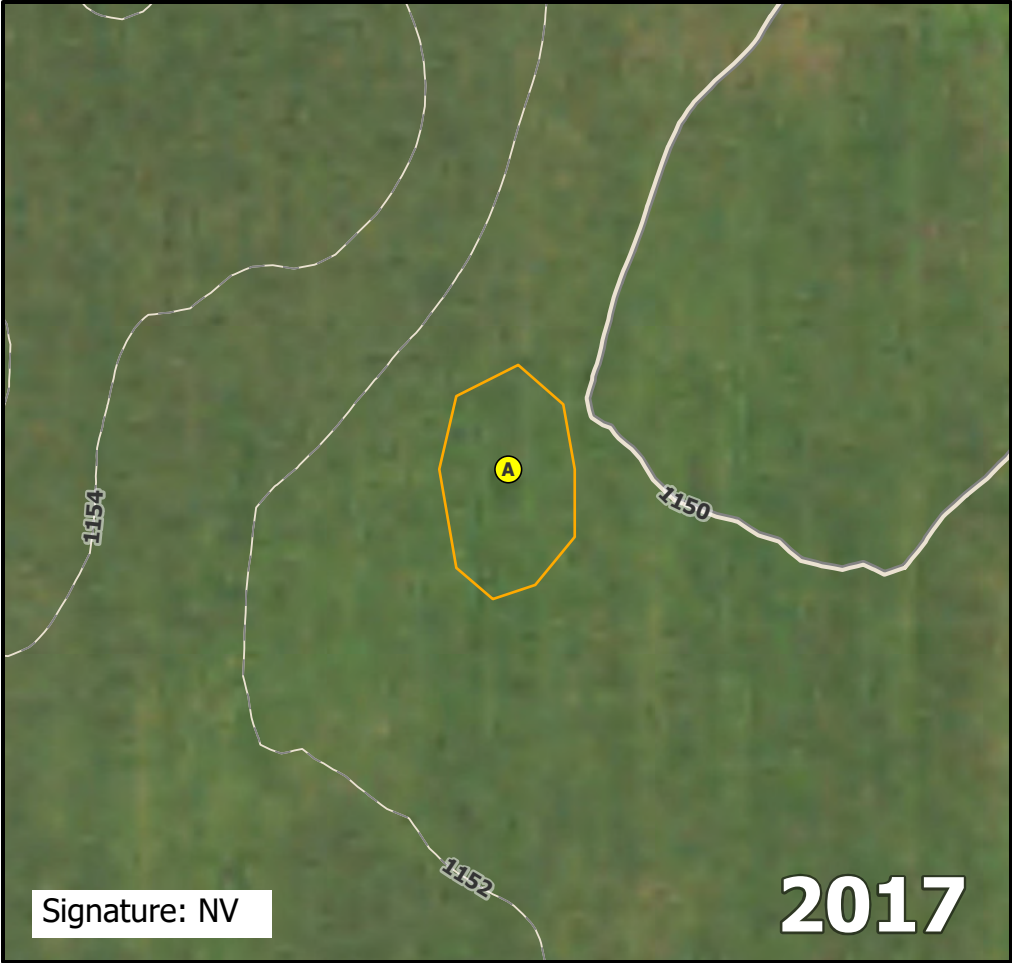
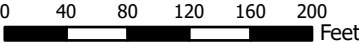
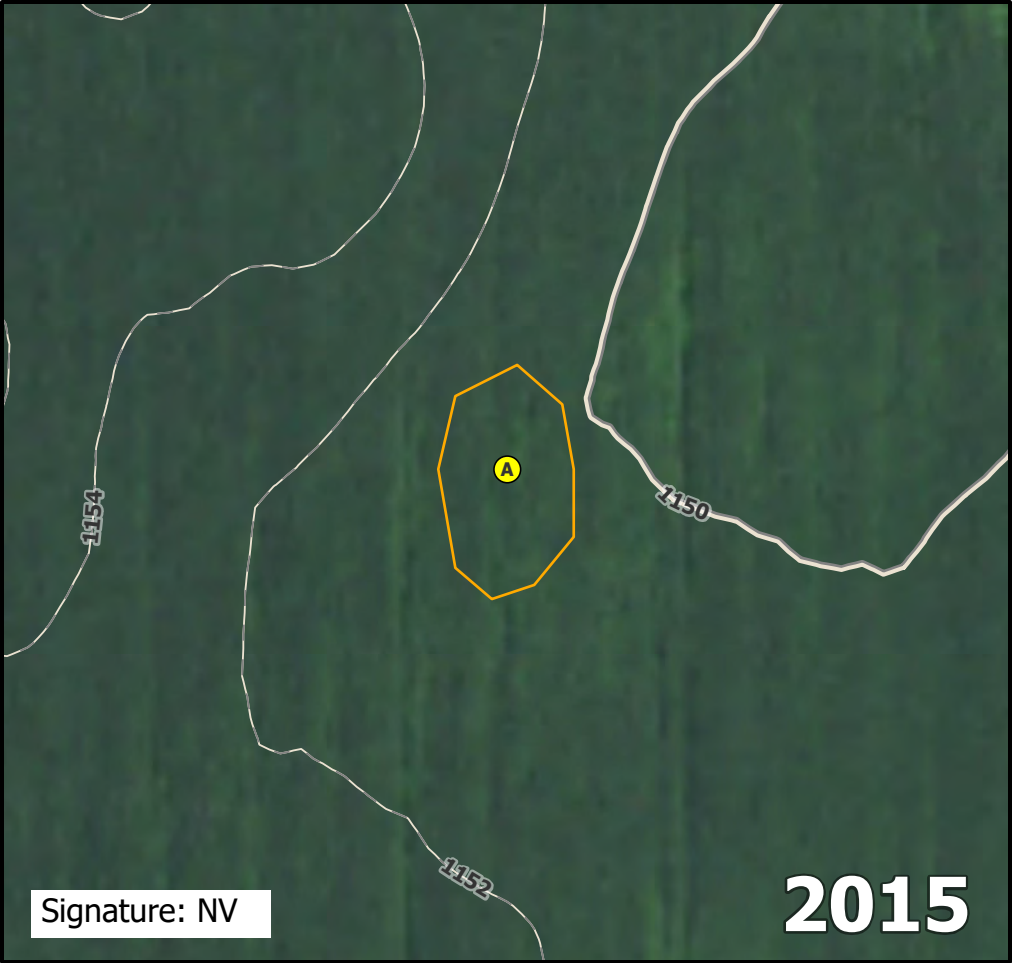
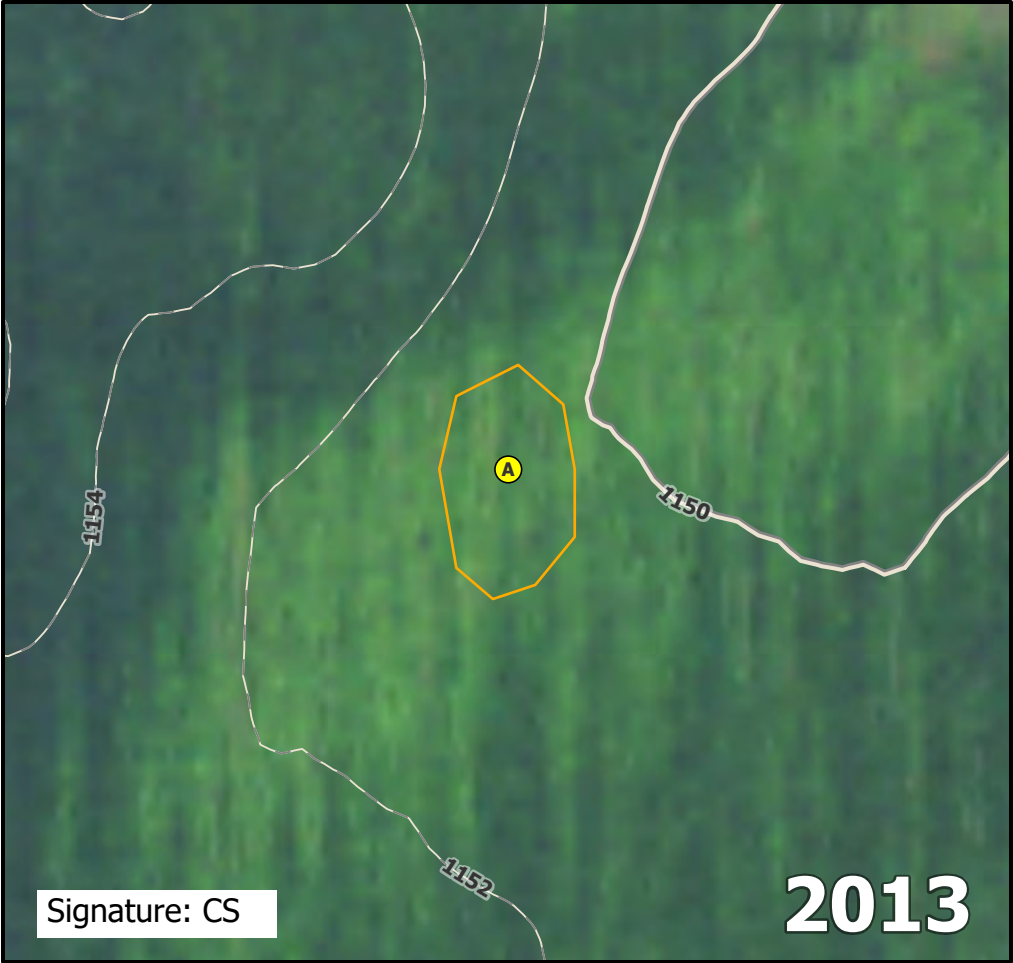
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA032A.

Direction: Southwest	Photo ID: delin_photo-20221020-155003.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA032	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA033

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA033A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.737	Long:	-94.4597
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>Yes</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

						Dominance Test Worksheet		
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status				
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)			
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)			
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)			
4.	_____	_____	_____	_____				
5.	_____	_____	_____	_____				
		=Total Cover						
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)							
1.	_____				Total % Cover of: Multiply by:			
2.	_____				OBL species	_____ x 1 =	_____	
3.	_____				FACW species	_____ x 2 =	_____	
4.	_____				FAC species	_____ x 3 =	_____	
5.	_____				FACU species	_____ x 4 =	_____	
		=Total Cover				UPL species	_____ x 5 =	_____
						Column totals	_____ (A) _____ (B)	
						Prevalence Index = B/A = _____		
<u>Herb Stratum</u>	(Plot size: _____)							
1.	_____				Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation _____ Dominance test is >50% _____ Prevalence index is ≤3.0* _____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) _____ Problematic hydrophytic vegetation* _____ (explain)			
2.	_____							
3.	_____							
4.	_____							
5.	_____							
6.	_____							
7.	_____							
8.	_____							
9.	_____							
10.	_____							
		=Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: _____)				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
1.	_____				Hydrophytic Vegetation Present? No _____			
2.	_____							
		=Total Cover						

Harvested agricultural field. Corn does not seem stressed. Bare ground: 100%

SOIL

Sampling Point: NWA033A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-20	10YR 2/1	100					Loam	
20-39	2.5Y 3/1	100					Loam	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☒ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes

Remarks:

A12 Assumed

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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

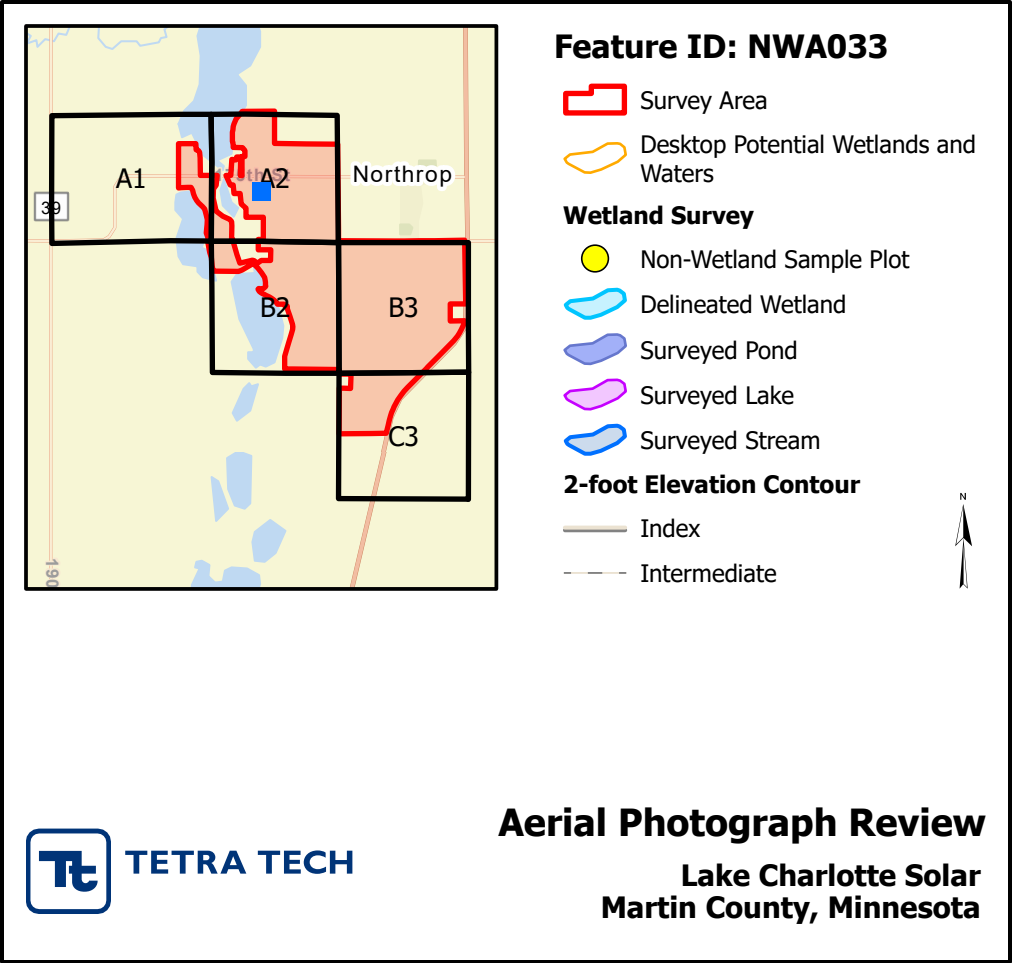
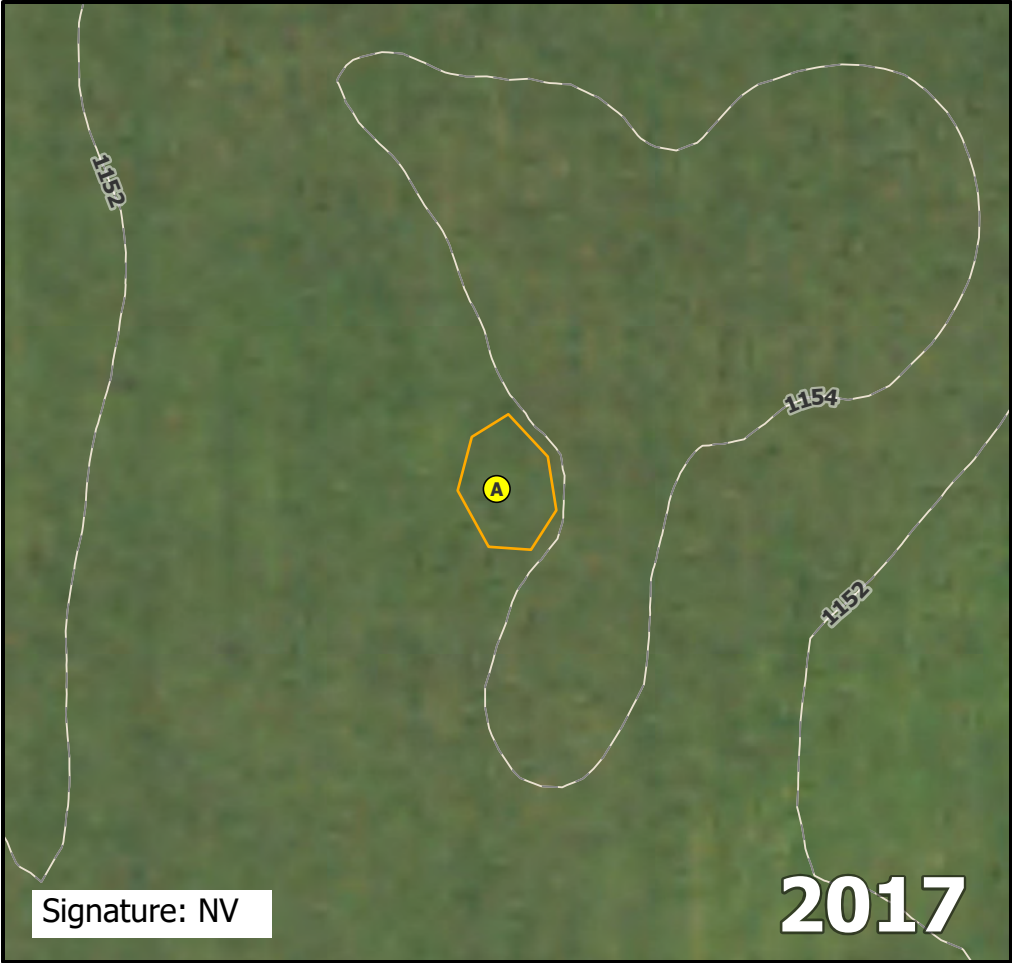
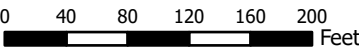
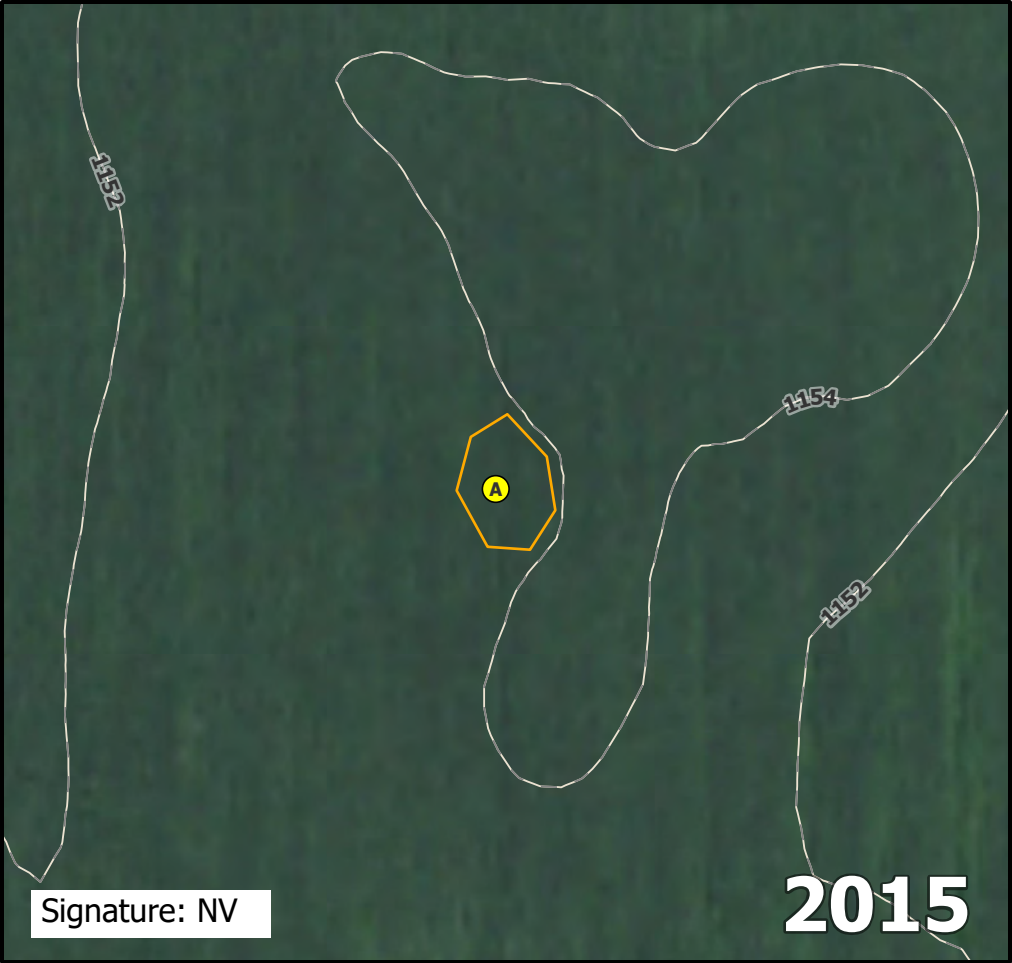
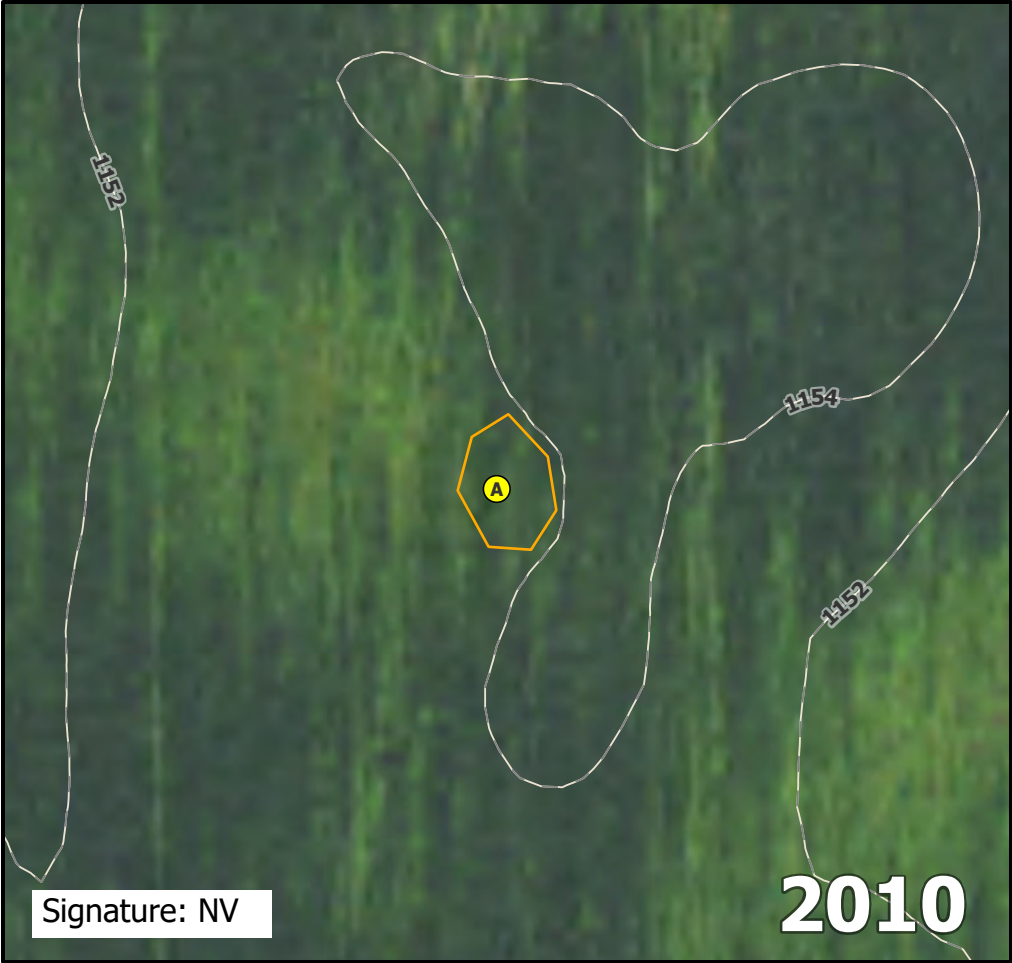
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA033A.

Direction: West	Photo ID: delin_photo-20221020-160739.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA033	



Aerial Photograph Review
Lake Charlotte Solar
Martin County, Minnesota

Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA034

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA034A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Hillslope	Local relief (concave, convex, none):	Concave		
Slope (%):	5	Lat:	43.73769	Long:	-94.45944
		Datum:	WGS84		
Soil Map Unit Name:	Clarion-Swanlake complex, 2 to 6 percent slopes	NWI Classification:	NA		

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

						Dominance Test Worksheet		
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status				
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)			
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)			
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)			
4.	_____	_____	_____	_____				
5.	_____	_____	_____	_____				
		=Total Cover						
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)							
1.	_____				Total % Cover of: Multiply by:			
2.	_____				OBL species	_____ x 1 =	_____	
3.	_____				FACW species	_____ x 2 =	_____	
4.	_____				FAC species	_____ x 3 =	_____	
5.	_____				FACU species	_____ x 4 =	_____	
		=Total Cover				UPL species	_____ x 5 =	_____
						Column totals	_____ (A) _____ (B)	
						Prevalence Index = B/A = _____		
<u>Herb Stratum</u>	(Plot size: _____)							
1.	_____				Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation _____ Dominance test is >50% _____ Prevalence index is ≤3.0* _____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) _____ Problematic hydrophytic vegetation* _____ (explain)			
2.	_____							
3.	_____							
4.	_____							
5.	_____							
6.	_____							
7.	_____							
8.	_____							
9.	_____							
10.	_____							
		=Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: _____)				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
1.	_____				Hydrophytic Vegetation Present? No _____			
2.	_____							
		=Total Cover						

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA034A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-11	10YR 2/1	100					Loam	
11-20	2.5Y 5/4	96	2.5Y 3/1	3	D	M	Loam Trace Gravel	
			2.5Y 5/6	1	C	PL		Distinct or Prominent

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

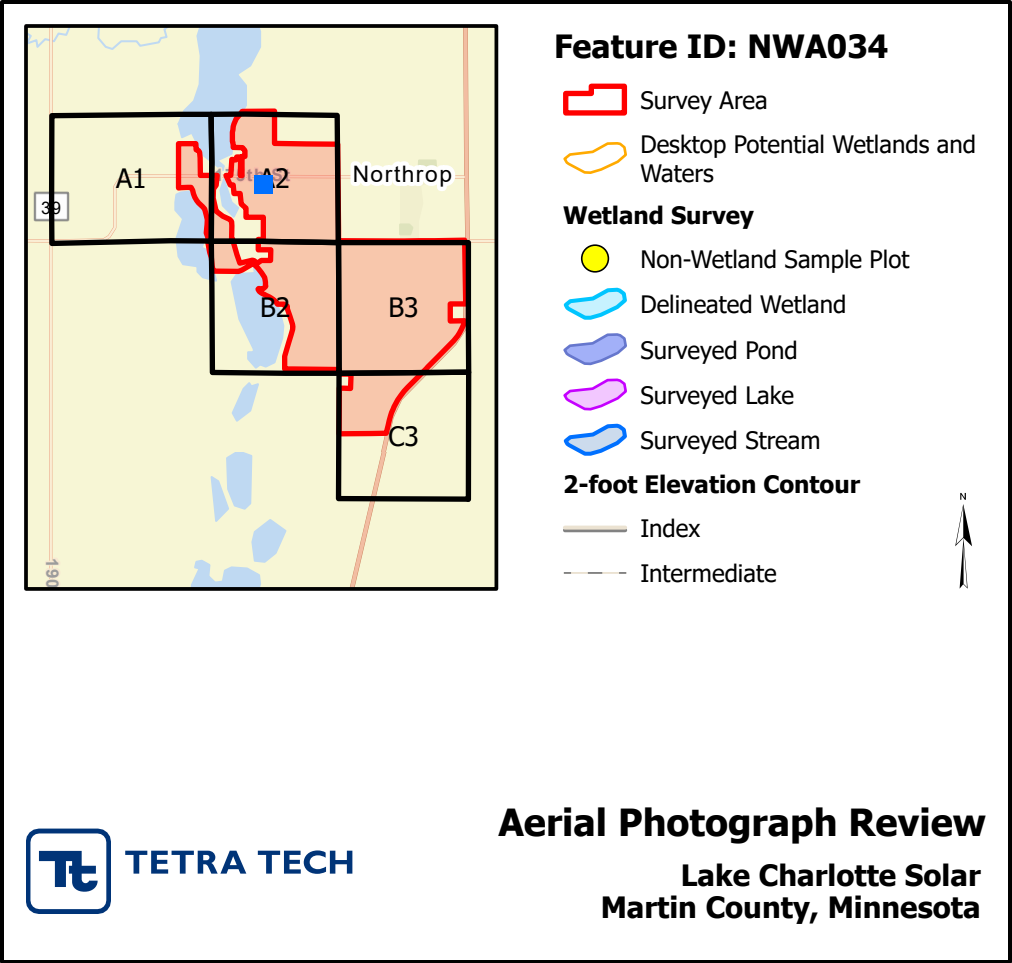
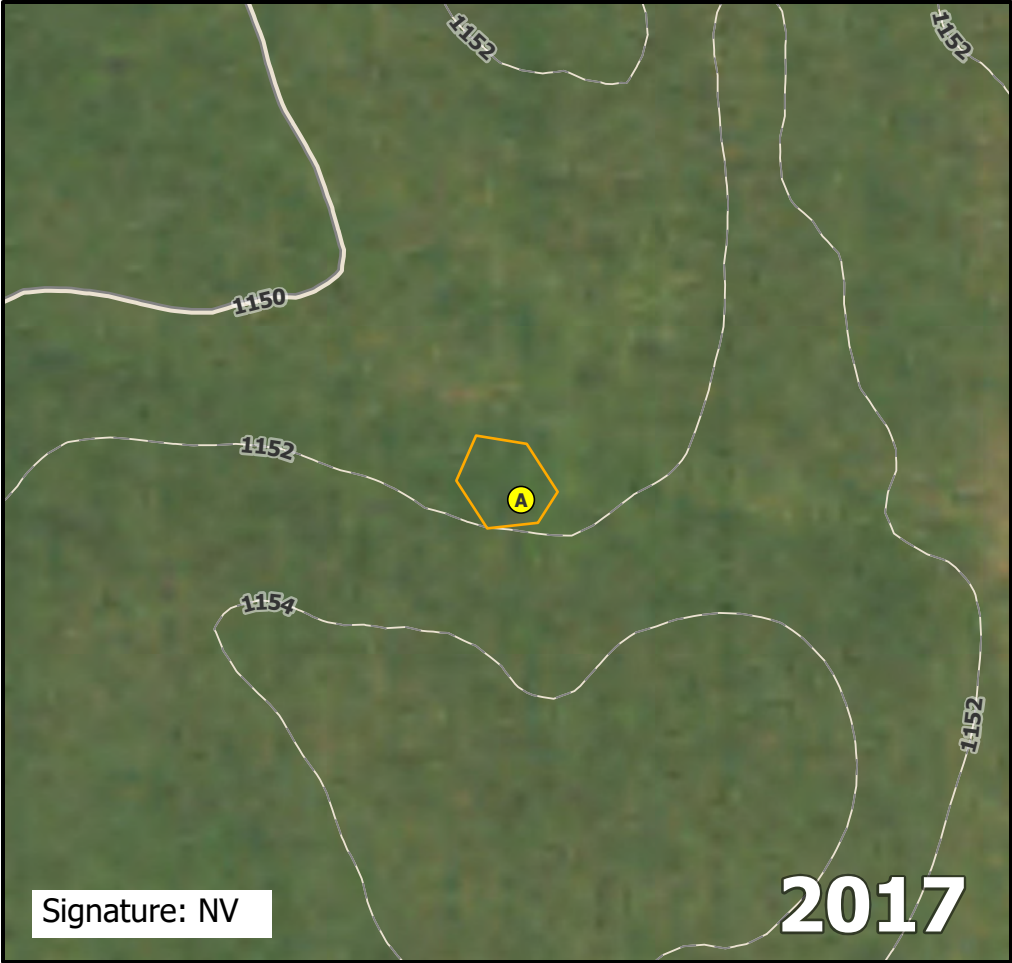
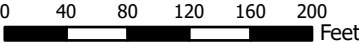
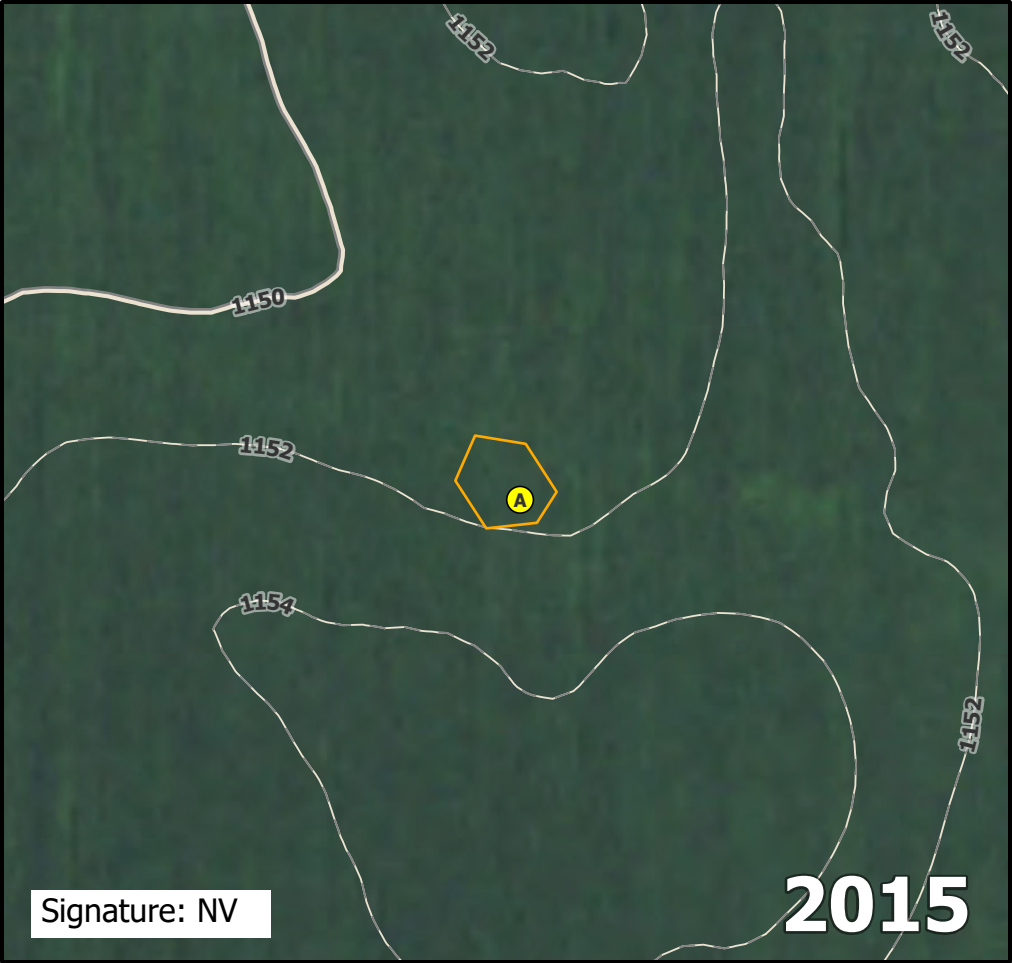
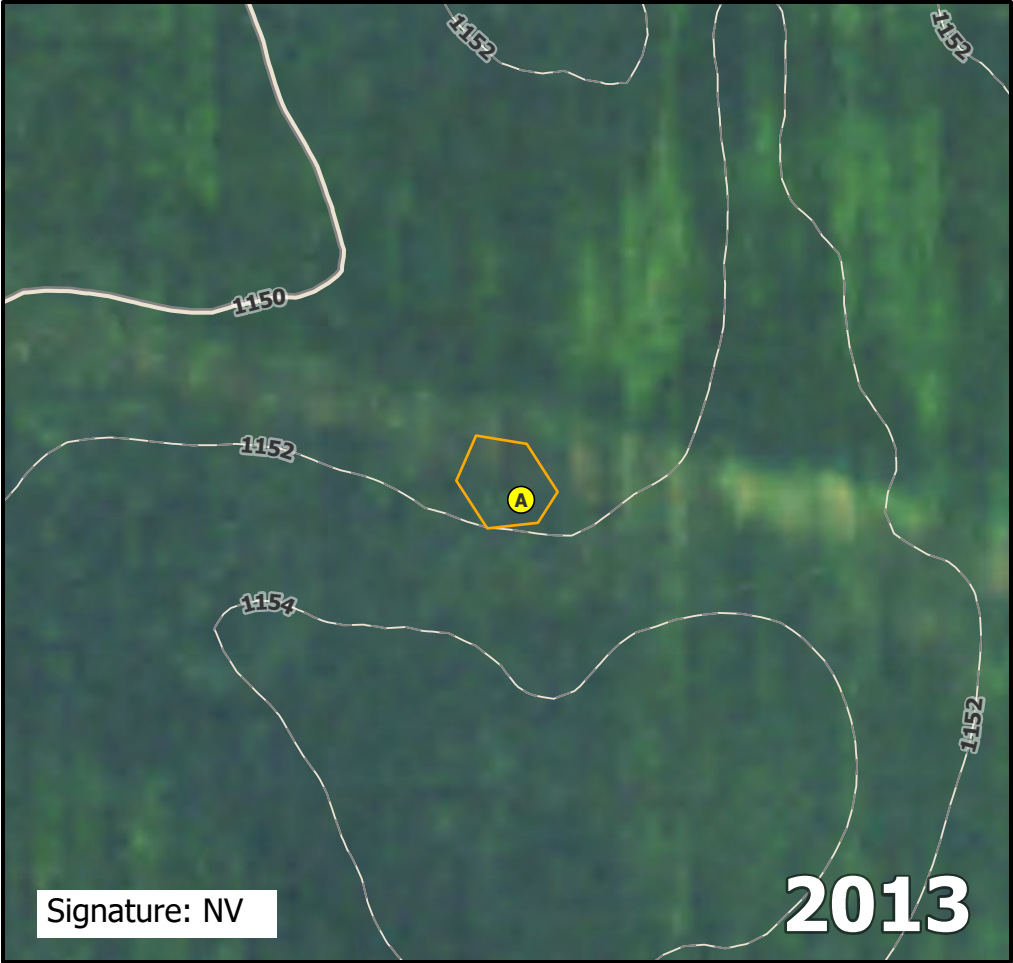
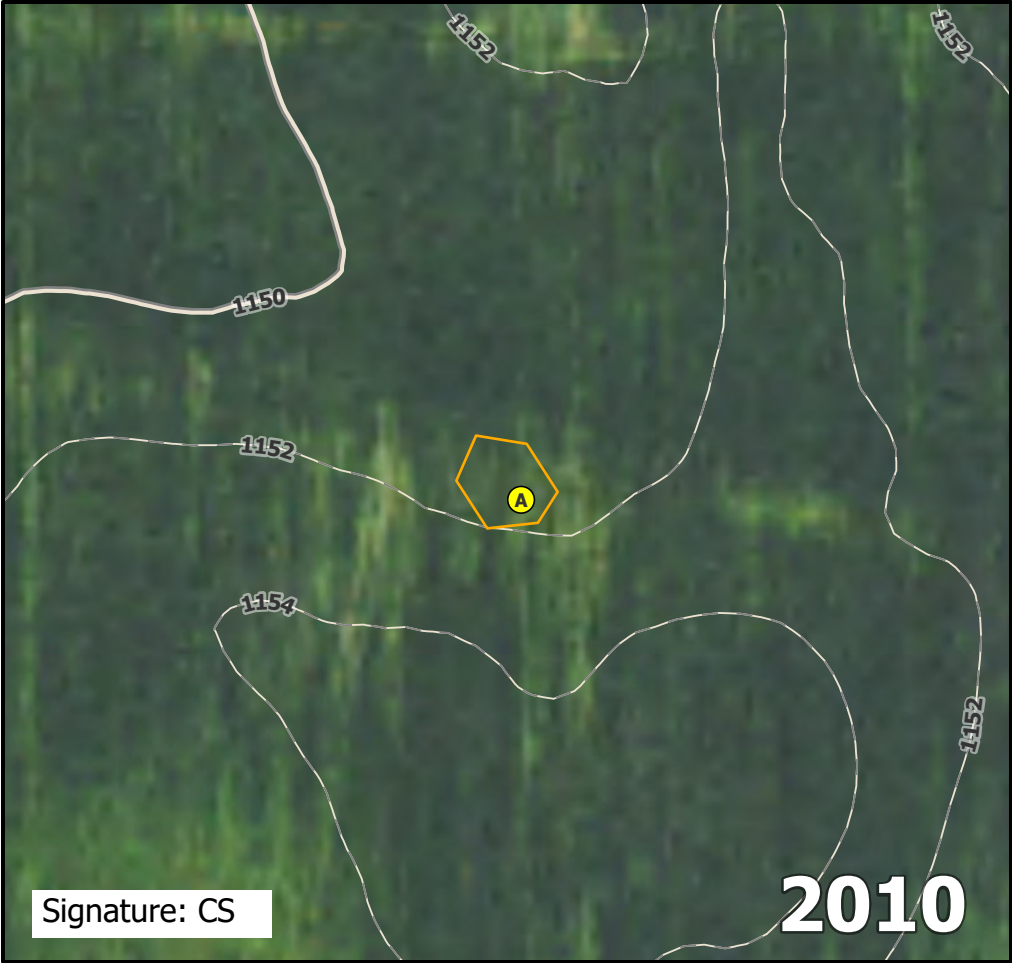
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA034A.

Direction: Southwest	Photo ID: delin_photo-20221020-161924.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA034	



Aerial Photograph Review
Lake Charlotte Solar
Martin County, Minnesota

Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA035

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA035A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Swale	Local relief (concave, convex, none):	Concave		
Slope (%):	5	Lat:	43.73503	Long:	-94.462
		Datum:	WGS84		
Soil Map Unit Name:	Clarion-Swanlake complex, 2 to 6 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		=Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)					Prevalence Index Worksheet	
1.	_____					Total % Cover of:	Multiply by:
2.	_____					OBL species	_____ x 1 = _____
3.	_____					FACW species	_____ x 2 = _____
4.	_____					FAC species	_____ x 3 = _____
5.	_____					FACU species	_____ x 4 = _____
		=Total Cover		UPL species _____ x 5 = _____			
				Column totals _____ (A) _____ (B)			
				Prevalence Index = B/A = _____			
<u>Herb Stratum</u>	(Plot size: _____)					Hydrophytic Vegetation Indicators:	
1.	_____					____ Rapid test for hydrophytic vegetation	
2.	_____					____ Dominance test is >50%	
3.	_____					____ Prevalence index is ≤3.0*	
4.	_____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5.	_____					____ Problematic hydrophytic vegetation*	
6.	_____					____ (explain)	
7.	_____						
8.	_____						
9.	_____						
10.	_____						
		=Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1.	_____					Hydrophytic Vegetation Present?	
2.	_____					No _____	
		=Total Cover					

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA035A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-1	10YR 2/1	100					Sand	
1-18	10YR 2/1	100					Clay Loam	
18-30	10YR 2/2	100					Clay Loam	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Gleyed Matrix (S4) |
| ☐ Histic Epipedon (A2) | ☐ Sandy Redox (S5) |
| ☐ Black Histic (A3) | ☐ Stripped Matrix (S6) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Stratified Layers (A5) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ 2 cm Muck (A10) | ☐ Depleted Matrix (F3) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Redox Dark Surface (F6) |
| ☐ Thick Dark Surface (A12) | ☐ Depleted Dark Surface (F7) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Redox Depressions (F8) |
| ☐ 5 cm Mucky Peat or Peat (S3) | |

Indicators for Problematic Hydric Soils*:

- | |
|--|
| ☐ Coast Prairie Redox (A16) (LRR K, L, R) |
| ☐ Dark Surface (S7) (LRR K, L) |
| ☐ Iron-Manganese Masses (F12) (LRR K, L, R) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (explain in remarks) |

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

Restrictive Layer (if observed):

 Type: _____
 Depth (inches): _____
Hydric Soil Present? 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) |

Secondary Indicators (minimum of two required)

- | | |
|---|--|
| ☐ Aquatic Fauna (B13) | ☐ Surface Soil Cracks (B6) |
| ☐ True Aquatic Plants (B14) | ☐ Drainage Patterns (B10) |
| ☐ Hydrogen Sulfide Odor (C1) | ☐ Dry-Season Water Table (C2) |
| ☐ Oxidized Rhizospheres on Living | ☐ Crayfish Burrows (C8) |
| ☐ Roots (C3) | ☐ Saturation Visible on Aerial Imagery (C9) |
| ☐ Presence of Reduced Iron (C4) | ☐ Stunted or Stressed Plants (D1) |
| ☐ Recent Iron Reduction in Tilled Soils (C6) | ☒ Geomorphic Position (D2) |
| ☐ Thin Muck Surface (C7) | ☐ FAC-Neutral Test (D5) |
| ☐ Gauge or Well Data (D9) | |
| ☐ Other (Explain in Remarks) | |

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches): _____
Water Table Present?	Yes ☐	No ☒	Depth (inches): _____
Saturation Present?	Yes ☐	No ☒	Depth (inches): _____

 (includes capillary fringe)

Wetland Hydrology Present?

No

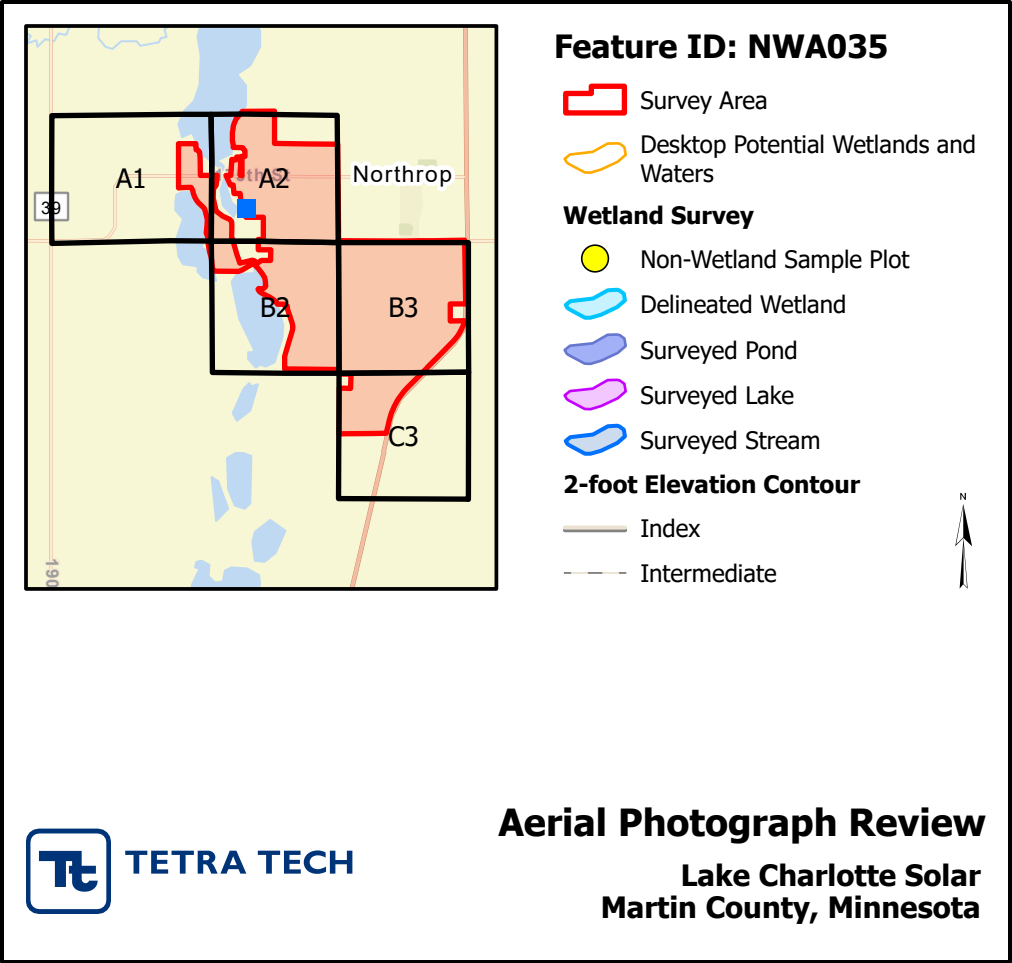
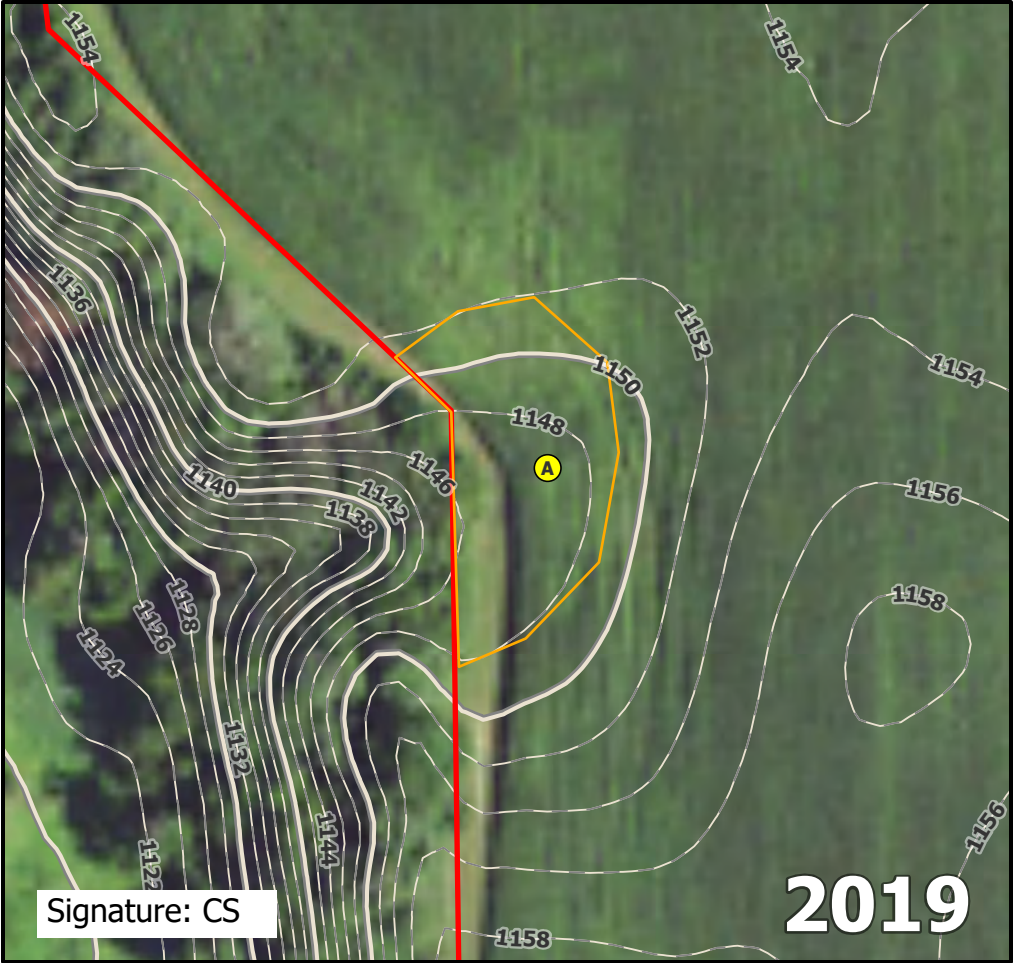
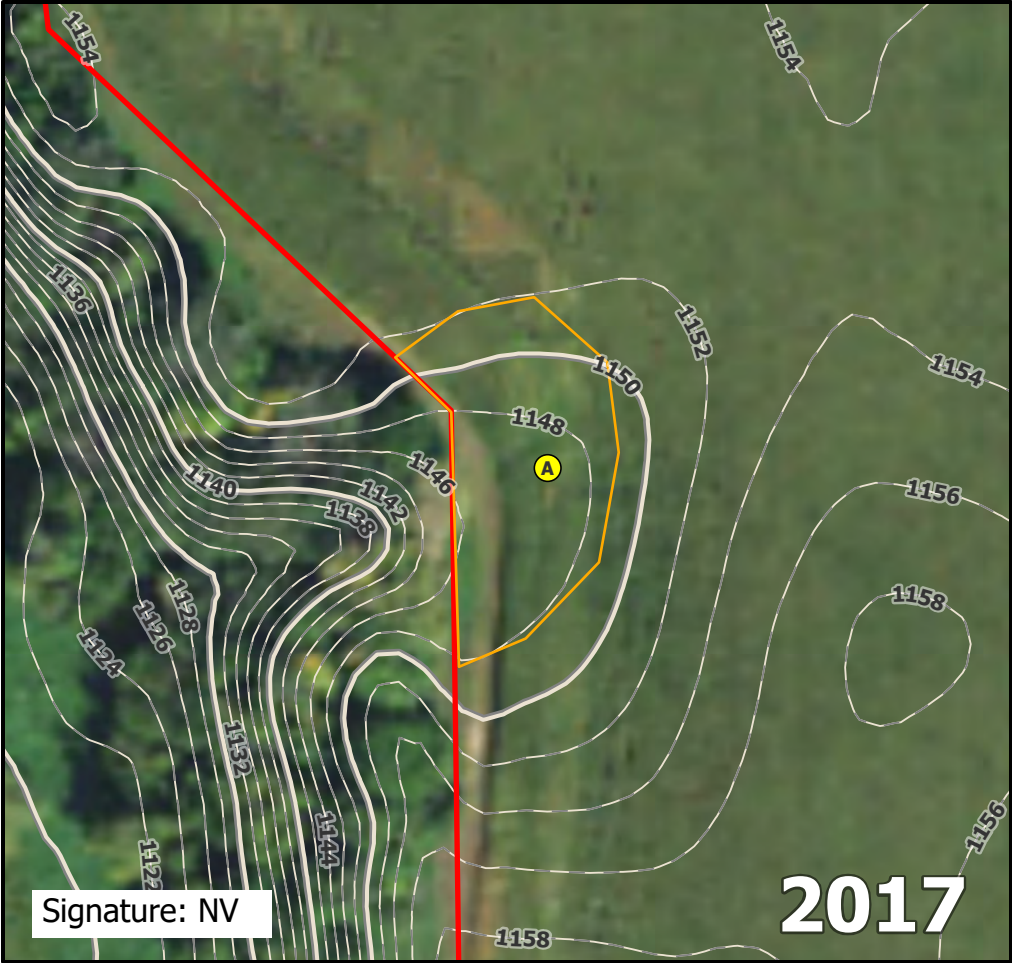
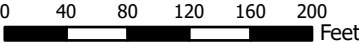
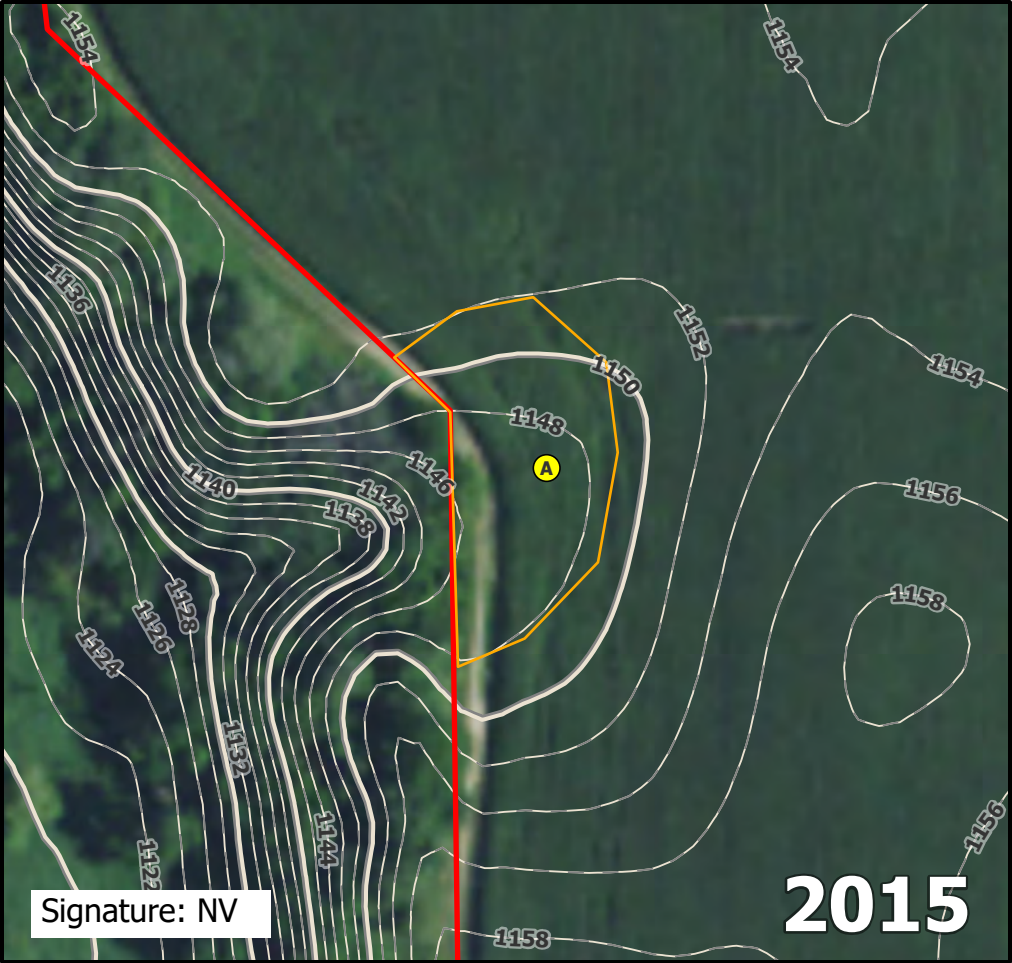
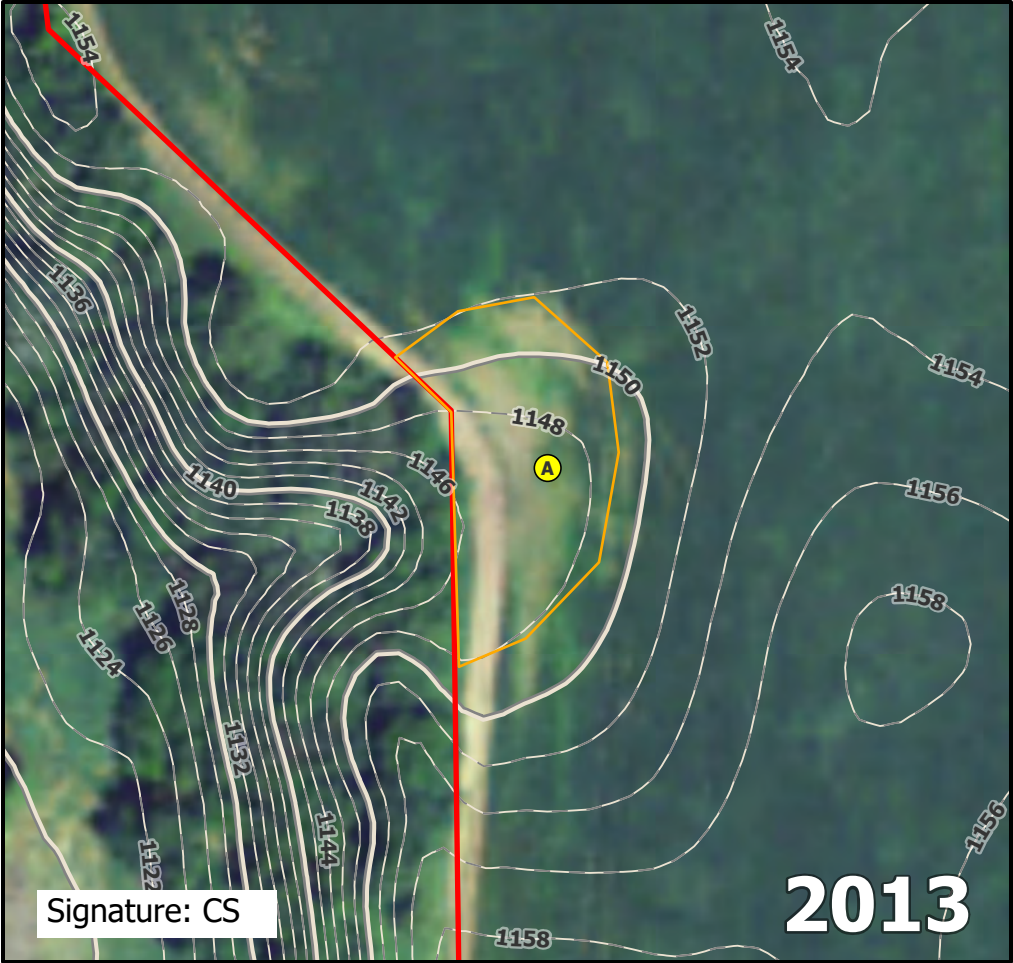
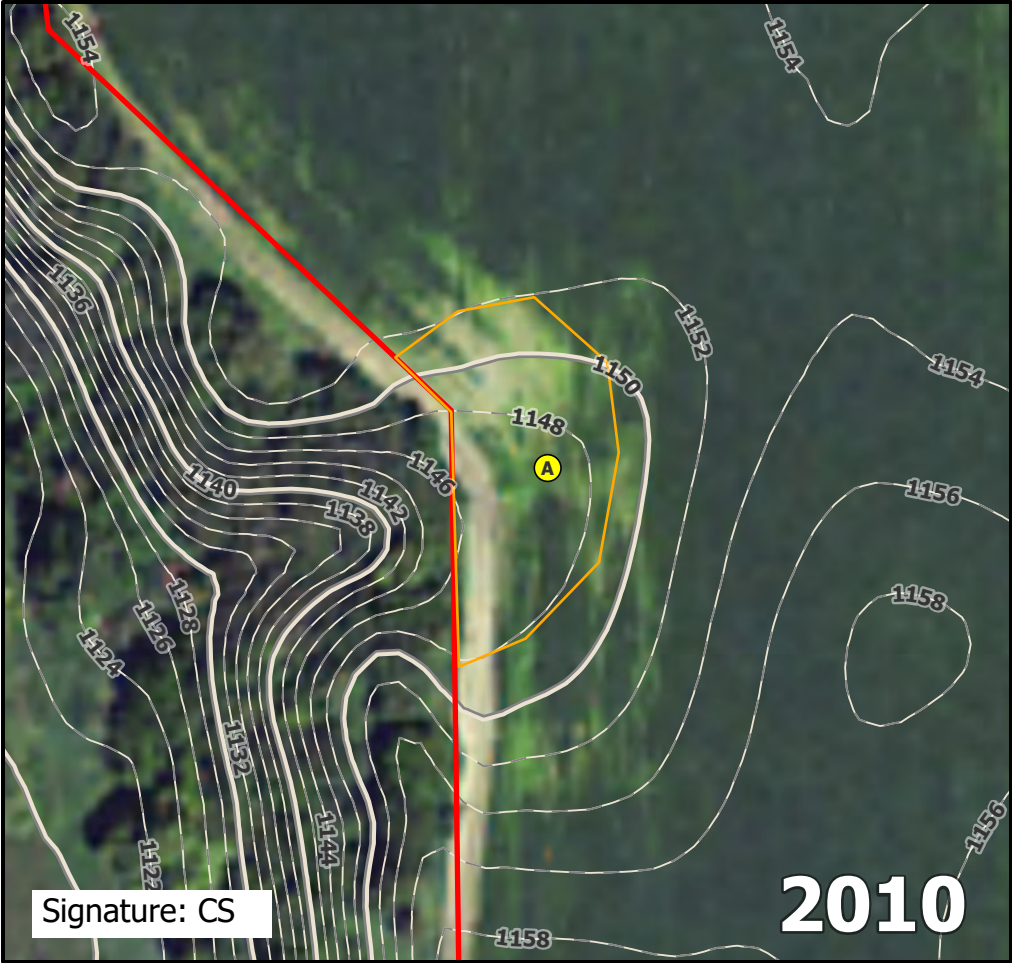
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA035A.

Direction: Northeast	Photo ID: delin_photo-20221020-164135.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA035	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA036

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte City/County: Martin Sampling Date: 10/20/2022
 Applicant/Owner: Lake Charlotte Solar, LLC State: MN Sampling Point: NWA036A
 Investigator(s): Apryl Jennrich Section, Township, Range: Sec.8 T103N R30W
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave
 Slope (%): 10 Lat: 43.73691 Long: -94.46312 Datum: WGS84
 Soil Map Unit Name: Clarion-Swanlake complex, 2 to 6 percent slopes NWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation , soil , or hydrology Significantly disturbed? Are "normal circumstances present? Yes
 Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
If yes, optional wetland site ID: <u> </u>		
Remarks:		

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u>	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>0%</u> (A/B)
1.					
2.					
3.					
4.					
5.					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>99</u> x 4 = <u>396</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>99</u> (A) <u>396</u> (B) Prevalence Index = B/A = <u>4</u>
=Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>15</u>)				
1.					
2.					
3.					
4.					
5.					
=Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>5</u>)				
1. <i>Bromus inermis</i>		99	Y	FACU	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
99 =Total Cover					Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* (explain) <u> </u>
<u>Woody Vine Stratum</u>	(Plot size: <u>15</u>)				
1.					
2.					
=Total Cover					
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic					
					Hydrophytic Vegetation Present? <u>No</u>

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

Bare ground: 0%

SOIL

Sampling Point: NWA036A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Gleyed Matrix (S4) |
| ☐ Histic Epipedon (A2) | ☐ Sandy Redox (S5) |
| ☐ Black Histic (A3) | ☐ Stripped Matrix (S6) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Stratified Layers (A5) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ 2 cm Muck (A10) | ☐ Depleted Matrix (F3) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Redox Dark Surface (F6) |
| ☐ Thick Dark Surface (A12) | ☐ Depleted Dark Surface (F7) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Redox Depressions (F8) |
| ☐ 5 cm Mucky Peat or Peat (S3) | |

Indicators for Problematic Hydric Soils*:

- | |
|--|
| ☐ Coast Prairie Redox (A16) (LRR K, L, R) |
| ☐ Dark Surface (S7) (LRR K, L) |
| ☐ Iron-Manganese Masses (F12) (LRR K, L, R) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (explain in remarks) |

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

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____
Hydric Soil Present? No

Remarks:

Obvious not a wetland based on vegetation.

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) |

Secondary Indicators (minimum of two required)

- | | |
|--|--|
| ☐ Aquatic Fauna (B13) | ☐ Surface Soil Cracks (B6) |
| ☐ True Aquatic Plants (B14) | ☐ Drainage Patterns (B10) |
| ☐ Hydrogen Sulfide Odor (C1) | ☐ Dry-Season Water Table (C2) |
| ☐ Oxidized Rhizospheres on Living | ☐ Crayfish Burrows (C8) |
| ☐ Roots (C3) | ☐ Saturation Visible on Aerial Imagery (C9) |
| ☐ Presence of Reduced Iron (C4) | ☐ Stunted or Stressed Plants (D1) |
| ☐ Recent Iron Reduction in Tilled Soils | ☒ Geomorphic Position (D2) |
| ☐ (C6) | ☐ FAC-Neutral Test (D5) |
| ☐ Thin Muck Surface (C7) | |
| ☐ Gauge or Well Data (D9) | |
| ☐ Other (Explain in Remarks) | |

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches): _____
Water Table Present?	Yes ☐	No ☐	Depth (inches): _____
Saturation Present?	Yes ☐	No ☐	Depth (inches): _____

 (includes capillary fringe)

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA036A.

Direction: Southwest

Photo ID: delin_photo-20221020-164959.jpg

Date: 10/20/2022

Project Name: Lake Charlotte

Feature ID: NWA036

Non-Wetland ID

NWA037

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte City/County: Martin Sampling Date: 10/20/2022
 Applicant/Owner: Lake Charlotte Solar, LLC State: MN Sampling Point: NWA037A
 Investigator(s): Apryl Jennrich Section, Township, Range: Sec.8 T103N R30W
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave
 Slope (%): 5 Lat: 43.73868 Long: -94.46492 Datum: WGS84
 Soil Map Unit Name: Clarion-Swanlake complex, 2 to 6 percent slopes NWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation , soil , or hydrology Significantly disturbed? Are "normal circumstances present? Yes
 Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
If yes, optional wetland site ID: <u> </u>		
Remarks:		

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u>	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>0%</u> (A/B)
1.					
2.					
3.					
4.					
5.					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>2</u> x 2 = <u>4</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>92</u> (A) <u>364</u> (B) Prevalence Index = B/A = <u>3.96</u>
=Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>15</u>)				
1.					
2.					
3.					
4.					
5.					
=Total Cover					
<u>Herb Stratum</u>	(Plot size: <u>5</u>)				Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* <u> </u> (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1. <i>Bromus inermis</i>		<u>90</u>	<u>Y</u>	<u>FACU</u>	
2. <i>Phalaris arundinacea</i>		<u>2</u>	<u>N</u>		
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
<u>92</u> =Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: <u>15</u>)				Hydrophytic Vegetation Present? <u>No</u>
1.					
2.					
=Total Cover					

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

Bare ground: 0%

SOIL

Sampling Point: NWA037A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? No

Remarks:

Potential underground utility conflict.

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☐ Depth (inches): _____Saturation Present? Yes ☐ No ☐ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present?No

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

Remarks:



Overview of upland sample point NWA037A.

Direction: West	Photo ID: delin_photo-20221020-170731.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA037	

Non-Wetland ID

NWA038

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA038A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	0	Lat:	43.739	Long:	-94.45438
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	No	
Hydric Soil Present?	No	Is the sampled area within a wetland? No
Wetland Hydrology Present?	No	If yes, optional wetland site ID: _____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		=Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)					Prevalence Index Worksheet	
1.	_____					Total % Cover of:	Multiply by:
2.	_____					OBL species	_____ x 1 = _____
3.	_____					FACW species	_____ x 2 = _____
4.	_____					FAC species	_____ x 3 = _____
5.	_____					FACU species	_____ x 4 = _____
		=Total Cover		UPL species _____ x 5 = _____			
				Column totals _____ (A) _____ (B)			
				Prevalence Index = B/A = _____			
<u>Herb Stratum</u>	(Plot size: _____)					Hydrophytic Vegetation Indicators:	
1.	_____					____ Rapid test for hydrophytic vegetation	
2.	_____					____ Dominance test is >50%	
3.	_____					____ Prevalence index is ≤3.0*	
4.	_____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5.	_____					____ Problematic hydrophytic vegetation*	
6.	_____					____ (explain)	
7.	_____						
8.	_____						
9.	_____						
10.	_____						
		=Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1.	_____					Hydrophytic Vegetation Present?	
2.	_____					No _____	
		=Total Cover					

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA038A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-17	10YR 2/1	100					Clay	
17-21	10YR 2/1	99	10YR 3/3	1	C	PL	Clay	Distinct or Prominent
21-24	10YR 2/1	99	10YR 3/3	1	C	PL	Sandy Clay	Distinct or Prominent
24-28	10YR 2/1	97	10YR 3/3	3	C	PL	Sandy Clay	Distinct or Prominent
28-37	10YR 2/2	78	10YR 3/2	10	D	M	Sandy Clay	
			10YR 4/6	3	C	PL		Distinct or Prominent

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

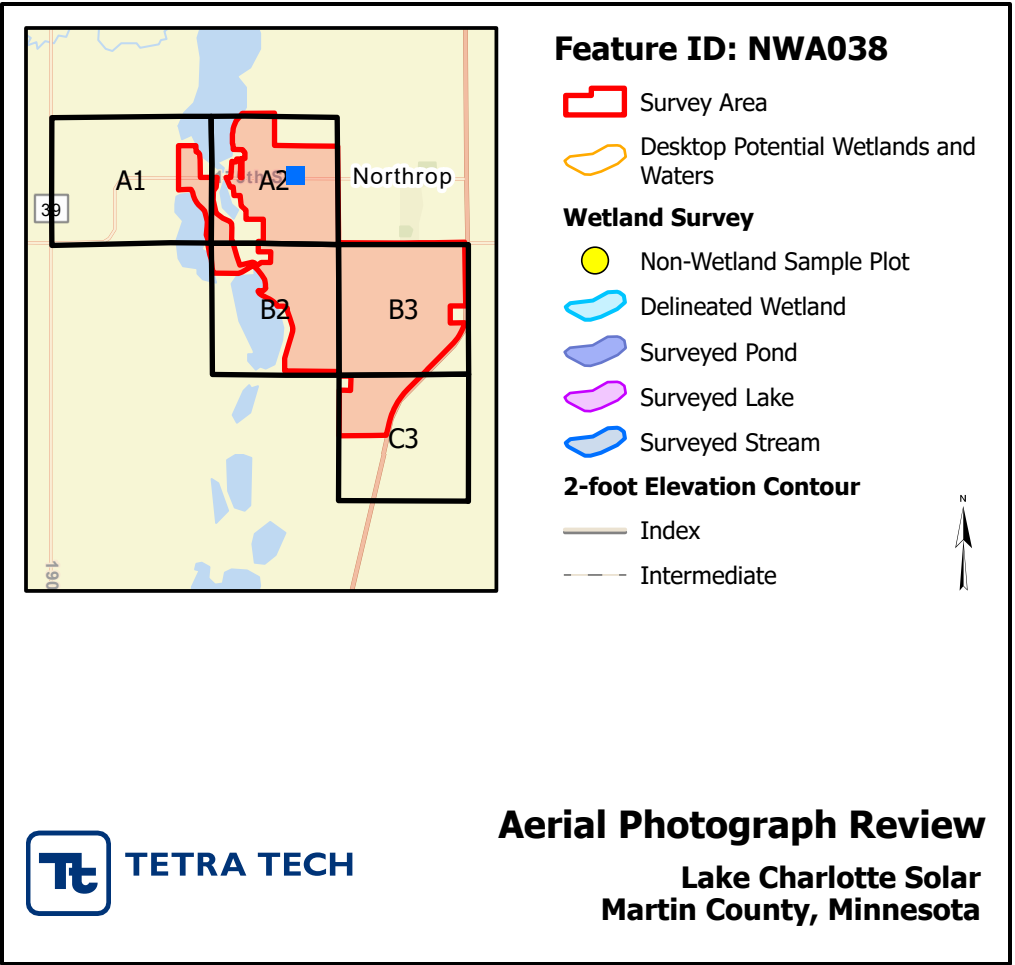
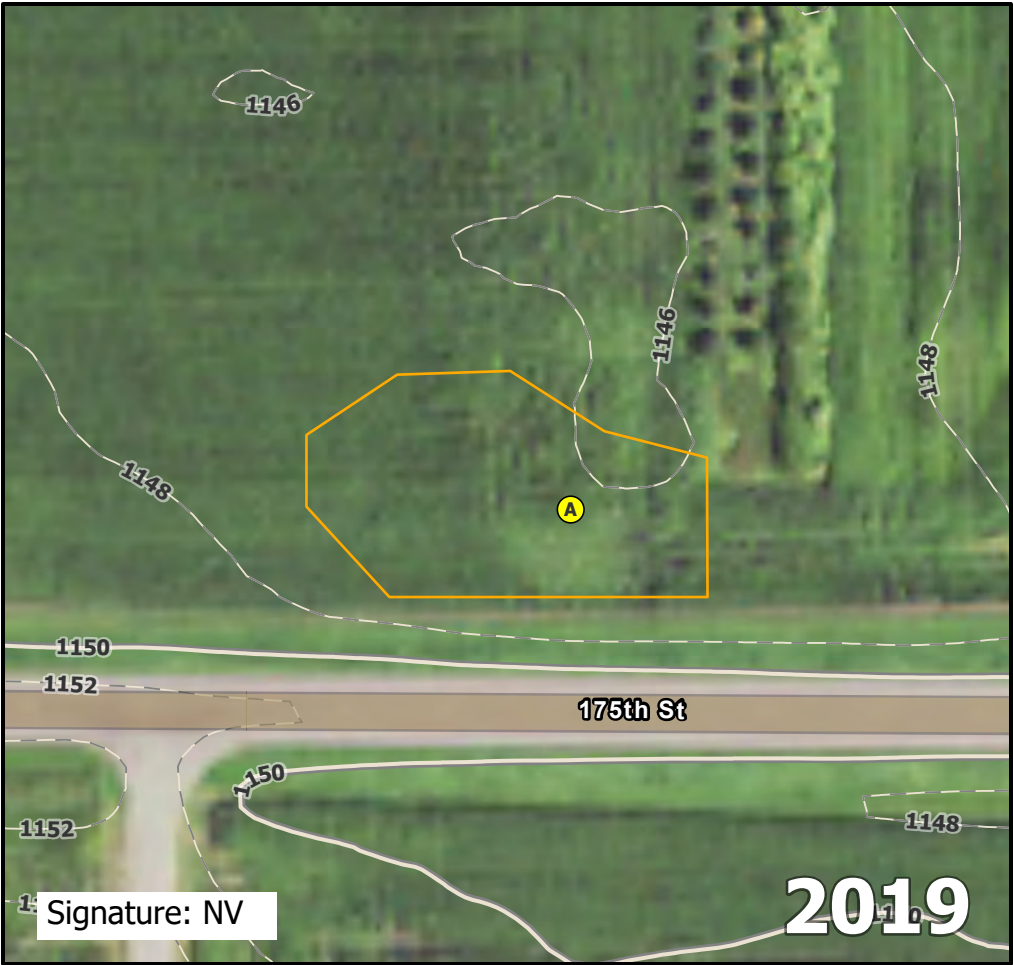
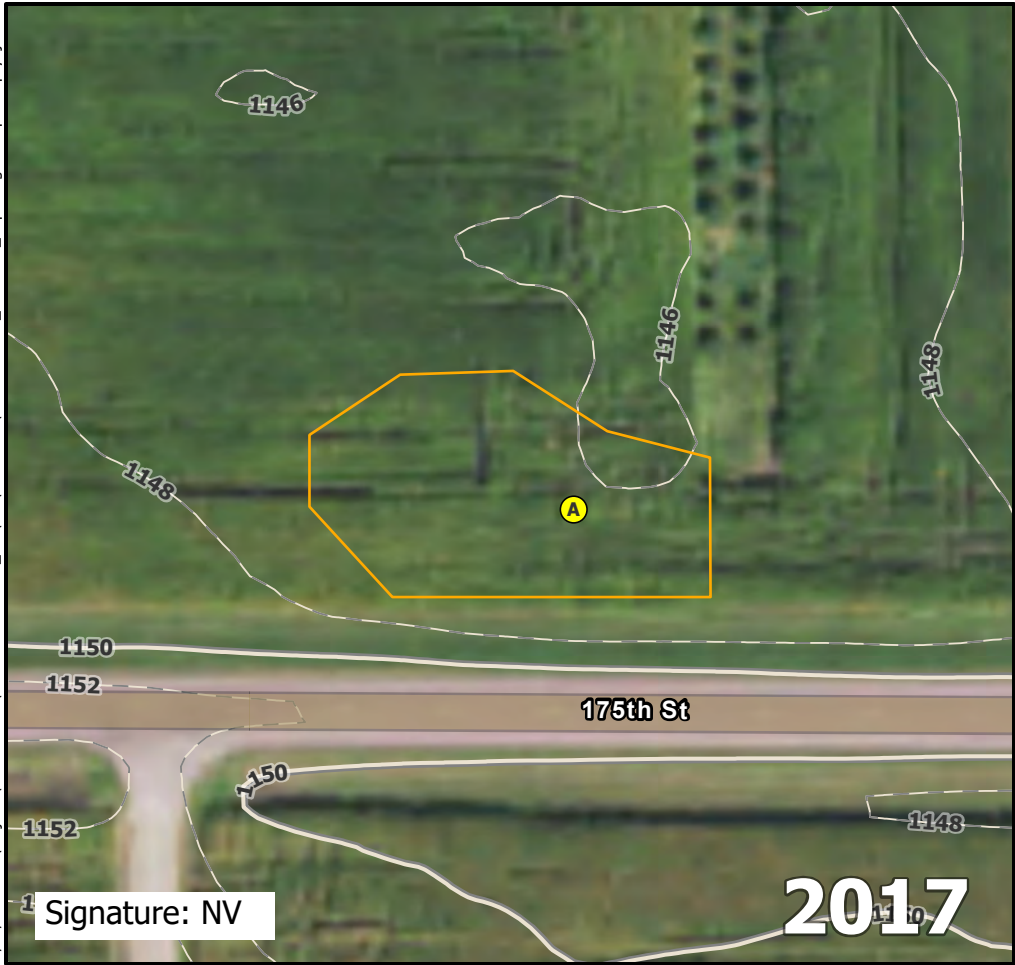
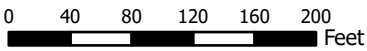
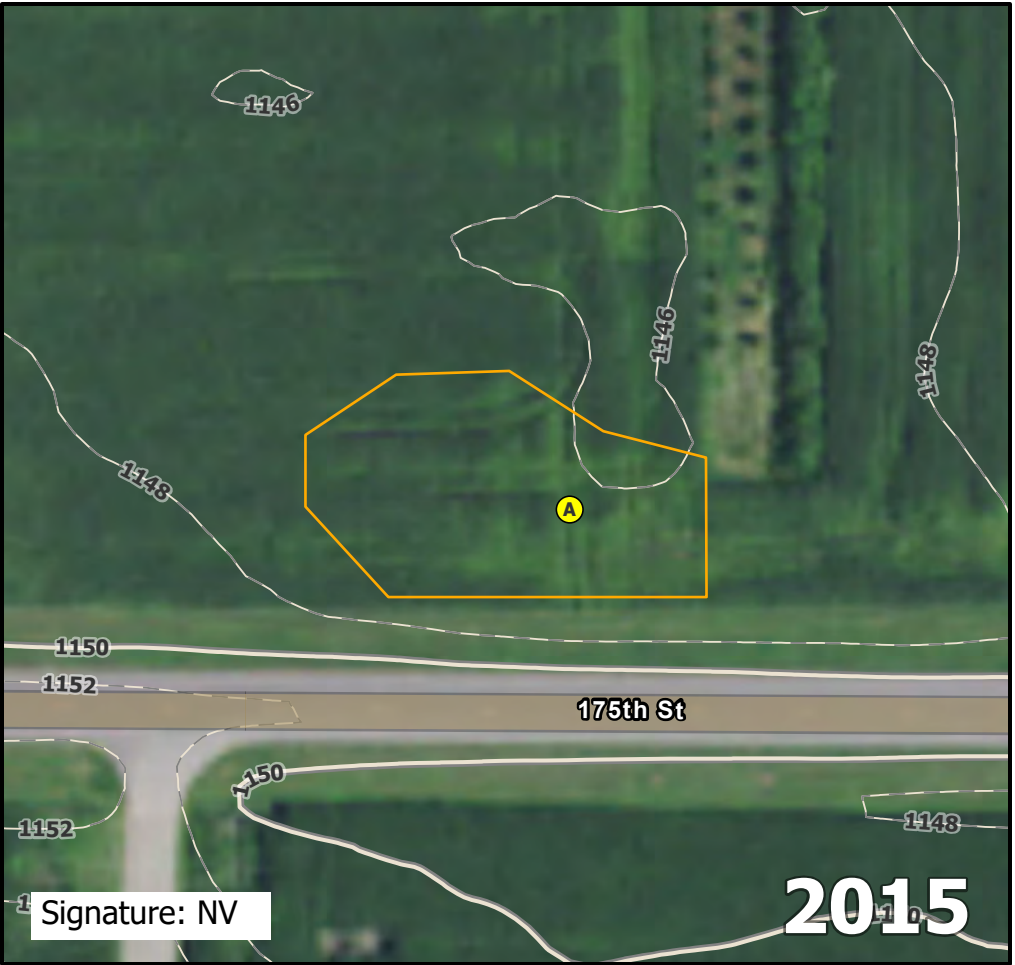
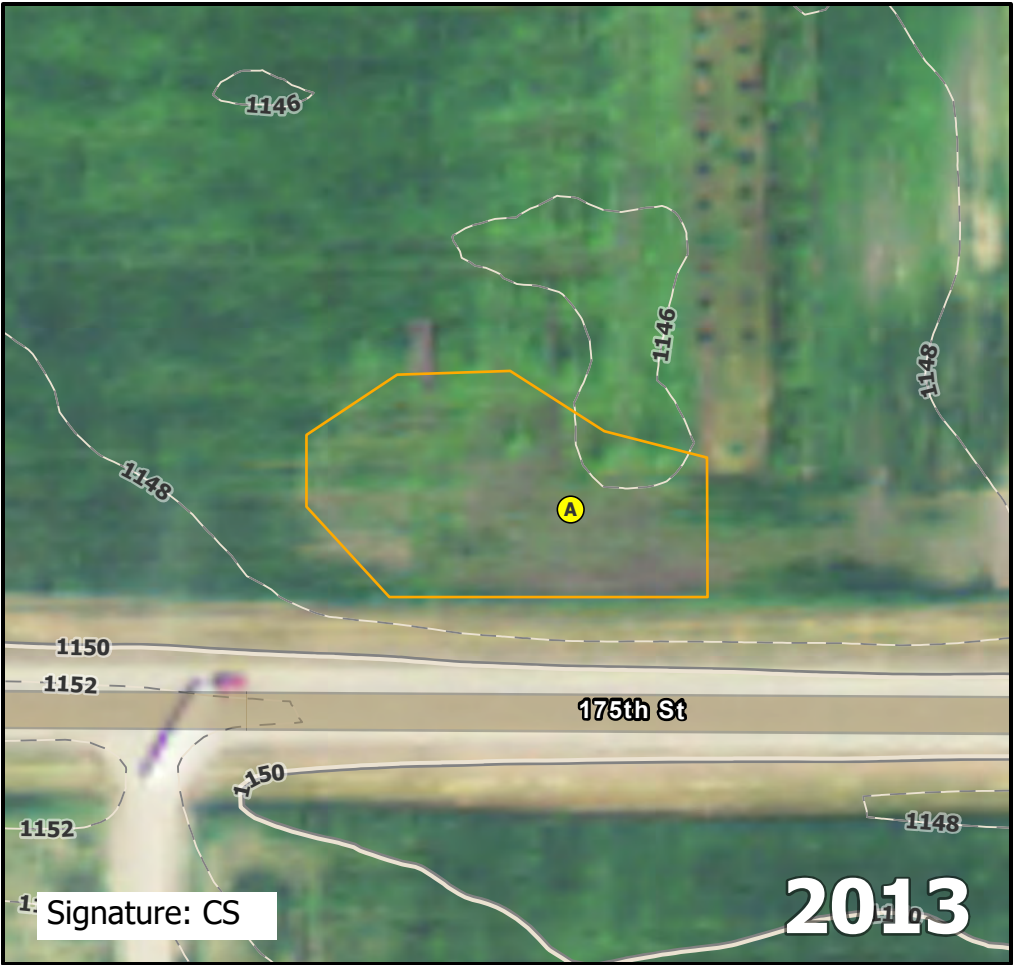
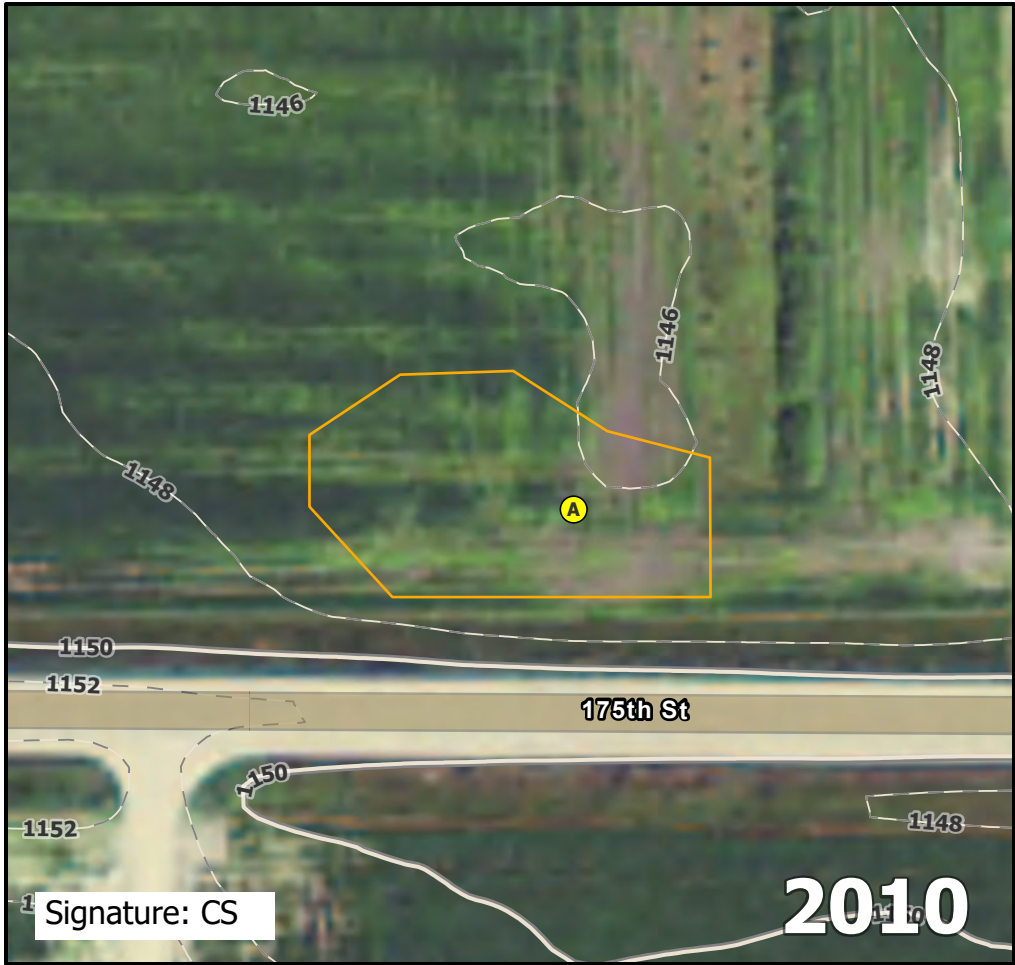
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA038A.

Direction: West	Photo ID: delin_photo-20221020-184156.jpg	Date: 10/20/2022
Project Name: Lake Charlotte		Feature ID: NWA038



Aerial Photograph Review
Lake Charlotte Solar
Martin County, Minnesota

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_ReportFigures.aprx apryl.jennrich

Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA039

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA039A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	1	Lat:	43.73958	Long:	-94.45271
				Datum:	WGS84
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>		
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland?	<u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID:	_____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)
1.					
2.					
3.					
4.					
5.					
					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column totals (A) (B) Prevalence Index = B/A =
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
					Hydrophytic Vegetation Indicators: ____ Rapid test for hydrophytic vegetation ____ Dominance test is >50% ____ Prevalence index is ≤3.0* ____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ____ Problematic hydrophytic vegetation* ____ (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Herb Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
6.					Hydrophytic Vegetation Present? No
7.					
8.					
9.					
10.					
<u>Woody Vine Stratum</u>	(Plot size: _____)				
1.					
2.					

Recently tilled agricultural field. Bare ground: 100%

SOILSampling Point: NWA039A**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-23	10YR 2/1	100					Clay	
23-26	2.5Y 3/2	90	2.5Y 4/2	10	D	M	Sandy Clay	
26-30	2.5Y 5/4	100					Sandy Clay Loam	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?No

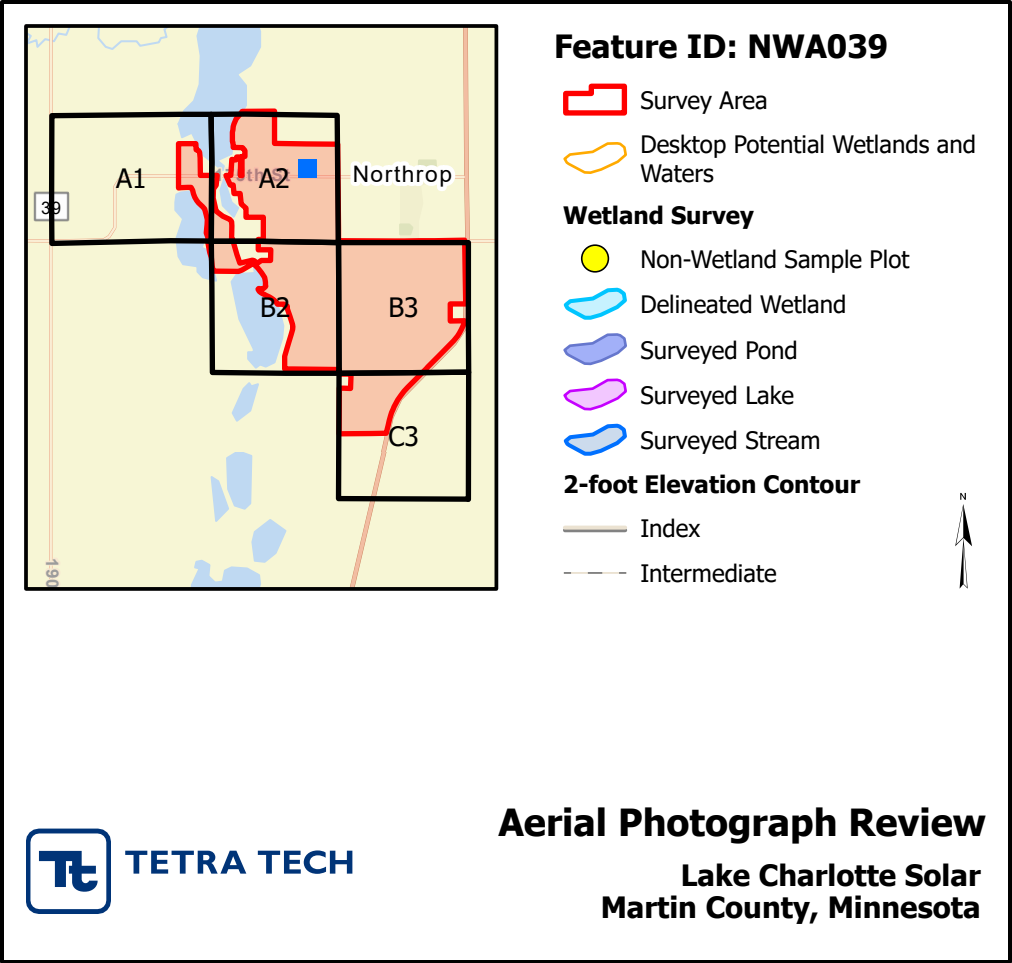
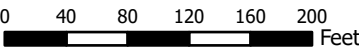
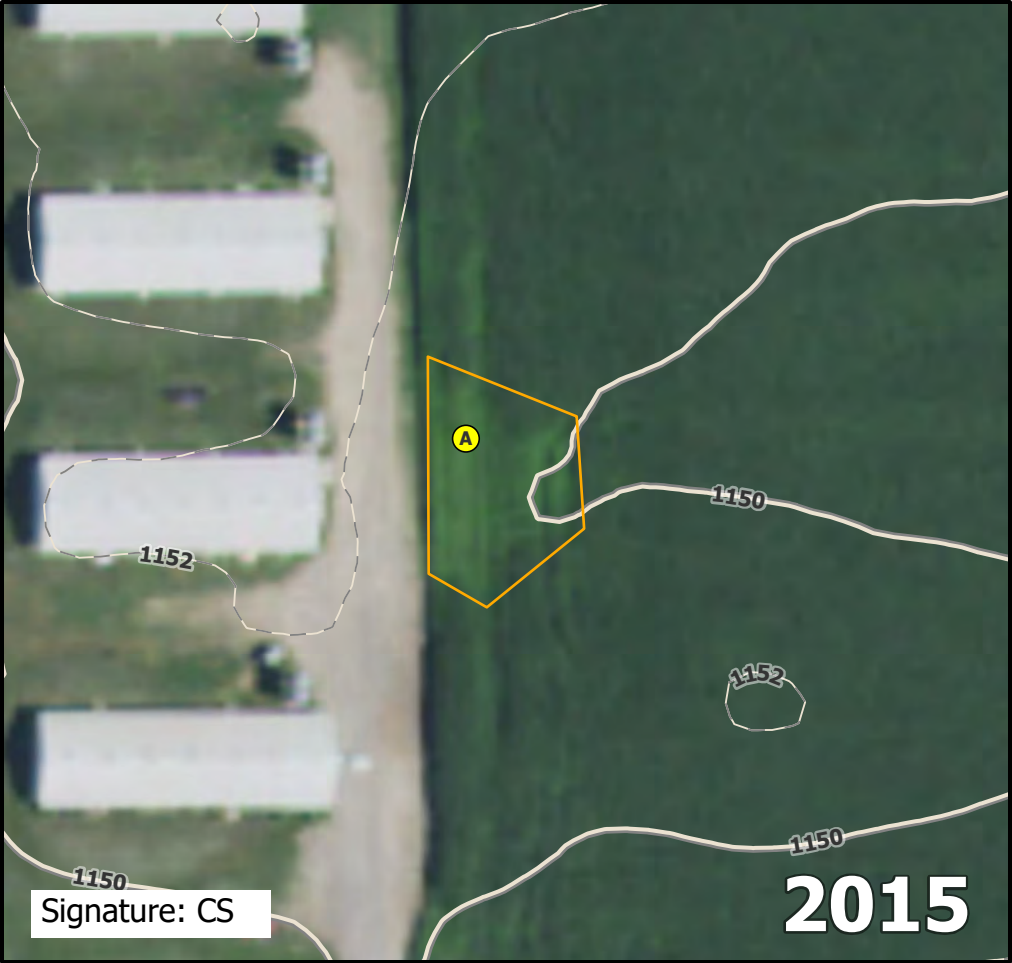
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA039A.

Direction: East	Photo ID: delin_photo-20221020-185743.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA039	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA040

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA040A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Toeslope	Local relief (concave, convex, none):	Concave		
Slope (%):	2	Lat:	43.73552	Long:	-94.4568
				Datum:	WGS84
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>		
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland?	<u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID:	_____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		=Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)					Prevalence Index Worksheet	
1.	_____					Total % Cover of:	Multiply by:
2.	_____					OBL species	_____ x 1 = _____
3.	_____					FACW species	_____ x 2 = _____
4.	_____					FAC species	_____ x 3 = _____
5.	_____					FACU species	_____ x 4 = _____
		=Total Cover				UPL species	_____ x 5 = _____
						Column totals	_____ (A) _____ (B)
						Prevalence Index = B/A = _____	
<u>Herb Stratum</u>	(Plot size: _____)					Hydrophytic Vegetation Indicators:	
1.	_____					____ Rapid test for hydrophytic vegetation	
2.	_____					____ Dominance test is >50%	
3.	_____					____ Prevalence index is ≤3.0*	
4.	_____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5.	_____					____ Problematic hydrophytic vegetation*	
6.	_____					____ (explain)	
7.	_____						
8.	_____						
9.	_____						
10.	_____						
		=Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1.	_____					Hydrophytic Vegetation Present?	
2.	_____					No _____	
		=Total Cover					

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA040A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-37	10YR 2/1	100					Clay	
37-40	10YR 2/2	100					Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

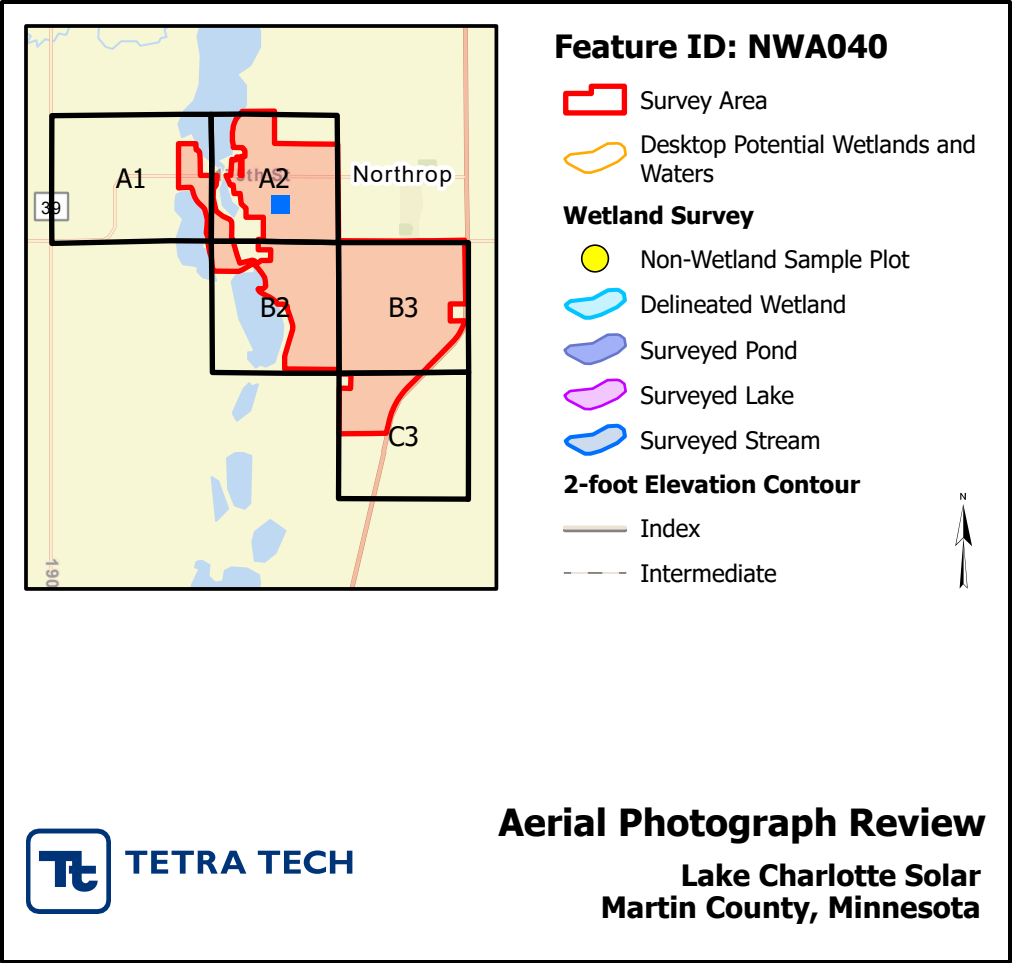
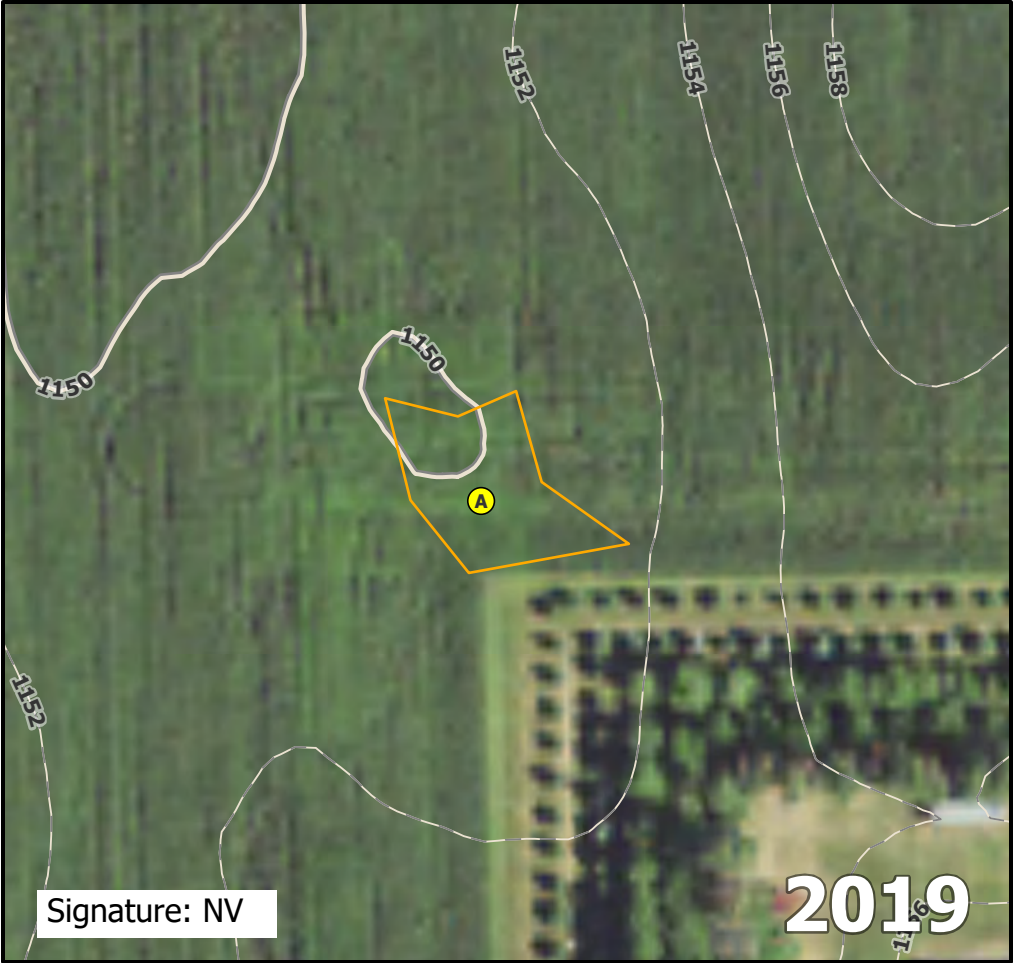
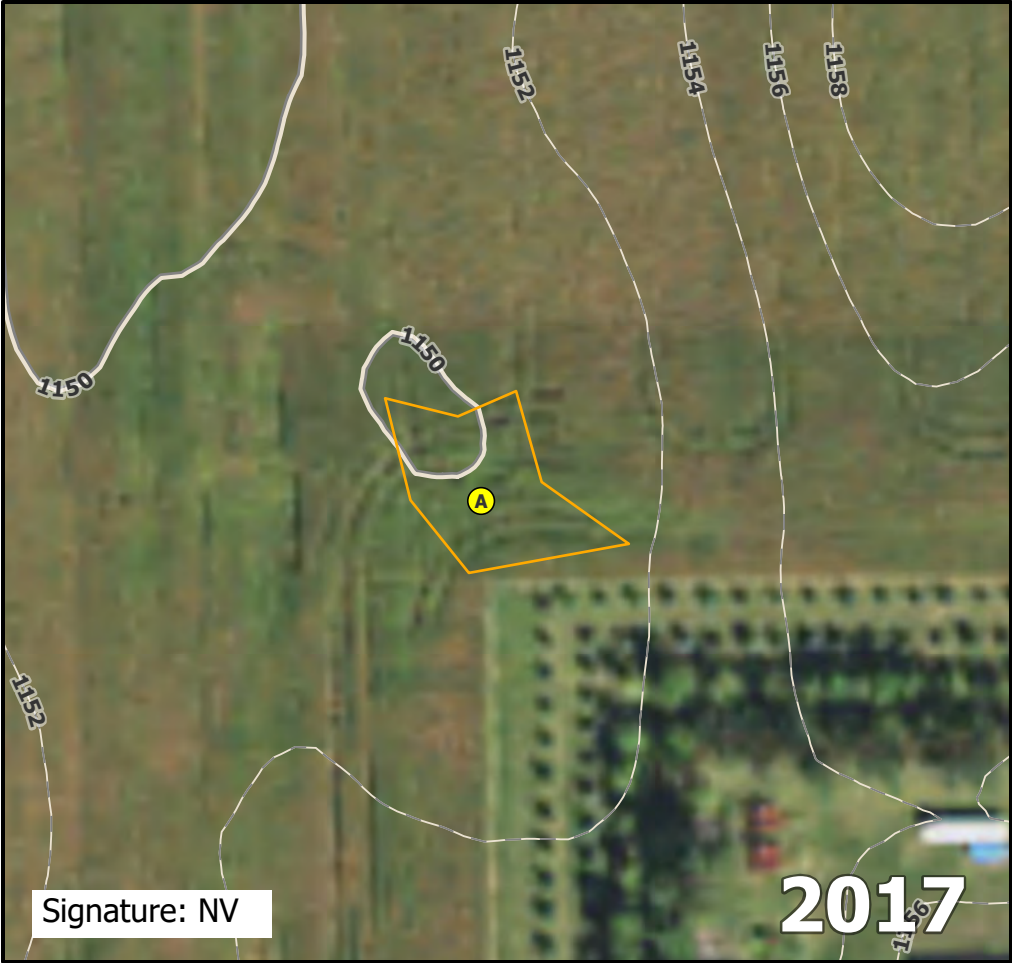
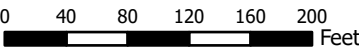
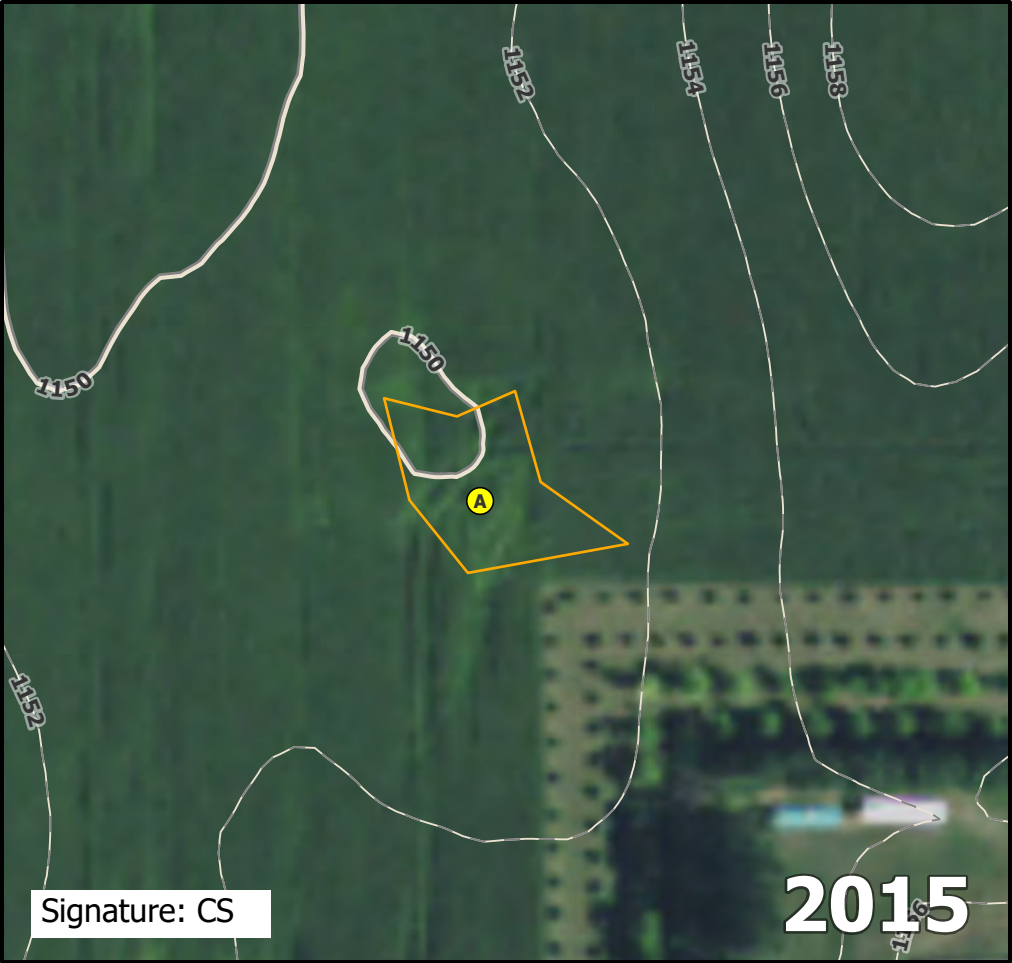
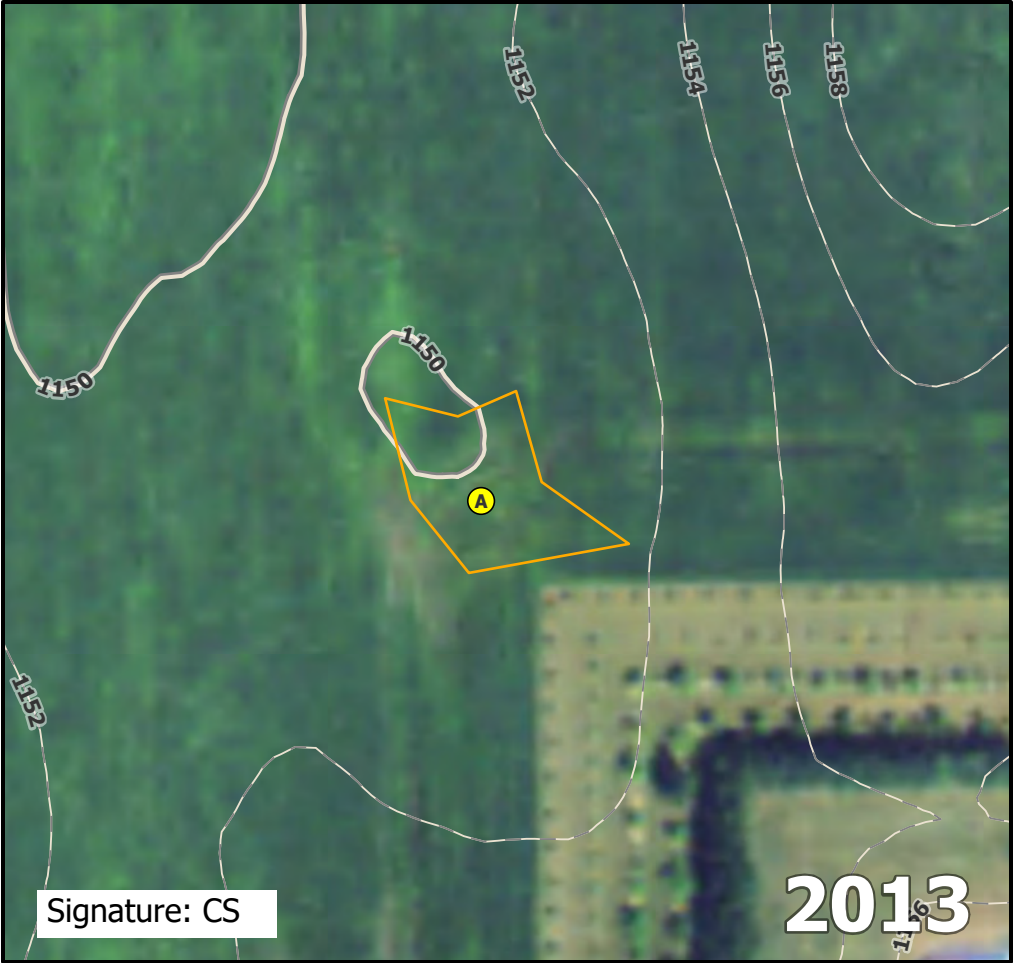
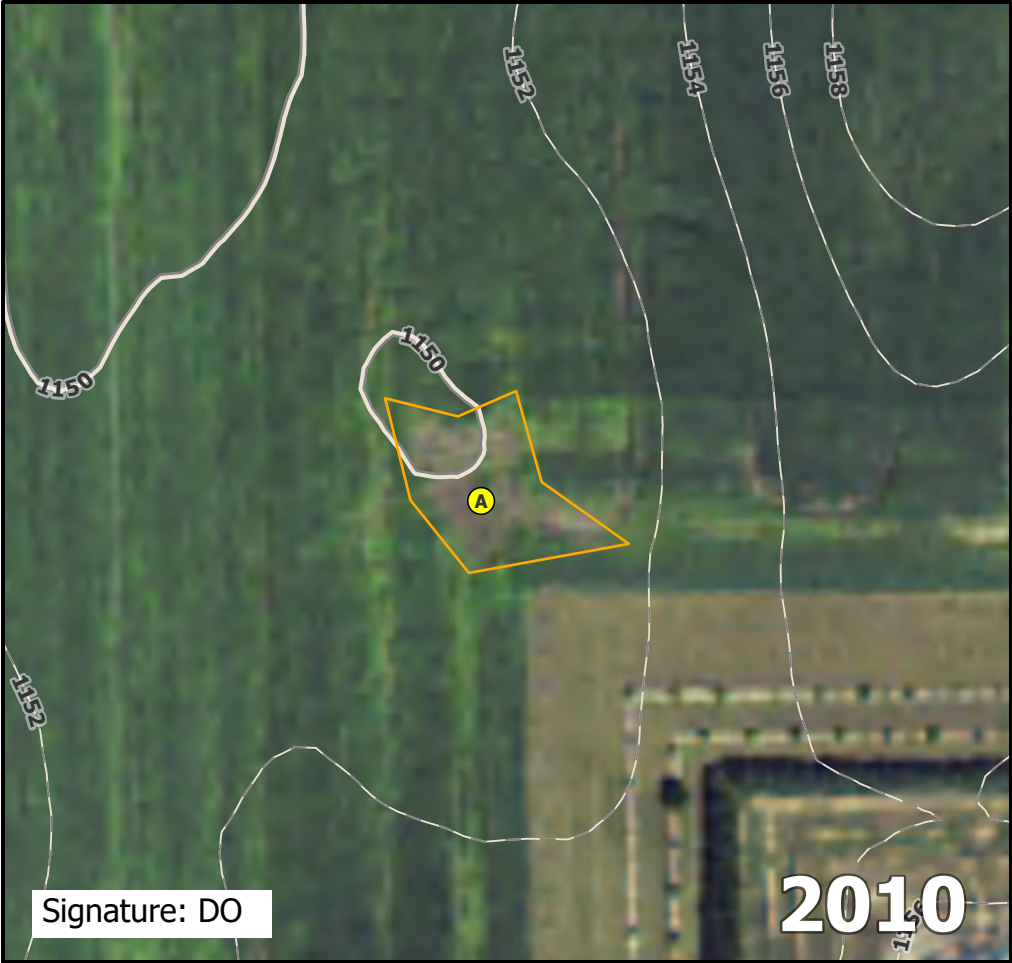
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA040A.

Direction: Southwest	Photo ID: delin_photo-20221020-192547.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA040	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_ReportFigures.aprx apryl.jennrich

Non-Wetland ID

NWA041

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA041A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	0	Lat:	43.73481	Long:	-94.4573
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No

Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? No _____ If yes, optional wetland site ID: _____
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)
1.					
2.					
3.					
4.					
5.					
					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column totals (A) (B) Prevalence Index = B/A =
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
					Hydrophytic Vegetation Indicators: ____ Rapid test for hydrophytic vegetation ____ Dominance test is >50% ____ Prevalence index is ≤3.0* ____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ____ Problematic hydrophytic vegetation* ____ (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Herb Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
6.					Hydrophytic Vegetation Present? No
7.					
8.					
9.					
10.					
<u>Woody Vine Stratum</u>	(Plot size: _____)				
1.					
2.					

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA041A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-25	10YR 2/1	100					Clay Loam	
25-37	10YR 2/1	100					Clay	
37-40	10YR 2/2	100					Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

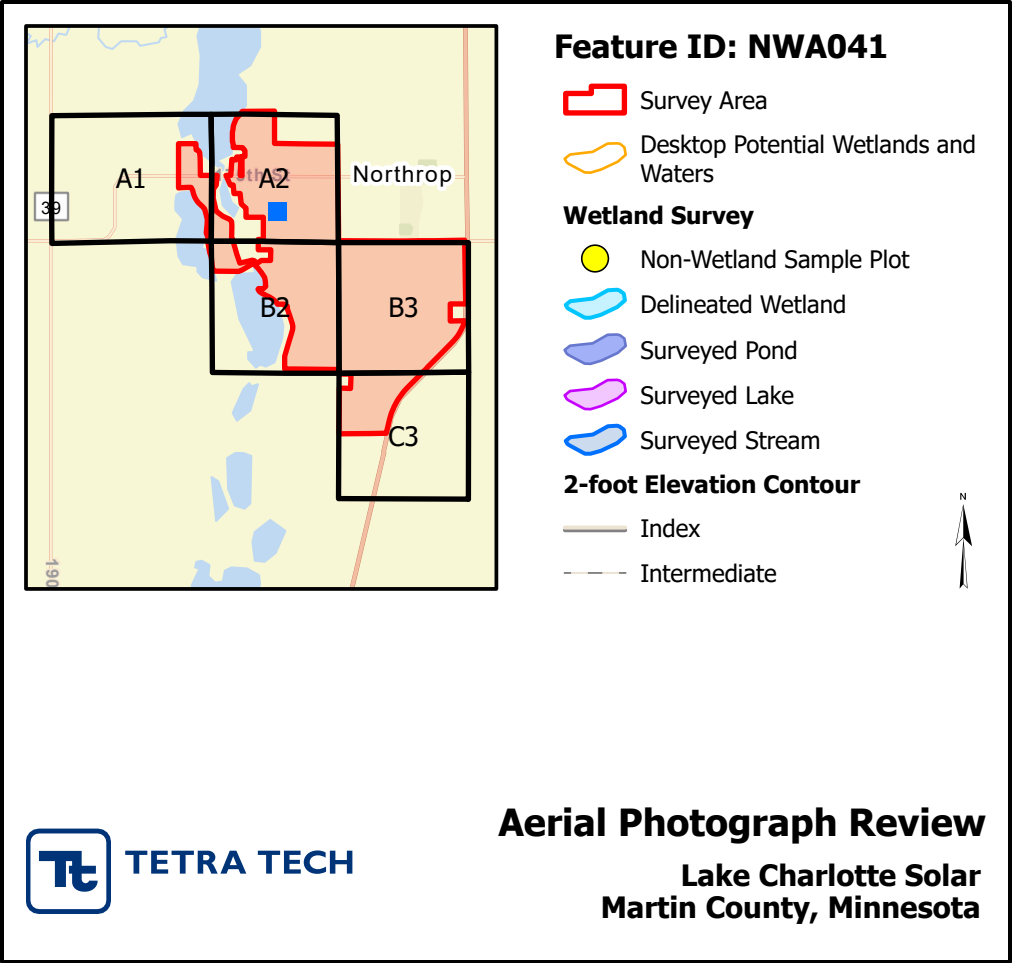
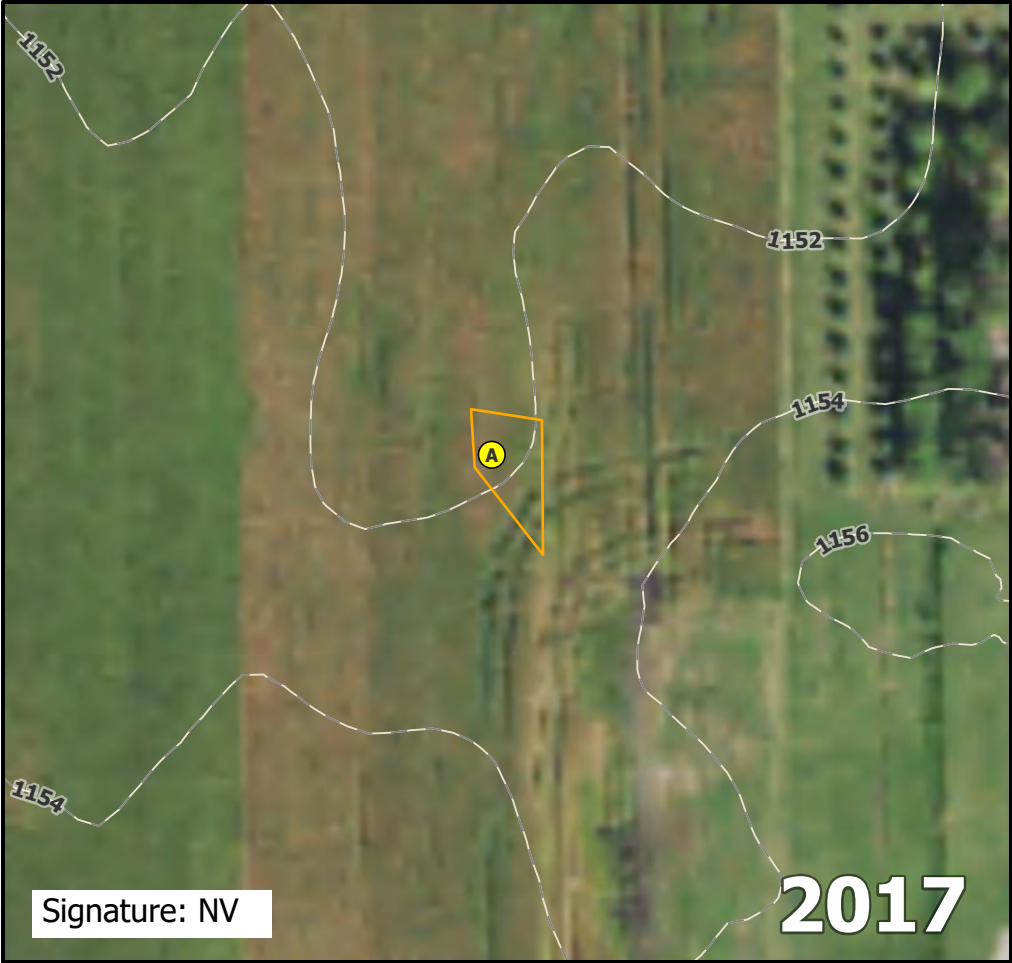
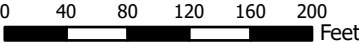
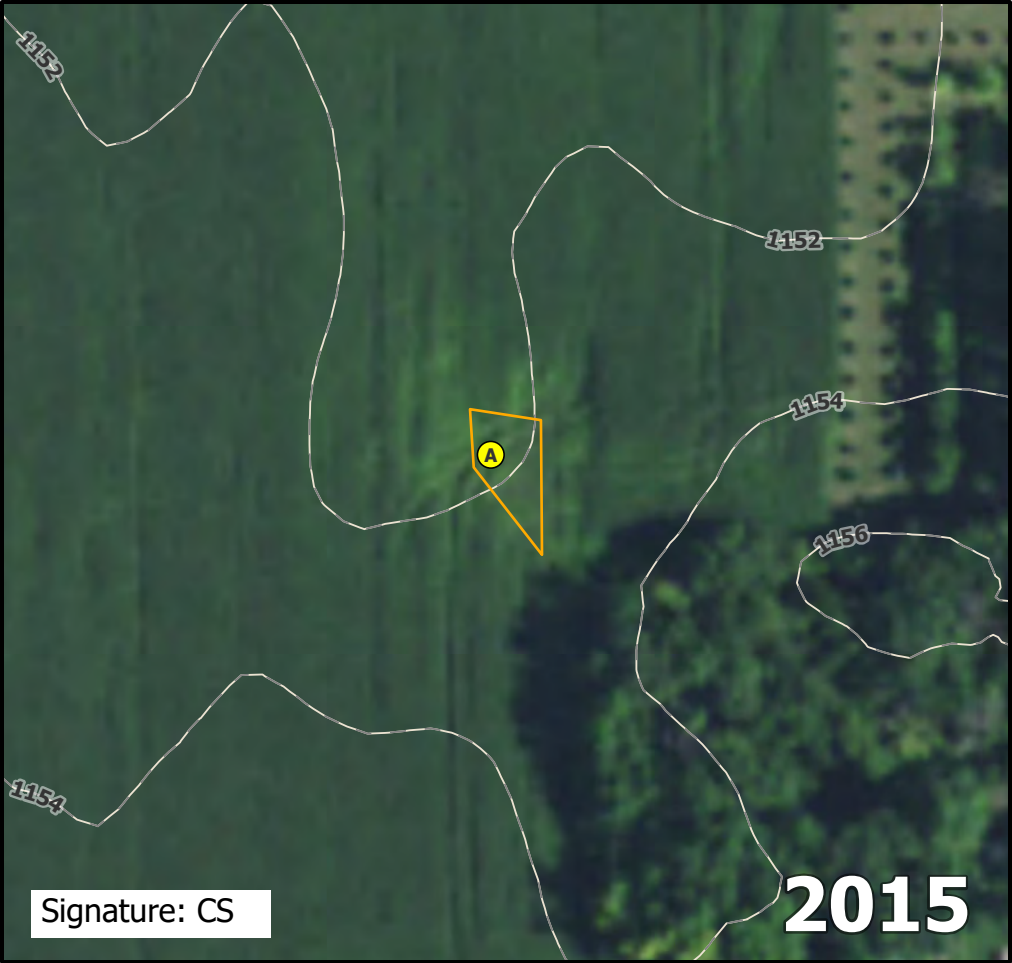
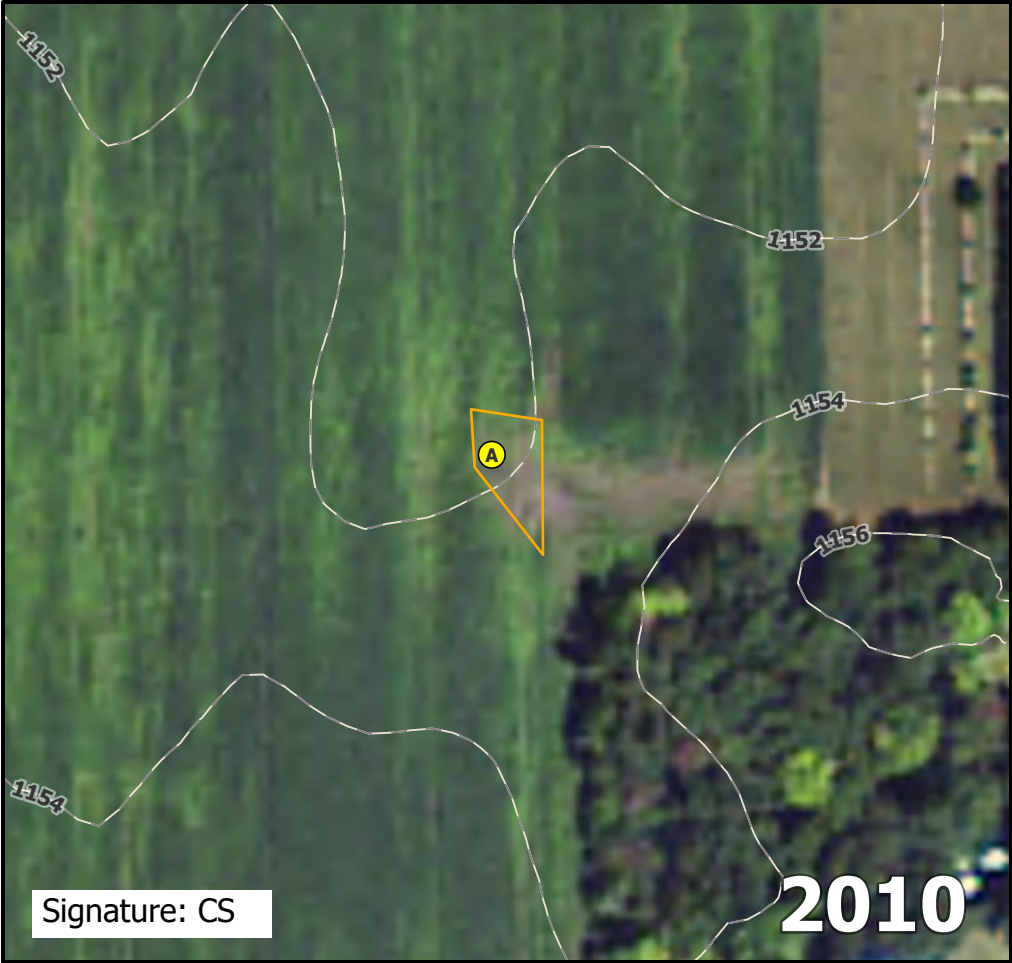
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA041A.

Direction: West	Photo ID: delin_photo-20221020-194000.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA041	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA042

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA042A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.73179	Long:	-94.45781
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)
1.					
2.					
3.					
4.					
5.					
					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column totals (A) (B) Prevalence Index = B/A =
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
					Hydrophytic Vegetation Indicators: ____ Rapid test for hydrophytic vegetation ____ Dominance test is >50% ____ Prevalence index is ≤3.0* ____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ____ Problematic hydrophytic vegetation* ____ (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Herb Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
6.					Hydrophytic Vegetation Present? No
7.					
8.					
9.					
10.					
<u>Woody Vine Stratum</u>	(Plot size: _____)				
1.					
2.					

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA042A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-20	10YR 2/1	100					Clay Loam	
20-23	2.5Y 3/2	100					Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 23

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA042A.

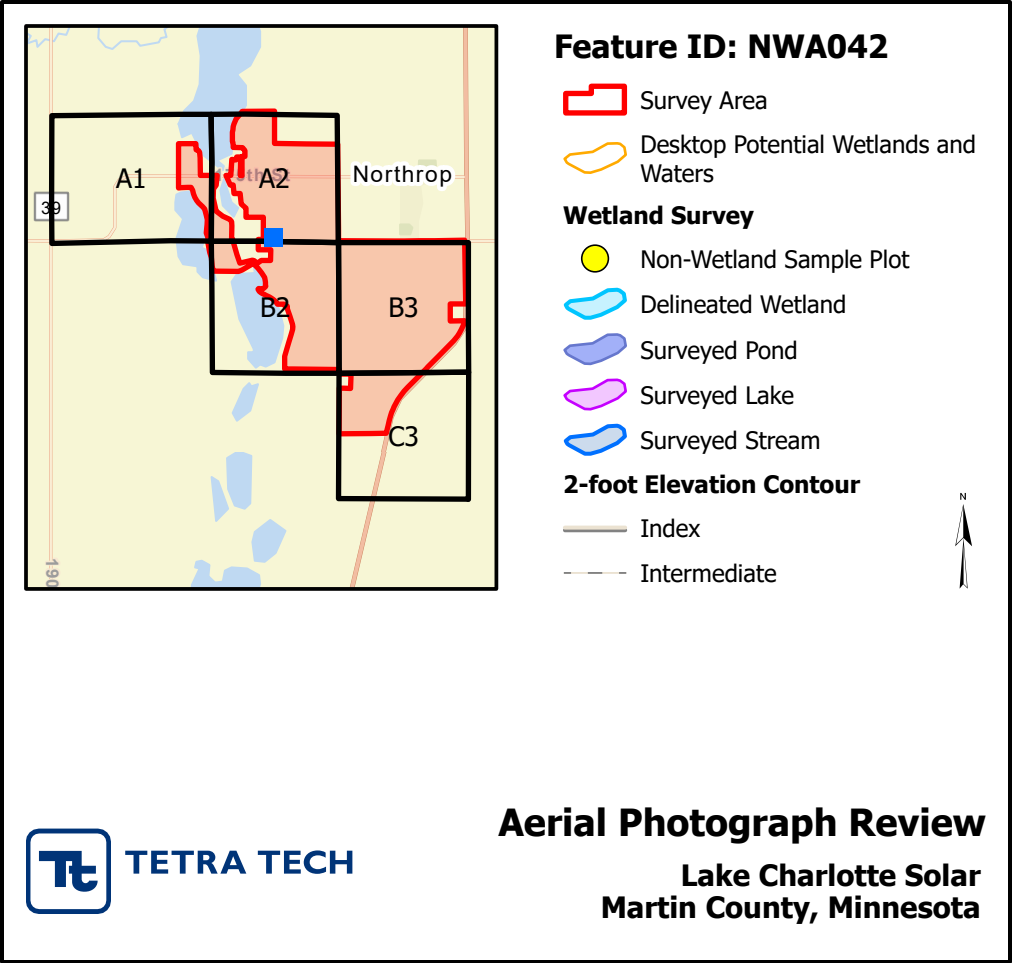
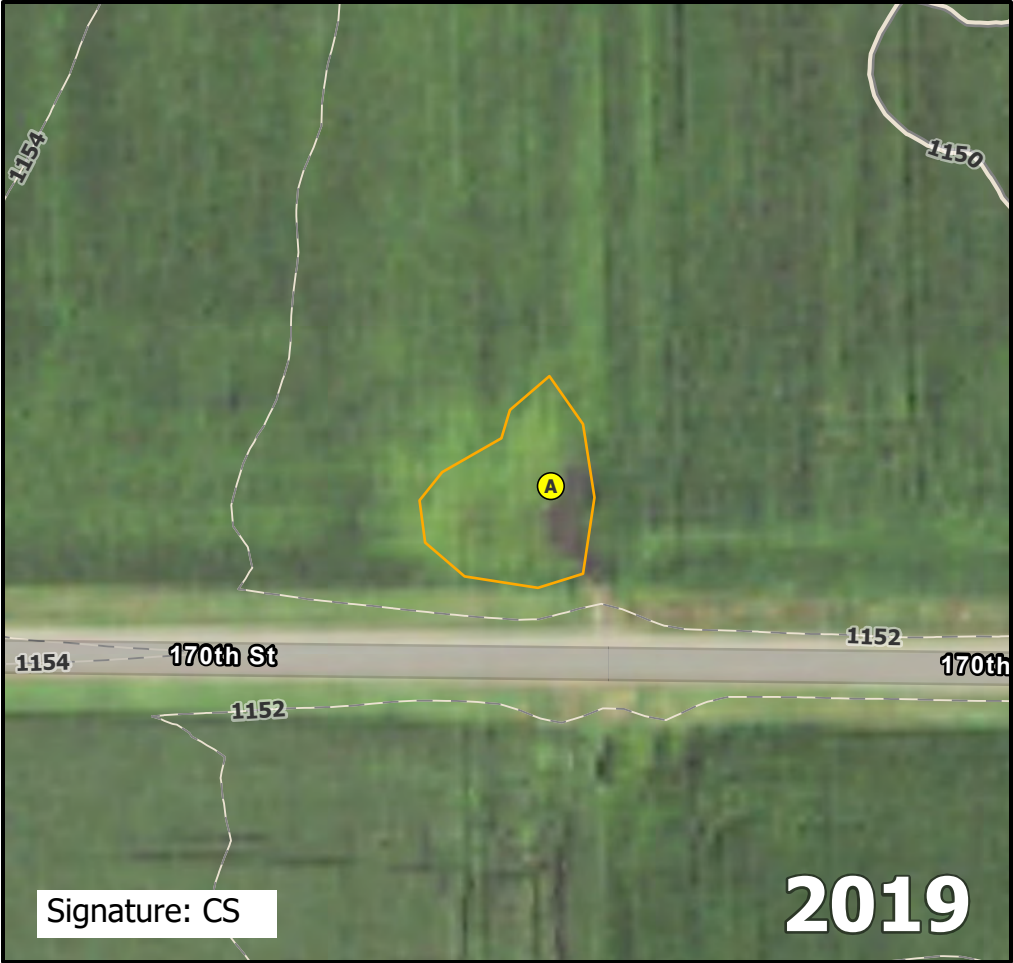
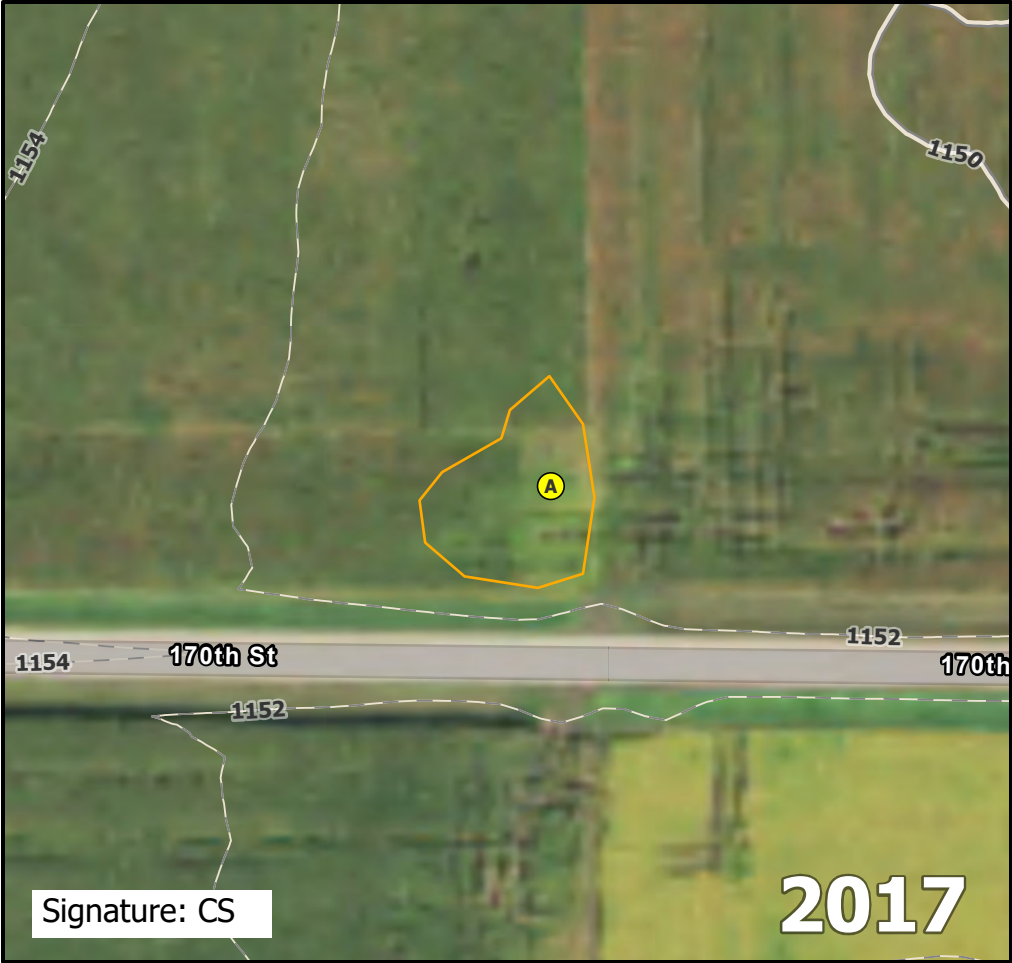
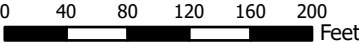
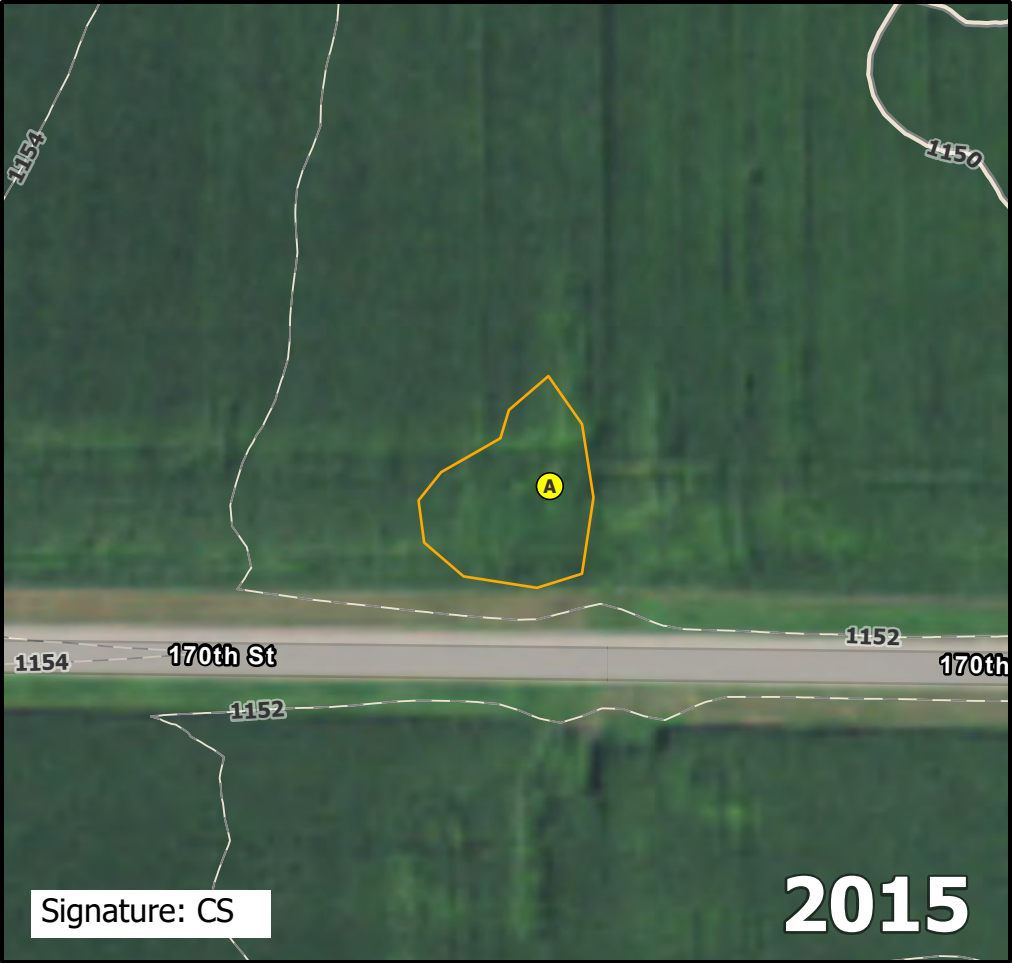
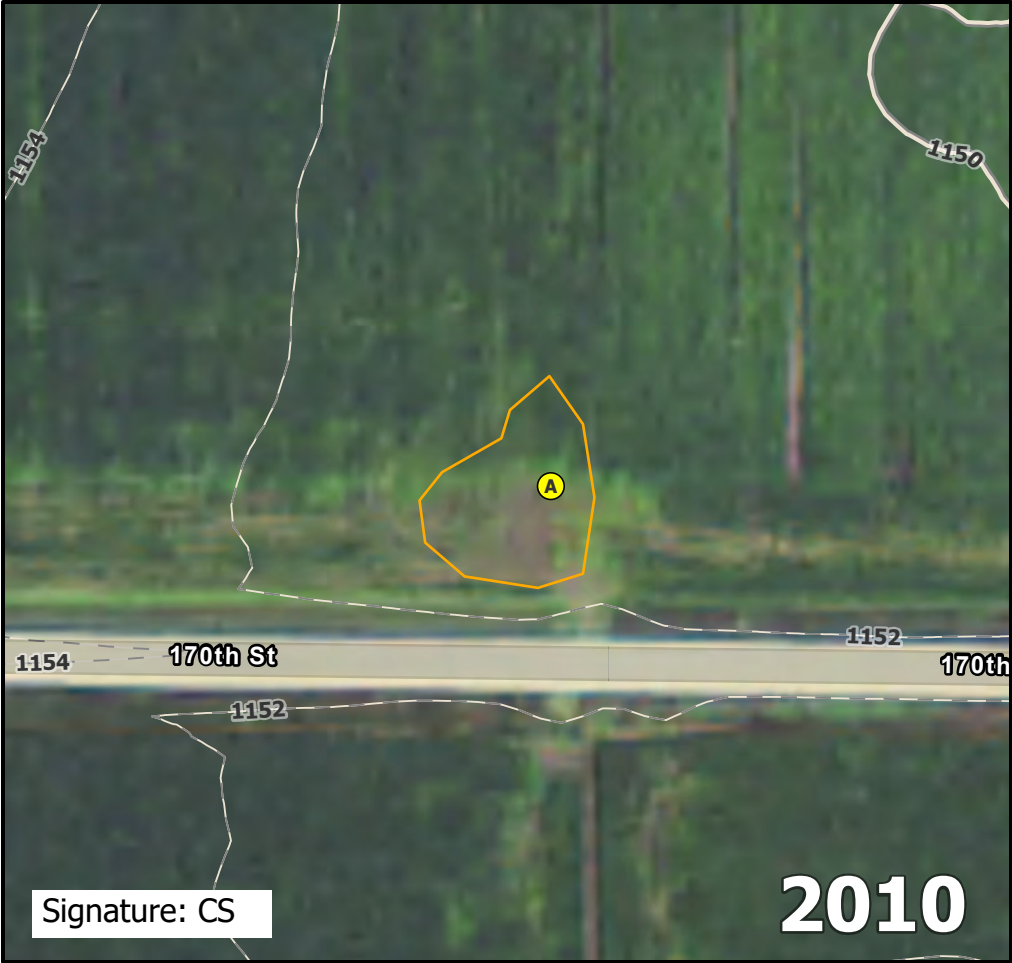
Direction: South

Photo ID: delin_photo-20221020-195537.jpg

Date: 10/20/2022

Project Name: Lake Charlotte

Feature ID: NWA042



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA043

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA043A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Hilltop	Local relief (concave, convex, none):	Convex		
Slope (%):	1	Lat:	43.73309	Long:	-94.45937
				Datum:	WGS84
Soil Map Unit Name:	Nicollet-Crippin complex	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently harvested agricultural field.		

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: _____ 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: _____ % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		_____ = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)					Prevalence Index Worksheet	
1.	_____					Total % Cover of:	Multiply by:
2.	_____					OBL species _____ x 1 = _____	
3.	_____					FACW species _____ x 2 = _____	
4.	_____					FAC species _____ x 3 = _____	
5.	_____					FACU species _____ x 4 = _____	
		_____ = Total Cover				UPL species _____ x 5 = _____	
						Column totals _____ (A) _____ (B)	
						Prevalence Index = B/A = _____	
<u>Herb Stratum</u>	(Plot size: _____)					Hydrophytic Vegetation Indicators:	
1.	_____					____ Rapid test for hydrophytic vegetation	
2.	_____					____ Dominance test is >50%	
3.	_____					____ Prevalence index is ≤3.0*	
4.	_____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5.	_____					____ Problematic hydrophytic vegetation*	
6.	_____					____ (explain)	
7.	_____						
8.	_____						
9.	_____						
10.	_____						
		_____ = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1.	_____					Hydrophytic Vegetation Present?	
2.	_____					No _____	
		_____ = Total Cover					

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA043A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? No

Remarks:

Obvious not a wetland.

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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

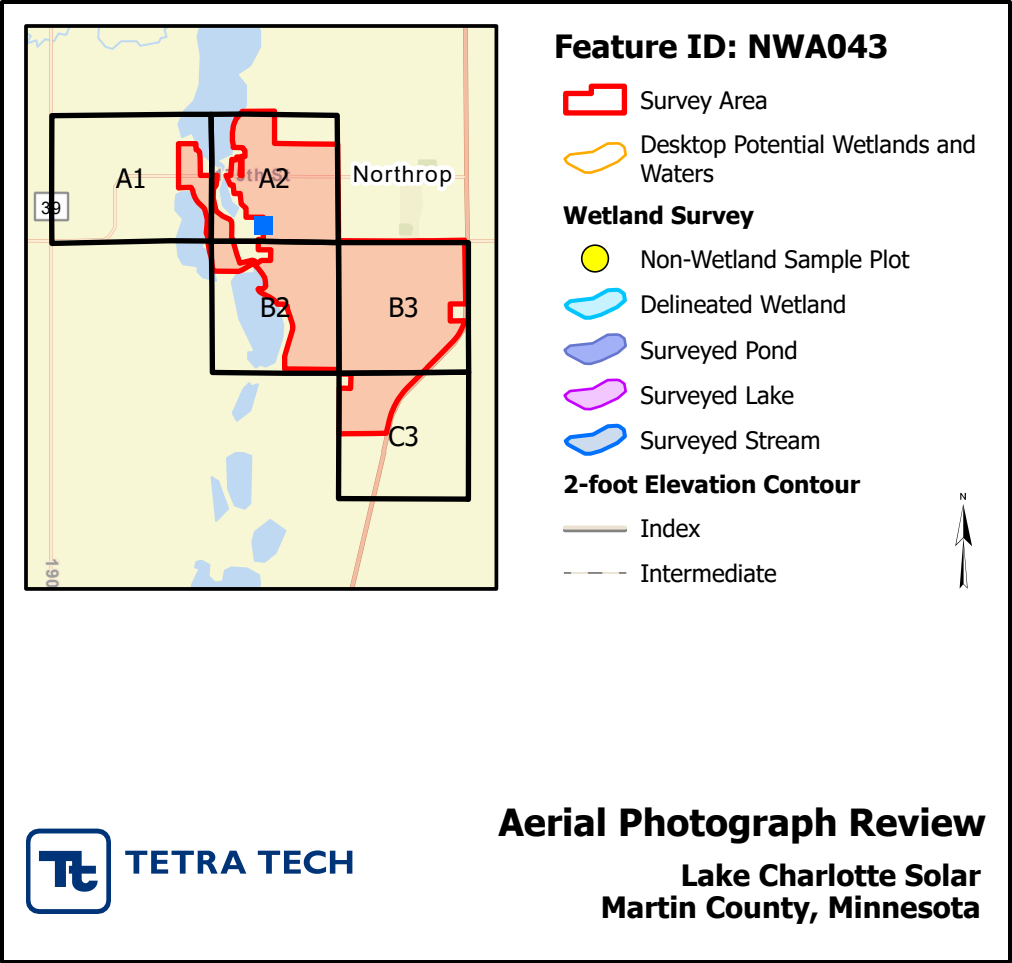
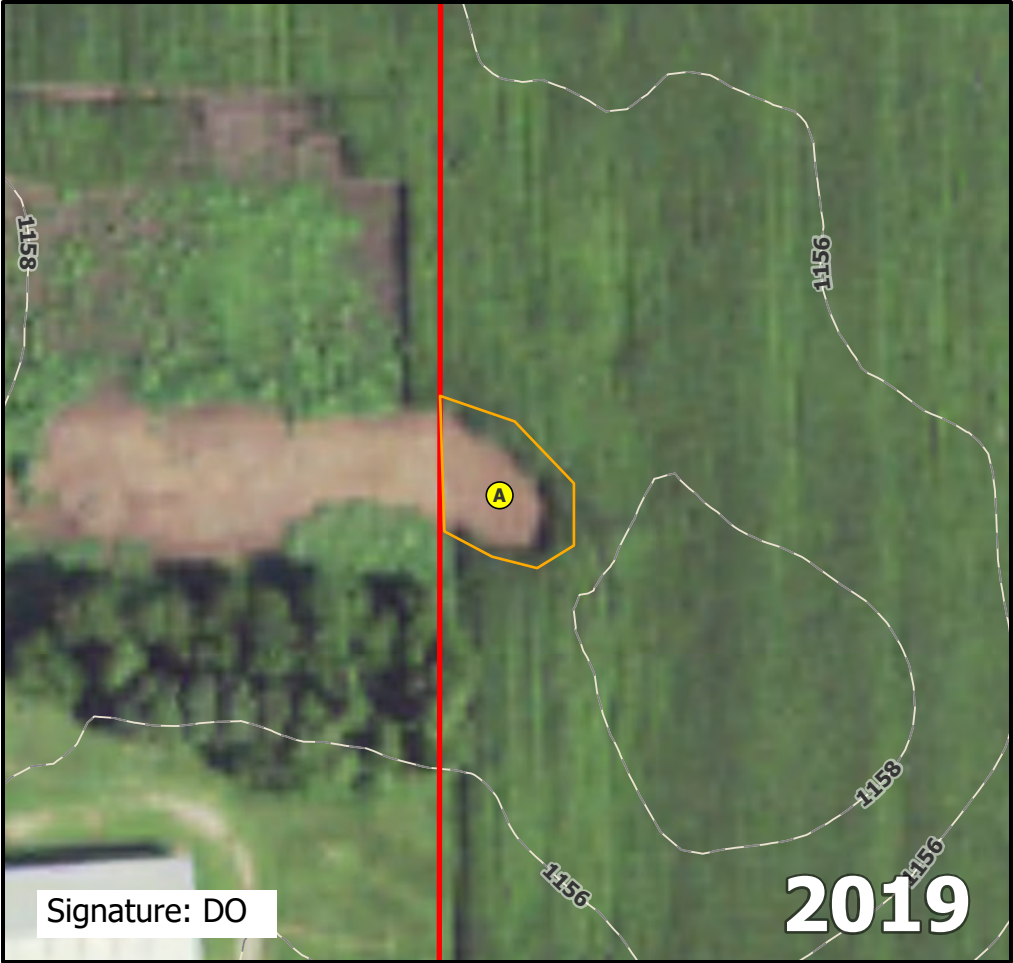
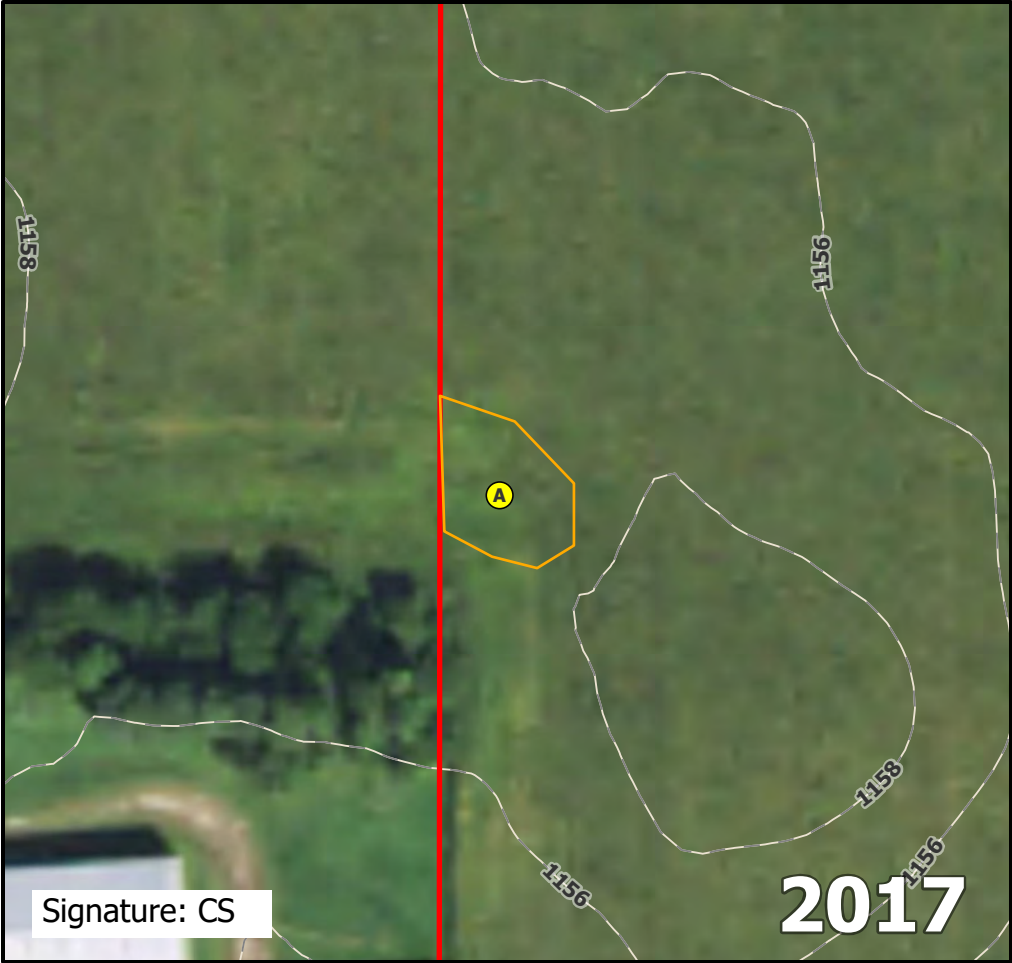
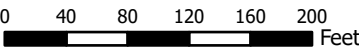
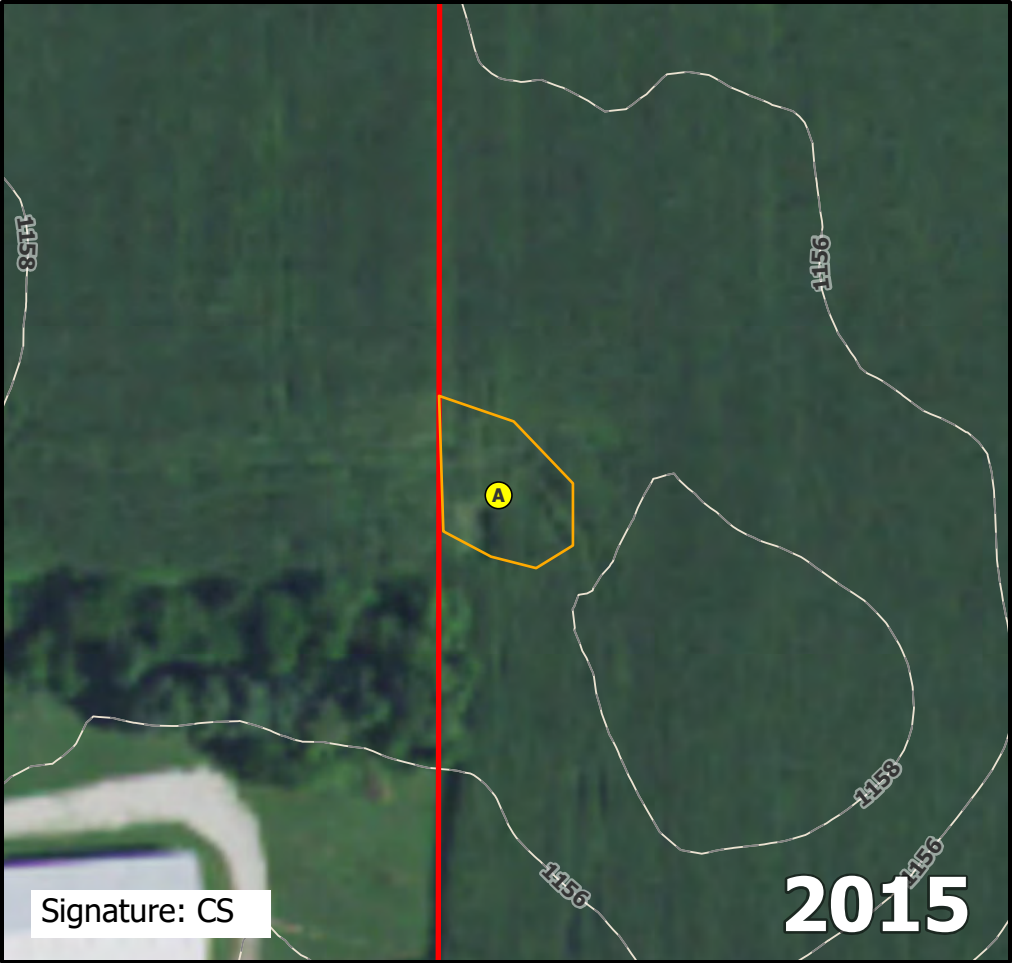
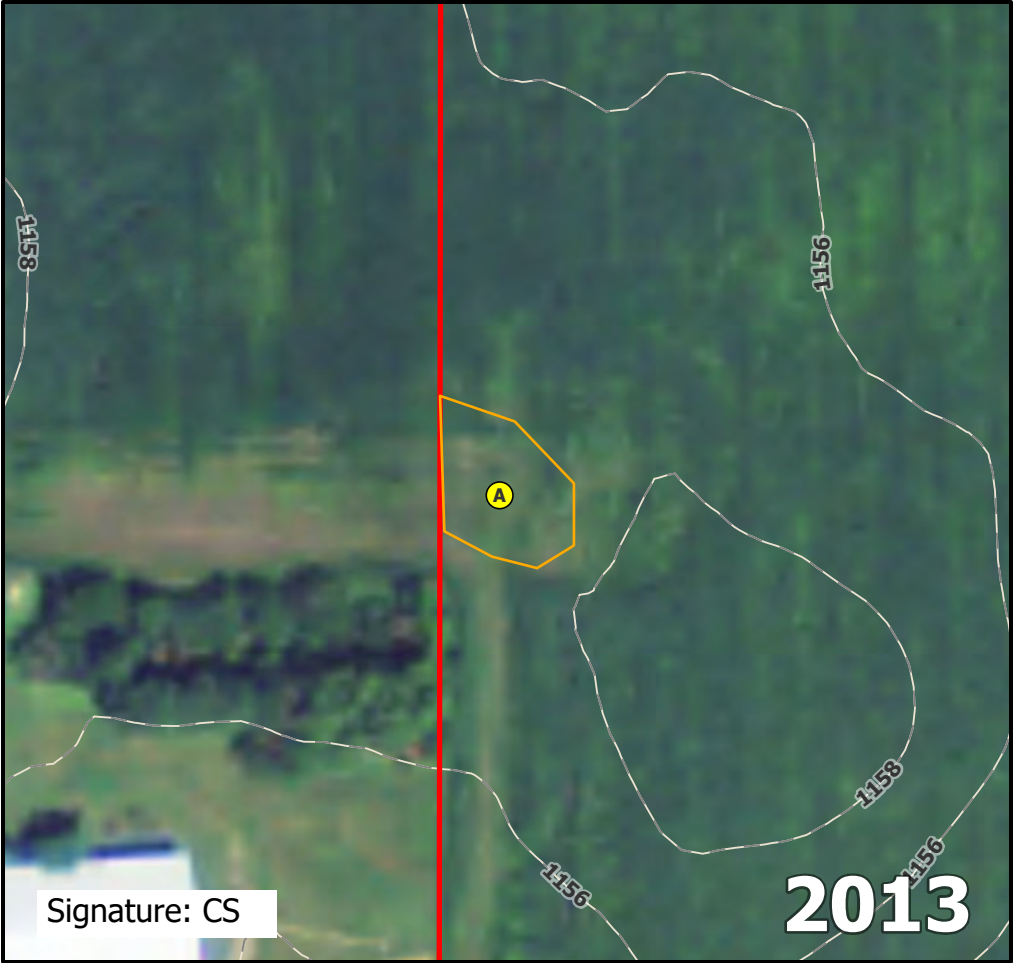
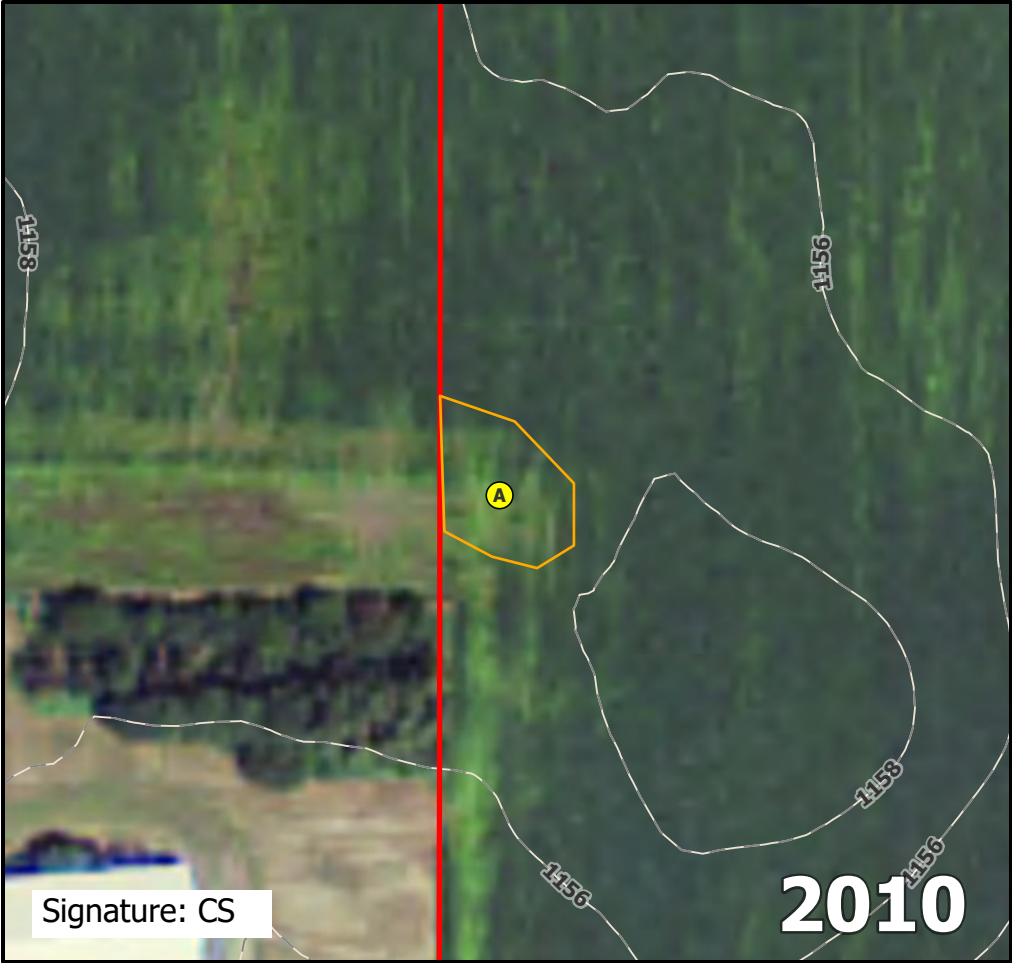
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA043A.

Direction: East	Photo ID: delin_photo-20221020-200246.jpg	Date: 10/20/2022
Project Name: Lake Charlotte		Feature ID: NWA043



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_ReportFigures.aprx apryl.jennrich

Non-Wetland ID

NWA044

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA044A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.17 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.72823	Long:	-94.45609
		Datum:	WGS84		
Soil Map Unit Name:	Crippin loam, 1 to 3 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>		
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland?	<u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID:	_____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: _____ 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: _____ % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		_____ = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____	Total % Cover of: Multiply by:		
2.	_____	_____	_____	_____	OBL species _____ x 1 = _____		
3.	_____	_____	_____	_____	FACW species _____ x 2 = _____		
4.	_____	_____	_____	_____	FAC species _____ x 3 = _____		
5.	_____	_____	_____	_____	FACU species _____ x 4 = _____		
		_____ = Total Cover				UPL species _____ x 5 = _____	
<u>Herb Stratum</u>	(Plot size: _____)				Column totals _____ (A) _____ (B)		
1.	_____	_____	_____	_____	Prevalence Index = B/A = _____		
2.	_____	_____	_____	_____			
3.	_____	_____	_____	_____			
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
6.	_____	_____	_____	_____			
7.	_____	_____	_____	_____			
8.	_____	_____	_____	_____			
9.	_____	_____	_____	_____			
10.	_____	_____	_____	_____			
		_____ = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____	Hydrophytic Vegetation Present? No		
2.	_____	_____	_____	_____			
		_____ = Total Cover					

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA044A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-14	10YR 2/1	100					Clay Loam	
14-16	2.5Y 3/1	98	2.5Y 4/2	2	D	M	Clay Loam	
16-25	2.5Y 4/4	99	10YR 5/6	1	C	PL	Sandy Clay	Distinct or Prominent

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

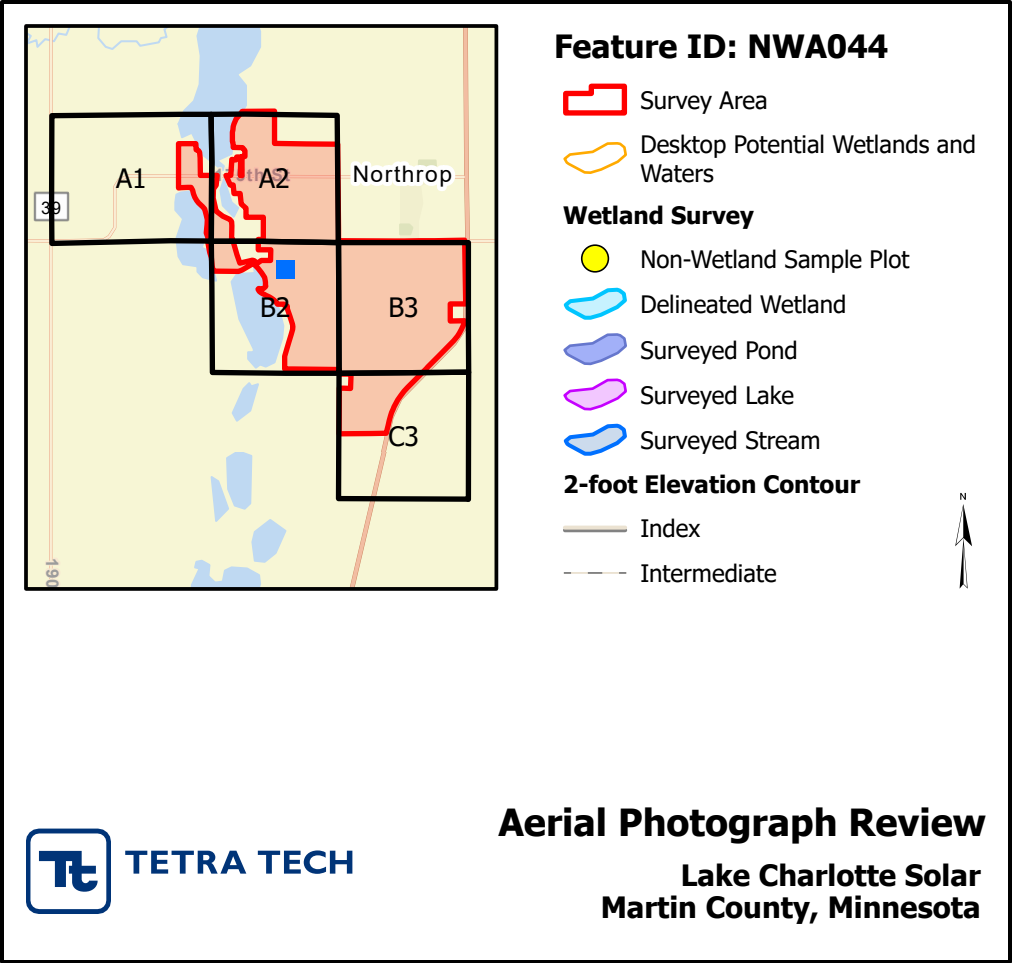
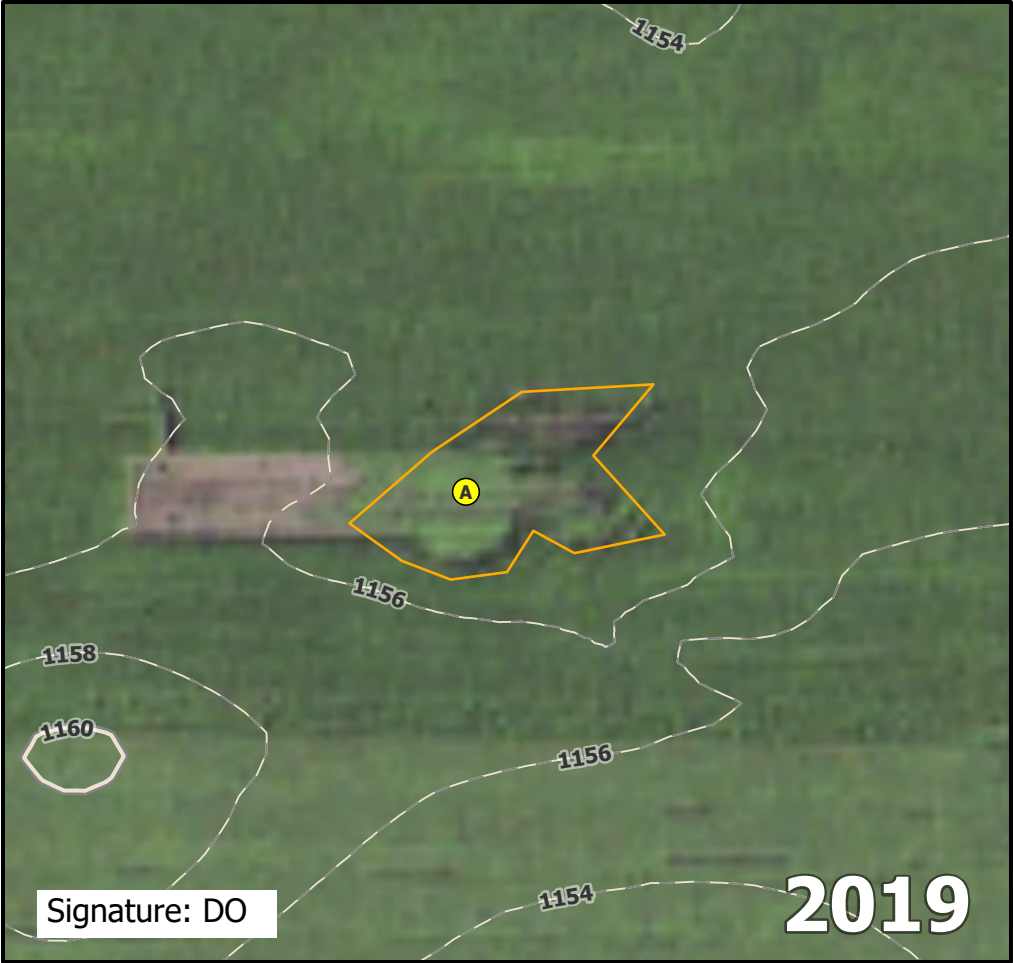
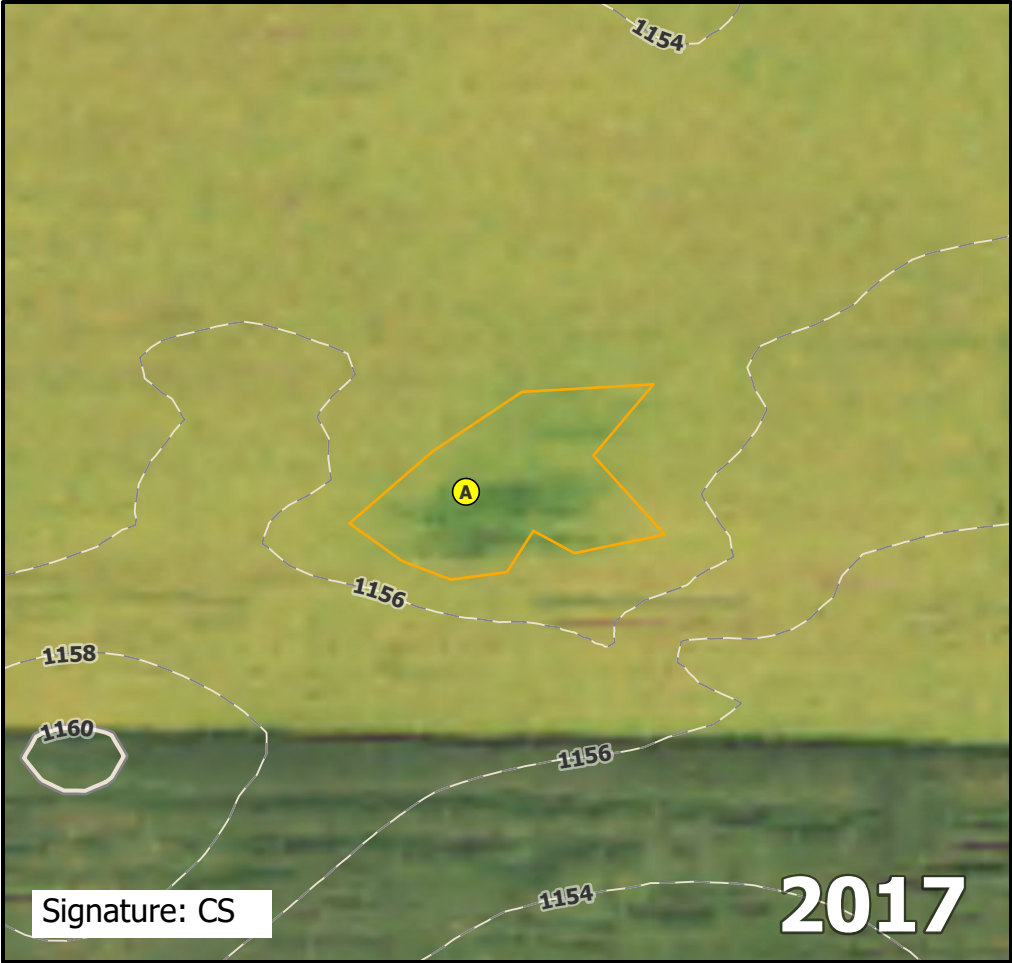
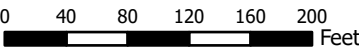
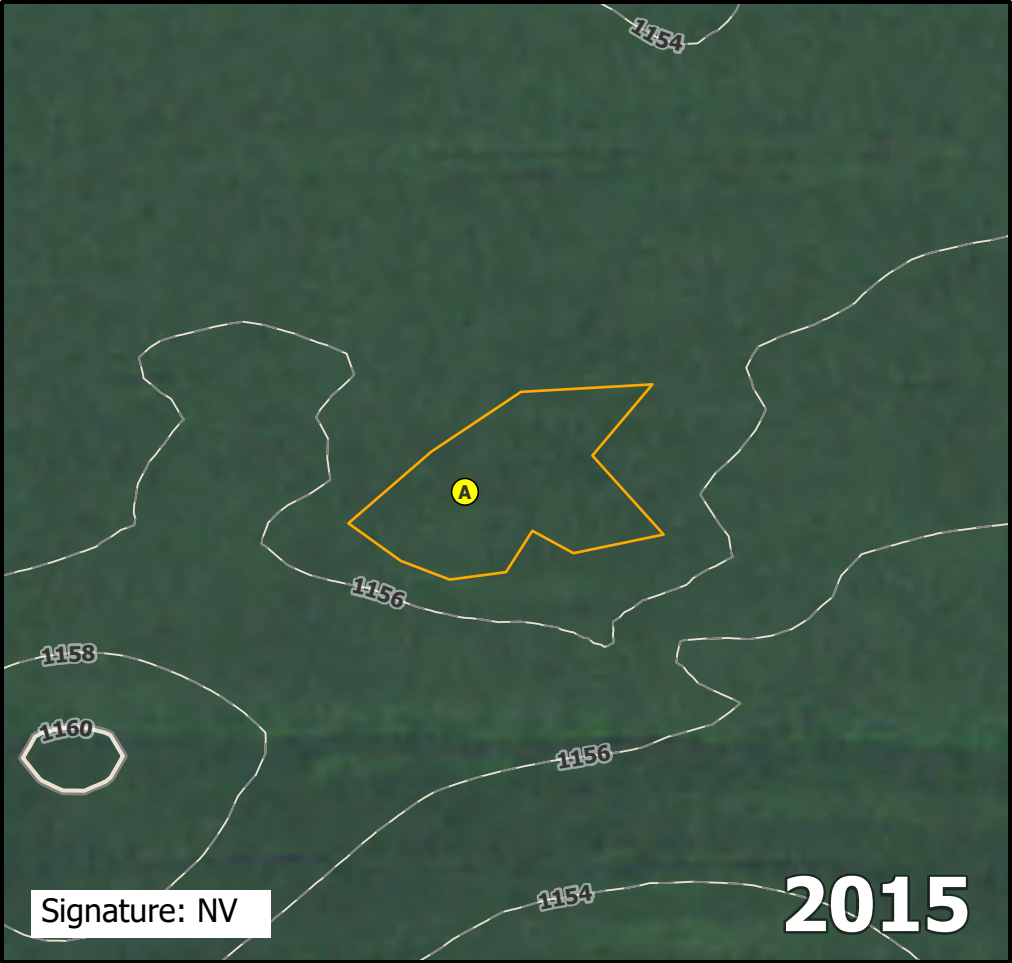
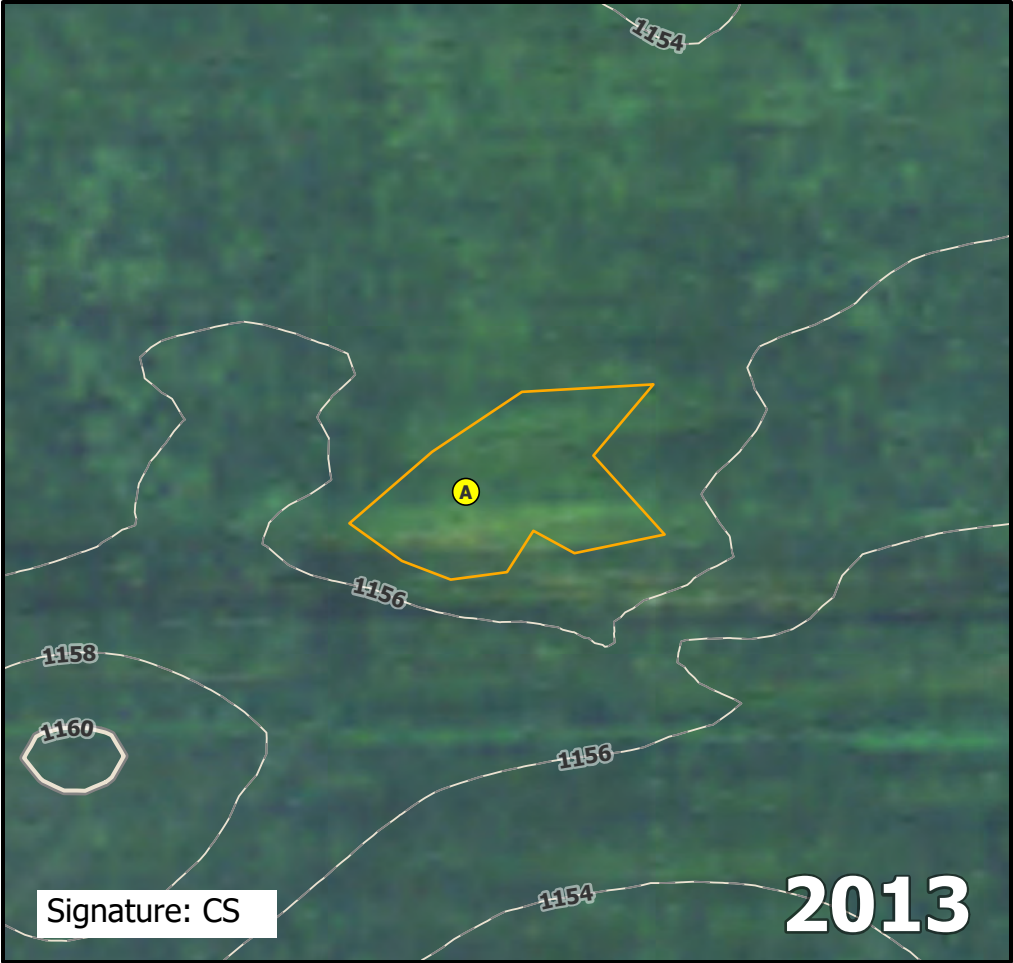
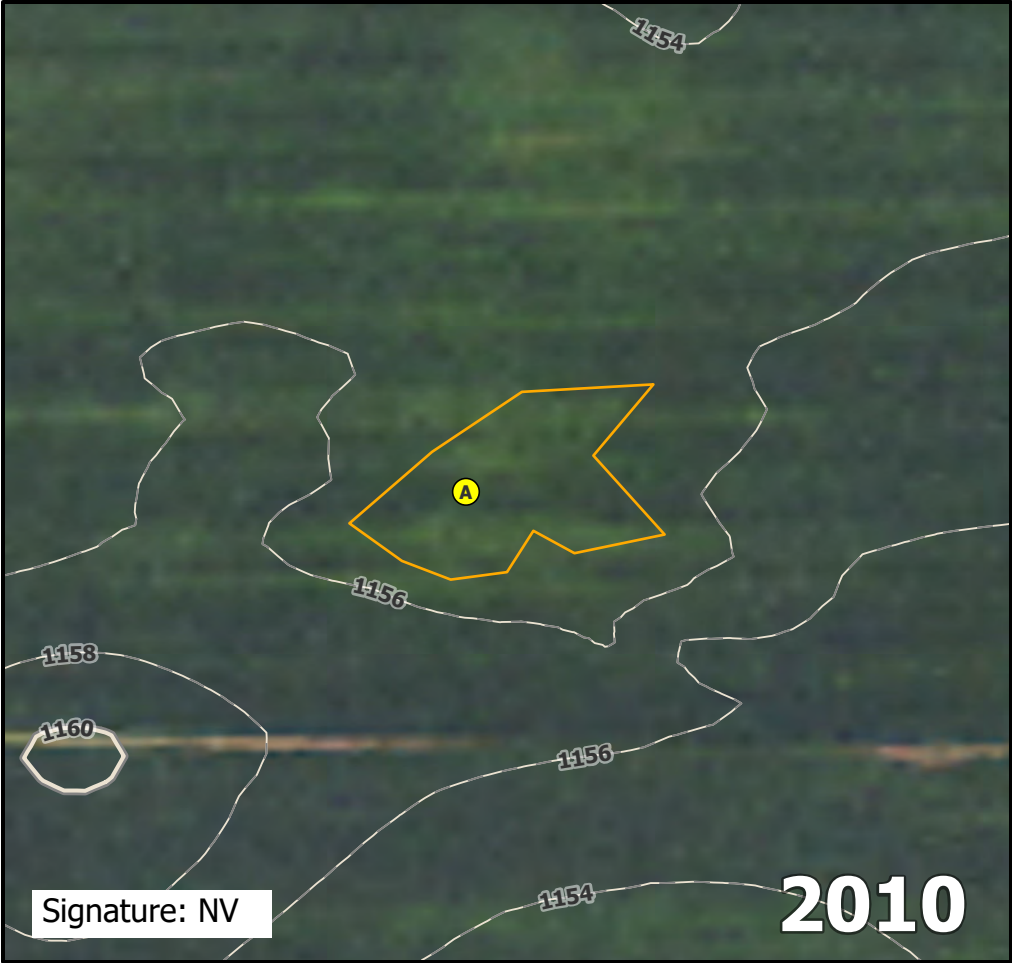
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA044A.

Direction: Southeast	Photo ID: delin_photo-20221020-204109.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA044	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

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Non-Wetland ID

NWA047

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA047A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.17 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.72739	Long:	-94.45201
				Datum:	WGS84
Soil Map Unit Name:	Glencoe clay loam, 0 to 1 percent slopes		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	No	
Hydric Soil Present?	No	Is the sampled area within a wetland? No
Wetland Hydrology Present?	No	If yes, optional wetland site ID: _____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)
1.					
2.					
3.					
4.					
5.					
					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column totals (A) (B) Prevalence Index = B/A =
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
					Hydrophytic Vegetation Indicators: ____ Rapid test for hydrophytic vegetation ____ Dominance test is >50% ____ Prevalence index is ≤3.0* ____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ____ Problematic hydrophytic vegetation* ____ (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Herb Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
6.					Hydrophytic Vegetation Present? No
7.					
8.					
9.					
10.					
<u>Woody Vine Stratum</u>	(Plot size: _____)				
1.					
2.					

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA047A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-23	10YR 2/1	100					Clay Loam	
23-27	2.5Y 5/3	99	10YR 5/6	1	C	PL	Clay	Distinct or Prominent

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

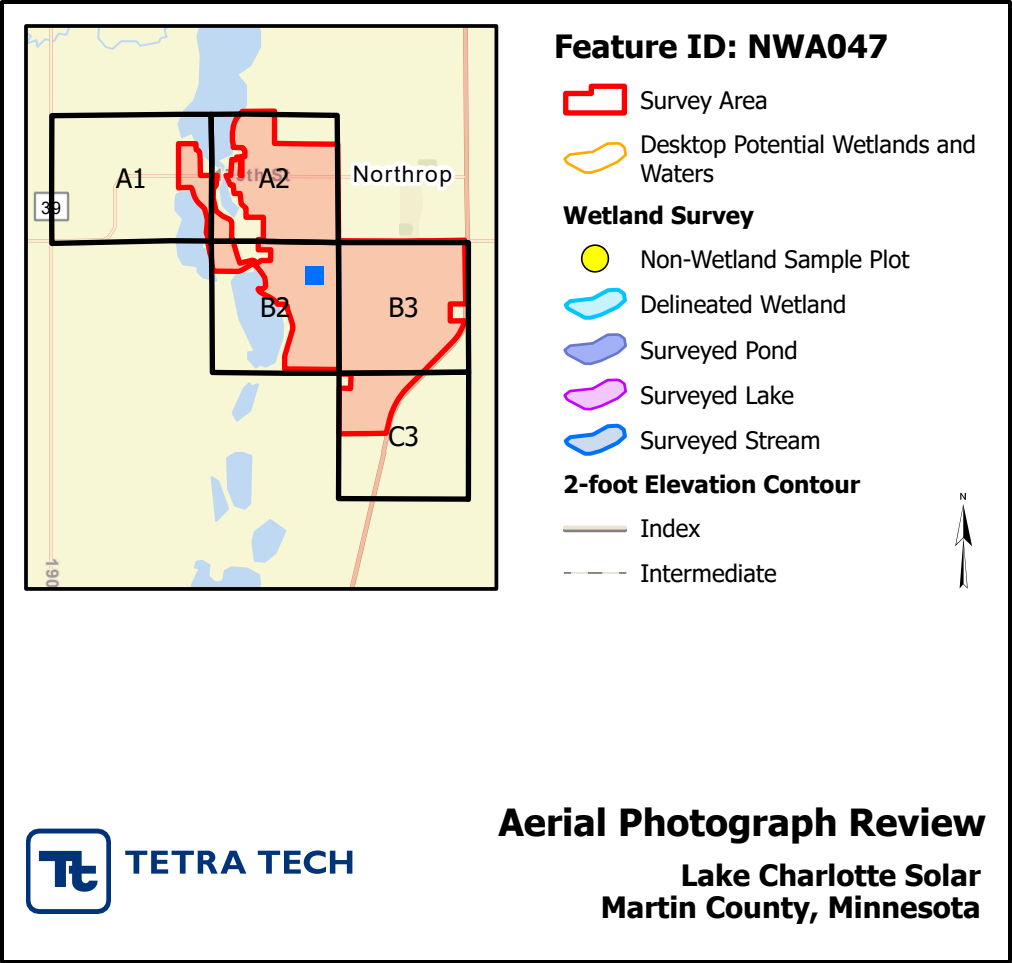
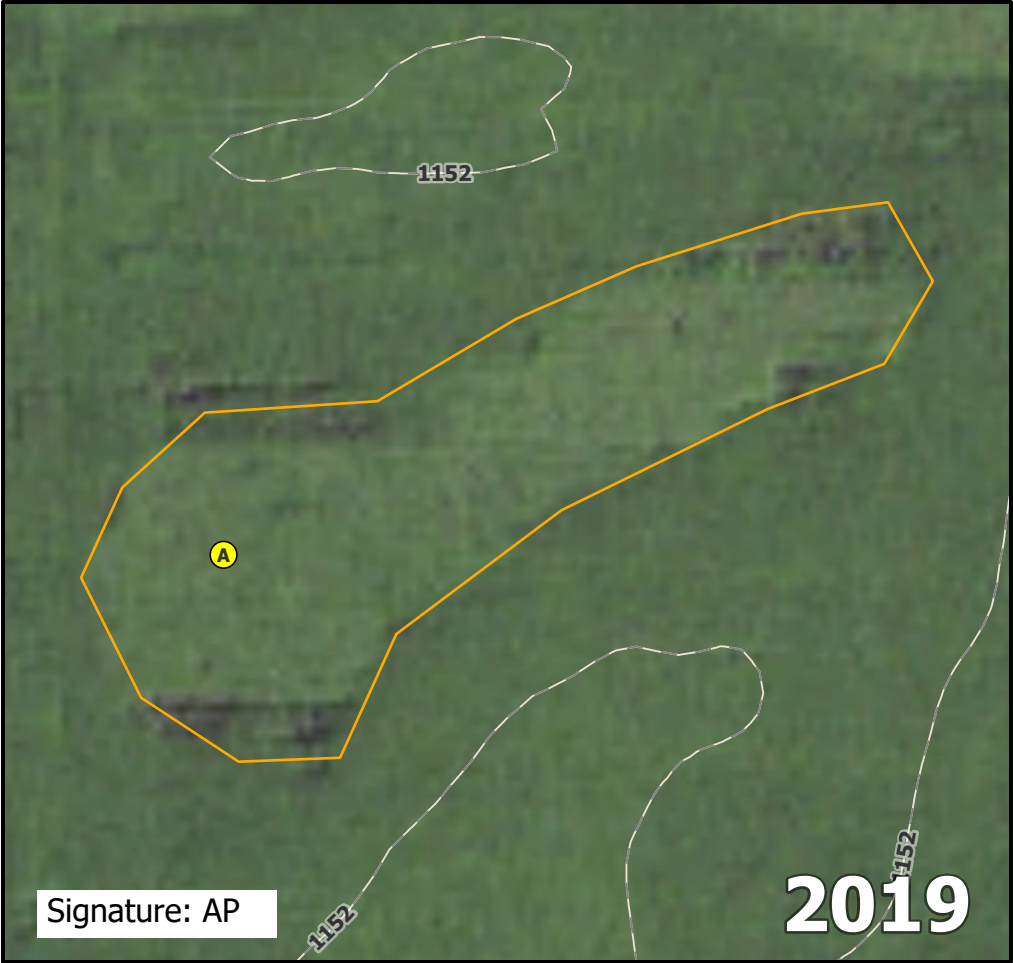
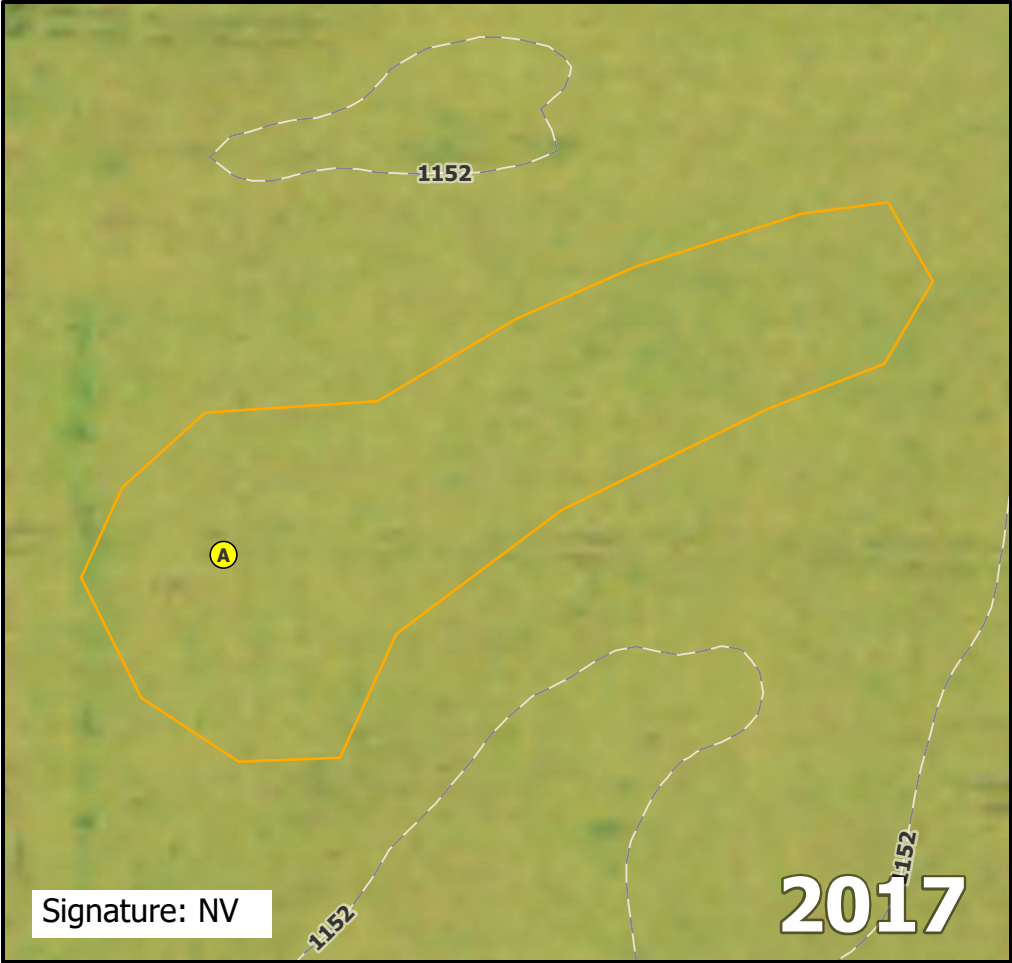
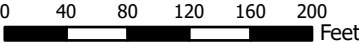
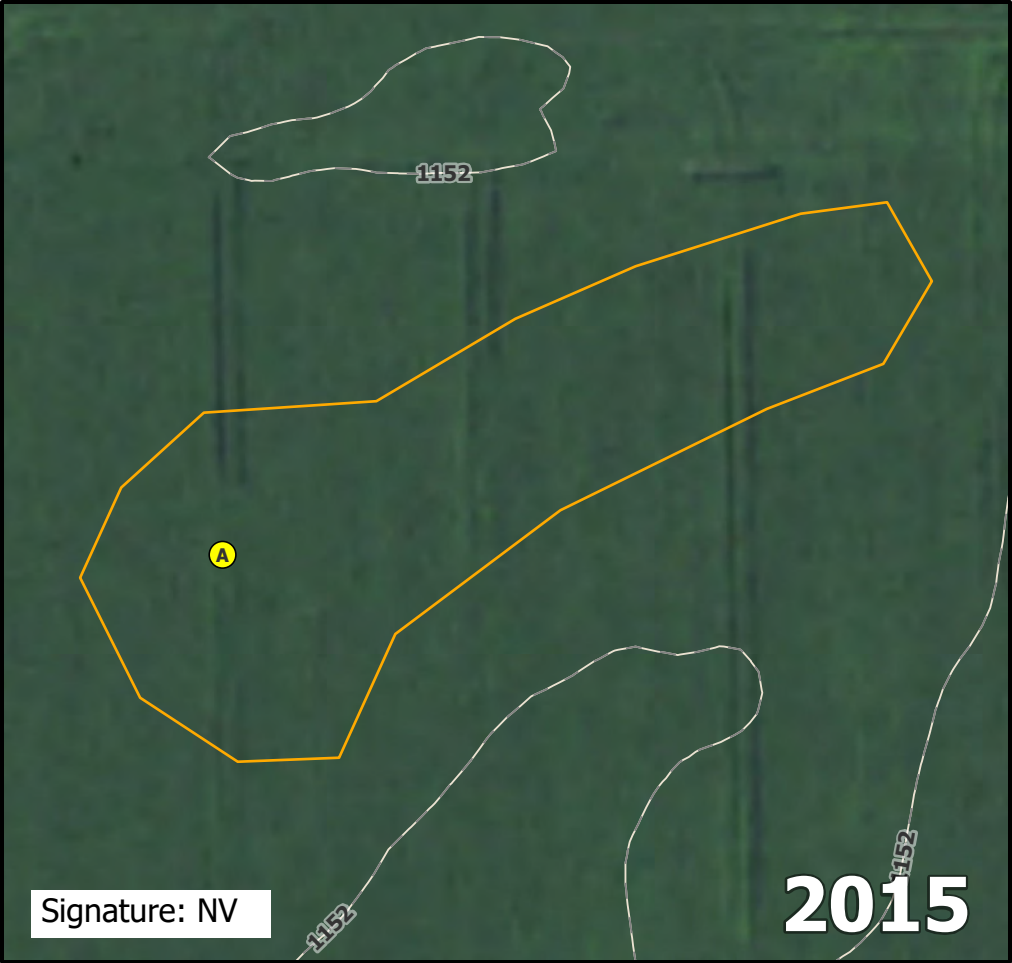
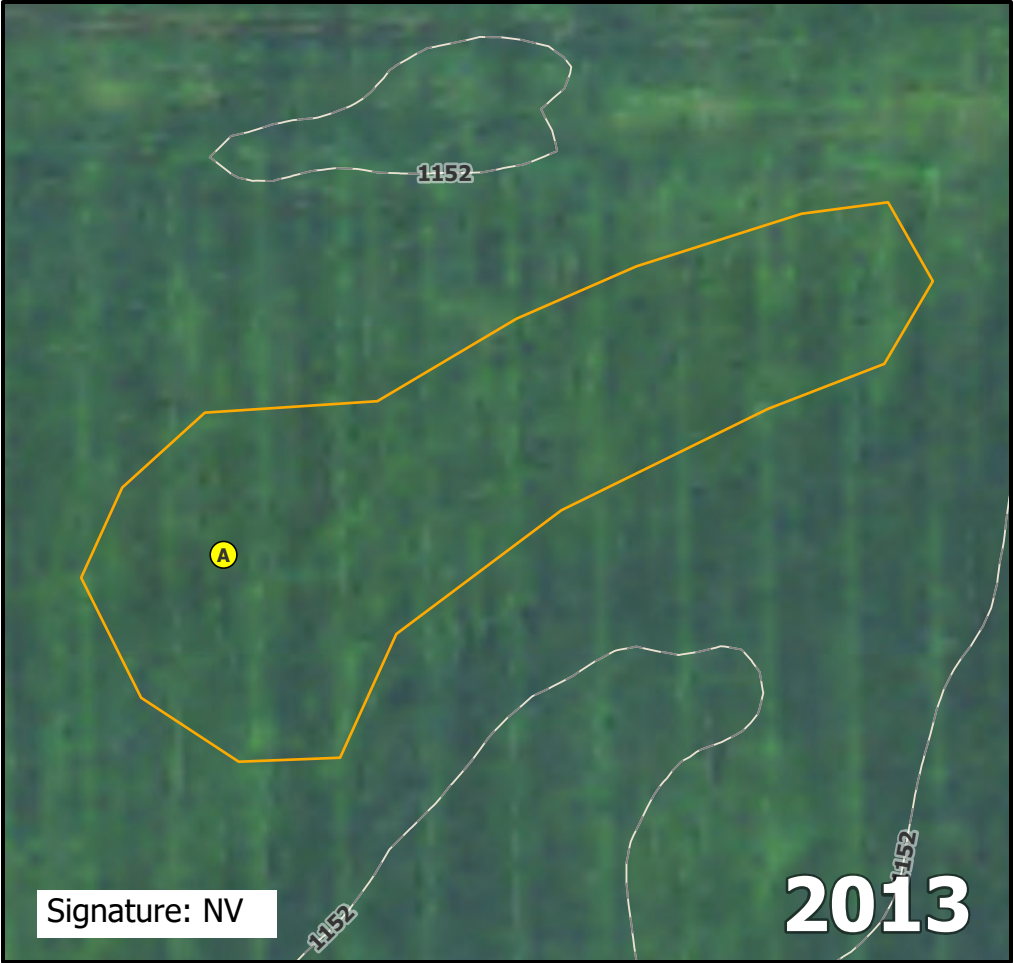
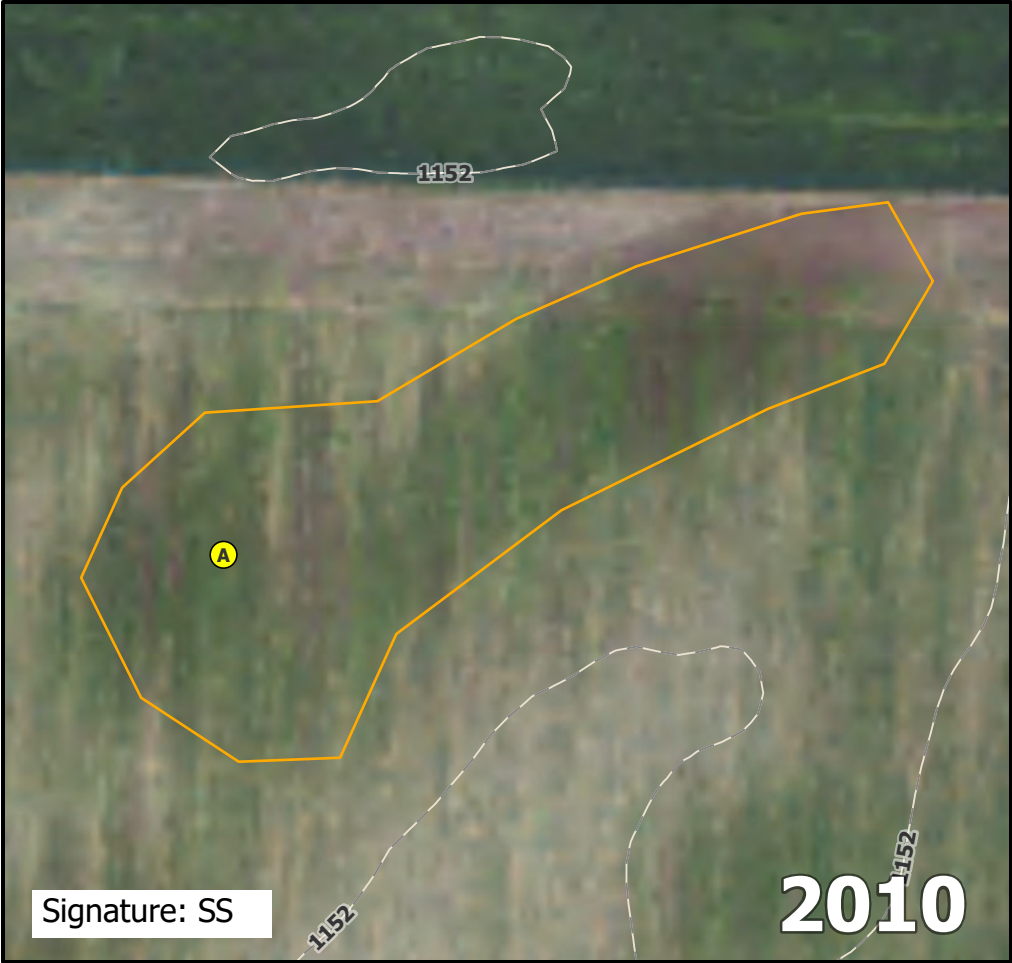
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA047A.

Direction: North	Photo ID: delin_photo-20221020-215958.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA047	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

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Non-Wetland ID

NWA048

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA048A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.17 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	1	Lat:	43.72833	Long:	-94.45141
				Datum:	WGS84
Soil Map Unit Name:	Glencoe clay loam, 0 to 1 percent slopes		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>		
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland?	<u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID:	_____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		=Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)					Prevalence Index Worksheet	
1.	_____					Total % Cover of:	Multiply by:
2.	_____					OBL species	_____ x 1 = _____
3.	_____					FACW species	_____ x 2 = _____
4.	_____					FAC species	_____ x 3 = _____
5.	_____					FACU species	_____ x 4 = _____
		=Total Cover		UPL species _____ x 5 = _____			
				Column totals _____ (A) _____ (B)			
				Prevalence Index = B/A = _____			
<u>Herb Stratum</u>	(Plot size: _____)					Hydrophytic Vegetation Indicators:	
1.	_____					____ Rapid test for hydrophytic vegetation	
2.	_____					____ Dominance test is >50%	
3.	_____					____ Prevalence index is ≤3.0*	
4.	_____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5.	_____					____ Problematic hydrophytic vegetation*	
6.	_____					____ (explain)	
7.	_____						
8.	_____						
9.	_____						
10.	_____						
		=Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
1.	_____					Hydrophytic Vegetation Present?	
2.	_____					No _____	
		=Total Cover					

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA048A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-20	10YR 2/1	100					Clay Loam	
20-22	10YR 2/1	85	2.5Y 4/2	15	D	M	Sandy Clay	
22-25	2.5Y 4/2	100					Sandy Clay	
25-27	2.5Y 5/3	100					Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA048A.

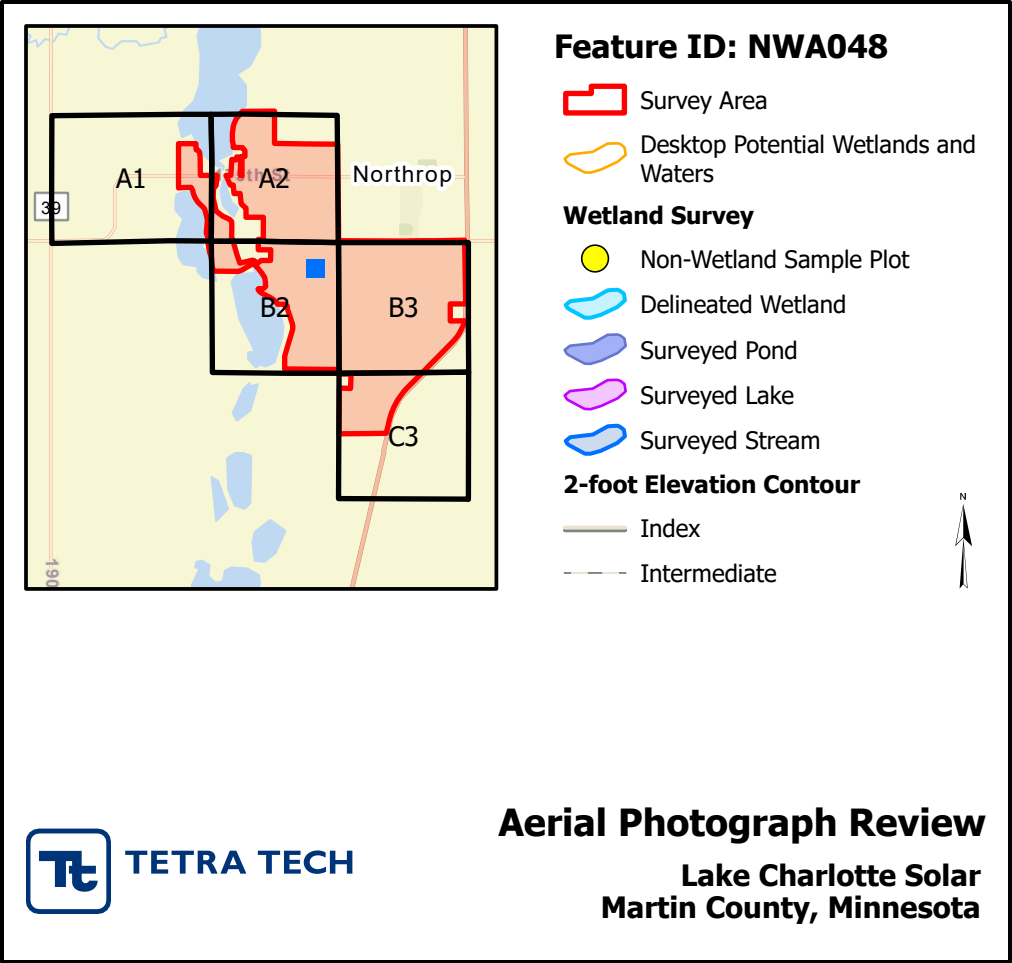
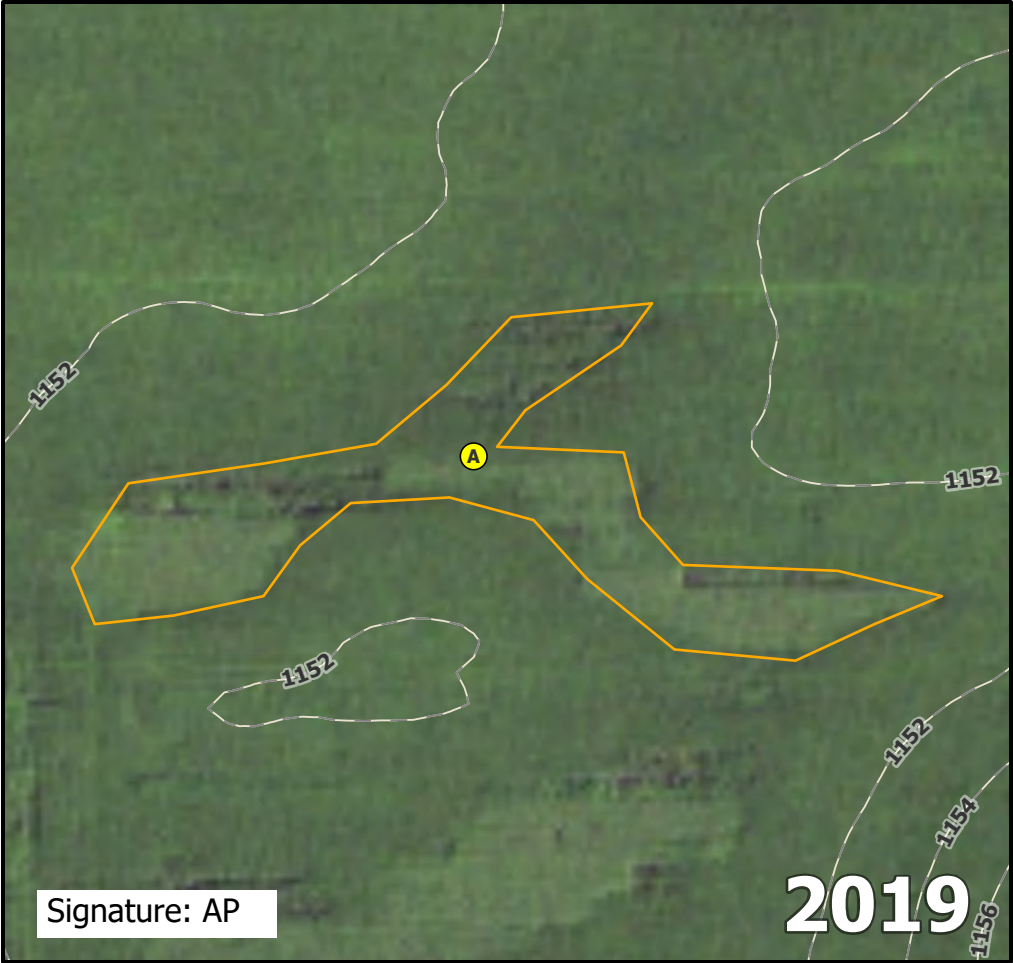
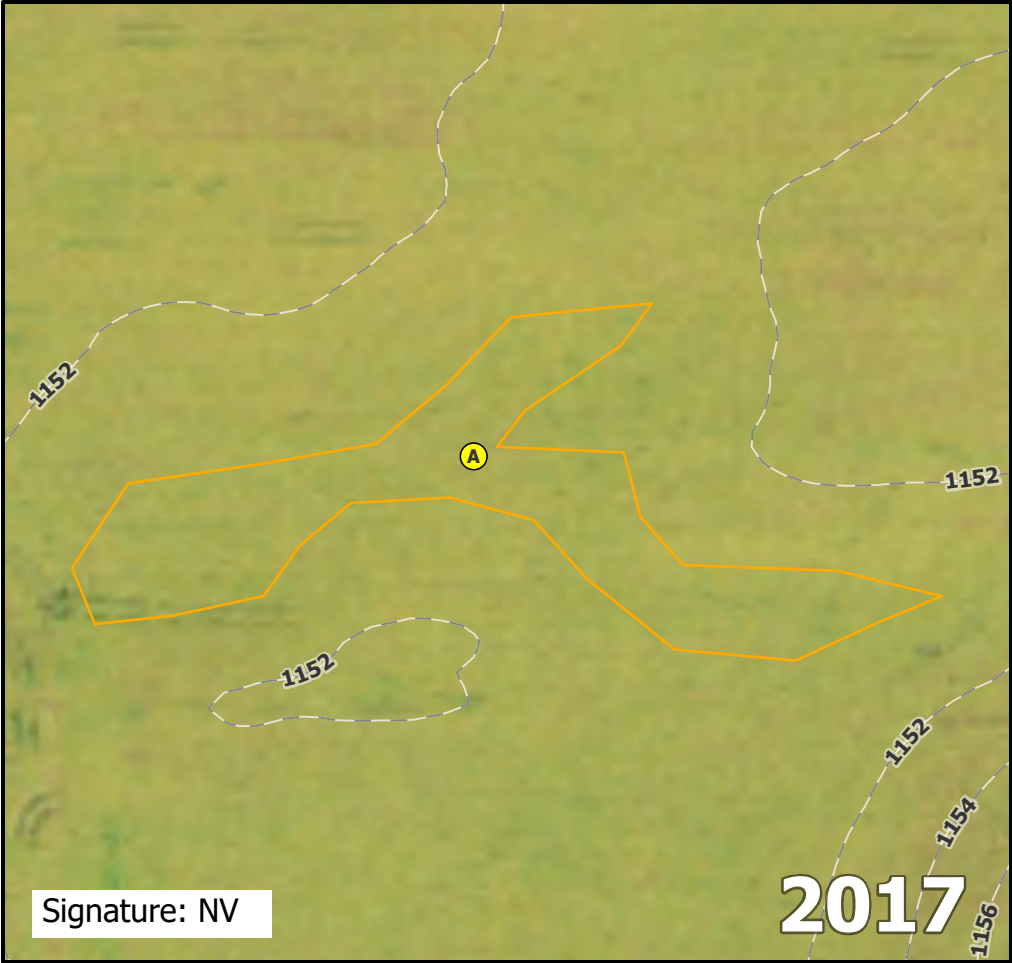
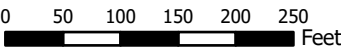
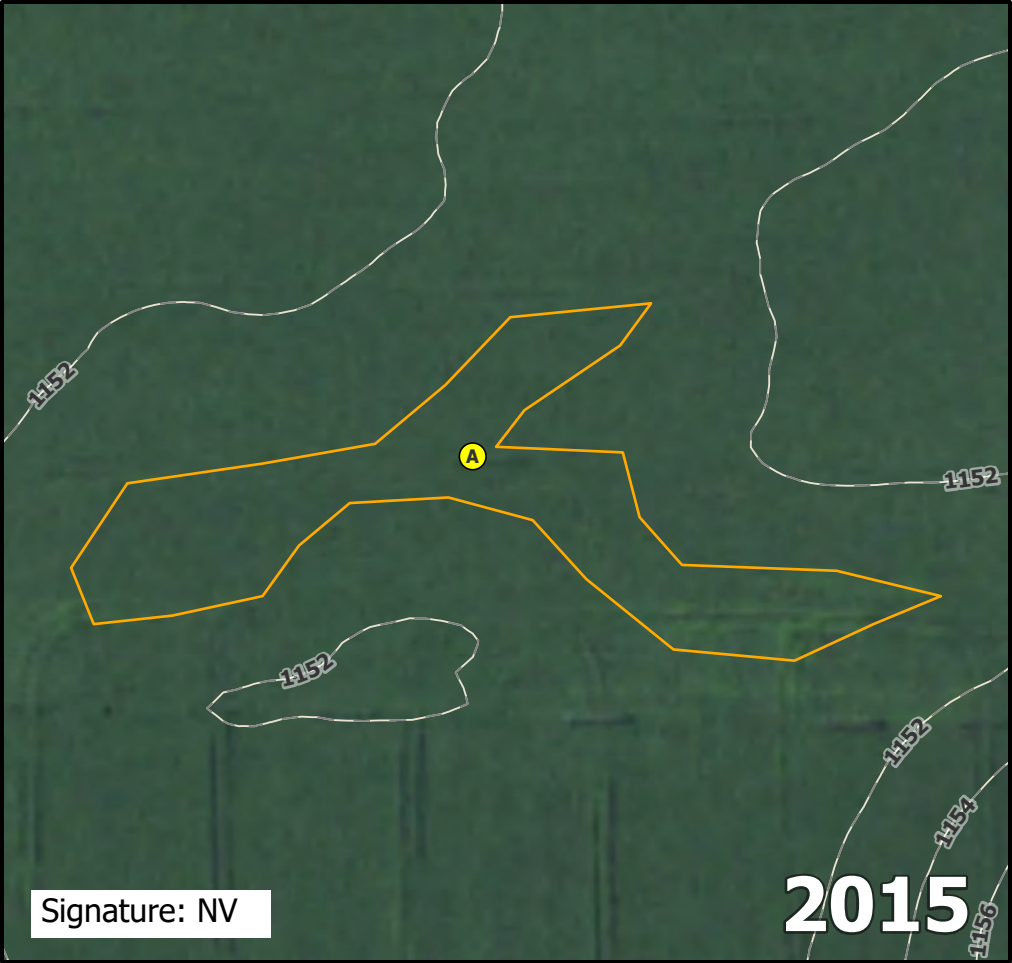
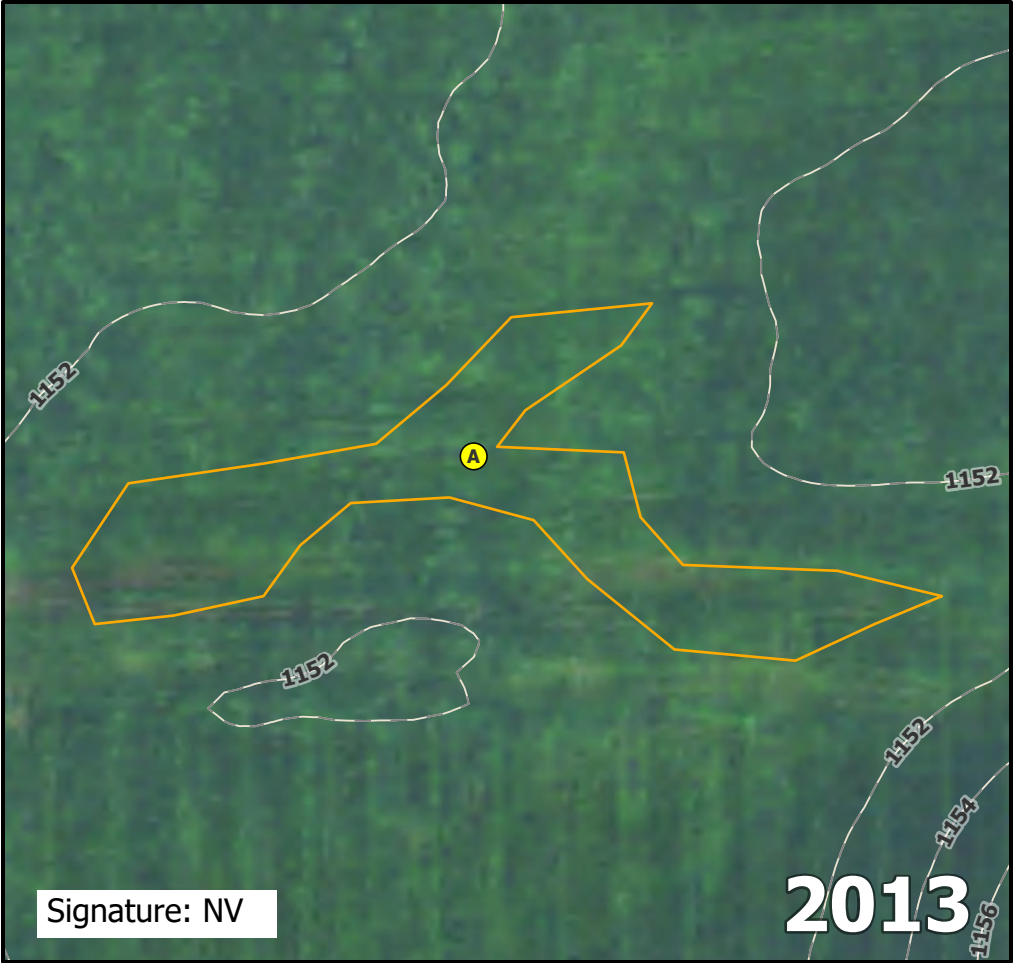
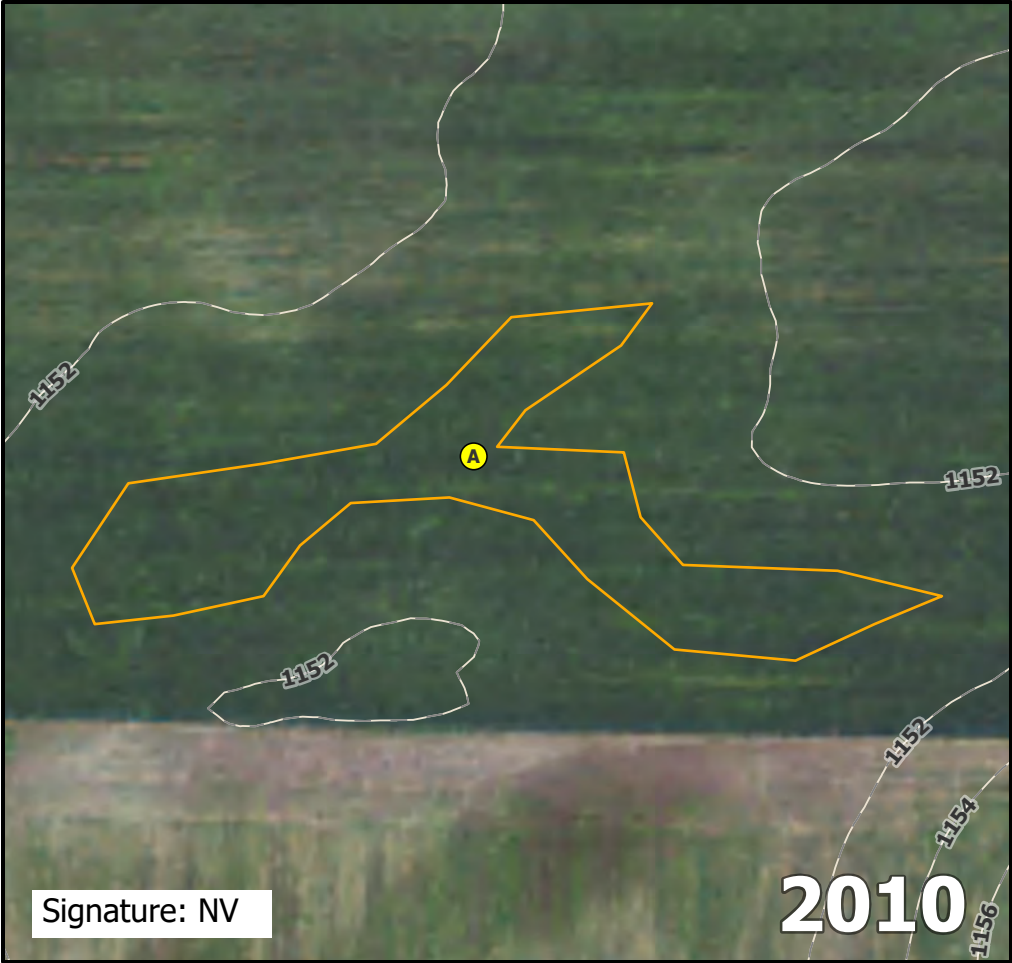
Direction: Northwest

Photo ID: delin_photo-20221020-221220.jpg

Date: 10/20/2022

Project Name: Lake Charlotte

Feature ID: NWA048



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:2,000

Non-Wetland ID

NWA049

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA049A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.8 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	1	Lat:	43.73124	Long:	-94.4481
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u> If yes, optional wetland site ID: _____
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: _____ 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: _____ % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
					=Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____	Total % Cover of: Multiply by:		
2.	_____	_____	_____	_____	OBL species _____ x 1 = _____		
3.	_____	_____	_____	_____	FACW species _____ x 2 = _____		
4.	_____	_____	_____	_____	FAC species _____ x 3 = _____		
5.	_____	_____	_____	_____	FACU species _____ x 4 = _____		
					UPL species _____ x 5 = _____		
					Column totals _____ (A) _____ (B)		
					Prevalence Index = B/A = _____		
<u>Herb Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____			
2.	_____	_____	_____	_____			
3.	_____	_____	_____	_____			
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
6.	_____	_____	_____	_____			
7.	_____	_____	_____	_____			
8.	_____	_____	_____	_____			
9.	_____	_____	_____	_____			
10.	_____	_____	_____	_____			
					=Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____			
2.	_____	_____	_____	_____			
					=Total Cover		
					Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation _____ Dominance test is >50% _____ Prevalence index is ≤3.0* _____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) _____ Problematic hydrophytic vegetation* _____ (explain)		
					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
					Hydrophytic Vegetation Present? No _____		

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA049A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10YR 2/1	100					Clay Loam	
12-14	10YR 2/1	90	2.5Y 5/2	10	D	M	Sandy Clay	
14-20	2.5Y 6/3	100					Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA049A.

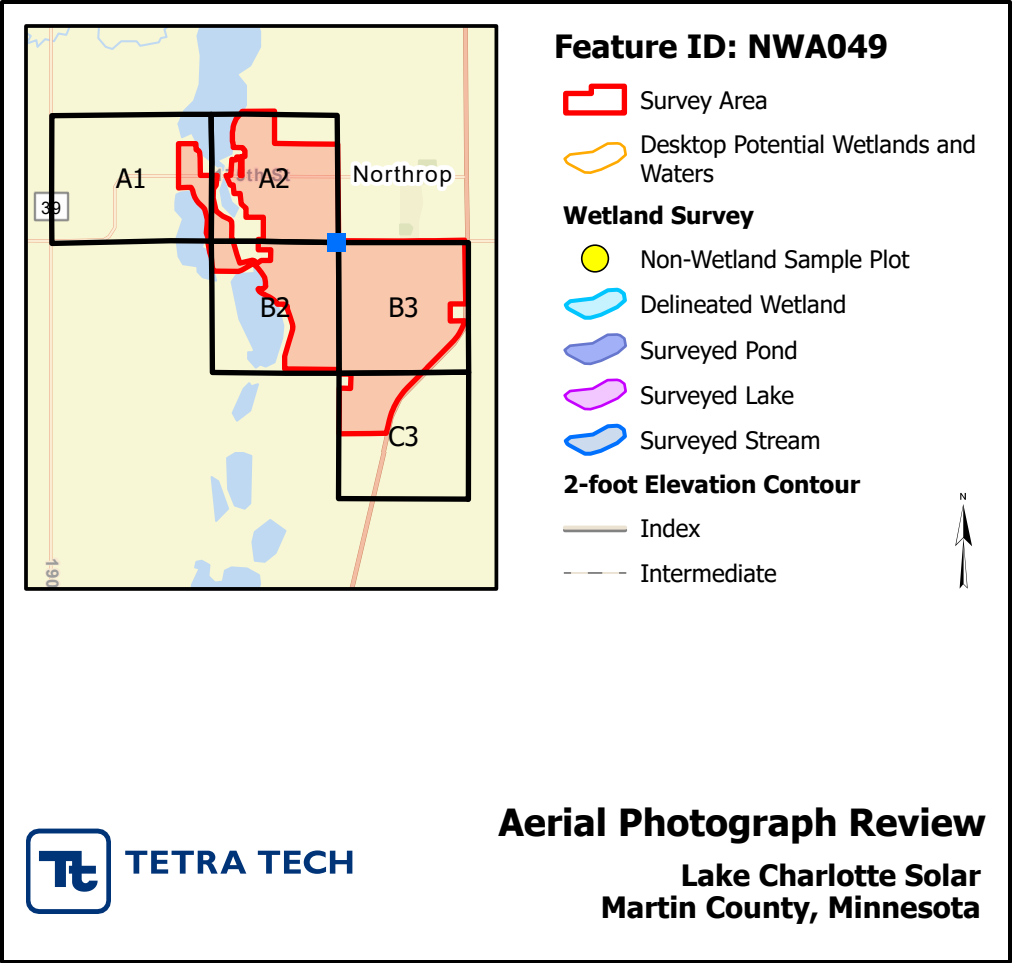
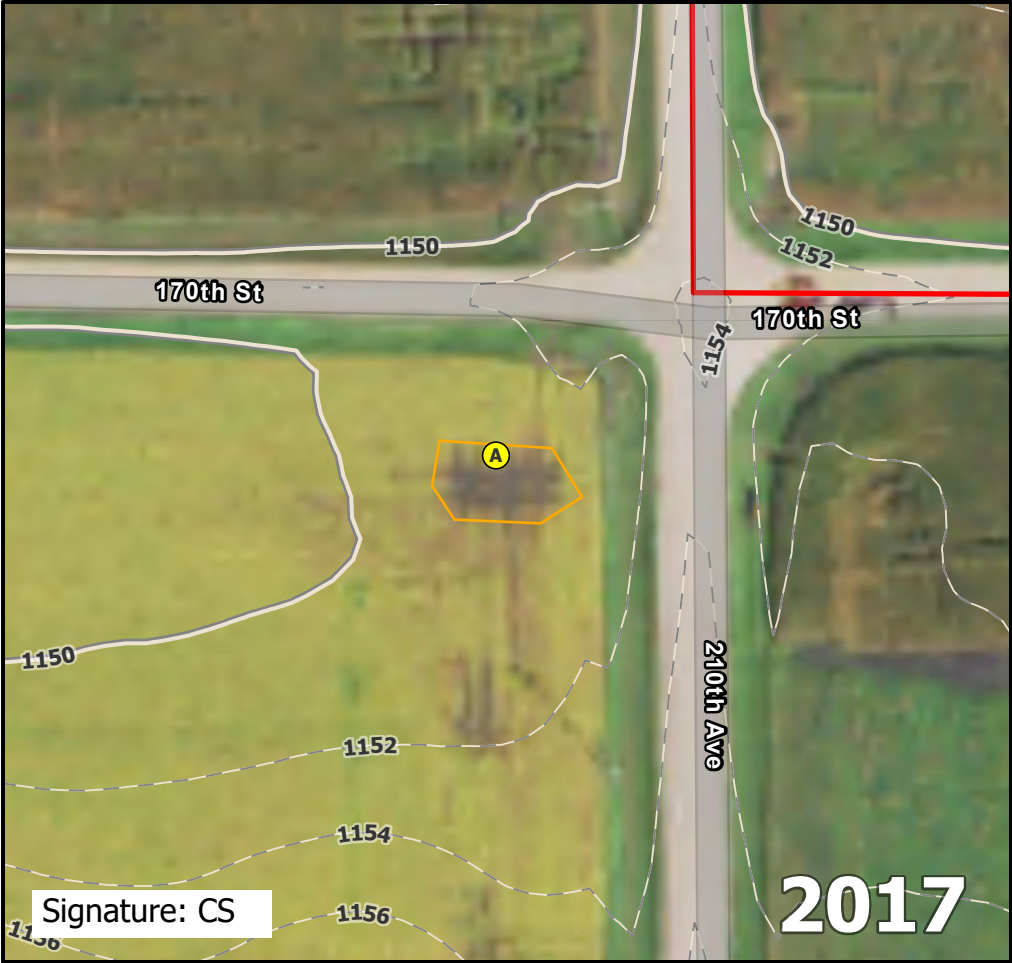
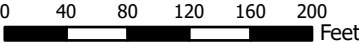
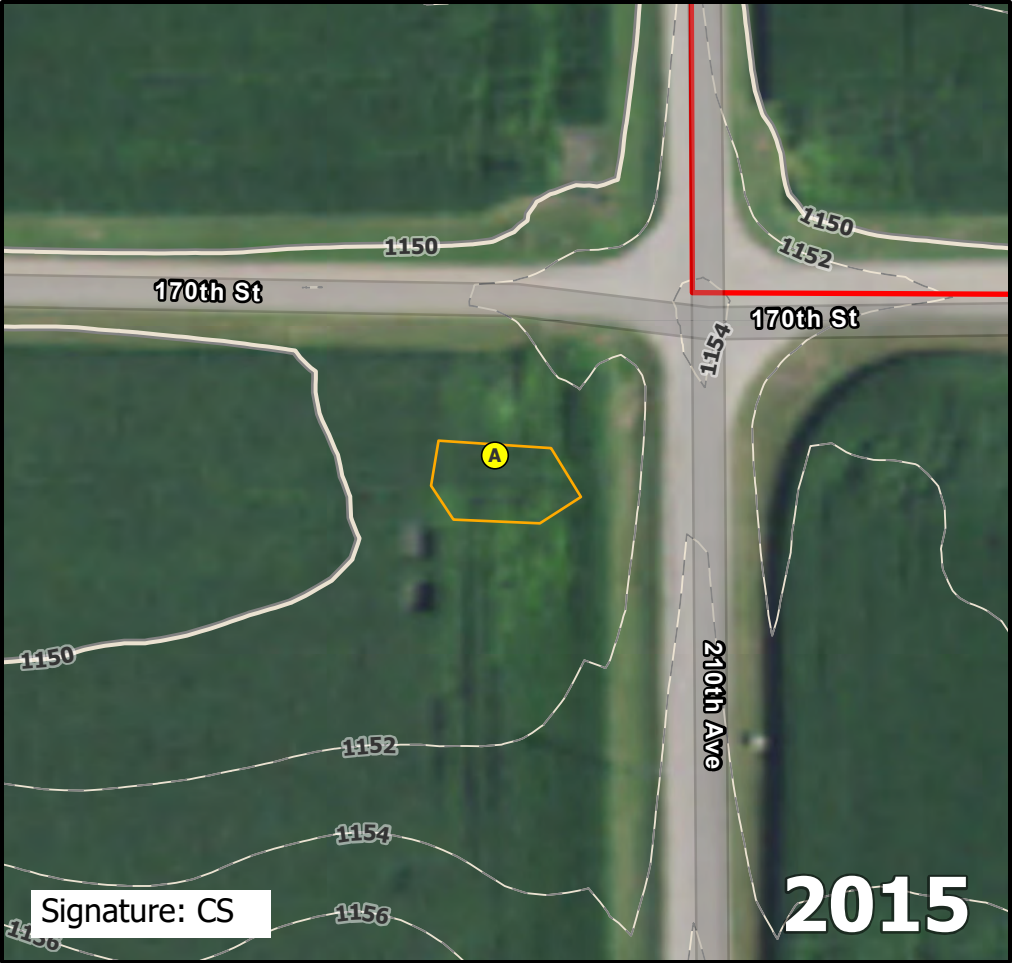
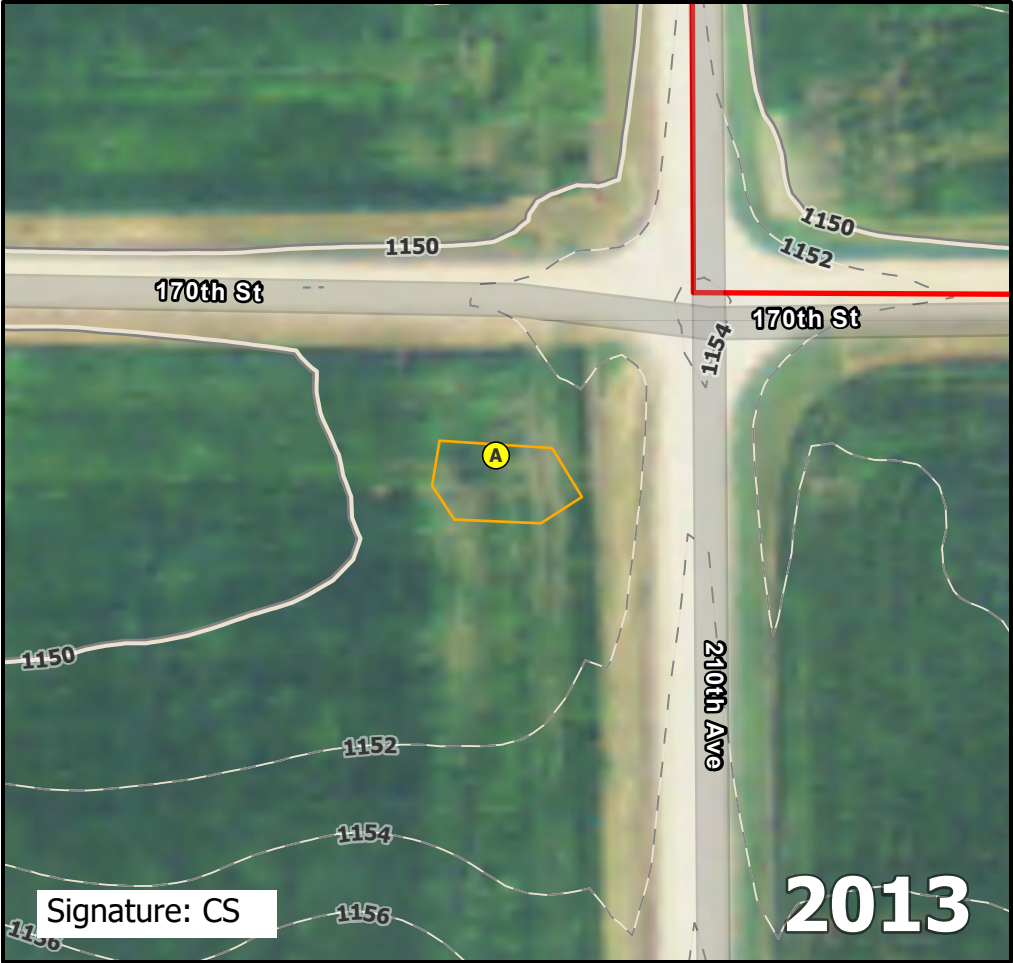
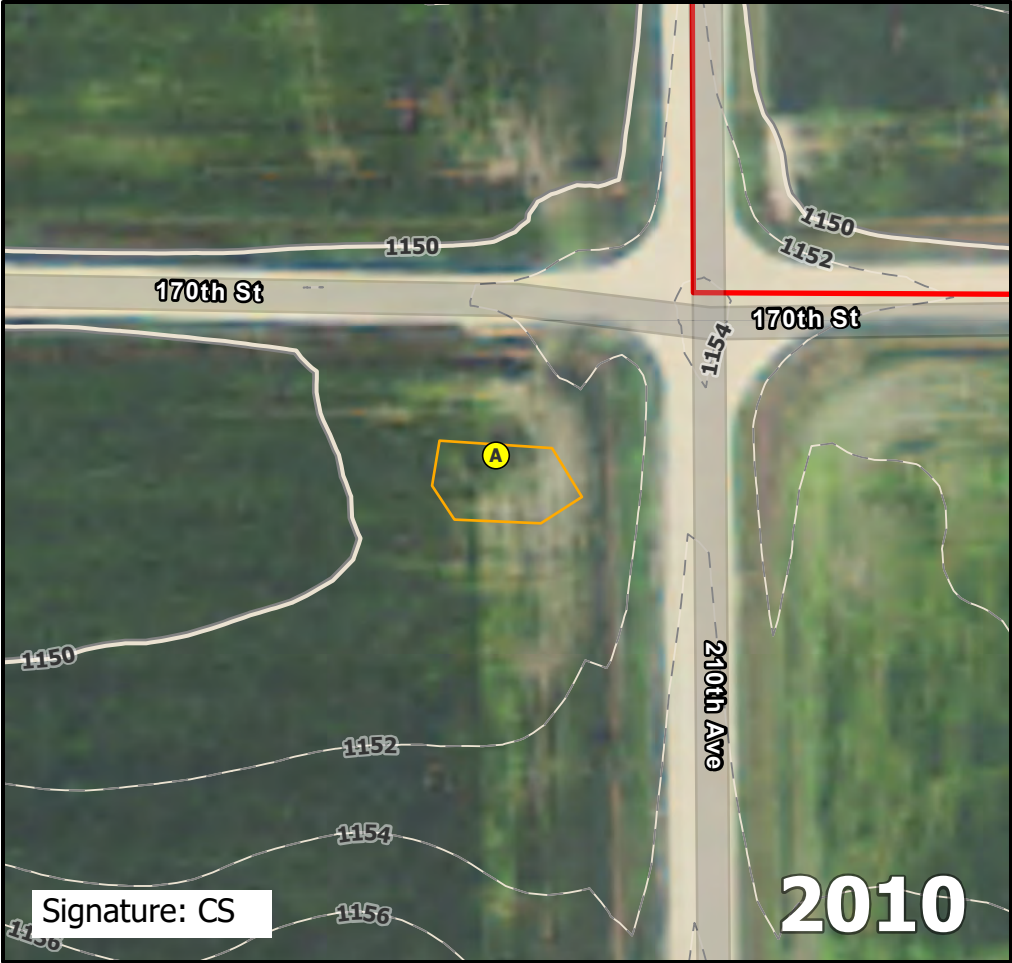
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Photo ID: delin_photo-20221020-223000.jpg

Date: 10/20/2022

Project Name: Lake Charlotte

Feature ID: NWA049



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_ReportFigures.aprx apryl.jennrich

Non-Wetland ID

NWA050

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/20/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA050A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.17 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	1	Lat:	43.73109	Long:	-94.45003
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	No		
Hydric Soil Present?	No	Is the sampled area within a wetland?	No
Wetland Hydrology Present?	No	If yes, optional wetland site ID:	
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

						Dominance Test Worksheet		
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status				
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)			
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)			
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)			
4.	_____	_____	_____	_____				
5.	_____	_____	_____	_____				
		=Total Cover						
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)							
1.	_____				Total % Cover of: Multiply by:			
2.	_____				OBL species	_____ x 1 =	_____	
3.	_____				FACW species	_____ x 2 =	_____	
4.	_____				FAC species	_____ x 3 =	_____	
5.	_____				FACU species	_____ x 4 =	_____	
		=Total Cover				UPL species	_____ x 5 =	_____
<u>Herb Stratum</u>	(Plot size: _____)				Column totals	_____ (A)	_____ (B)	
1.	_____				Prevalence Index = B/A = _____			
2.	_____							
3.	_____							
4.	_____							
5.	_____							
6.	_____							
7.	_____							
8.	_____							
9.	_____							
10.	_____							
		=Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: _____)							
1.	_____				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
2.	_____							
		=Total Cover						
					Hydrophytic Vegetation Indicators:			
					____ Rapid test for hydrophytic vegetation			
					____ Dominance test is >50%			
					____ Prevalence index is ≤3.0*			
					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)			
					____ Problematic hydrophytic vegetation*			
					____ (explain)			
					Hydrophytic Vegetation Present?			
					No _____			

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA050A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-20	10YR 2/1	100					Clay Loam	
20-21	2.5Y 3/2	100					Sandy Clay	
21-27	2.5Y 6/3	100					Sandy Clay Trace Gravel	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

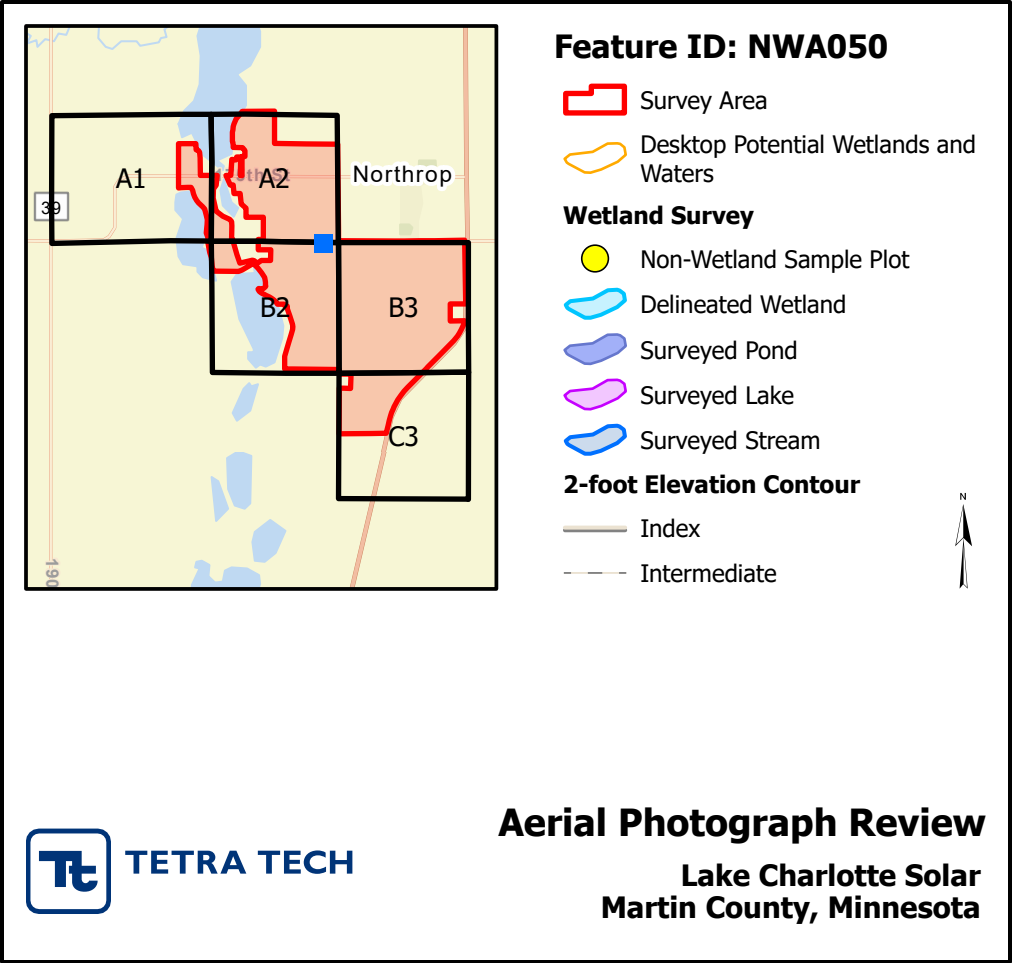
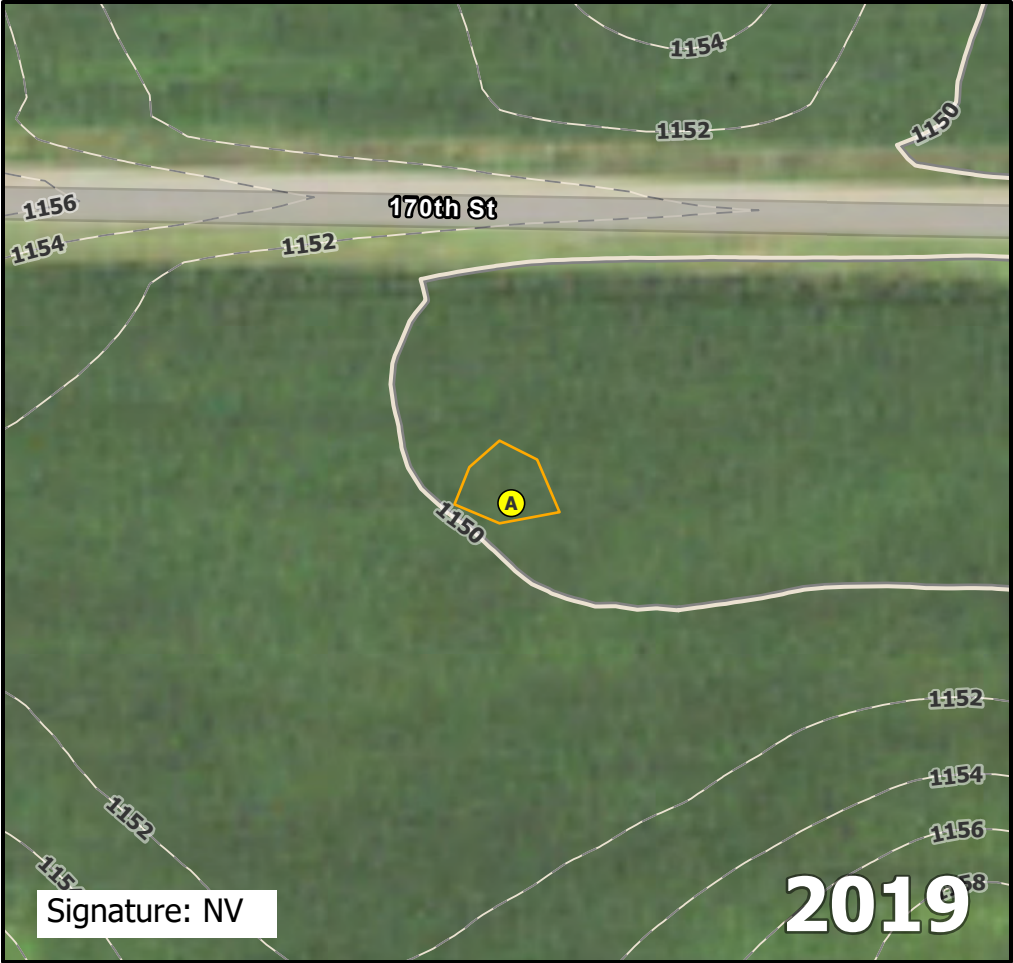
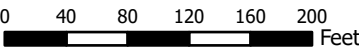
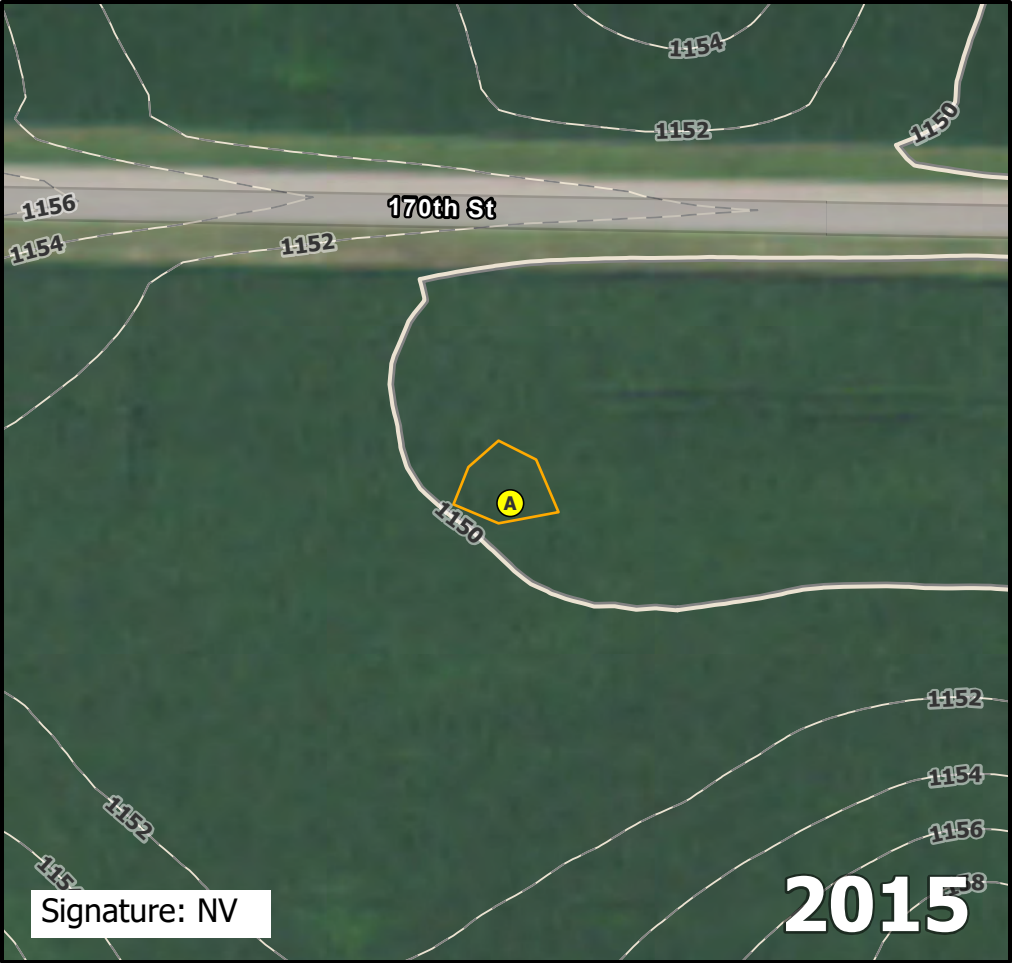
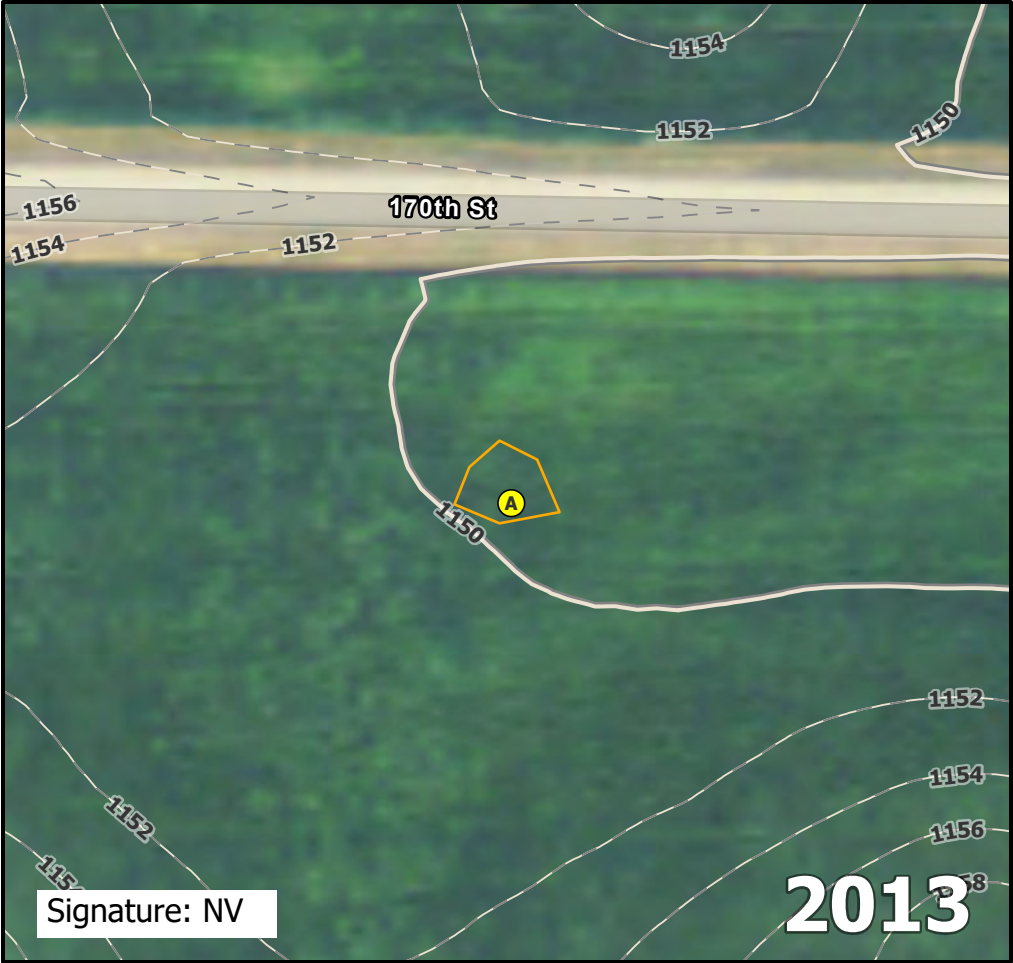
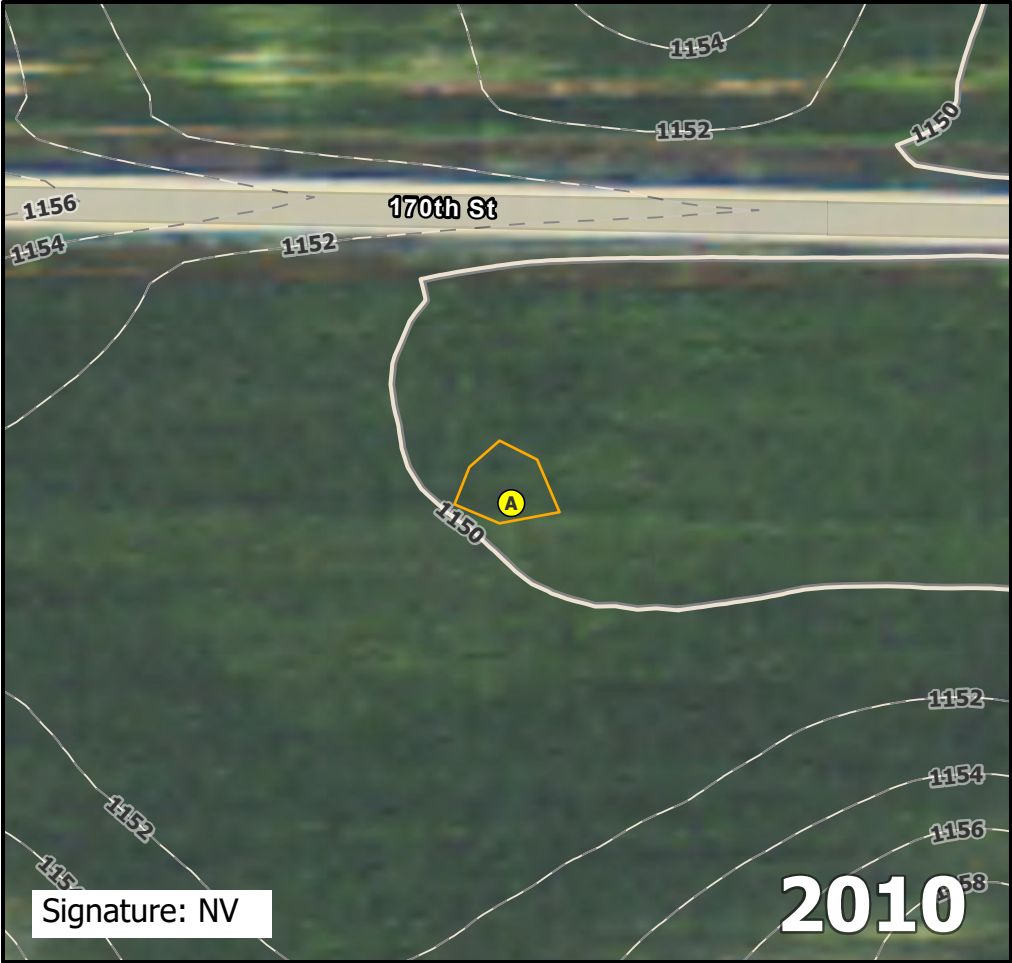
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA050A.

Direction: South	Photo ID: delin_photo-20221020-223941.jpg	Date: 10/20/2022
Project Name: Lake Charlotte	Feature ID: NWA050	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA052

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA052A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.71768	Long:	-94.43481
				Datum:	WGS84
Soil Map Unit Name:	Crippin loam, 1 to 3 percent slopes	NWI Classification:	NA		

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks:		

		Absolute	Dominant	Indicator	Dominance Test Worksheet	
Tree Stratum	(Plot size: 30)	% Cover	Species	Status		
1.					Number of Dominant Species that are OBL, FACW, or FAC:	0 (A)
2.					Total Number of Dominant Species Across All Strata:	1 (B)
3.					Percent of Dominant Species that are OBL, FACW, or FAC:	0% (A/B)
4.						
5.						
					=Total Cover	
Sapling/Shrub Stratum	(Plot size: 15)				Prevalence Index Worksheet	
1.					Total % Cover of:	Multiply by:
2.					OBL species 0 x 1 =	0
3.					FACW species 0 x 2 =	0
4.					FAC species 0 x 3 =	0
5.					FACU species 0 x 4 =	0
					UPL species 50 x 5 =	250
					Column totals 50 (A)	250 (B)
					Prevalence Index = B/A = 5	
					=Total Cover	
Herb Stratum	(Plot size: 5)				Hydrophytic Vegetation Indicators:	
1. <i>Zea mays</i>		50	Y	UPL	_____ Rapid test for hydrophytic vegetation	
2.					_____ Dominance test is >50%	
3.					_____ Prevalence index is ≤3.0*	
4.					_____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5.					_____ Problematic hydrophytic vegetation*	
6.					_____ (explain)	
7.					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
8.						
9.						
10.						
				50	=Total Cover	
Woody Vine Stratum	(Plot size: 15)				Hydrophytic Vegetation Present?	
1.					No	
2.						
					=Total Cover	

Agricultural field. Bare ground: 50%

SOIL

Sampling Point: NWA052A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-20	10YR 2/1	100					Clay	
20-27	10YR 2/2	95	2.5Y 3/2	5	D	M	Clay	
27-35	2.5Y 6/3	100					Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

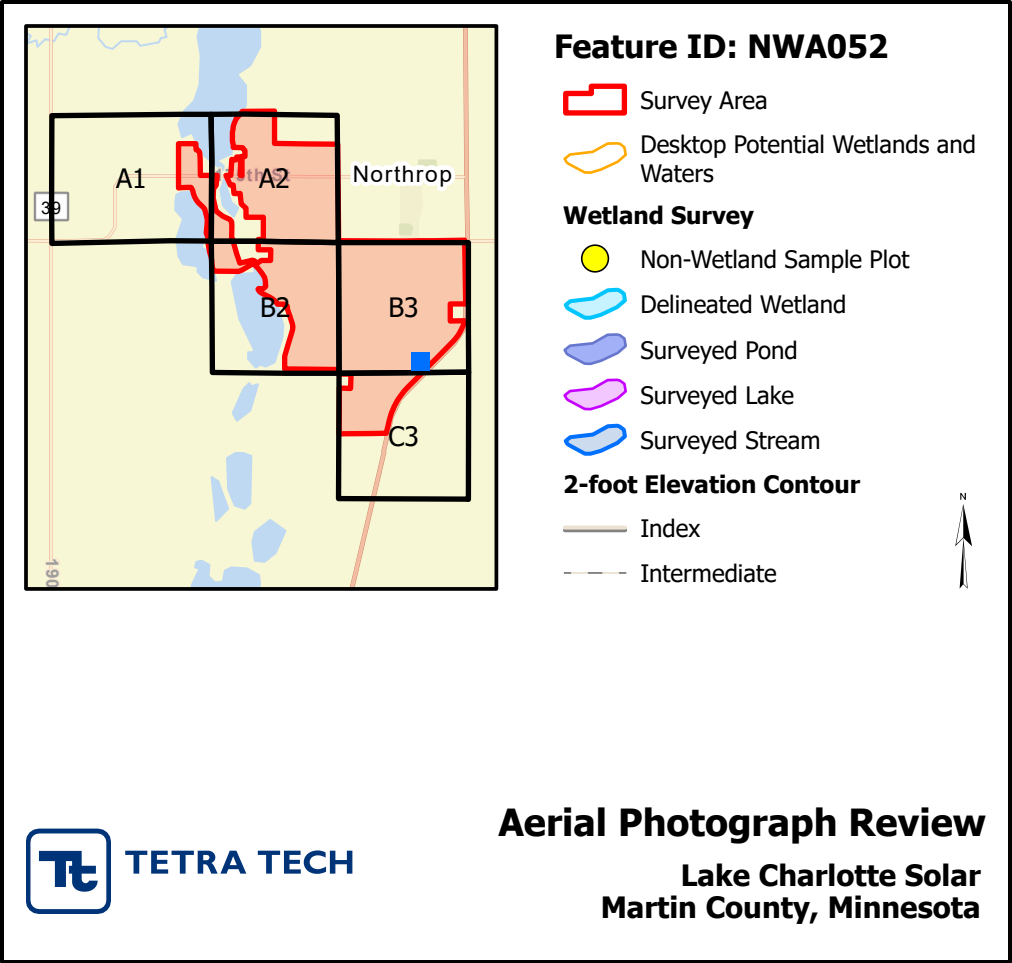
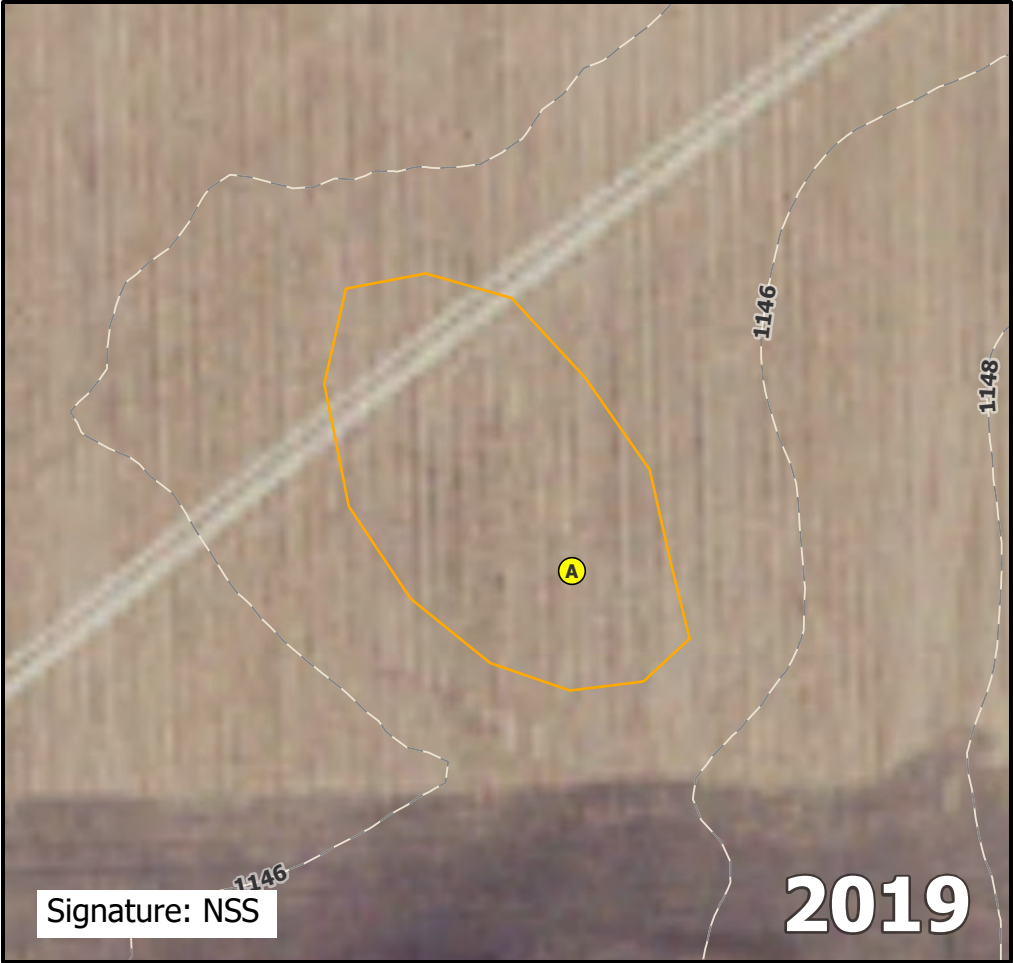
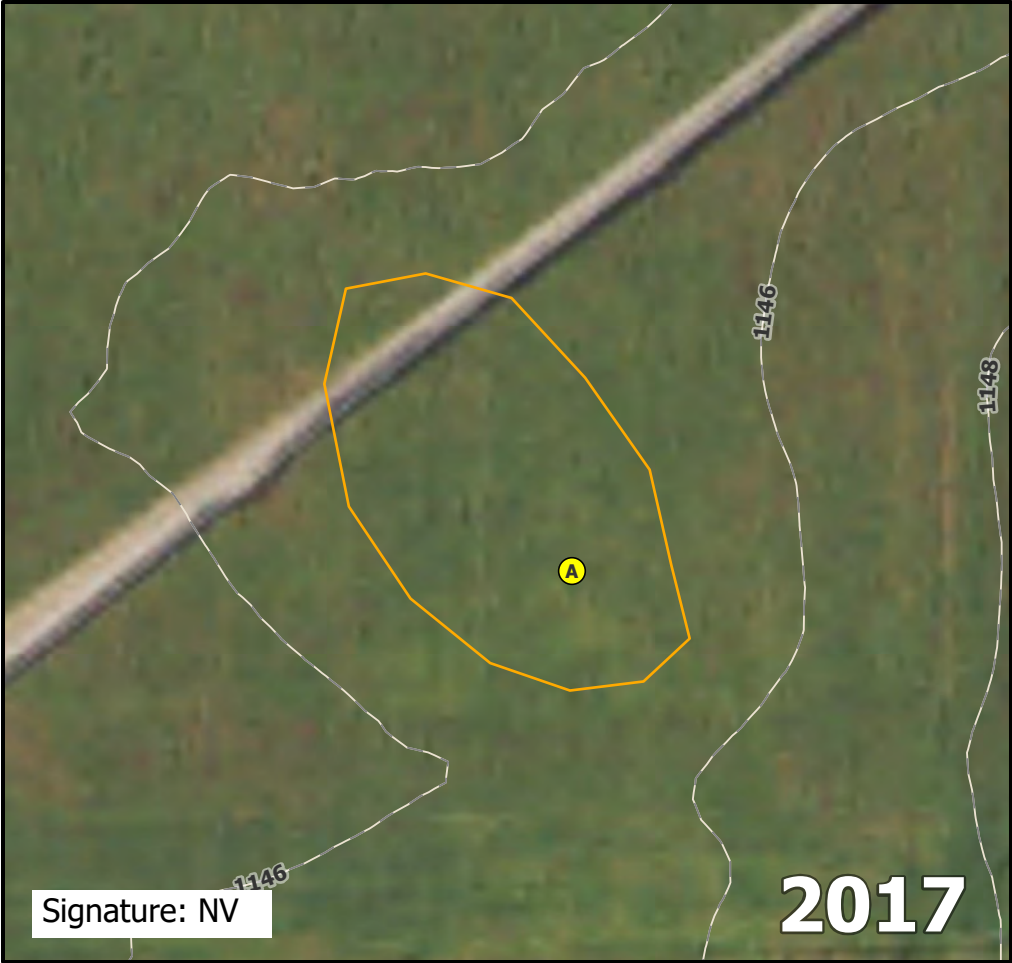
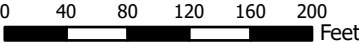
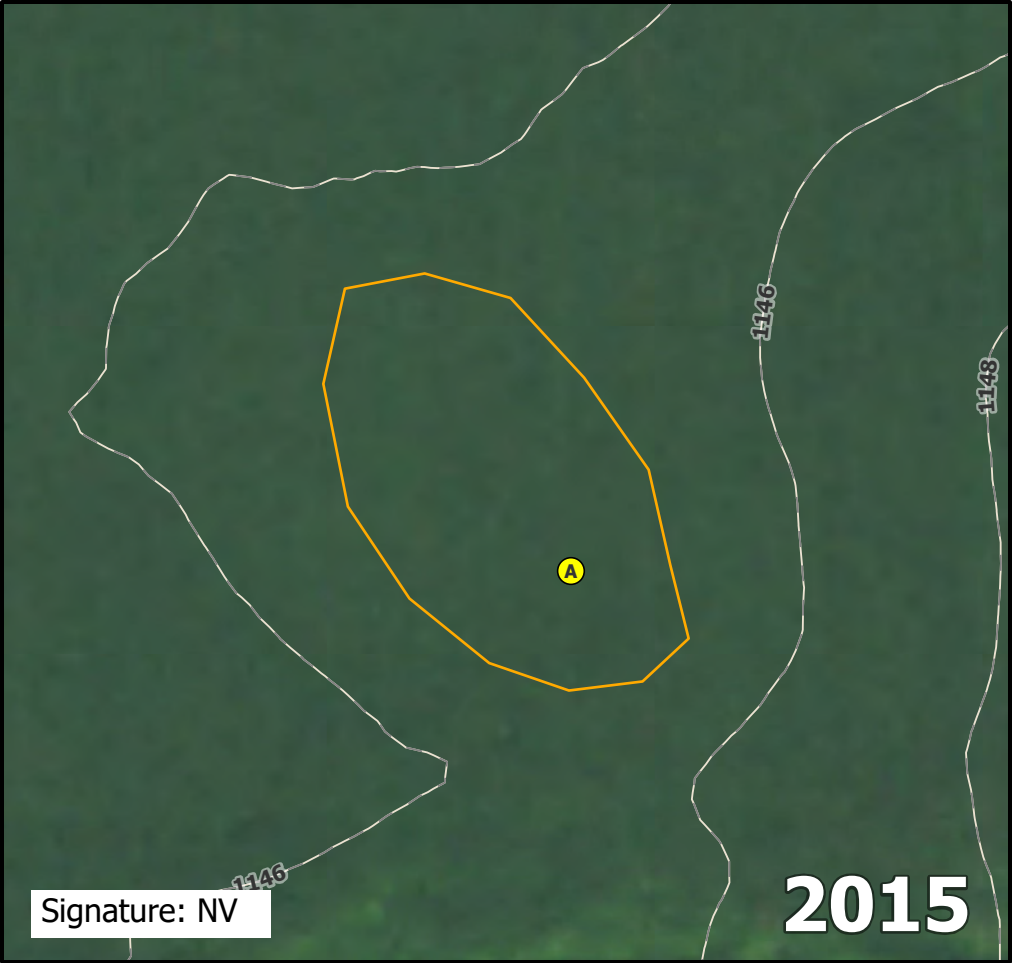
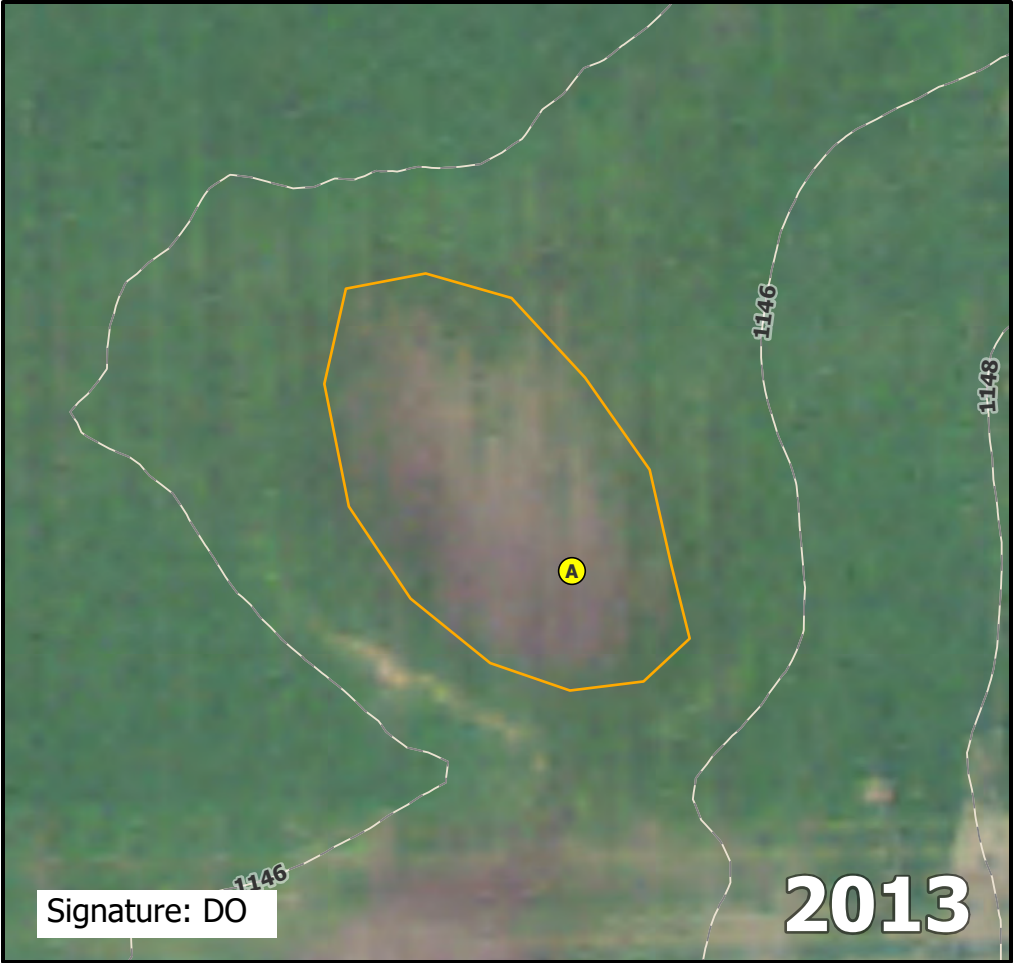
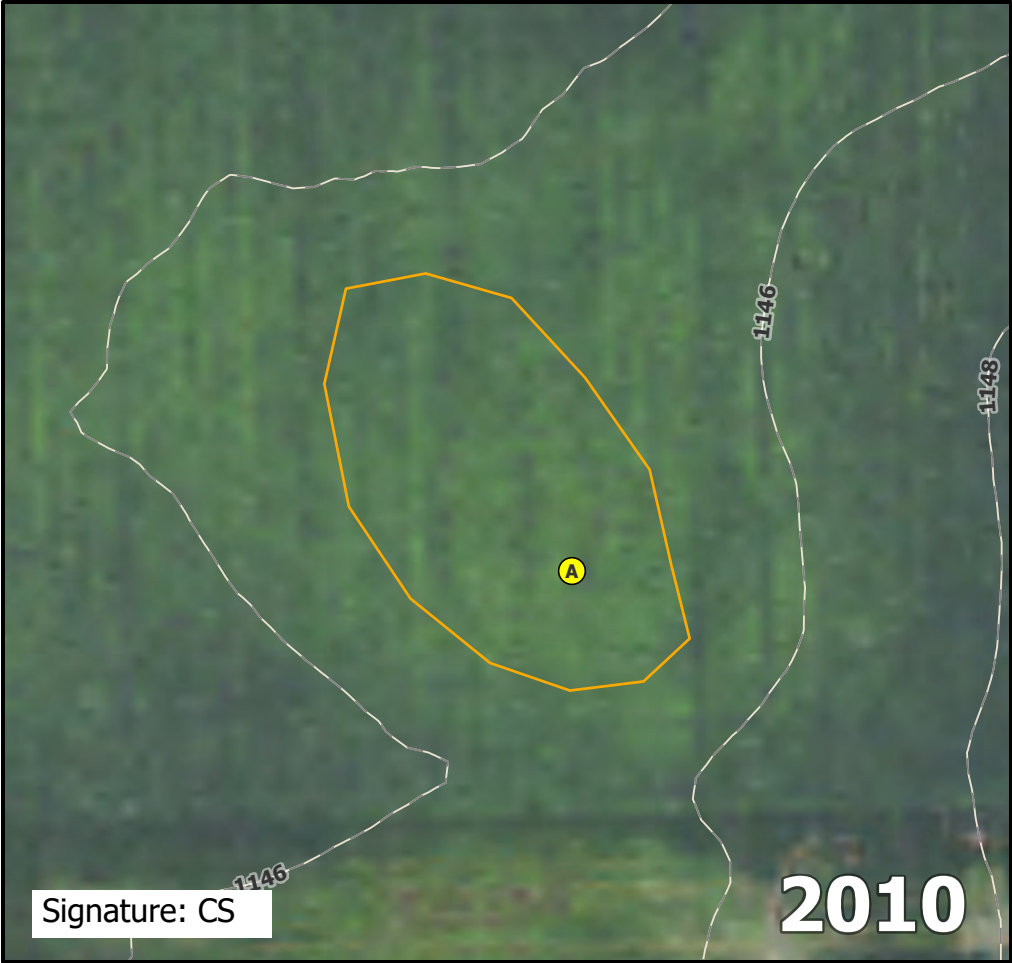
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA052A.

Direction: North	Photo ID: delin_photo-20221021-134947.jpg	Date: 10/21/2022
Project Name: Lake Charlotte		Feature ID: NWA052



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA053

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA053A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	1	Lat:	43.72094	Long:	-94.43247
				Datum:	WGS84
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>		
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland?	<u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID:	_____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: _____ 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: _____ % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
					=Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____	Total % Cover of: Multiply by:		
2.	_____	_____	_____	_____	OBL species _____ x 1 = _____		
3.	_____	_____	_____	_____	FACW species _____ x 2 = _____		
4.	_____	_____	_____	_____	FAC species _____ x 3 = _____		
5.	_____	_____	_____	_____	FACU species _____ x 4 = _____		
					UPL species _____ x 5 = _____		
					Column totals _____ (A) _____ (B)		
					Prevalence Index = B/A = _____		
<u>Herb Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____			
2.	_____	_____	_____	_____			
3.	_____	_____	_____	_____			
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
6.	_____	_____	_____	_____			
7.	_____	_____	_____	_____			
8.	_____	_____	_____	_____			
9.	_____	_____	_____	_____			
10.	_____	_____	_____	_____			
					=Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____			
2.	_____	_____	_____	_____			
					=Total Cover		
					Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation _____ Dominance test is >50% _____ Prevalence index is ≤3.0* _____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) _____ Problematic hydrophytic vegetation* _____ (explain)		
					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
					Hydrophytic Vegetation Present? No _____		

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA053A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-16	10YR 2/1	100					Clay	
16-19	2.5Y 3/3	100					Sandy Clay	
19-22	2.5Y 6/3	100					Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

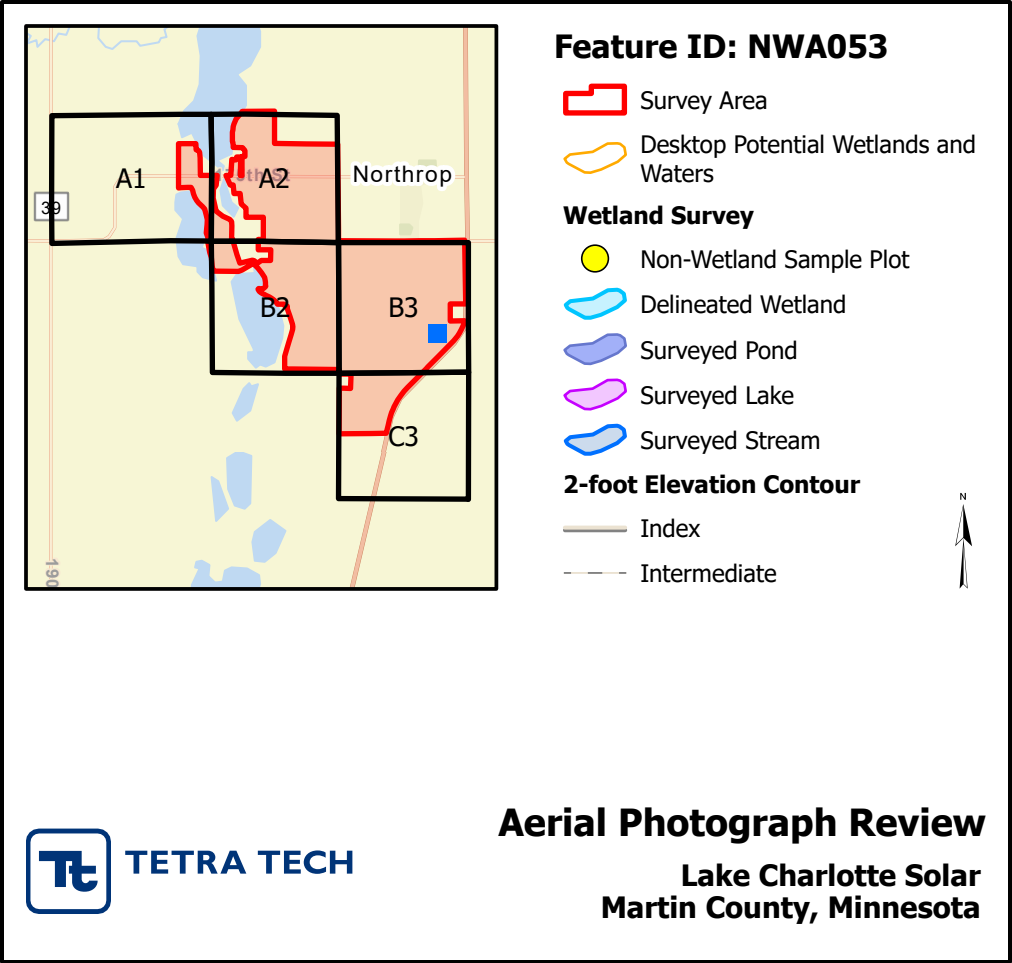
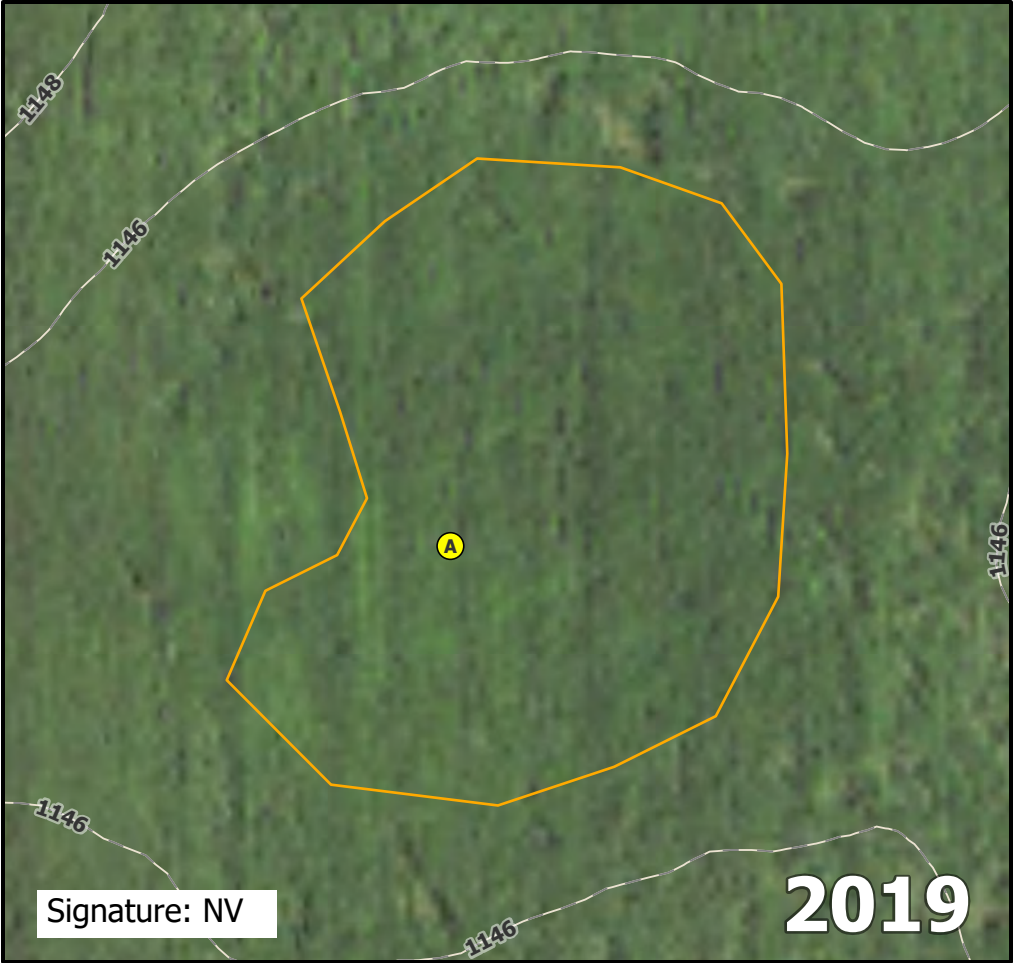
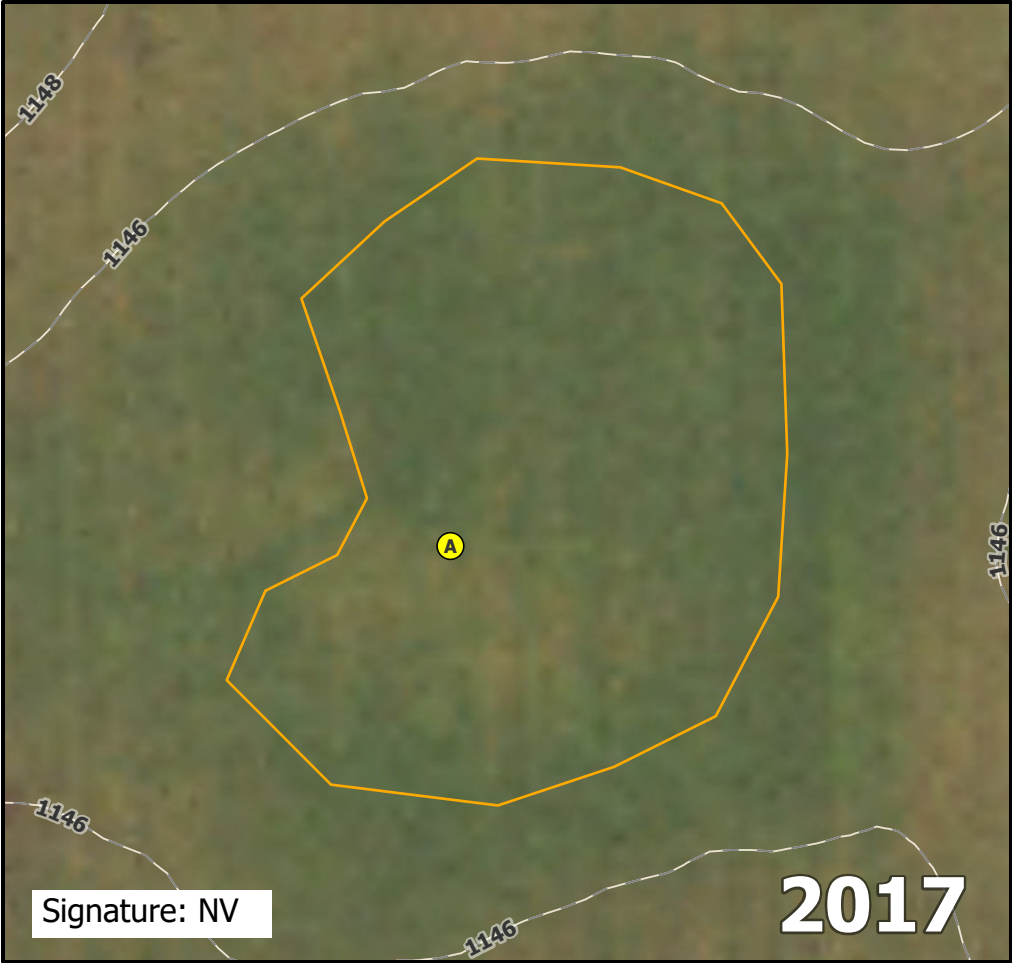
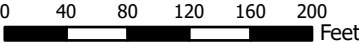
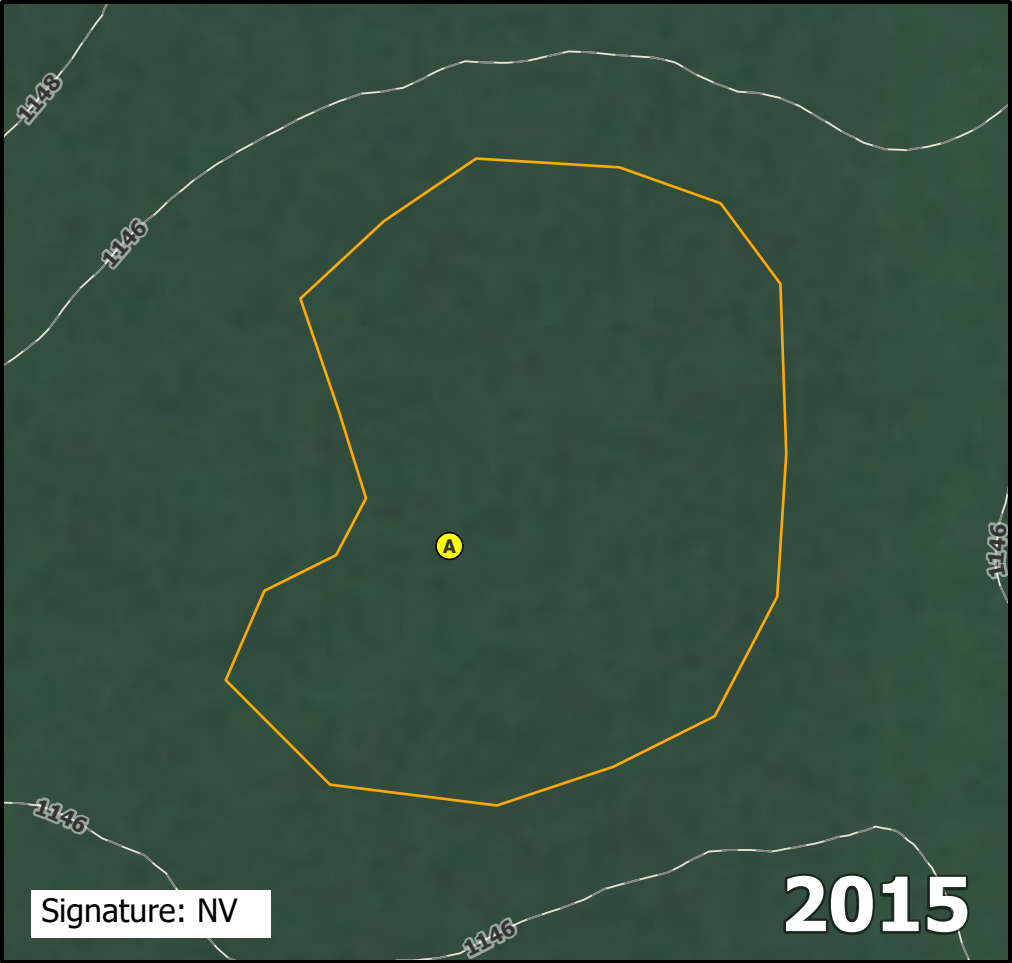
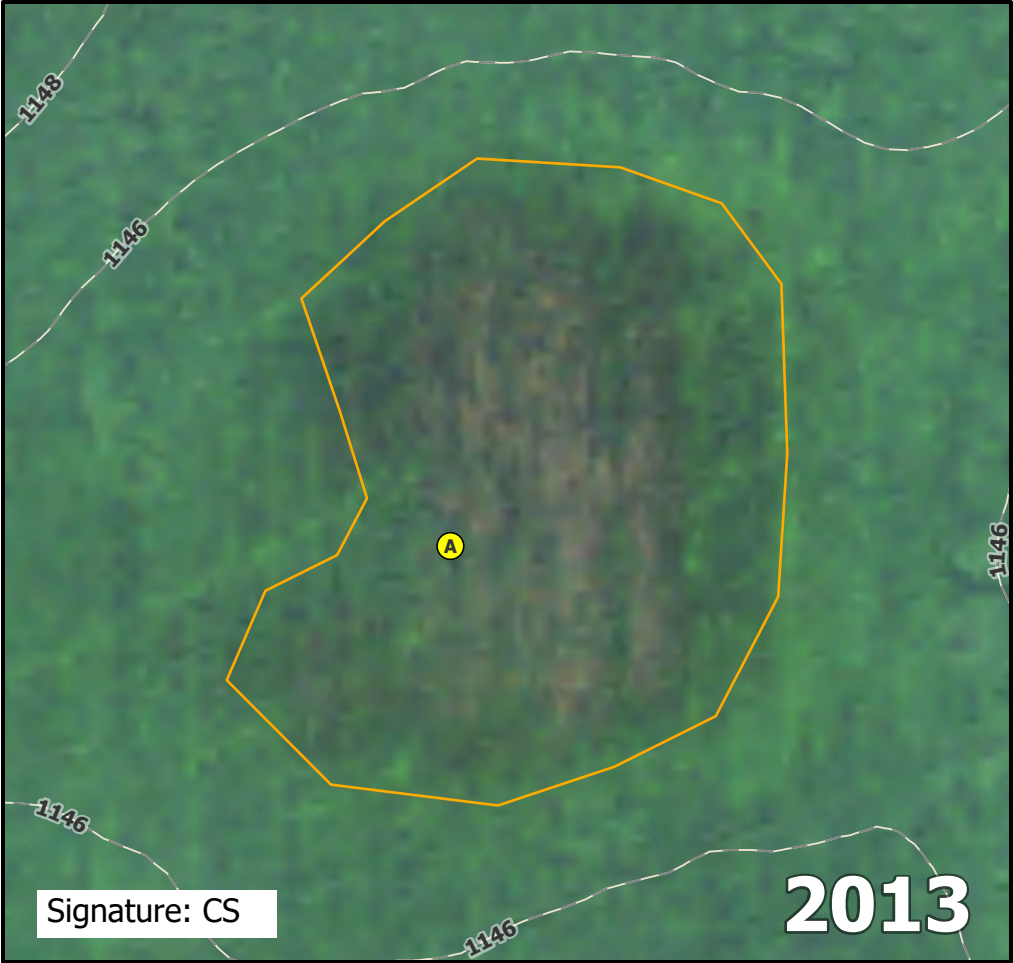
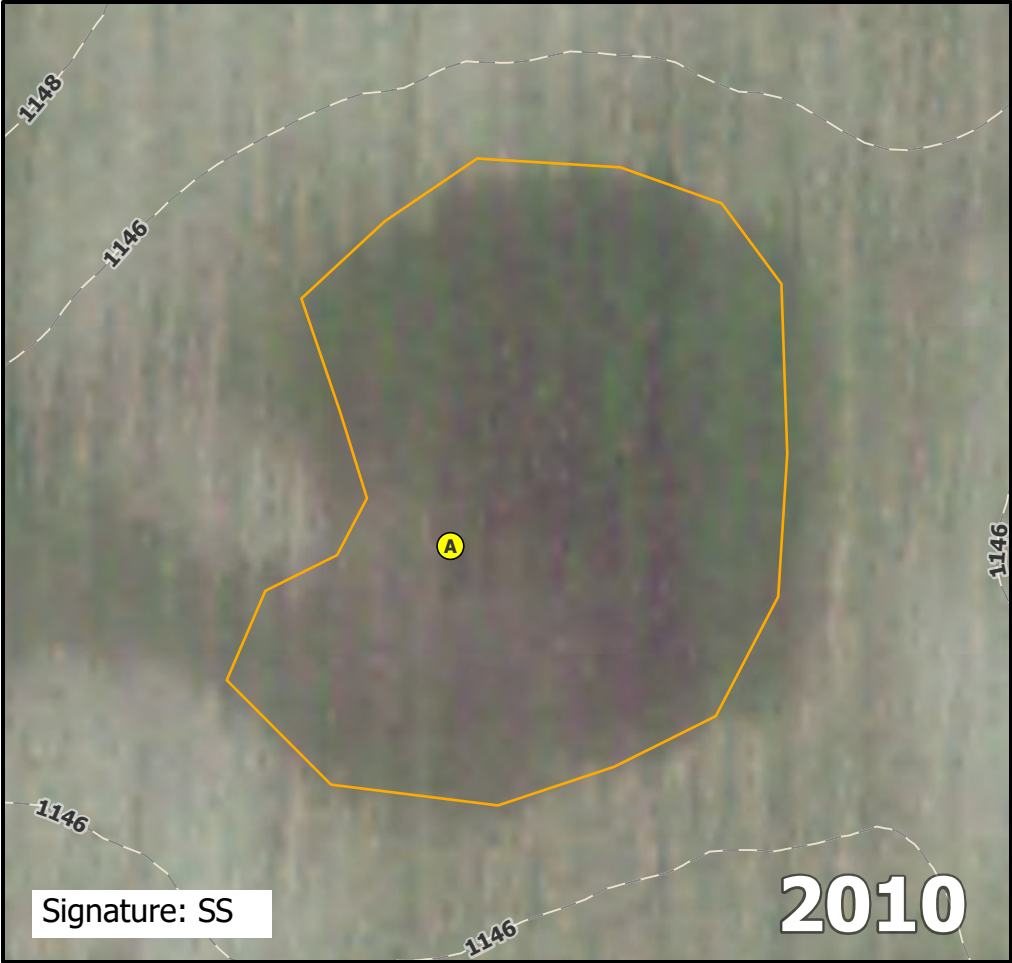
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA053A.

Direction: Southwest	Photo ID: delin_photo-20221021-140734.jpg	Date: 10/21/2022
Project Name: Lake Charlotte	Feature ID: NWA053	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA054

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA054A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.72365	Long:	-94.43047
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>		
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland?	<u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID:	_____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)
1.					
2.					
3.					
4.					
5.					
					Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column totals (A) (B) Prevalence Index = B/A =
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
					Hydrophytic Vegetation Indicators: ____ Rapid test for hydrophytic vegetation ____ Dominance test is >50% ____ Prevalence index is ≤3.0* ____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ____ Problematic hydrophytic vegetation* ____ (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Herb Stratum</u>	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
6.					Hydrophytic Vegetation Present? No
7.					
8.					
9.					
10.					
<u>Woody Vine Stratum</u>	(Plot size: _____)				
1.					
2.					

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA054A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-5	10YR 2/1	100					Clay	
5-6	10YR 2/1	98	10YR 2/2	2	C	PL	Clay	Faint
6-25	10YR 2/1	100					Clay	
25-28	2.5Y 3/2	99	10YR 4/6	1	C	PL	Clay	Distinct or Prominent
28-31	2.5Y 4/3	100					Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA054A.

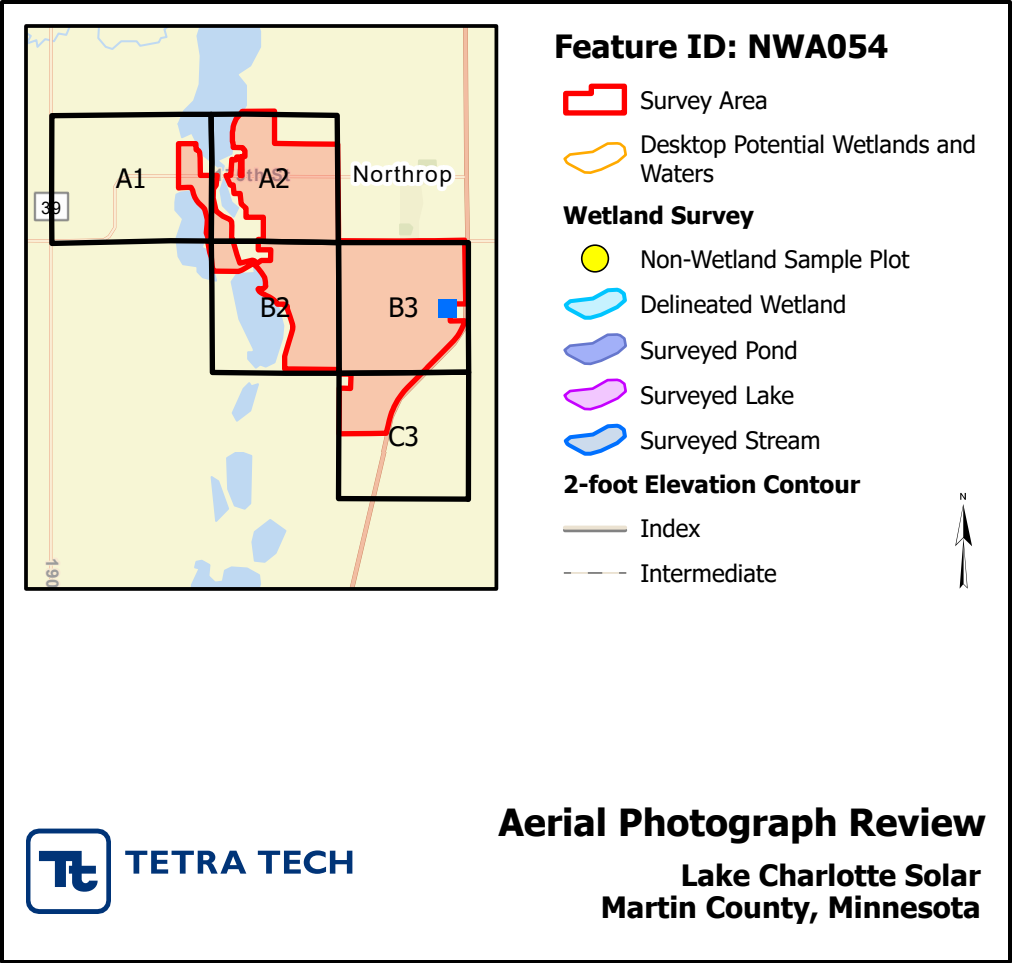
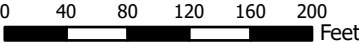
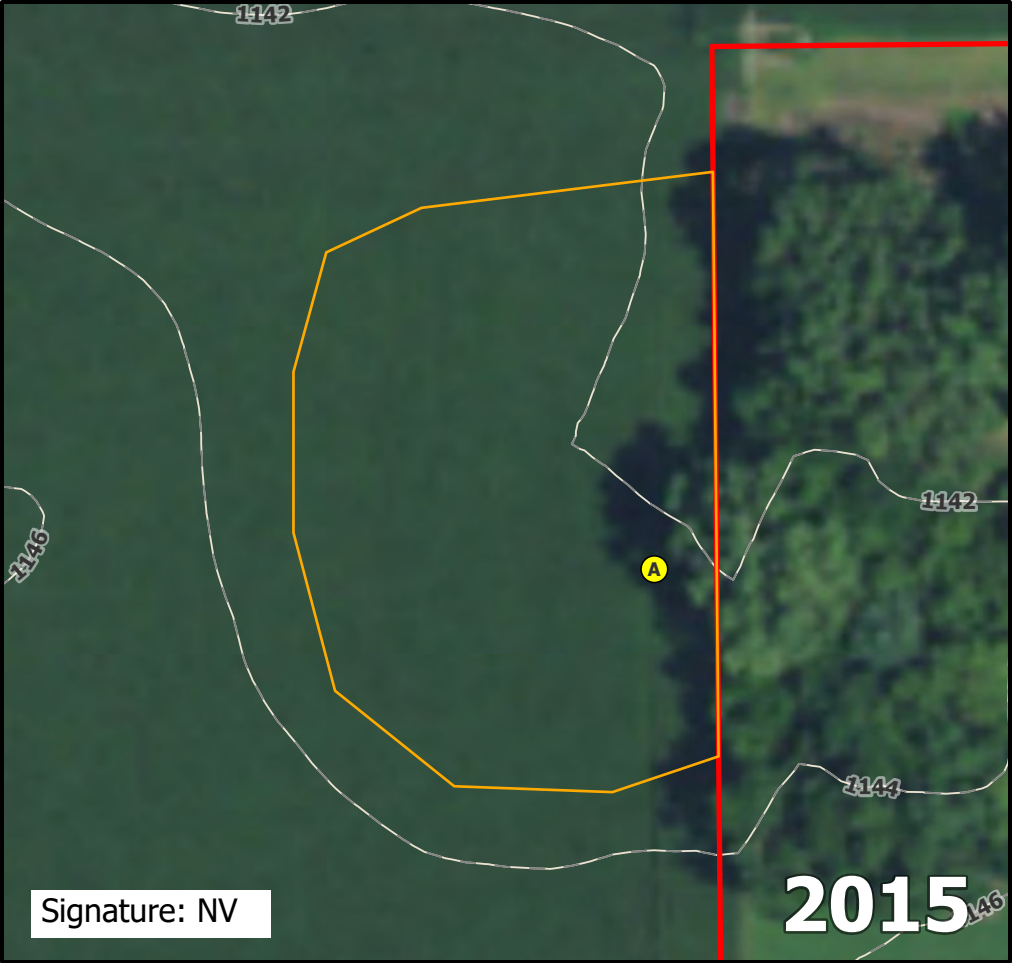
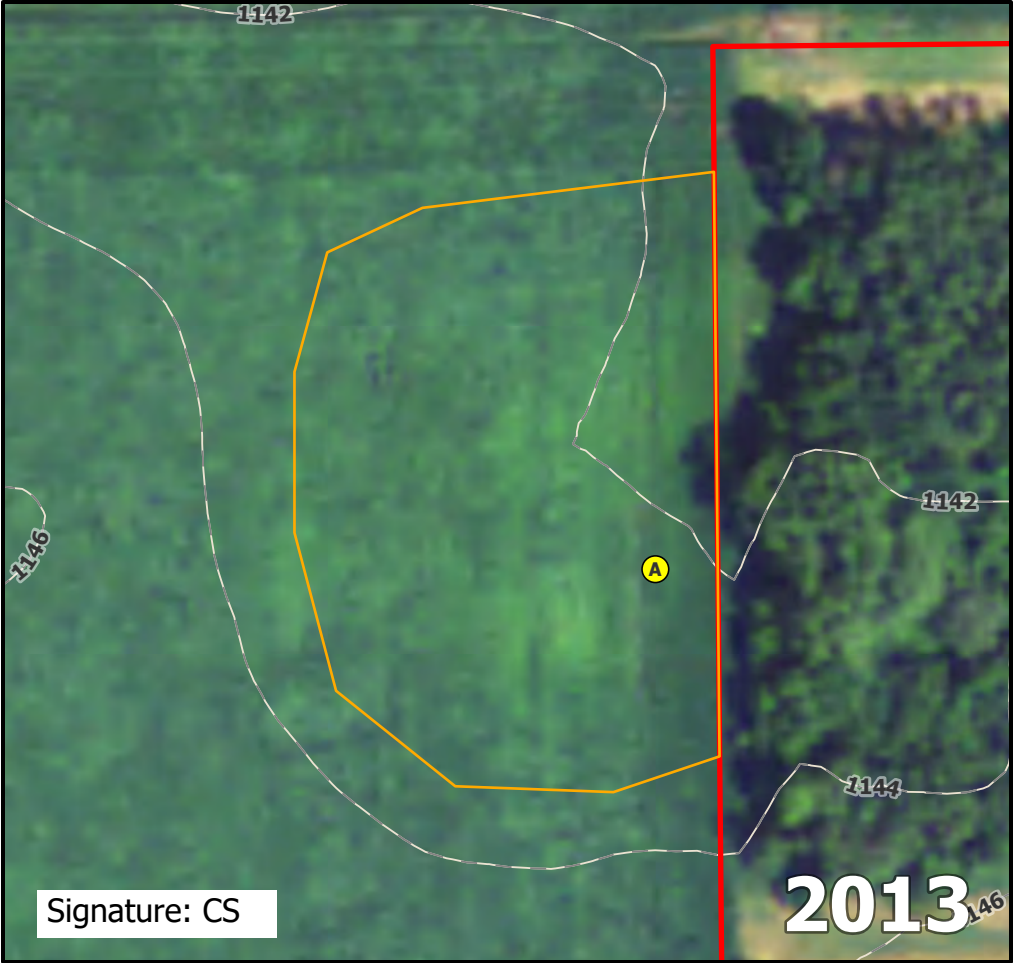
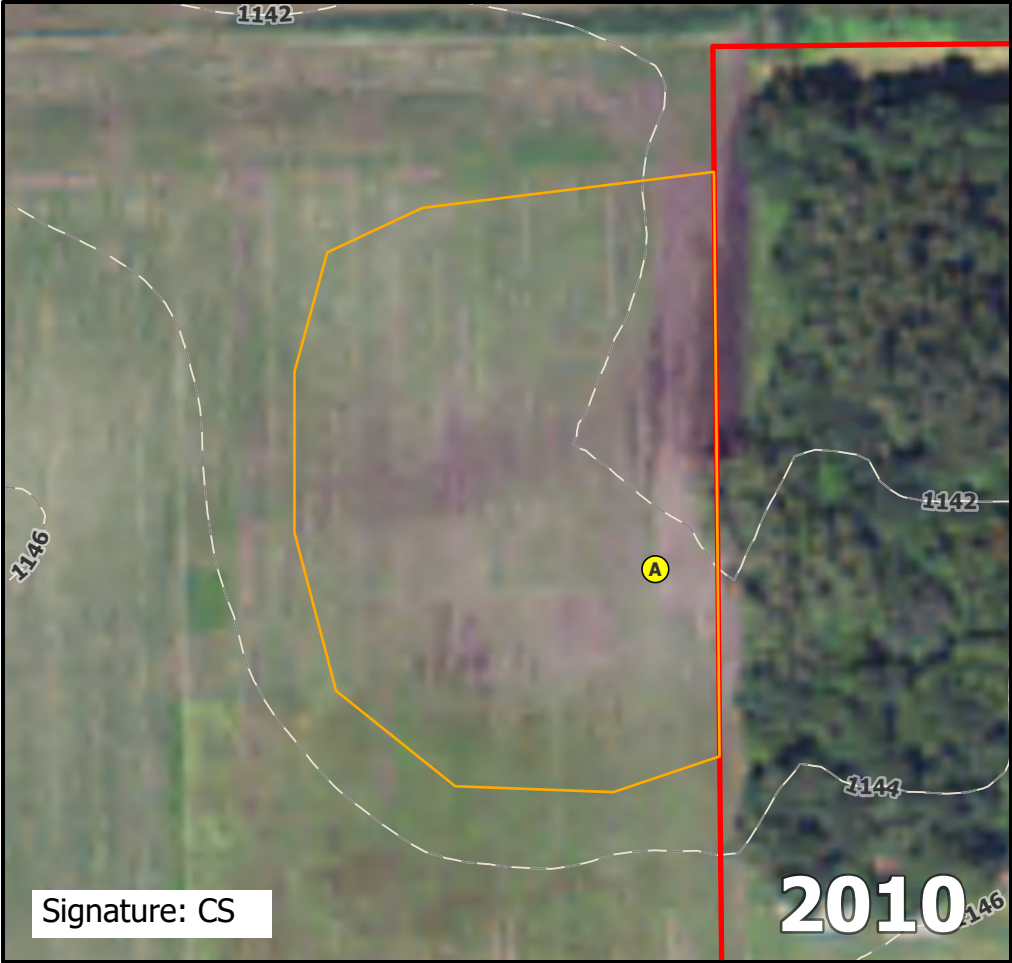
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Photo ID: delin_photo-20221021-142727.jpg

Date: 10/21/2022

Project Name: Lake Charlotte

Feature ID: NWA054



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

6/13/2023 S:\Projects\NationalGrid\LakeCharlotteSolar_MN\GIS\ArcGISPro\LakeCharlotte_Wetlands_ReportFigures.aprx apryl.jennrich

Non-Wetland ID

NWA055

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA055A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Depression	Local relief (concave, convex, none):	Concave		
Slope (%):	1	Lat:	43.72419	Long:	-94.43384
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>Yes</u>	Is the sampled area within a wetland? ☐ Yes ☐ No
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>Yes</u>	
If yes, optional wetland site ID: _____		
Remarks:		

Dominance Test Worksheet				
Tree Stratum (Plot size: 30) % Cover Species Indicator Status 1. 2. 3. 4. 5.	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)			
Sapling/Shrub Stratum (Plot size: 15) % Cover Species Indicator Status 1. 2. 3. 4. 5.	Prevalence Index Worksheet Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 70 x 2 = 140 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 70 (A) 140 (B) Prevalence Index = B/A = 2			
Herb Stratum (Plot size: 5) % Cover Species Indicator Status 1. Echinochloa crus-galli 2. 3. 4. 5. 6. 7. 8. 9. 10.	Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
Woody Vine Stratum (Plot size: 15) % Cover Species Indicator Status 1. 2.	Hydrophytic Vegetation Present? Yes			

Agricultural field. Bare ground: 30%

SOIL

Sampling Point: NWA055A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-25	10YR 2/1	100					Clay	
25-26	10YR 2/1	97	2.5Y 4/2	3	D	M	Clay	
26-35	10YR 2/1	100					Clay	
35-38	2.5Y 4/3	100					Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

Yes

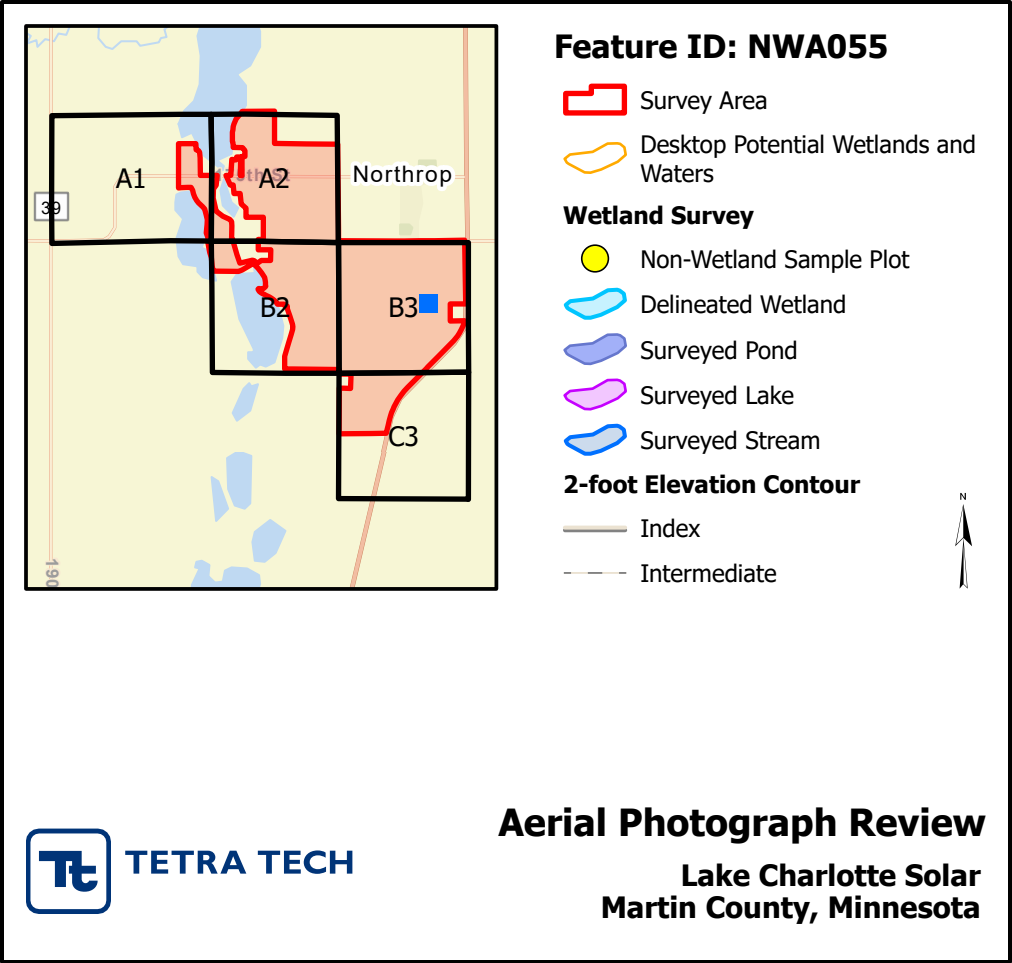
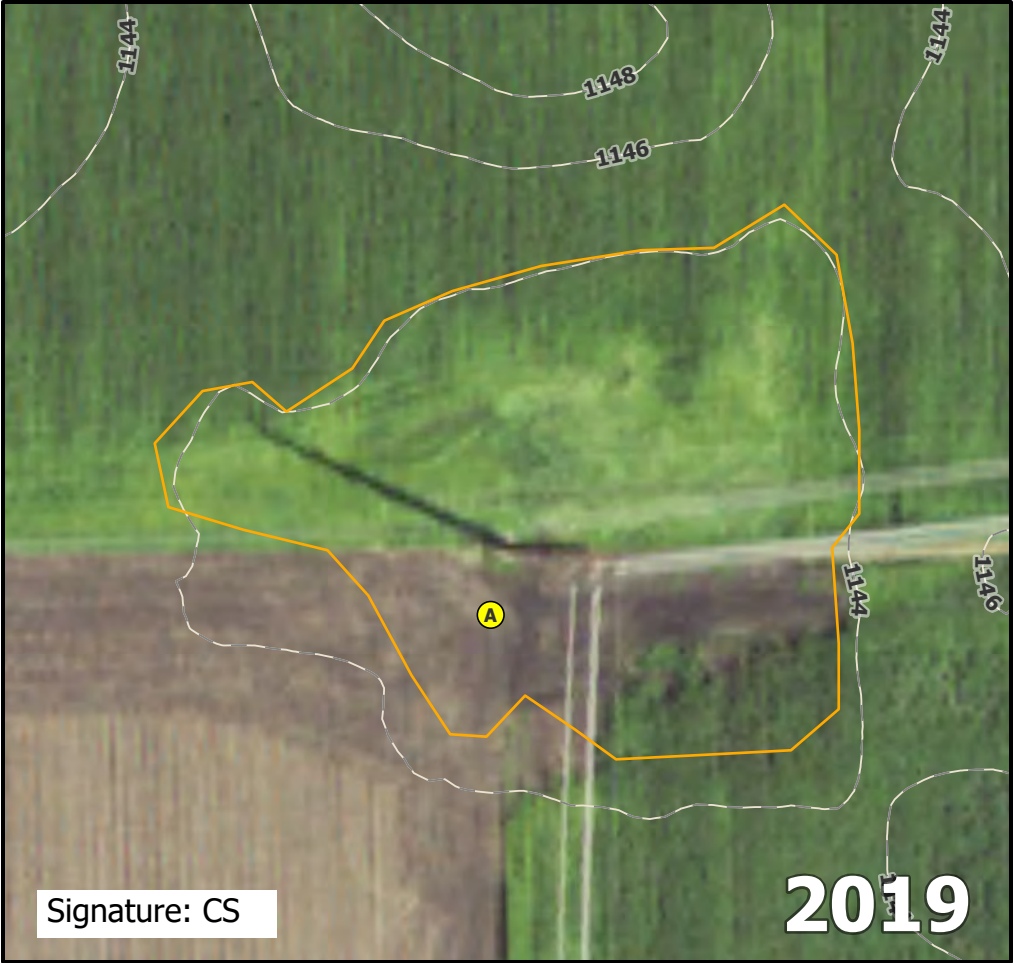
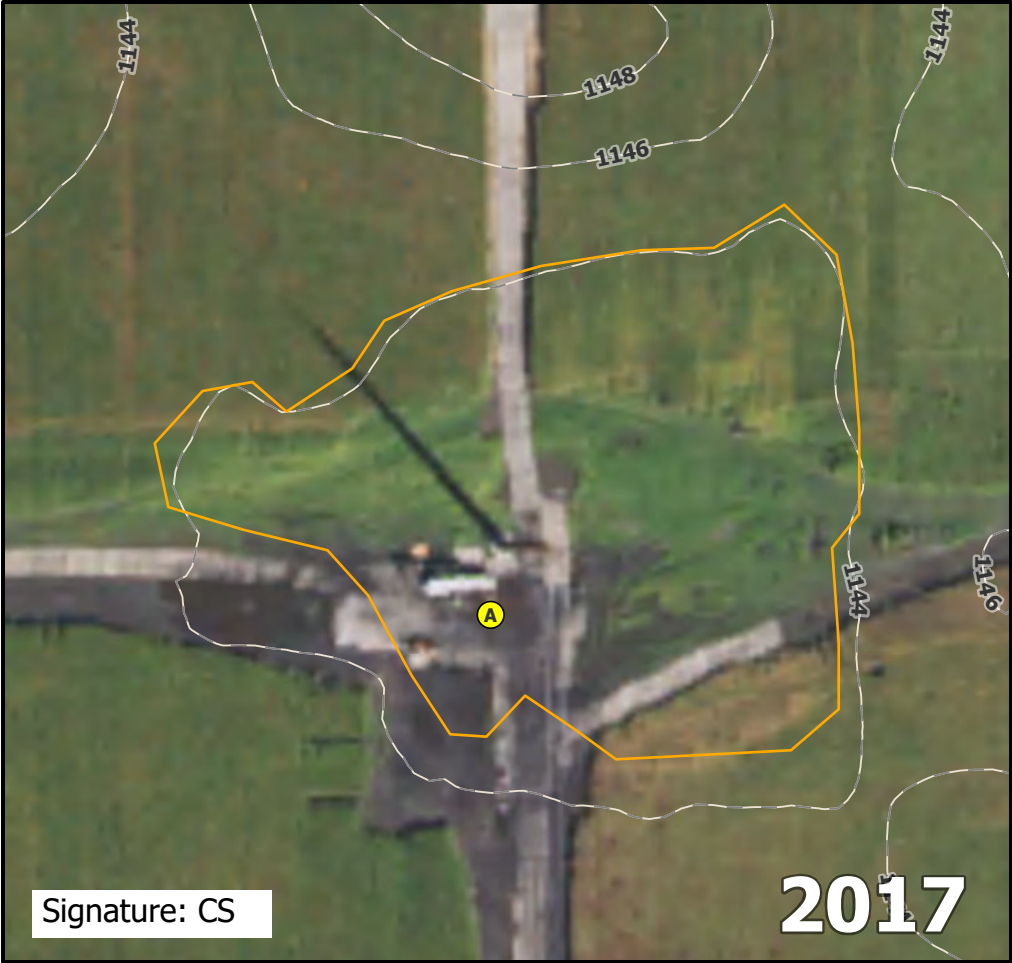
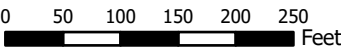
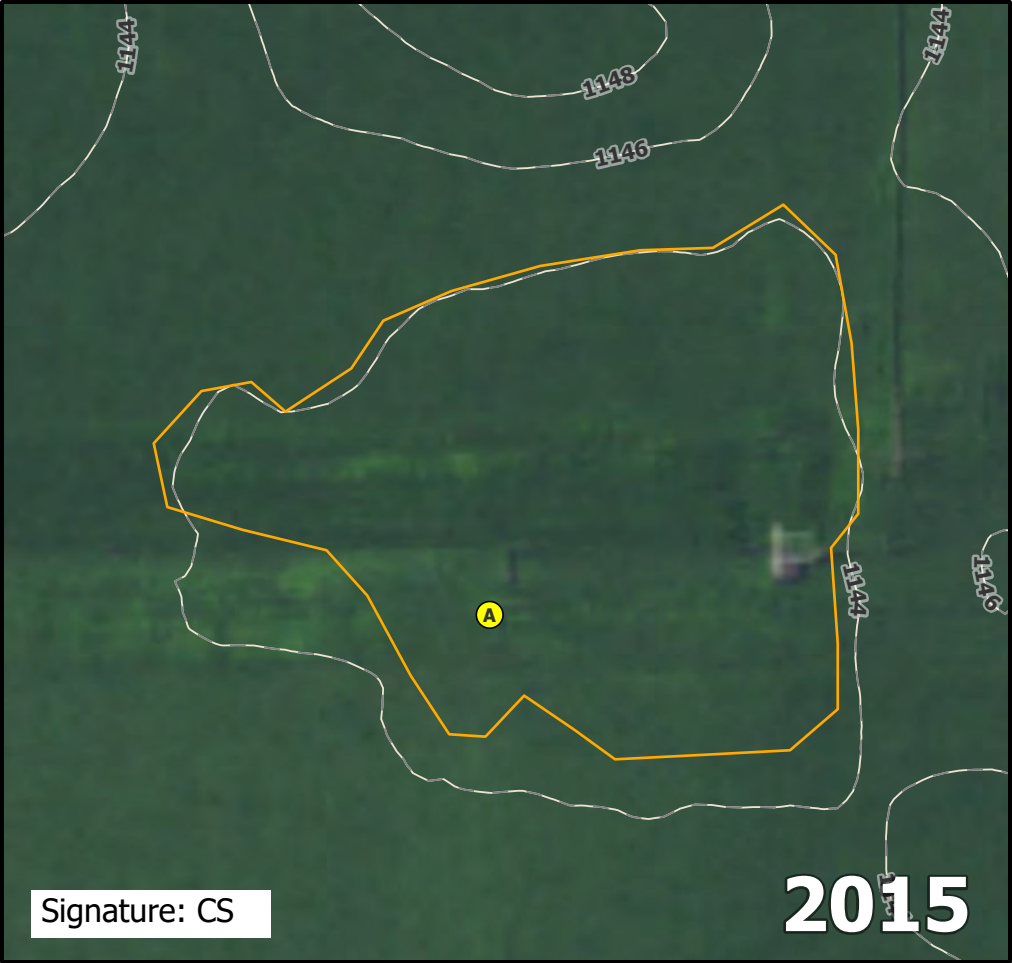
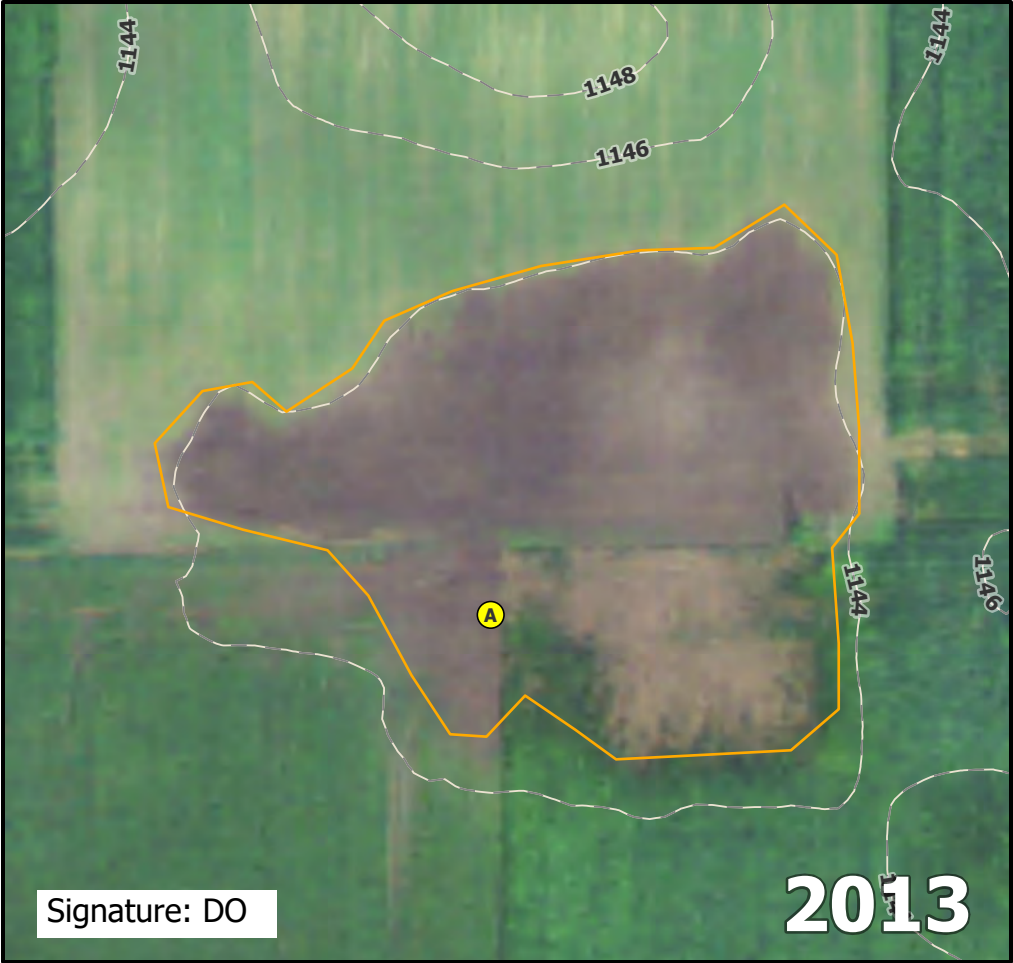
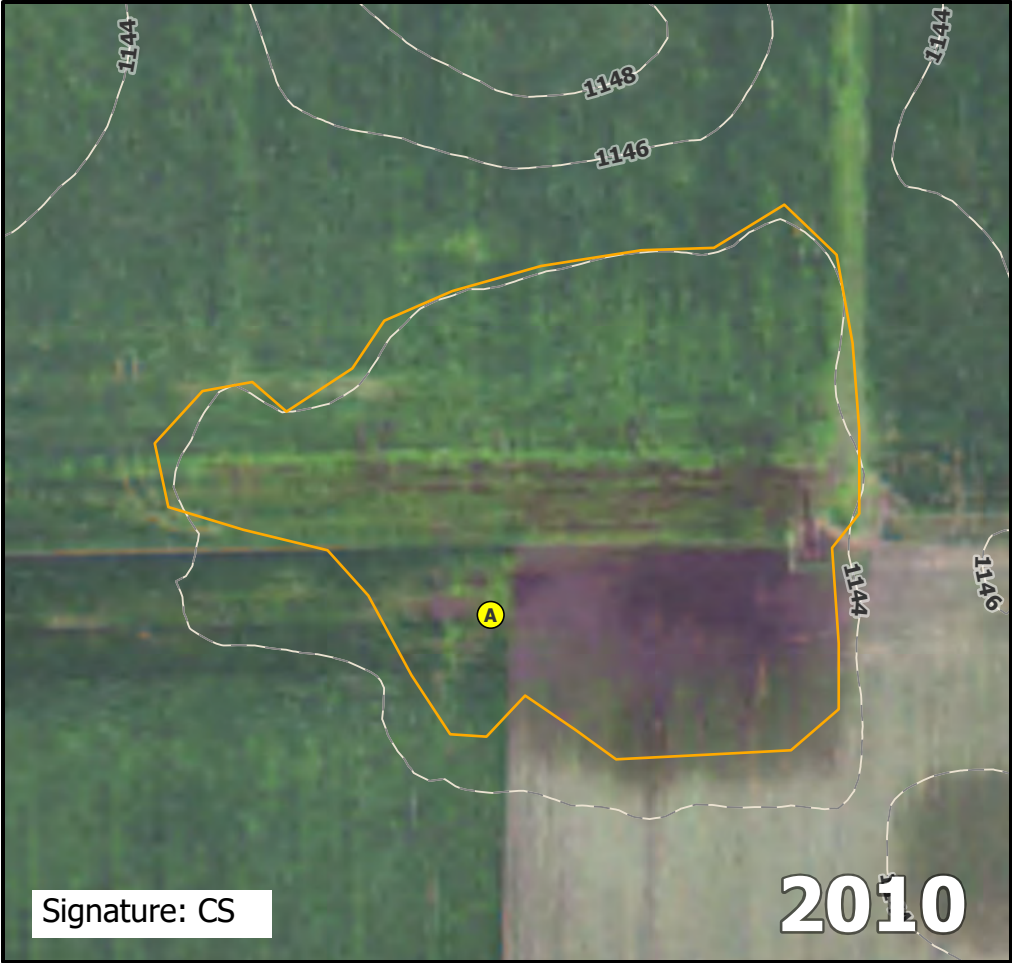
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA055A.

Direction: North	Photo ID: delin_photo-20221021-144338.jpg	Date: 10/21/2022
Project Name: Lake Charlotte	Feature ID: NWA055	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:2,000

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Non-Wetland ID

NWA058

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA058A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	1	Lat:	43.72979	Long:	-94.42913
				Datum:	WGS84
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u> If yes, optional wetland site ID: _____
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

						Dominance Test Worksheet		
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status				
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)			
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 0 (B)			
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: % (A/B)			
4.	_____	_____	_____	_____				
5.	_____	_____	_____	_____				
		=Total Cover						
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)							
1.	_____				Total % Cover of: Multiply by:			
2.	_____				OBL species	_____ x 1 =	_____	
3.	_____				FACW species	_____ x 2 =	_____	
4.	_____				FAC species	_____ x 3 =	_____	
5.	_____				FACU species	_____ x 4 =	_____	
		=Total Cover				UPL species	_____ x 5 =	_____
<u>Herb Stratum</u>	(Plot size: _____)				Column totals	_____ (A)	_____ (B)	
1.	_____				Prevalence Index = B/A = _____			
2.	_____							
3.	_____							
4.	_____							
5.	_____							
6.	_____							
7.	_____							
8.	_____							
9.	_____							
10.	_____							
		=Total Cover						
<u>Woody Vine Stratum</u>	(Plot size: _____)							
1.	_____				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
2.	_____							
		=Total Cover						
					Hydrophytic Vegetation Indicators:			
					____ Rapid test for hydrophytic vegetation			
					____ Dominance test is >50%			
					____ Prevalence index is ≤3.0*			
					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)			
					____ Problematic hydrophytic vegetation*			
					____ (explain)			
					Hydrophytic Vegetation Present?			
					No _____			

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA058A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-30	10YR 2/1	100					Clay	
30-35	2.5Y 4/3	60					Clay	
	2.5Y 3/2	40						Mixed Matrix
35-38	2.5Y 4/2	100					Sandy Clay Loam	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

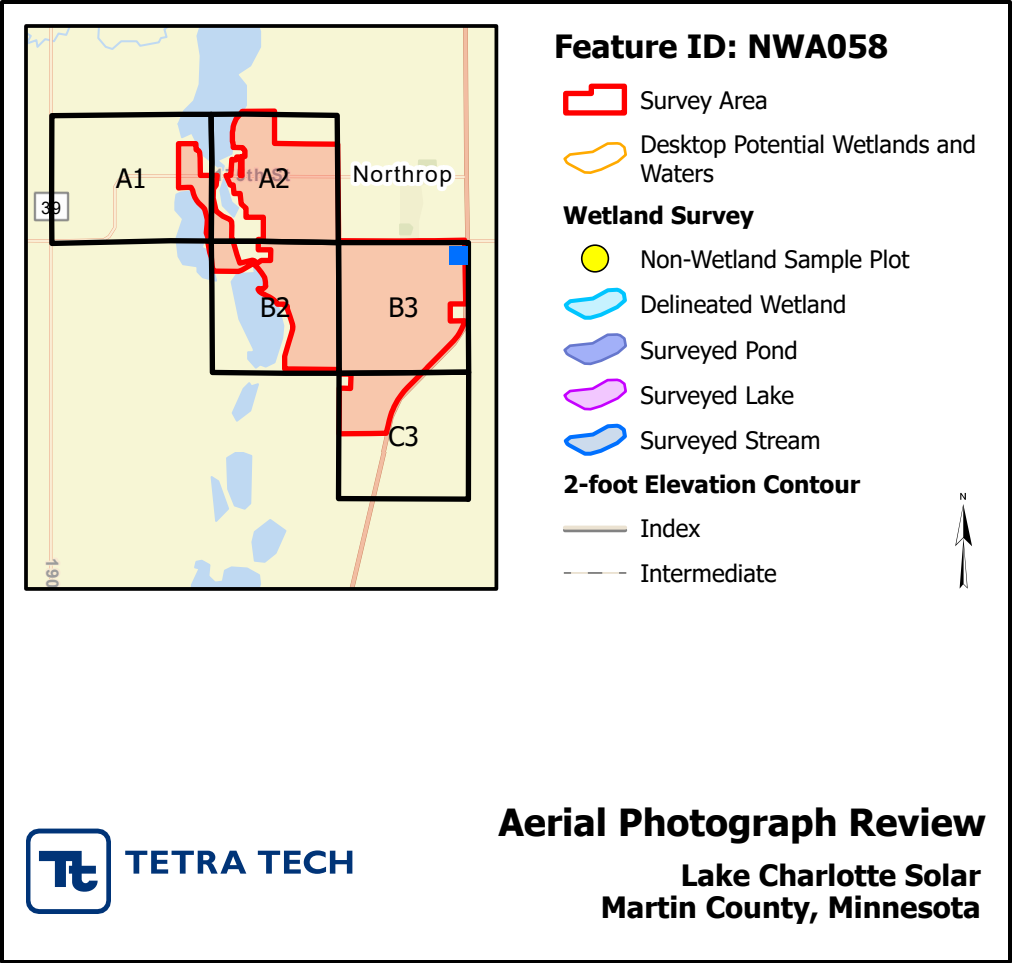
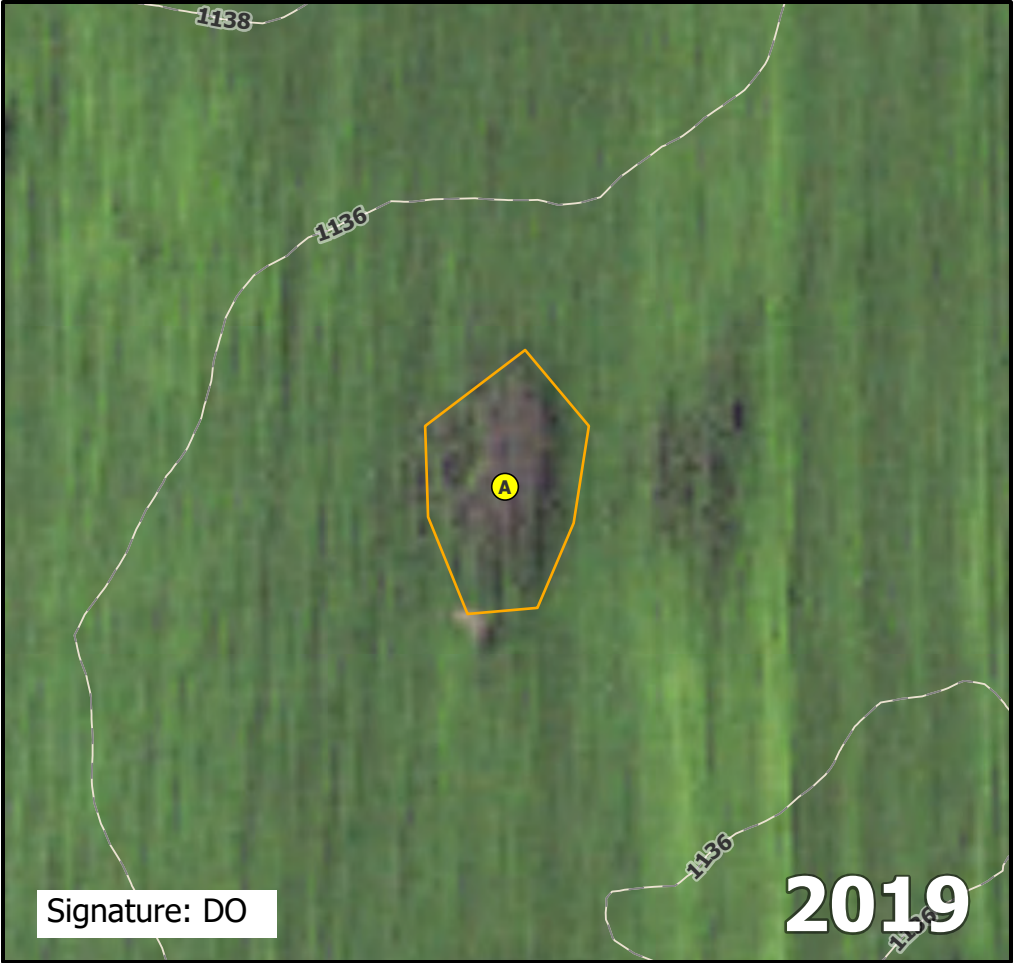
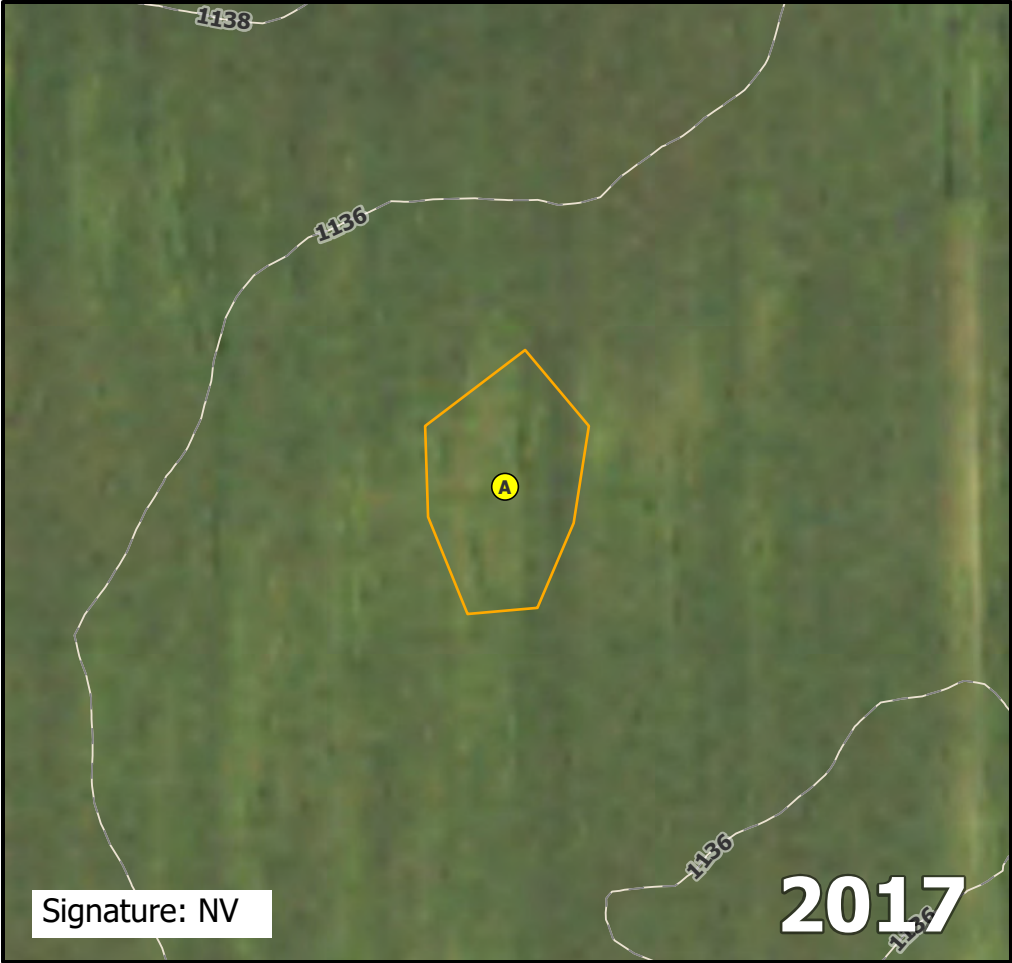
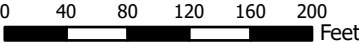
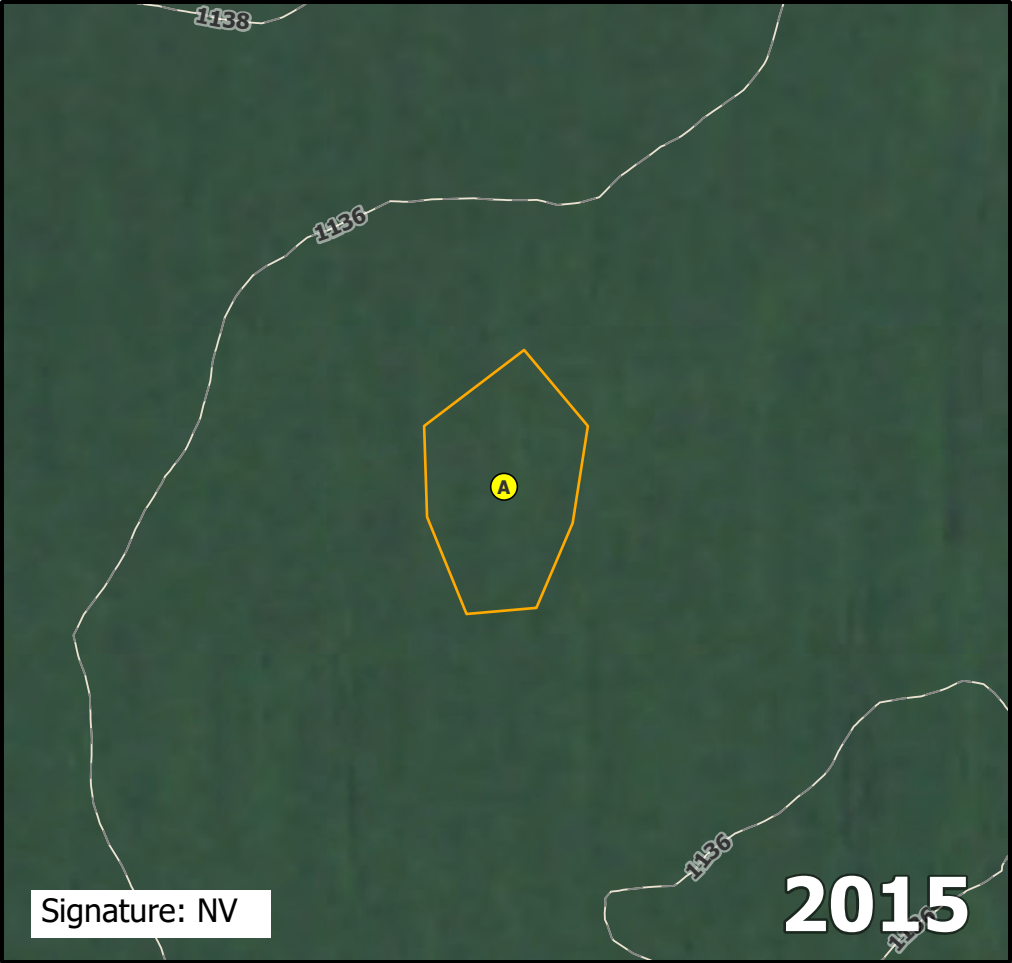
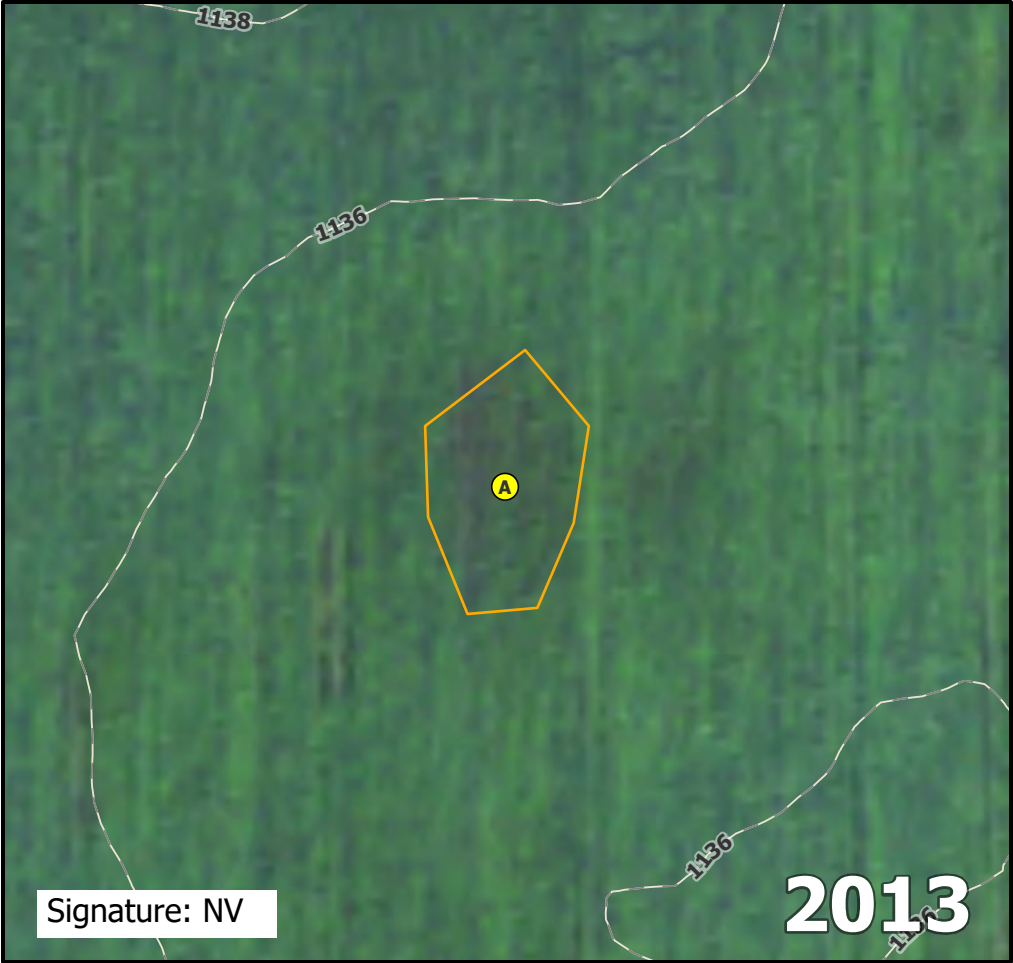
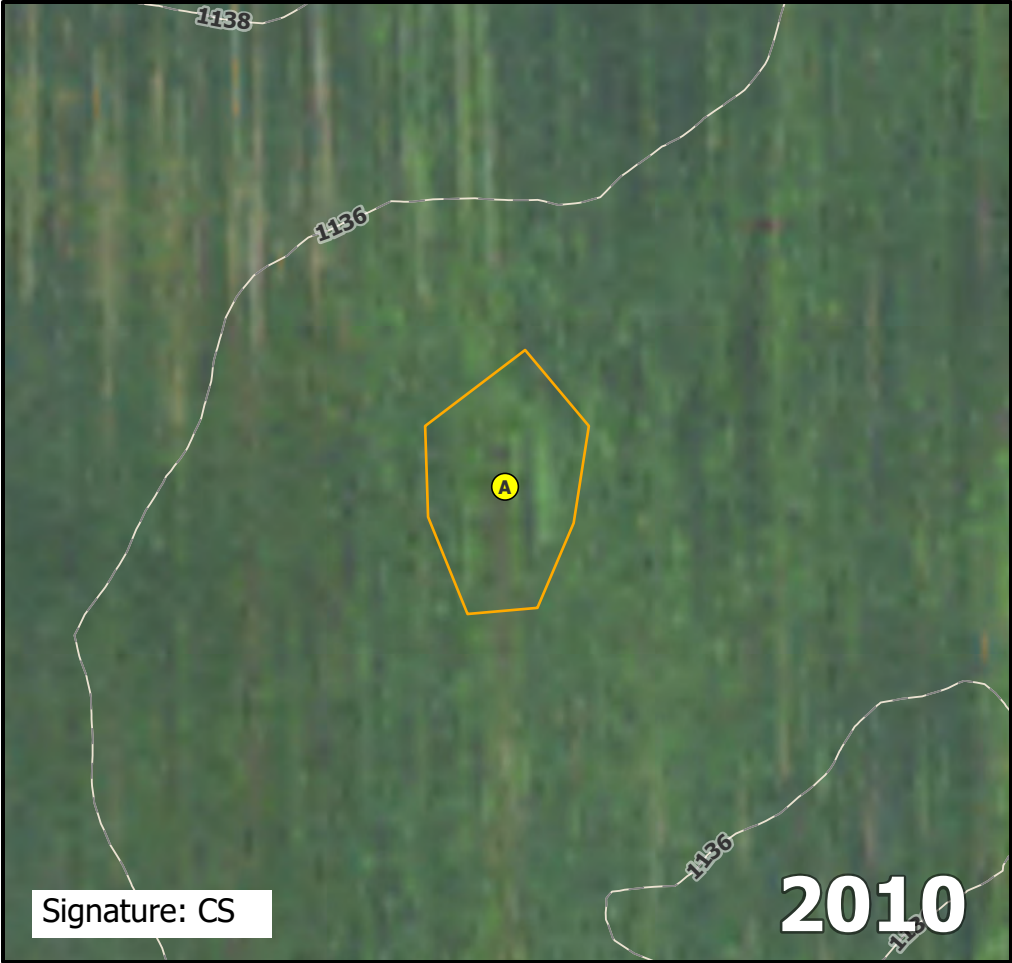
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA058A.

Direction: South	Photo ID: delin_photo-20221021-163941.jpg	Date: 10/21/2022
Project Name: Lake Charlotte	Feature ID: NWA058	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA059

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA059A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	0	Lat:	43.72693	Long:	-94.42845
		Datum:	WGS84		
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes	NWI Classification:	NA		

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	<u>No</u>	
Hydric Soil Present?	<u>No</u>	Is the sampled area within a wetland? <u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional wetland site ID: _____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

[illegible]

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA059A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-18	10YR 2/1	100					Clay	
18-30	10YR 2/1	90	2.5Y 4/2	10	D	M	Clay	
30-35	2.5Y 4/2	100					Sandy Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

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

Remarks:



Overview of upland sample point NWA059A.

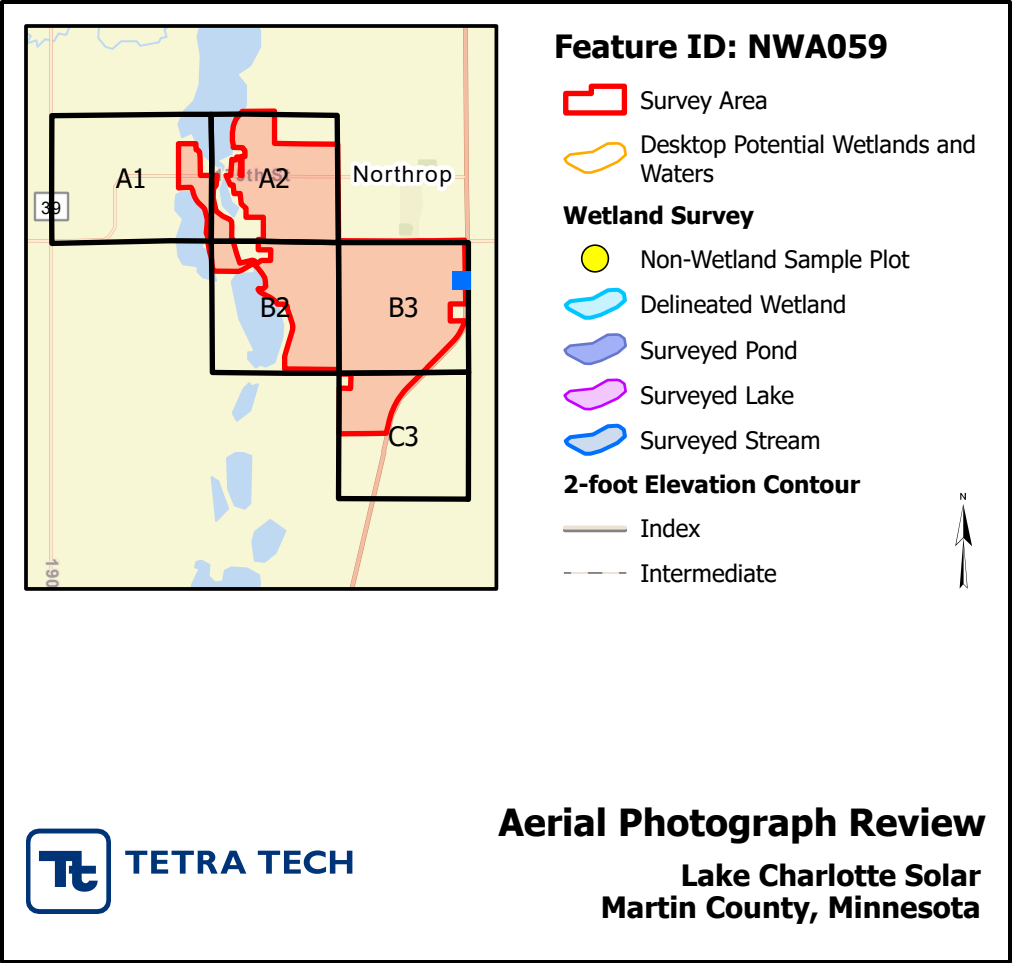
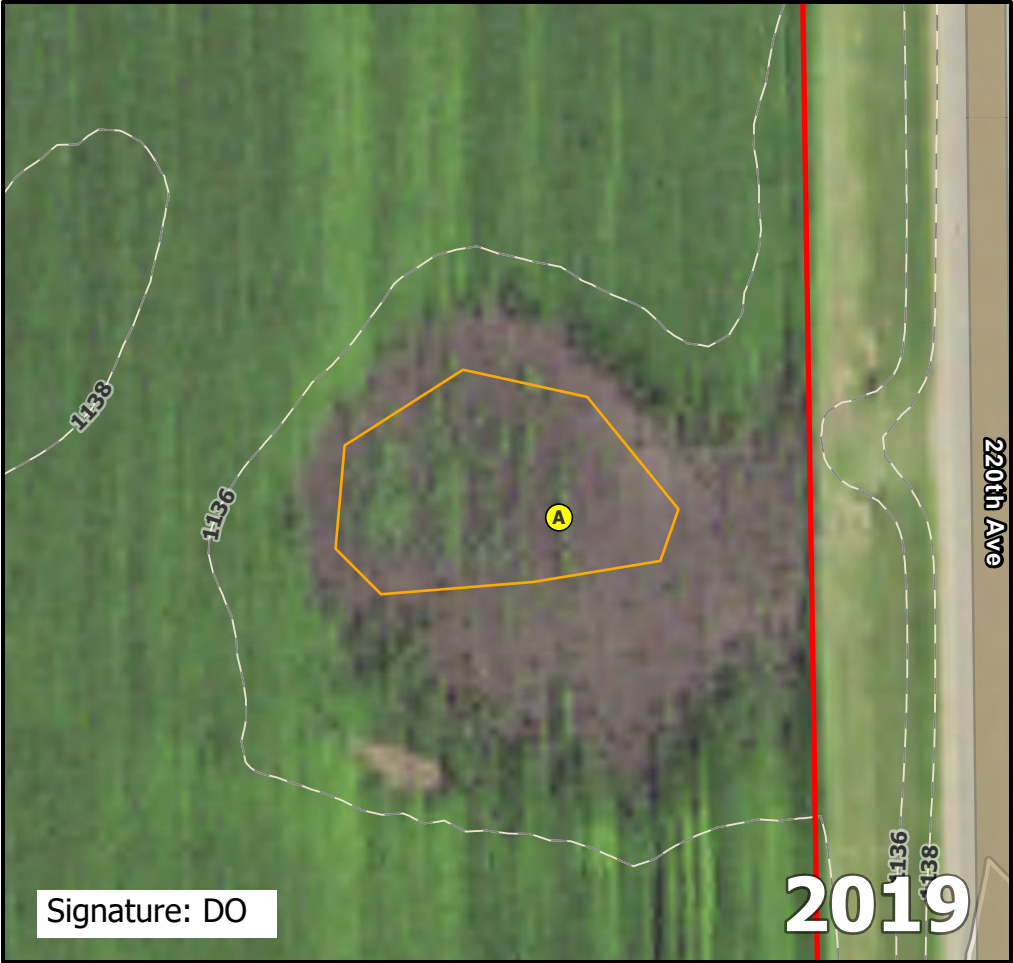
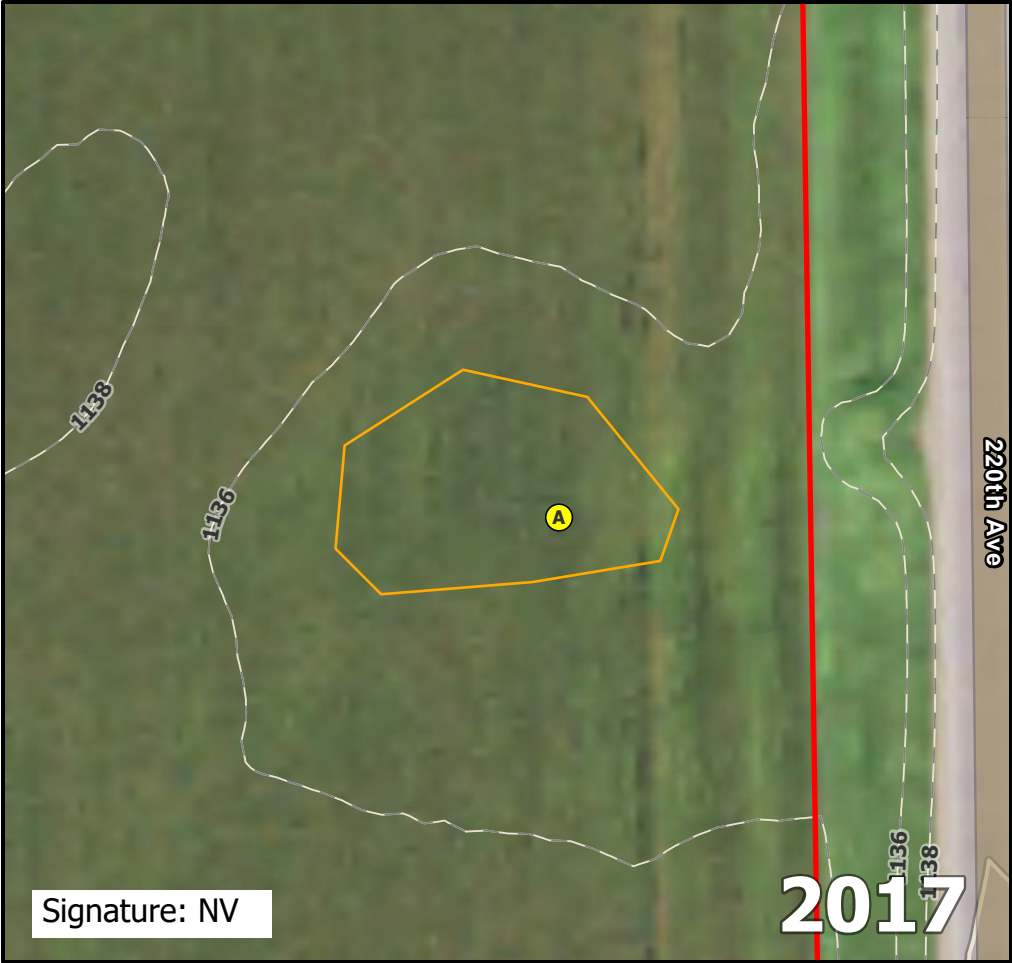
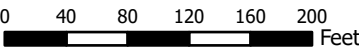
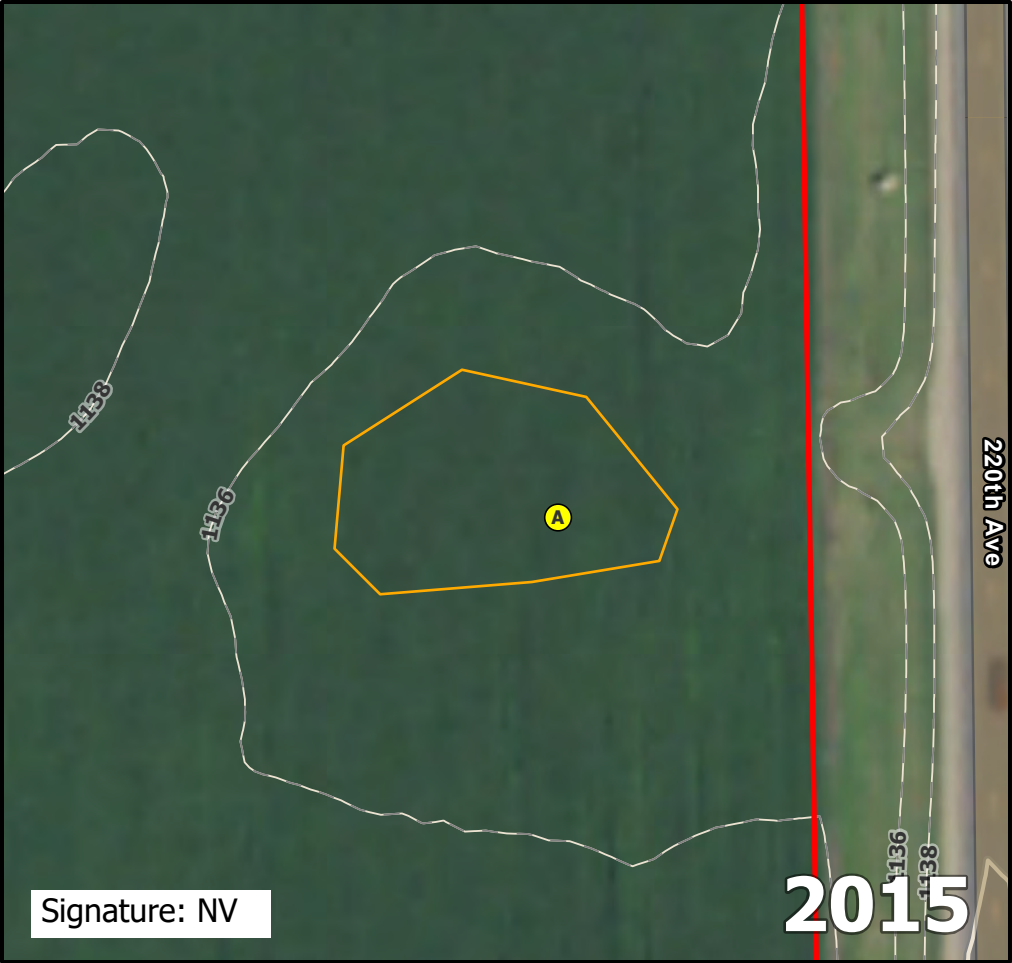
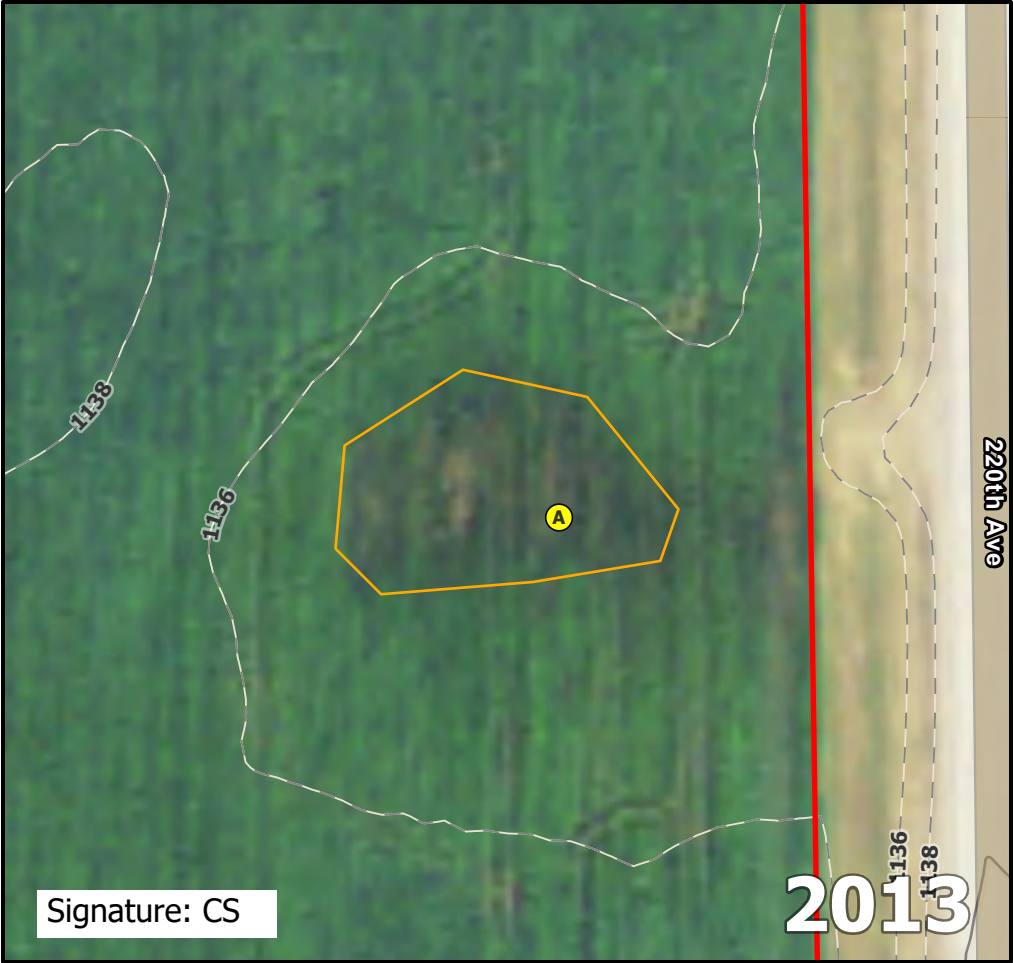
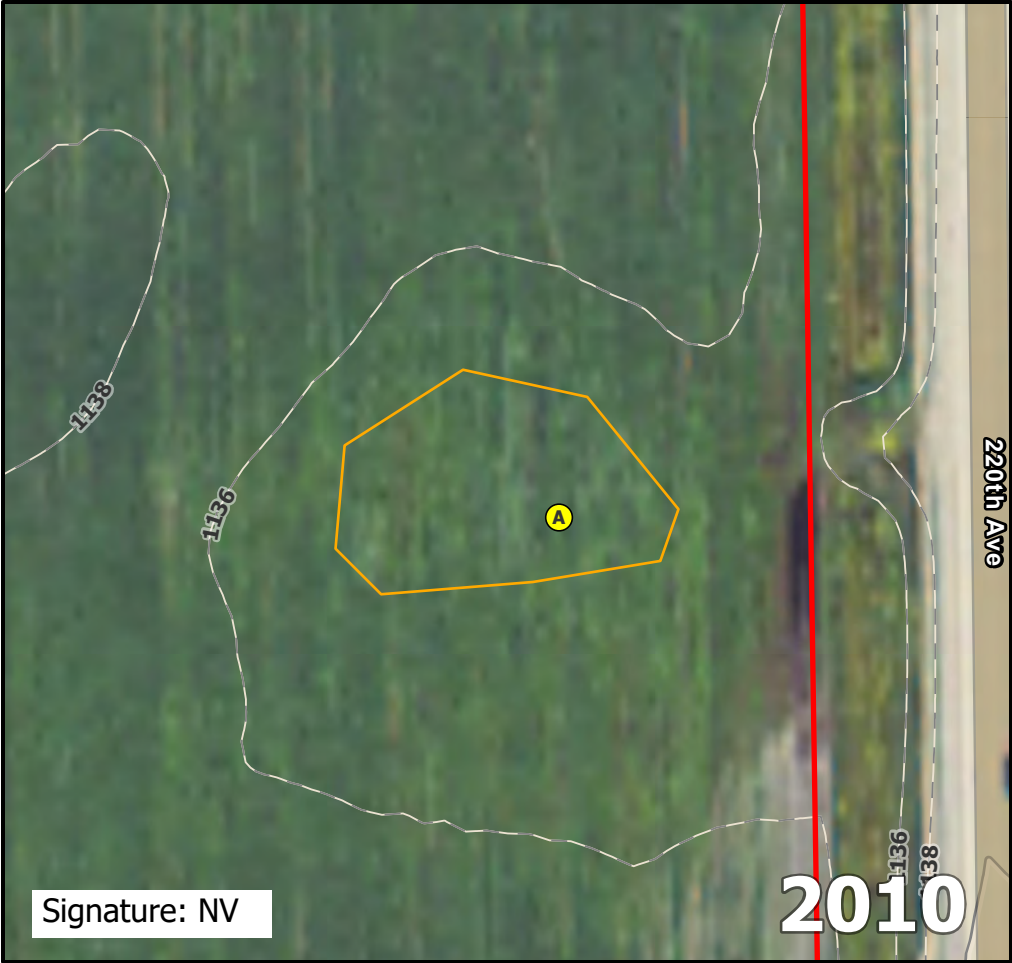
Direction: West

Photo ID: delin_photo-20221021-165917.jpg

Date: 10/21/2022

Project Name: Lake Charlotte

Feature ID: NWA059



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

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Non-Wetland ID

NWA060

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA060A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	0	Lat:	43.72649	Long:	-94.43316
				Datum:	WGS84
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation X , soil , or hydrology Significantly disturbed? Are "normal circumstances present? No
Are vegetation , soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	No	
Hydric Soil Present?	No	Is the sampled area within a wetland? No
Wetland Hydrology Present?	No	If yes, optional wetland site ID: _____
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.		

	Absolute	Dominant	Indicator	
Tree Stratum	(Plot size: _____)	% Cover	Species	Status
1.				
2.				
3.				
4.				
5.				
		_____ =Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)			
1.				
2.				
3.				
4.				
5.				
		_____ =Total Cover		
Herb Stratum	(Plot size: _____)			
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		_____ =Total Cover		
Woody Vine Stratum	(Plot size: _____)			
1.				
2.				
		_____ =Total Cover		
				Dominance Test Worksheet
				Number of Dominant Species that are OBL, FACW, or FAC: <u> 0 </u> (A)
				Total Number of Dominant Species Across All Strata: <u> 0 </u> (B)
				Percent of Dominant Species that are OBL, FACW, or FAC: <u> % </u> (A/B)
				Prevalence Index Worksheet
				Total % Cover of:
				Multiply by:
OBL species	_____ x 1 =	_____		
FACW species	_____ x 2 =	_____		
FAC species	_____ x 3 =	_____		
FACU species	_____ x 4 =	_____		
UPL species	_____ x 5 =	_____		
Column totals	_____ (A) _____ (B)			
				Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators:
				____ Rapid test for hydrophytic vegetation
				____ Dominance test is >50%
				____ Prevalence index is ≤3.0*
				____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
				____ Problematic hydrophytic vegetation*
				____ (explain)
				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
				Hydrophytic Vegetation Present?
				No _____

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA060A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-20	10YR 2/1	100					Clay	
20-26	2.5Y 3/2	99	10YR 5/6	1	C	PL	Clay Trace Gravel	Distinct or Prominent

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

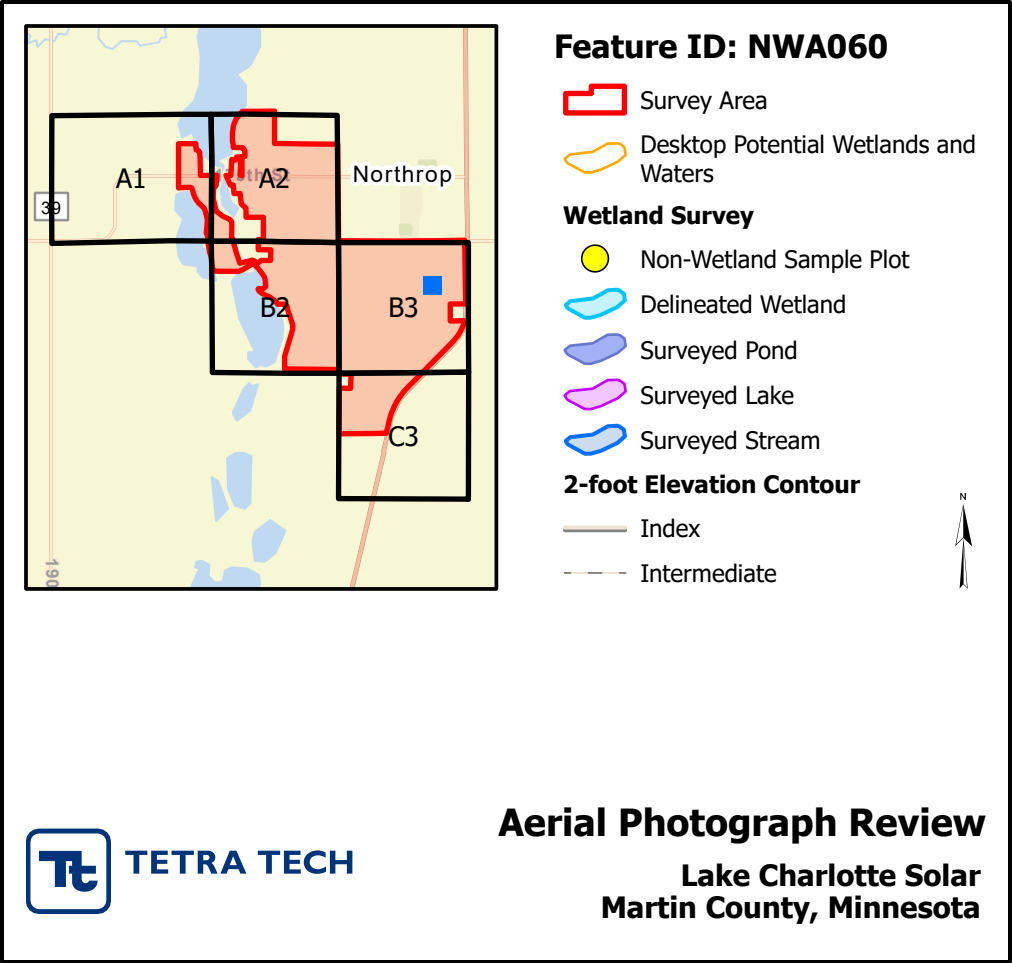
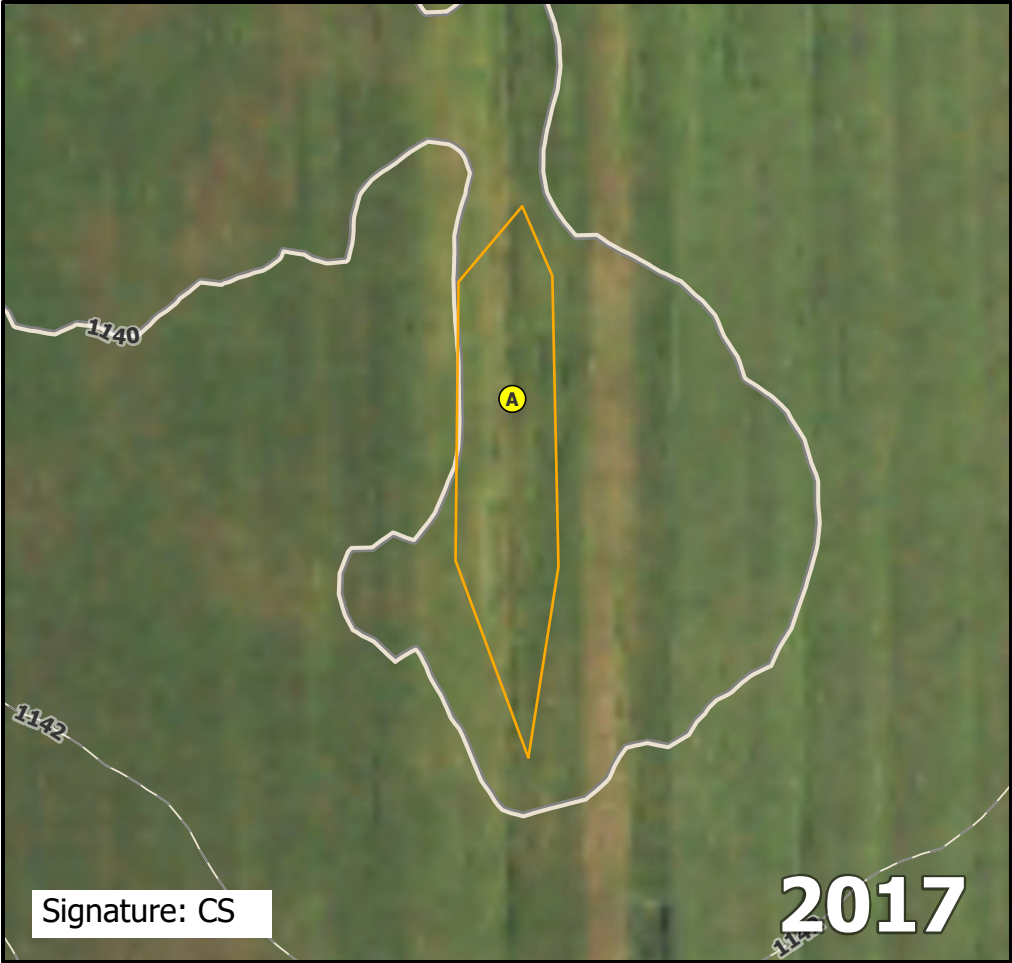
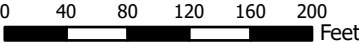
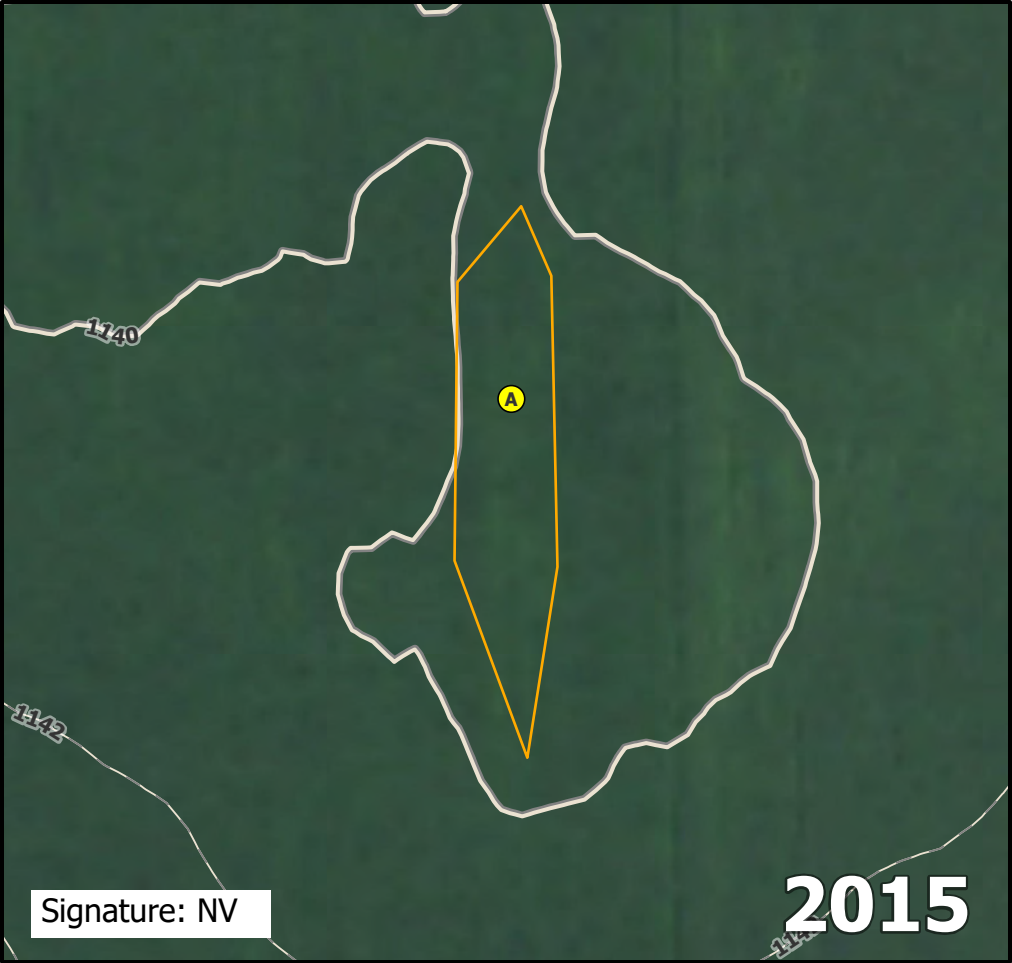
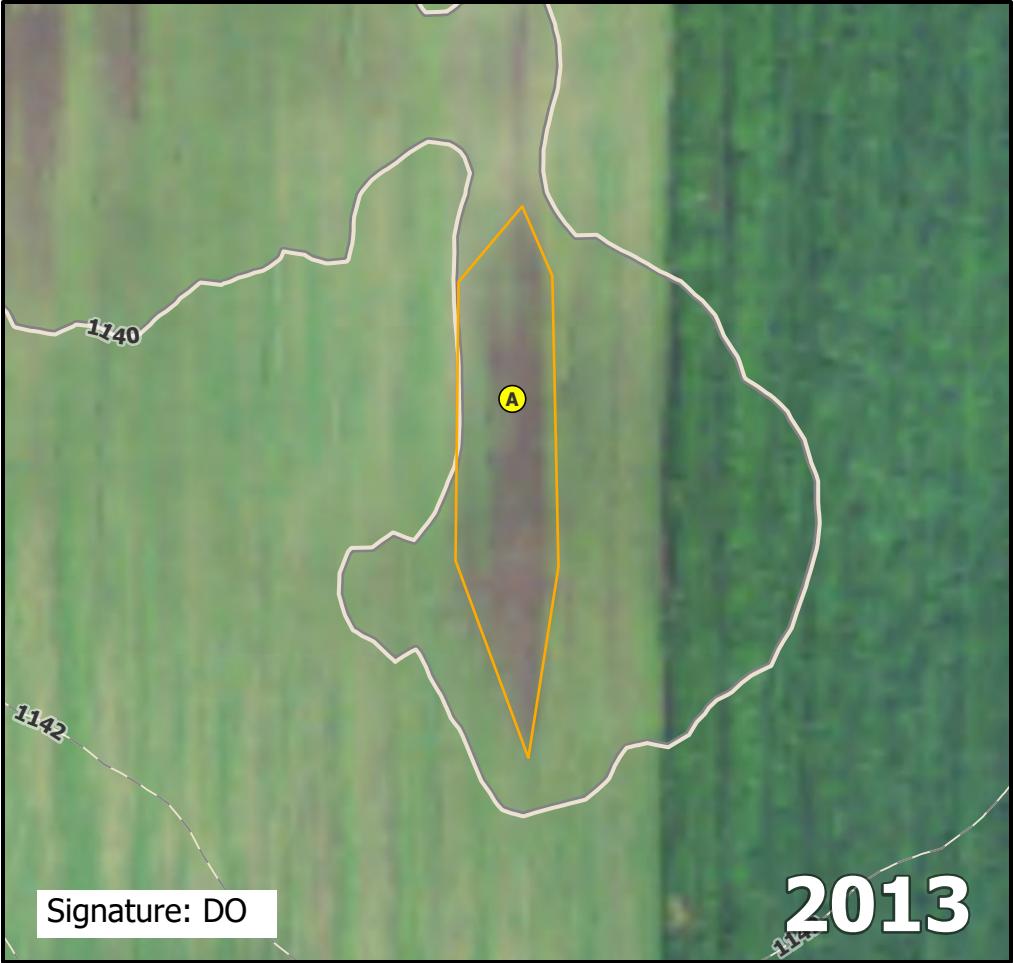
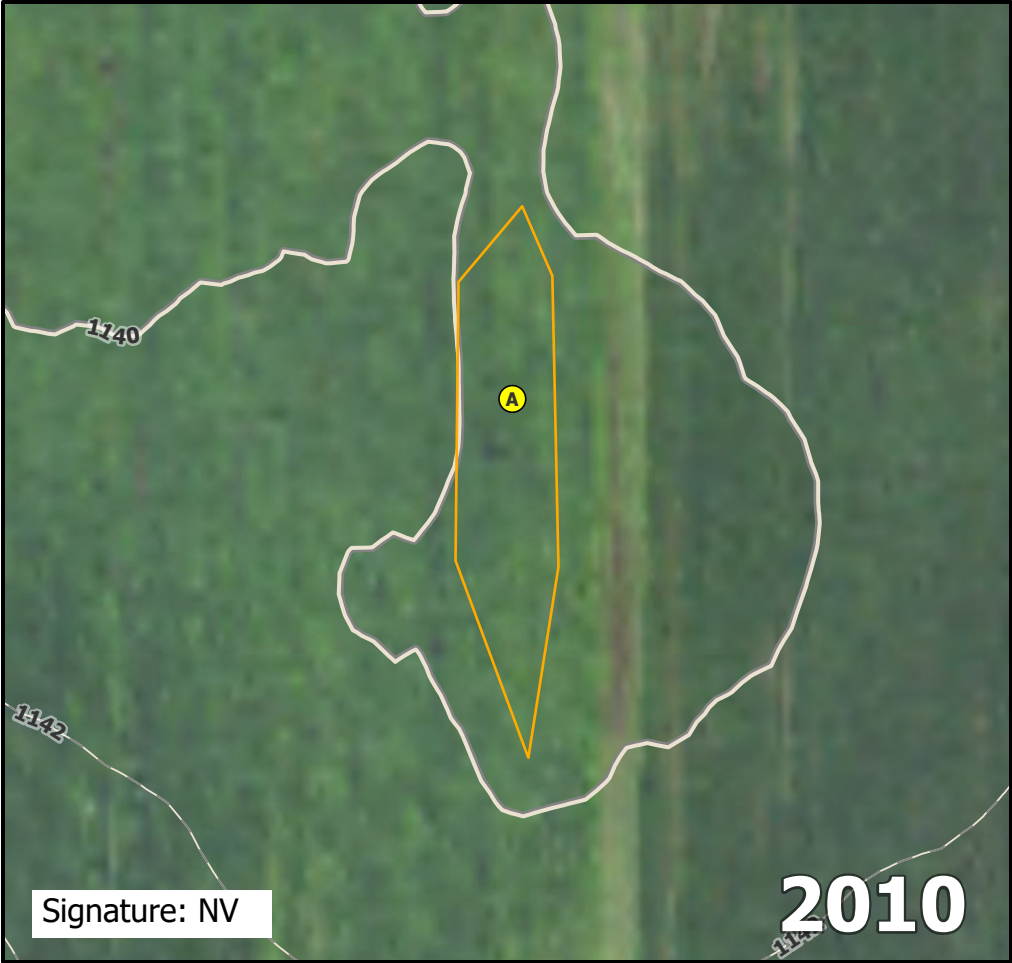
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA060A.

Direction: East	Photo ID: delin_photo-20221021-172400.jpg	Date: 10/21/2022
Project Name: Lake Charlotte	Feature ID: NWA060	



Aerial Photograph Review
Lake Charlotte Solar
Martin County, Minnesota

Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

Non-Wetland ID

NWA061

Project/Site:	Lake Charlotte	City/County:	Martin	Sampling Date:	10/21/2022
Applicant/Owner:	Lake Charlotte Solar, LLC	State:	MN	Sampling Point:	NWA061A
Investigator(s):	Apryl Jennrich	Section, Township, Range:	Sec.16 T103N R30W		
Landform (hillslope, terrace, etc.):	Plain	Local relief (concave, convex, none):	None		
Slope (%):	1	Lat:	43.72693	Long:	-94.43405
				Datum:	WGS84
Soil Map Unit Name:	Canisteo-Glencoe complex, 0 to 2 percent slopes		NWI Classification:	NA	

Are vegetation, soil, or hydrology naturally problematic? (If needed, explain any answers in remarks.)

Hydrophytic Vegetation Present?	No		
Hydric Soil Present?	No	Is the sampled area within a wetland?	No
Wetland Hydrology Present?	No	If yes, optional wetland site ID:	
Remarks: Recently tilled agricultural field. Recently harvested agricultural field.			

						Dominance Test Worksheet	
<u>Tree Stratum</u>	(Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status			
1.	_____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: _____ 0 (A)		
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 0 (B)		
3.	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: _____ % (A/B)		
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
		_____ = Total Cover					
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____	Total % Cover of: Multiply by:		
2.	_____	_____	_____	_____	OBL species _____ x 1 = _____		
3.	_____	_____	_____	_____	FACW species _____ x 2 = _____		
4.	_____	_____	_____	_____	FAC species _____ x 3 = _____		
5.	_____	_____	_____	_____	FACU species _____ x 4 = _____		
		_____ = Total Cover				UPL species _____ x 5 = _____	
<u>Herb Stratum</u>	(Plot size: _____)				Column totals _____ (A) _____ (B)		
1.	_____	_____	_____	_____	Prevalence Index = B/A = _____		
2.	_____	_____	_____	_____			
3.	_____	_____	_____	_____			
4.	_____	_____	_____	_____			
5.	_____	_____	_____	_____			
6.	_____	_____	_____	_____			
7.	_____	_____	_____	_____			
8.	_____	_____	_____	_____			
9.	_____	_____	_____	_____			
10.	_____	_____	_____	_____			
		_____ = Total Cover					
<u>Woody Vine Stratum</u>	(Plot size: _____)						
1.	_____	_____	_____	_____	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
2.	_____	_____	_____	_____			
		_____ = Total Cover					
					Hydrophytic Vegetation Indicators:		
					____ Rapid test for hydrophytic vegetation		
					____ Dominance test is >50%		
					____ Prevalence index is ≤3.0*		
					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
					____ Problematic hydrophytic vegetation*		
					____ (explain)		
					Hydrophytic Vegetation Present?		
					No _____		

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA061A

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-20	10YR 2/1	100					Clay Loam	
20-22	10YR 2/1	90	2.5Y 4/2	10	D	M	Clay	
22-30	2.5Y 5/2	100					Clay	

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

**Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1) ☐ Sandy Gleyed Matrix (S4)
☐ Histic Epipedon (A2) ☐ Sandy Redox (S5)
☐ Black Histic (A3) ☐ Stripped Matrix (S6)
☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1)
☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2)
☐ 2 cm Muck (A10) ☐ Depleted Matrix (F3)
☐ Depleted Below Dark Surface (A11) ☐ Redox Dark Surface (F6)
☐ Thick Dark Surface (A12) ☐ Depleted Dark Surface (F7)
☐ Sandy Mucky Mineral (S1) ☐ Redox Depressions (F8)
☐ 5 cm Mucky Peat or Peat (S3)

Indicators for Problematic Hydric Soils*:

- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Very Shallow Dark Surface (TF12)
☐ Other (explain in remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? 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)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present?

No

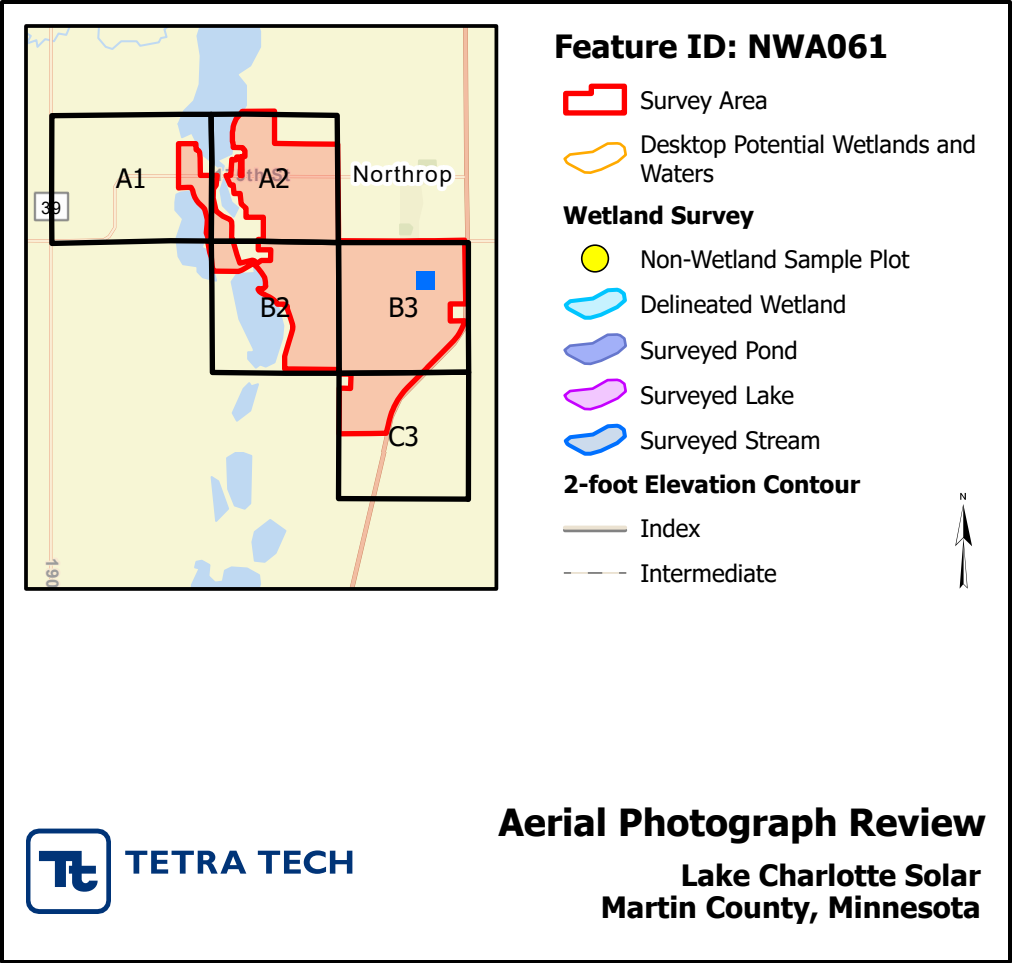
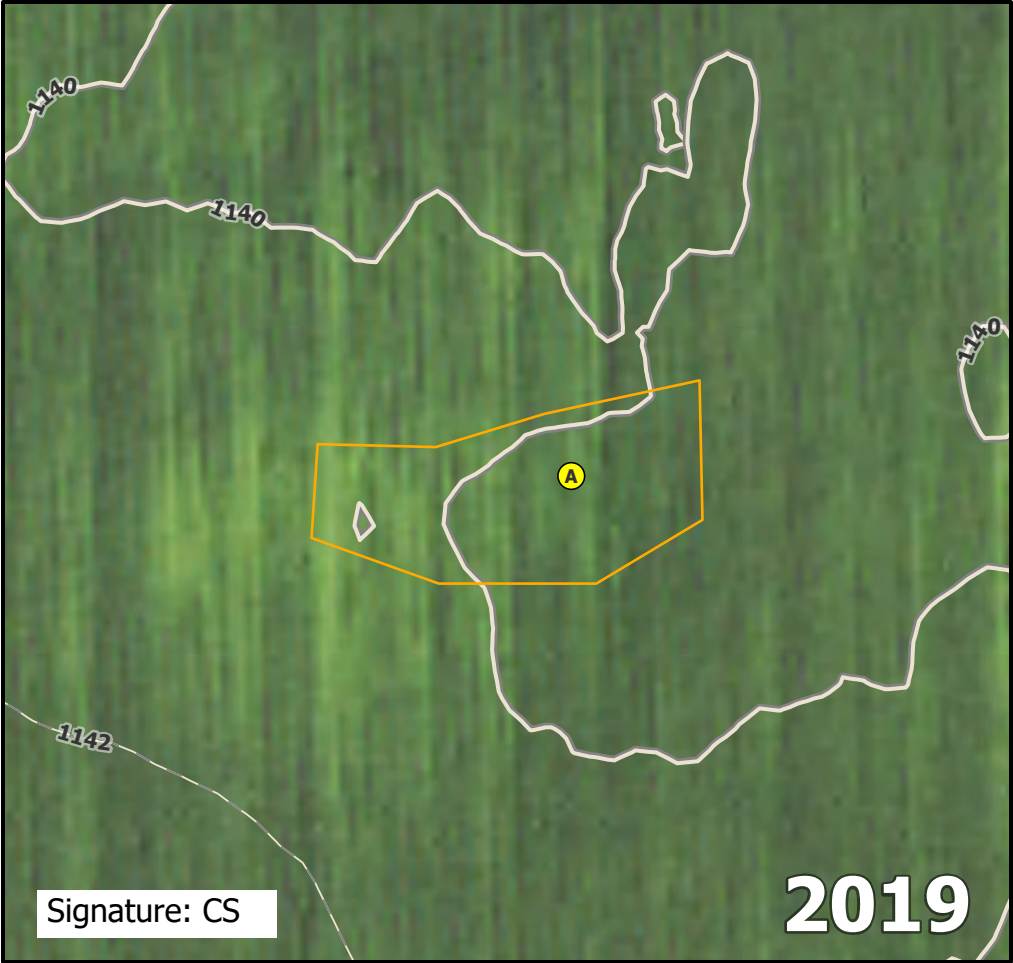
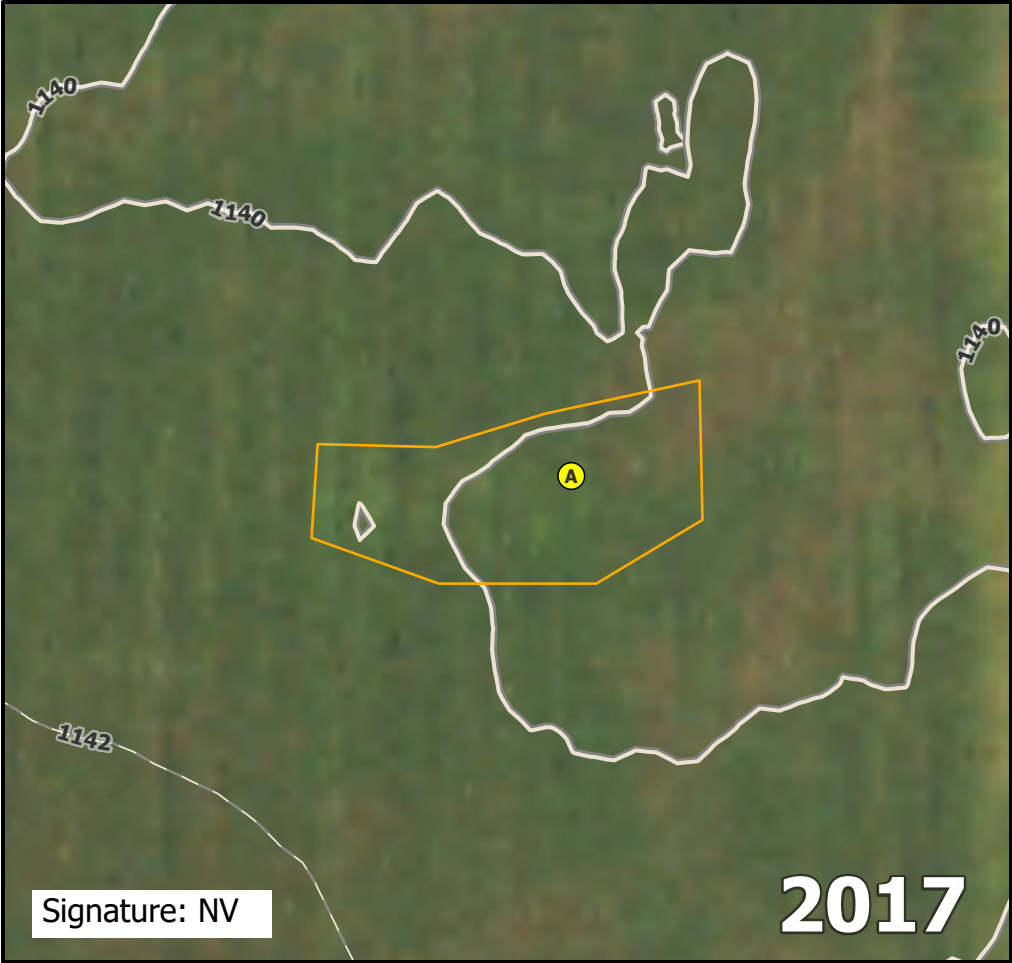
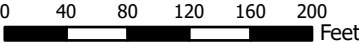
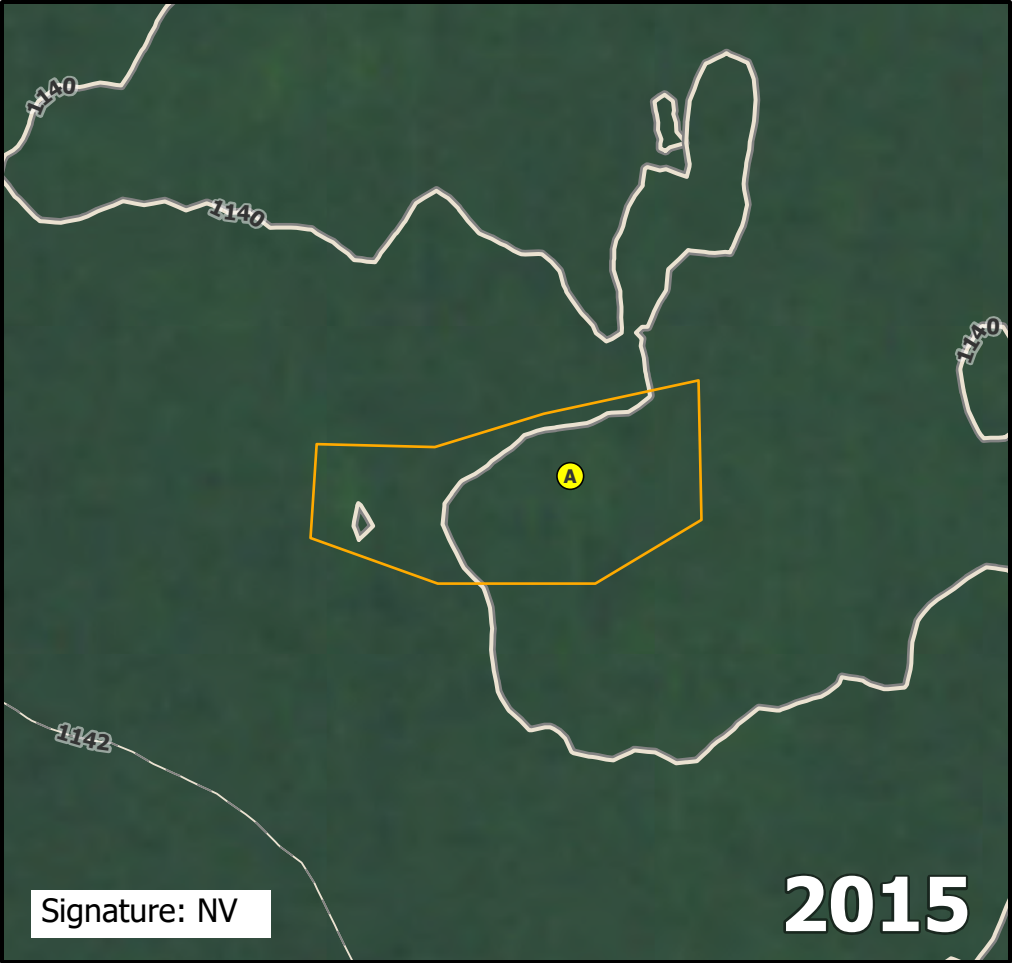
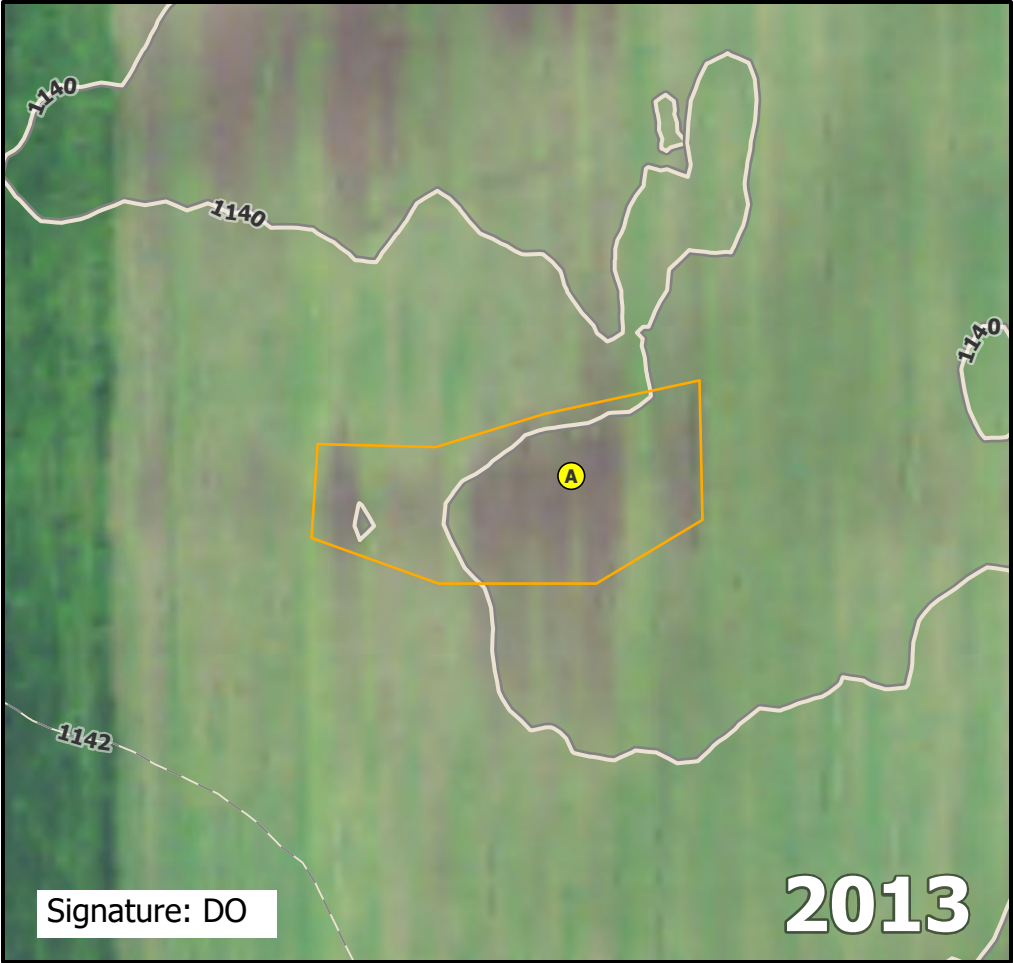
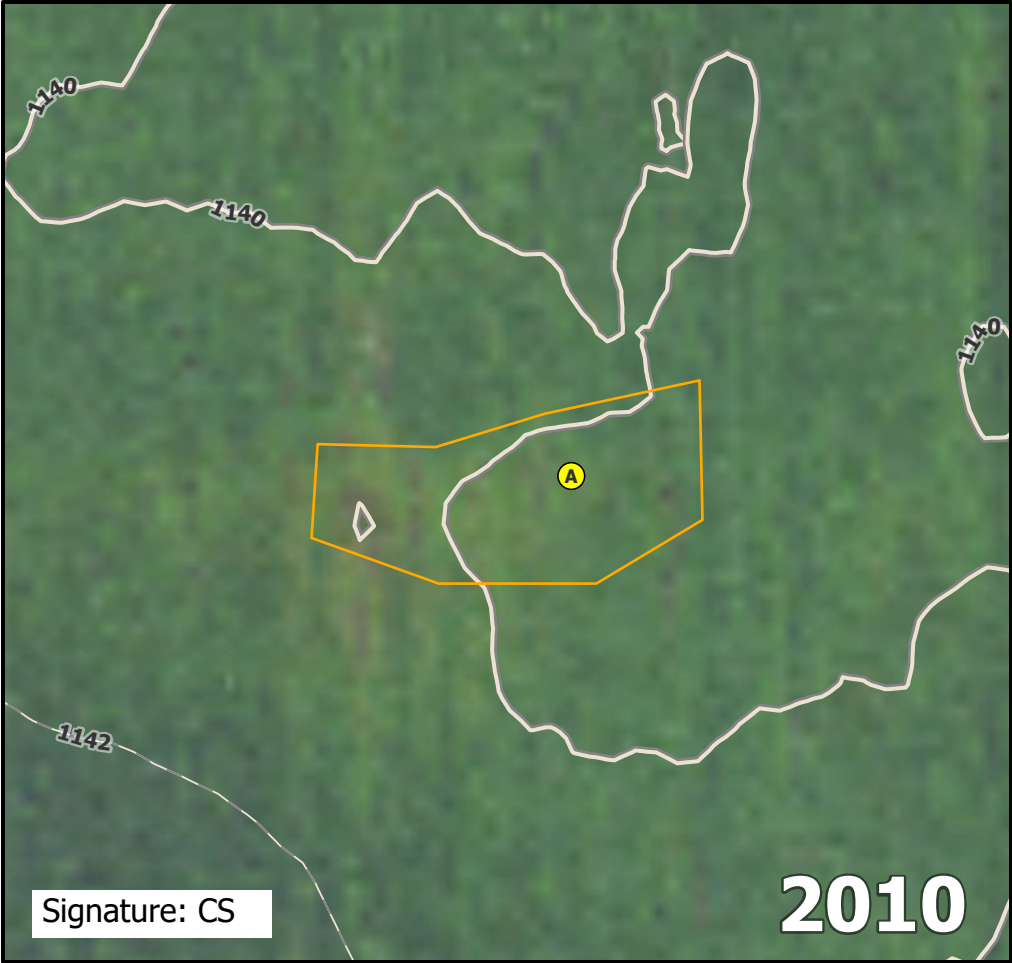
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Overview of upland sample point NWA061A.

Direction: East	Photo ID: delin_photo-20221021-173423.jpg	Date: 10/21/2022
Project Name: Lake Charlotte	Feature ID: NWA061	



Source: Map adapted from NAIP air photos; desktop wetlands by Tetra Tech; 2-foot contours by MN DNR; Project Data by Lake Charlotte Solar, LLC. Scale: 1:1,500

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