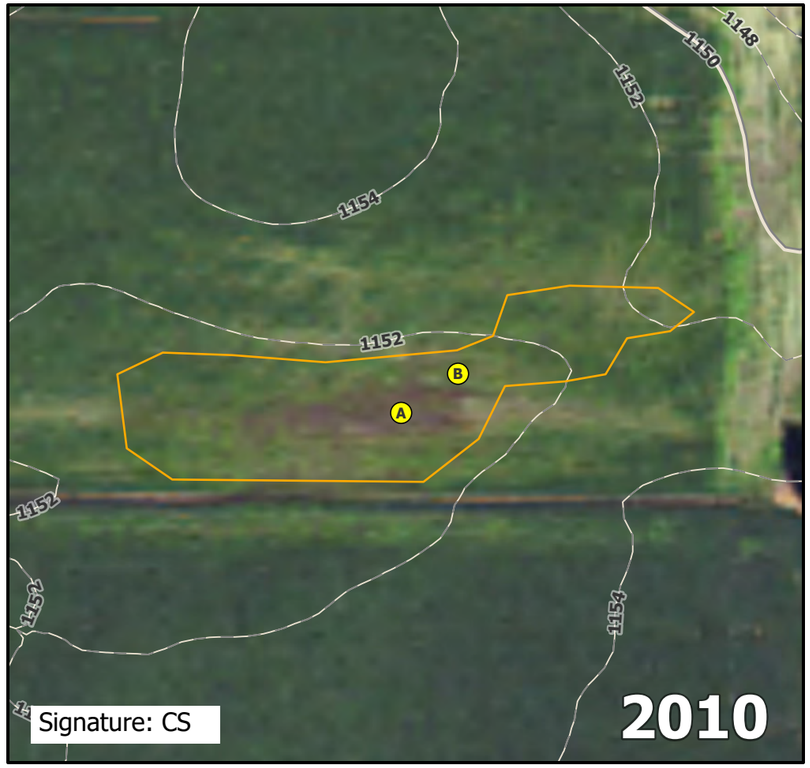
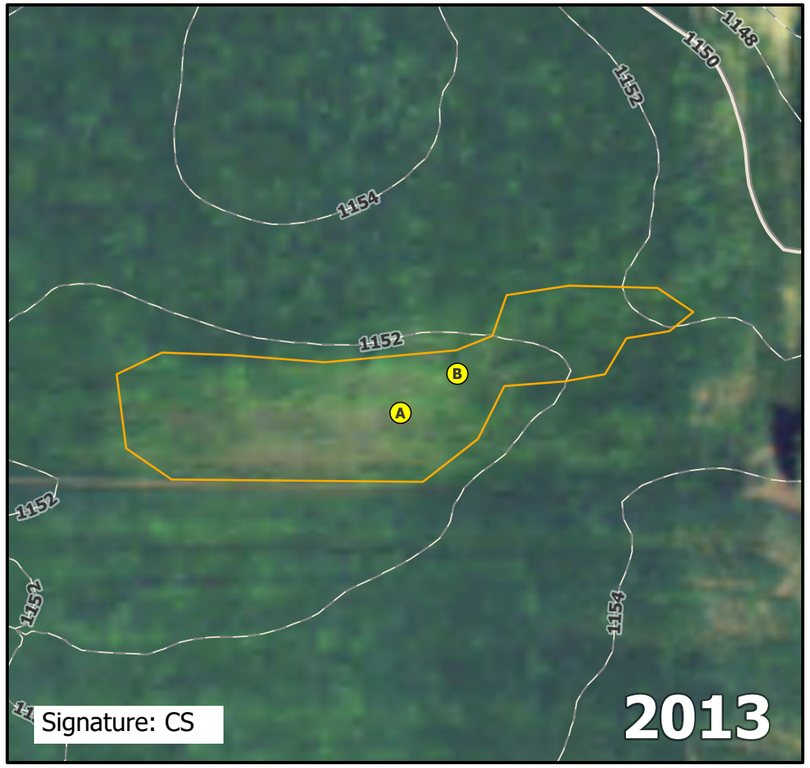
Overview of upland sample point NWA015A.

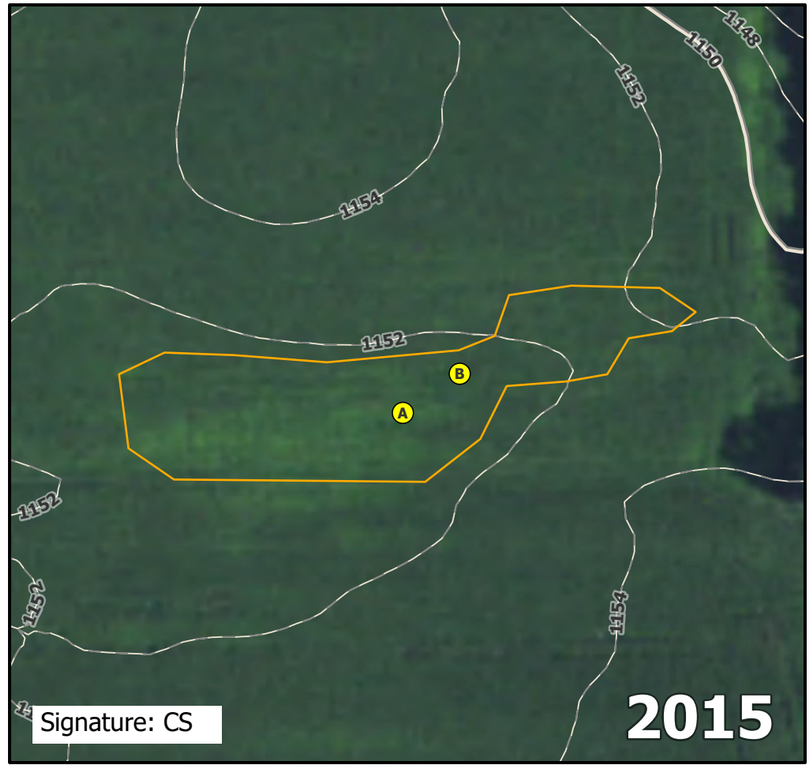
Direction: Southwest	Photo ID: delin_photo-20221019-163939.jpg	Date: 10/19/2022

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







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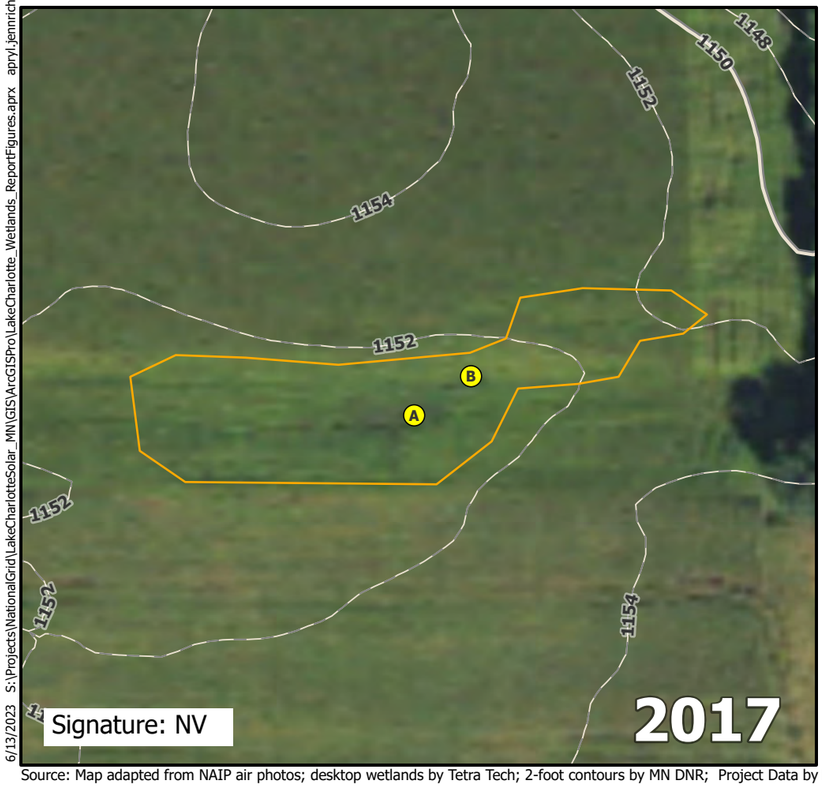
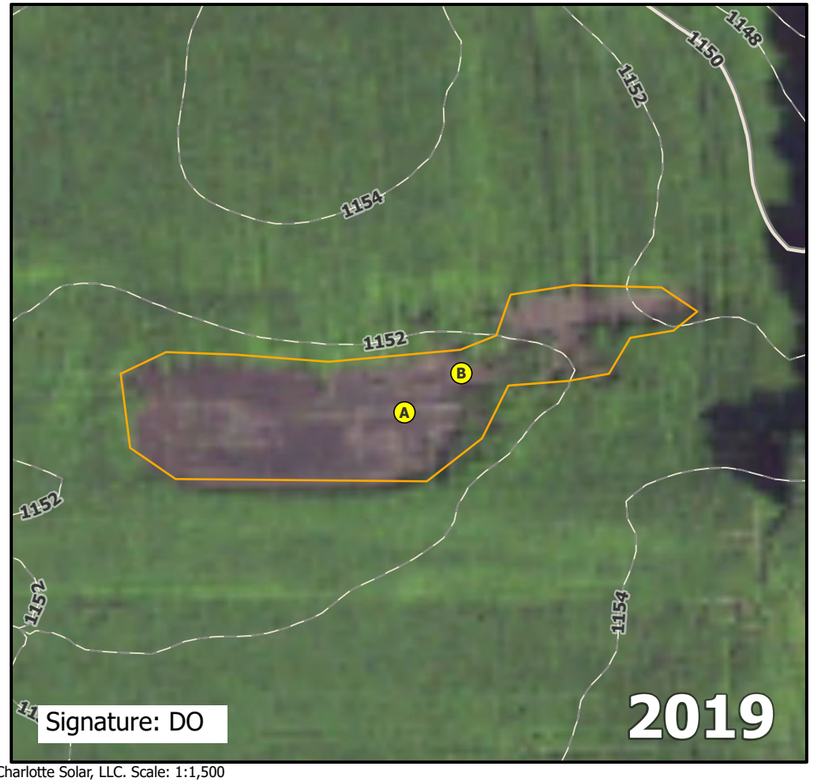
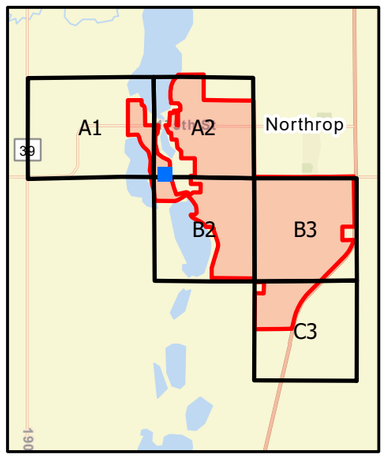
Feet







Feature ID: NWA015

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species	Indicator 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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

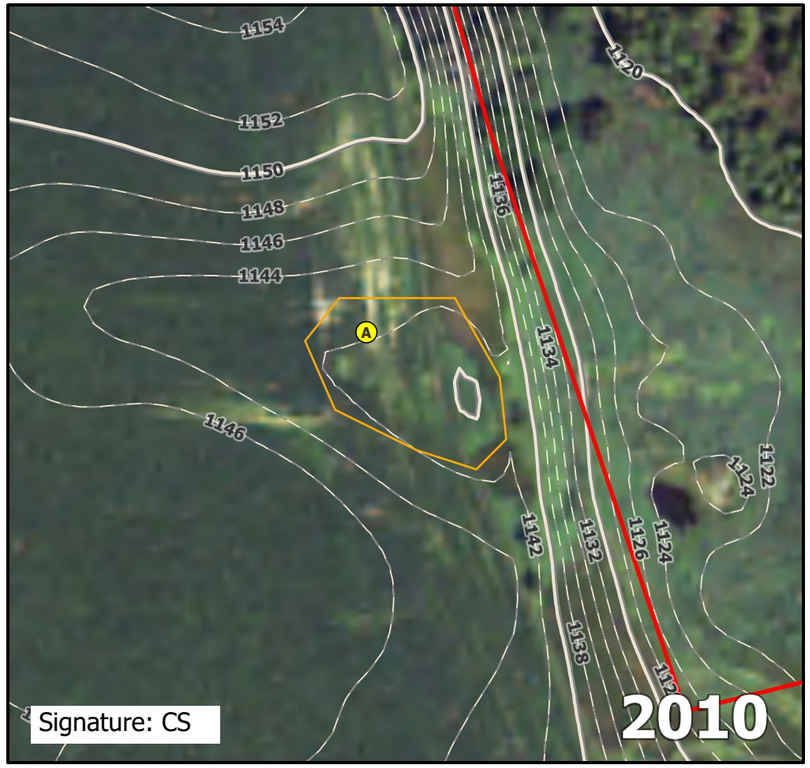
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

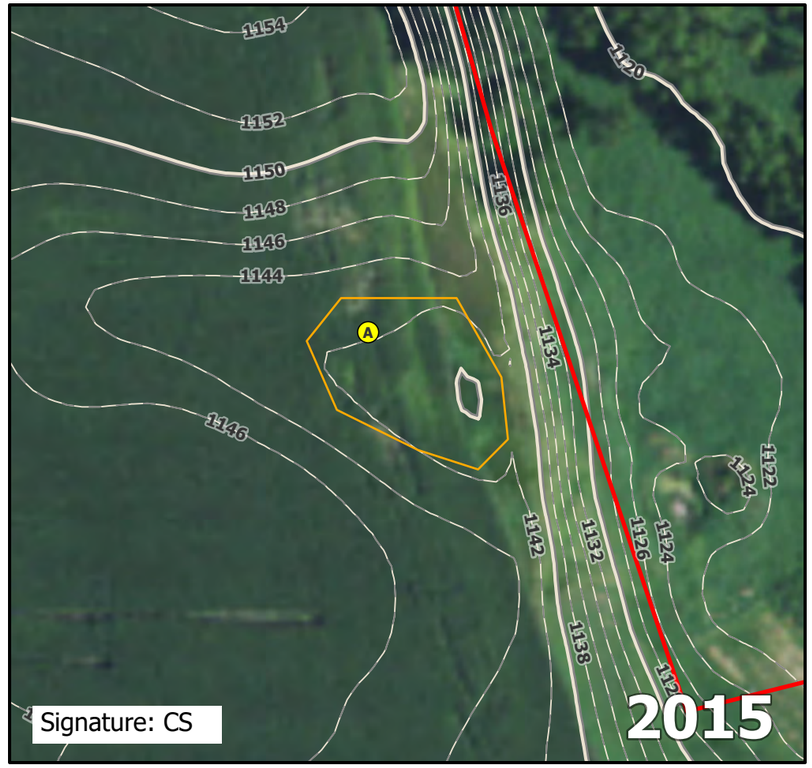
Wetland Hydrology Present? No

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





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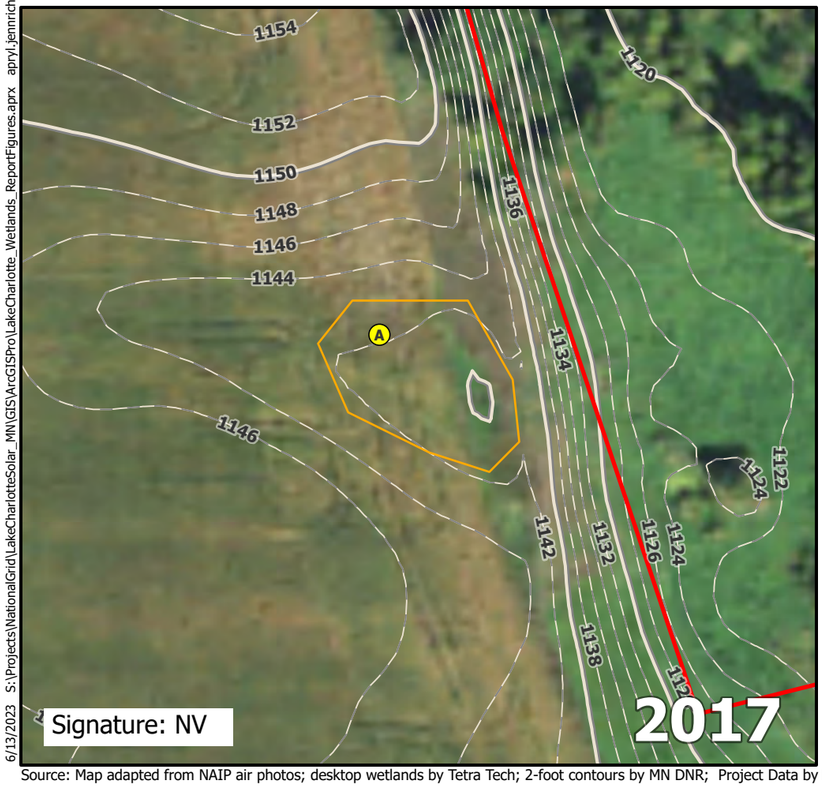
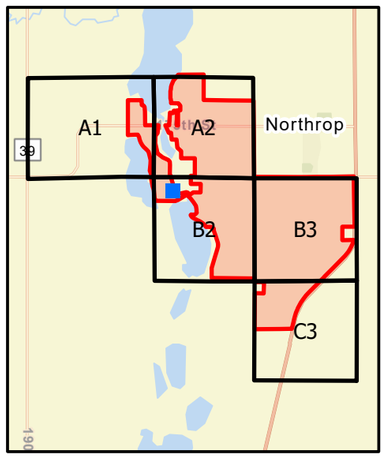
Feet





Feature ID: NWA017

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species	Indicator 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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

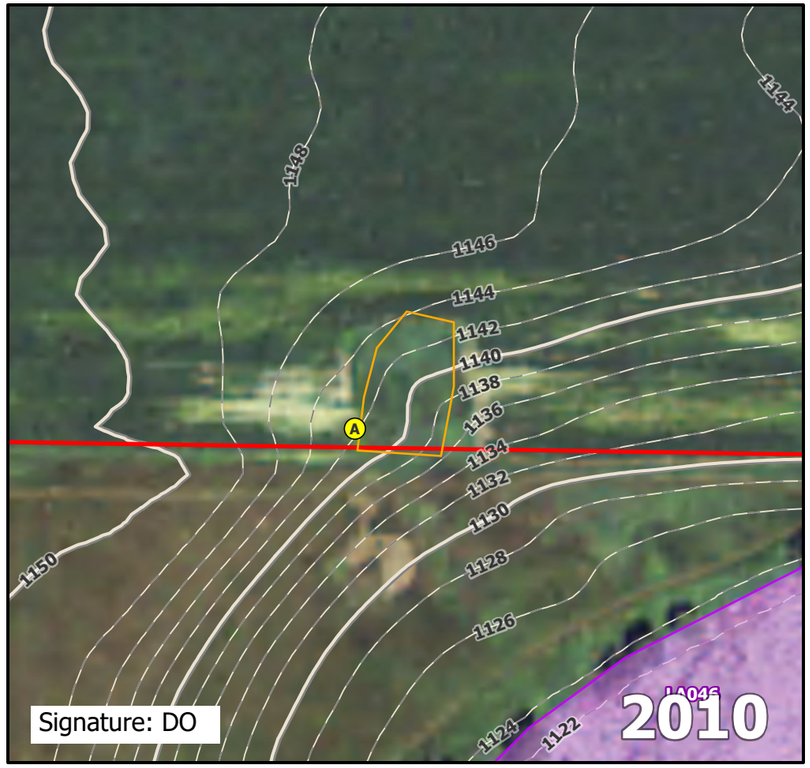
Wetland Hydrology Present? No

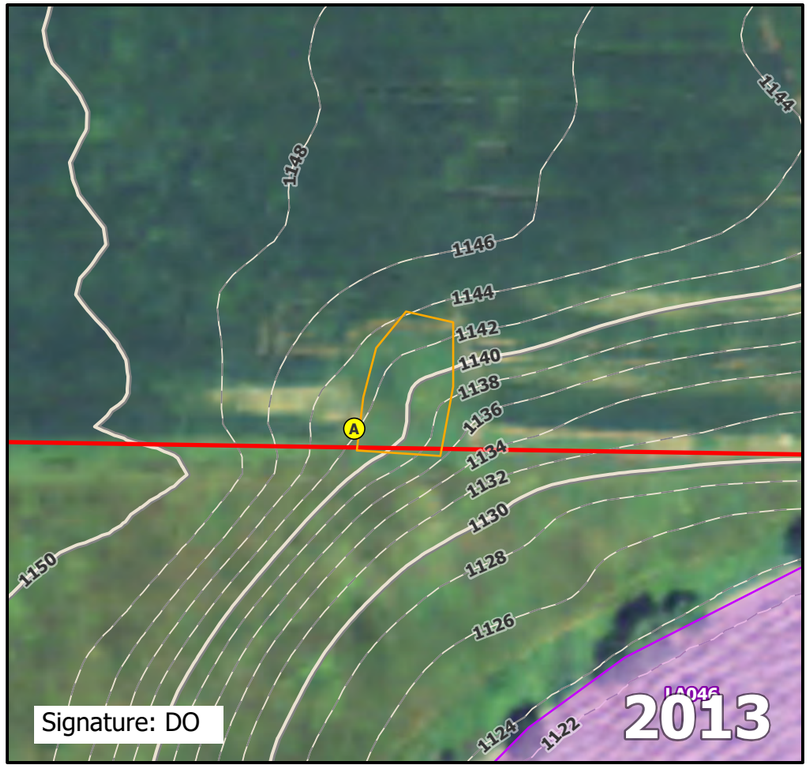
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

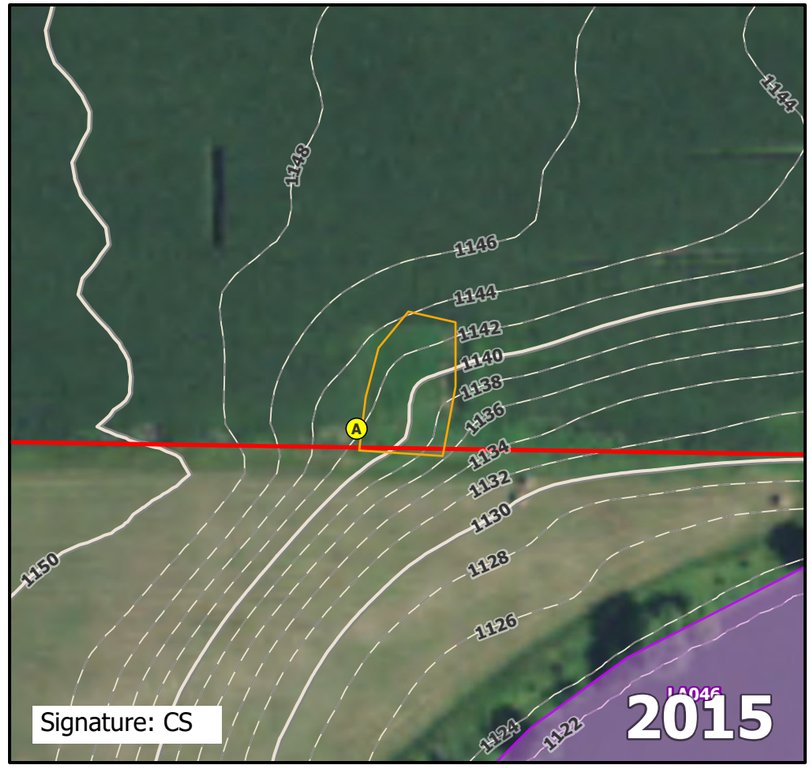
Remarks:

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

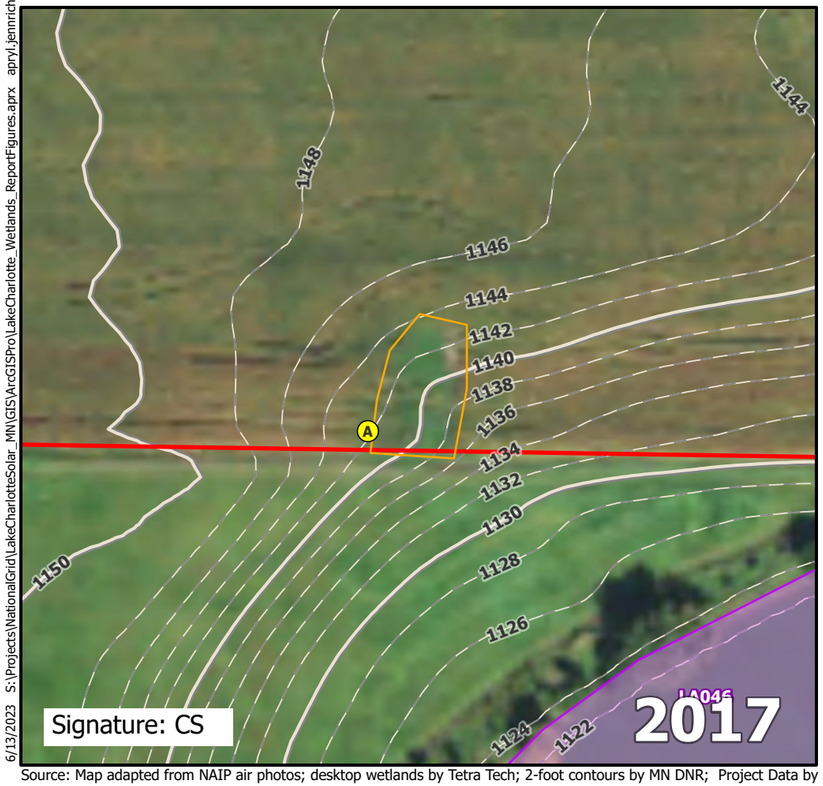


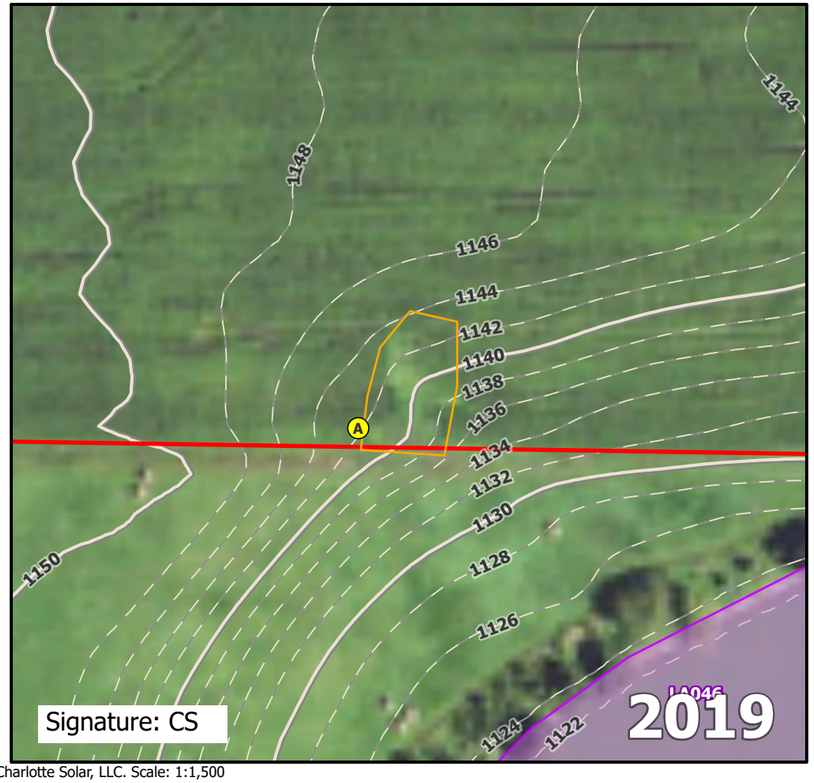


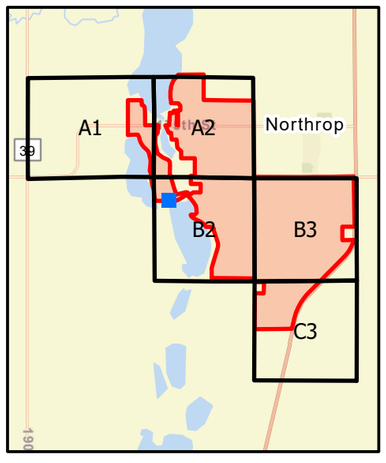


0 40 80 120 160 200

Feet







Feature ID: NWA021

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWA022

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: 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 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? Yes

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species	Indicator Status
1. *Fraxinus pennsylvanica*	40	Y	FACW
2. *Acer negundo*	20	Y	FAC
3.			
4.			
5.			
	60	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15)			
1. *Ribes cynosbati*	30	Y	FAC
2. *Rhamnus cathartica*	10	Y	FAC
3.			
4.			
5.			
	40	=Total Cover	

Herb Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	

Woody Vine Stratum (Plot size: 15)			
1.			
2.			
		=Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	100 (A)		260 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:

____ 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

Hydrophytic Vegetation Present? Yes

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species	Indicator Status
1. *Quercus alba*	80	Y	FACU
2. *Tilia americana*	10	N	FACU
3. *Celtis occidentalis*	10	N	FAC
4.			
5.			
	100	=Total Cover	

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

Herb Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	

Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column totals	100 (A)		390 (B)

Prevalence Index = B/A = 3.9

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

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? 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.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species	Indicator 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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

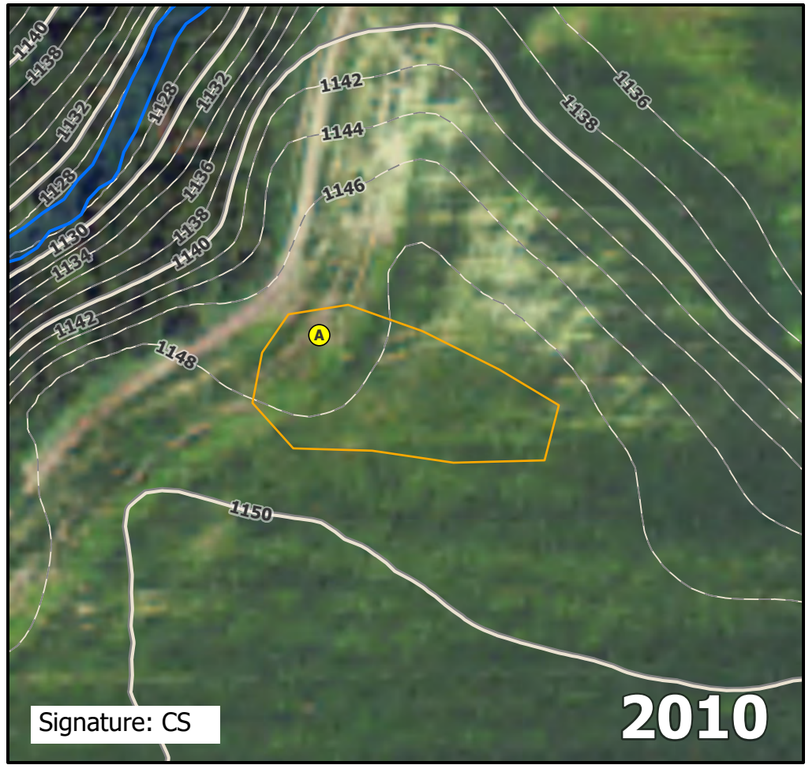
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

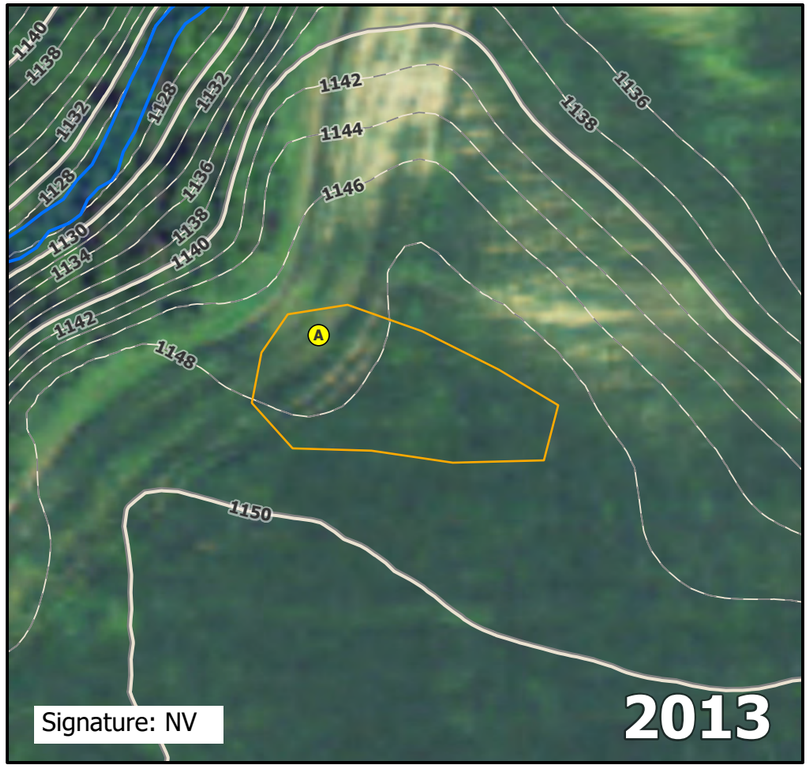
Wetland Hydrology Present? No

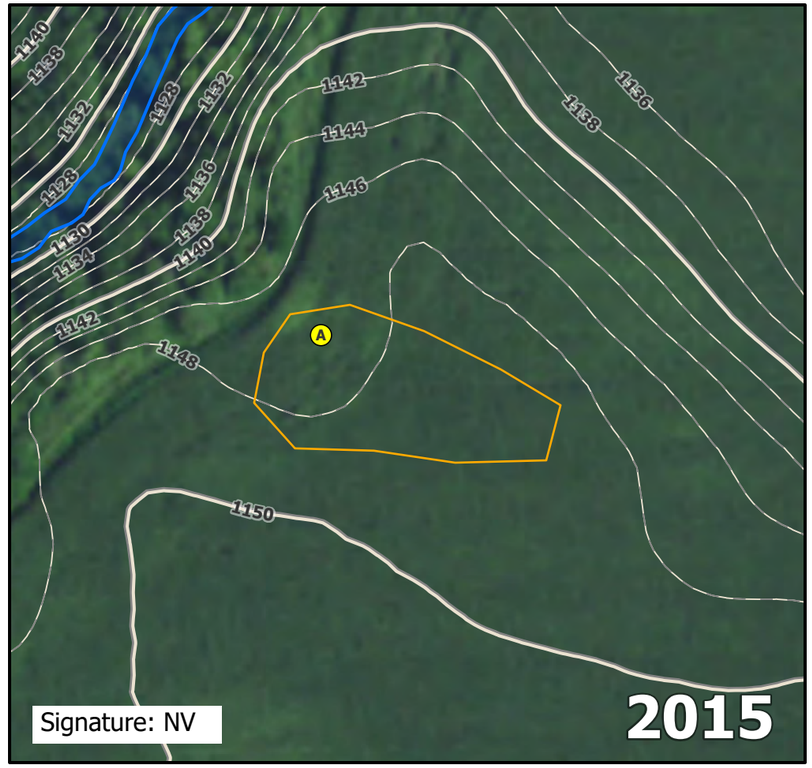
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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

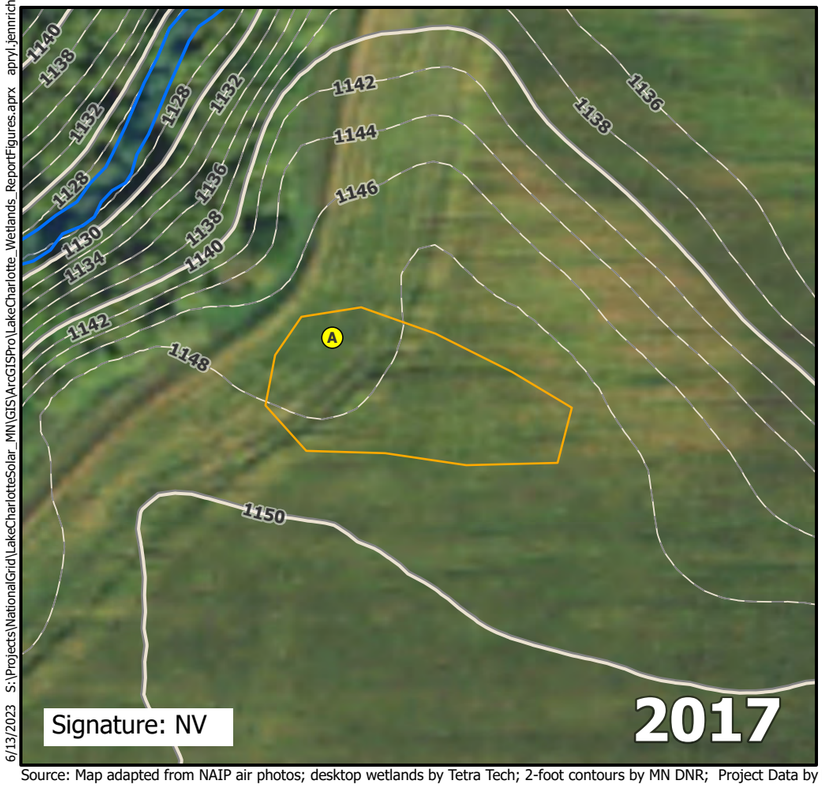


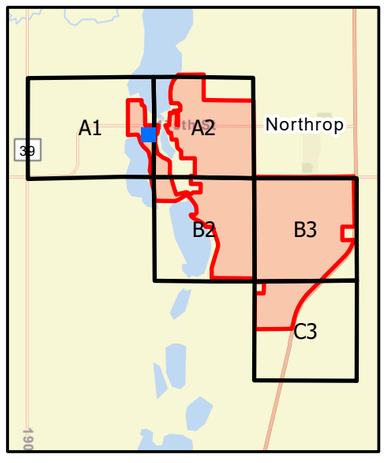




0 40 80 120 160 200

Feet





Feature ID: NWA023

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA024

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: 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 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? No

Hydric Soil Present? No

Wetland Hydrology Present? No

Is the sampled area within a wetland? No

If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species	Indicator Status
1. *Fraxinus pennsylvanica*	50	Y	FACW
2. *Acer negundo*	15	Y	FAC
3.			
4.			
5.			
	65	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Ribes cynosbati*	20	Y	FAC
2.			
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Bromus inermis*	40	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
		=Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	35	x 3 =	105
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column totals	125 (A)		365 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

____ 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

Hydrophytic Vegetation Present? No

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

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? No

Hydric Soil Present? No — **Is the sampled area within a wetland?** **No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species	Indicator Status
1. *Quercus alba*	40	Y	FACU
2. *Acer negundo*	25	Y	FAC
3.			
4.			
5.			
	65	=Total Cover	

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

Herb Stratum (Plot size: 5)			
1. *Bromus inermis*	40	Y	FACU
2. *Asclepias syriaca*	10	N	FACU
3. *Setaria pumila*	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55	=Total Cover	

Woody Vine Stratum (Plot size: 15)			
1.			
2.			
		=Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column totals	120 (A)		450 (B)

Prevalence Index = B/A = 3.75

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

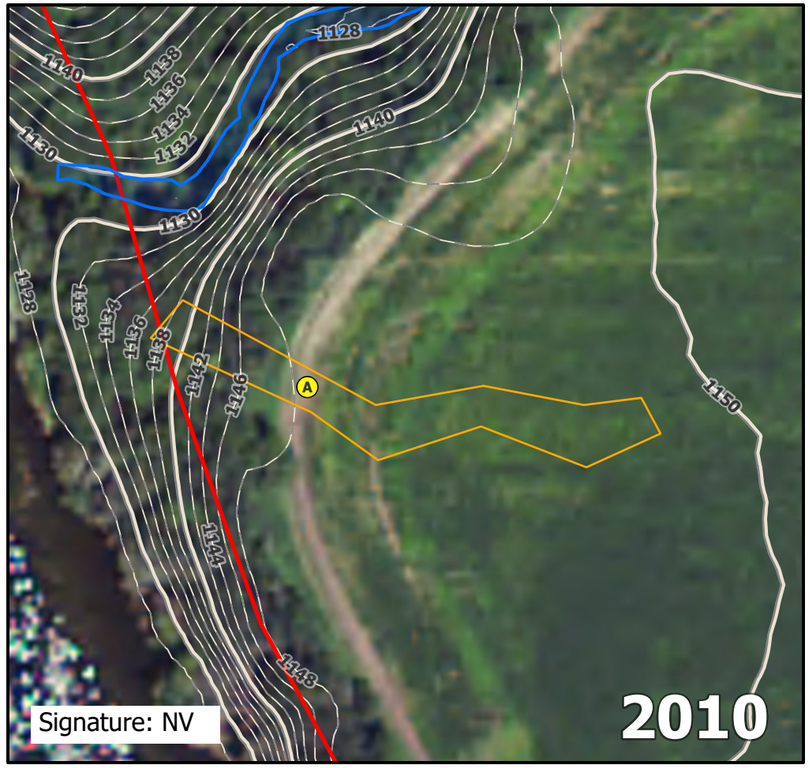
Wetland Hydrology Present? No

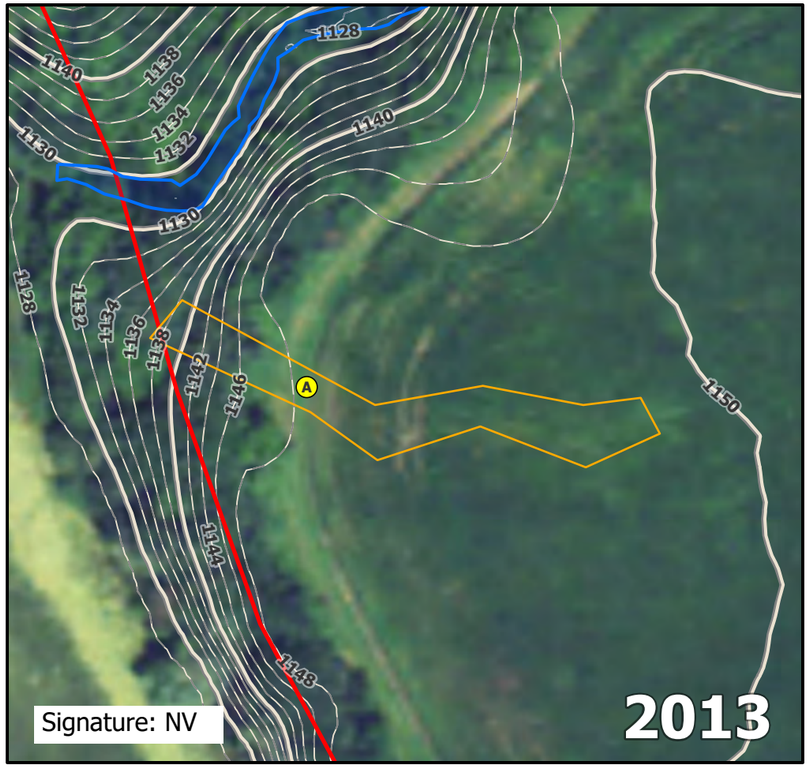
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

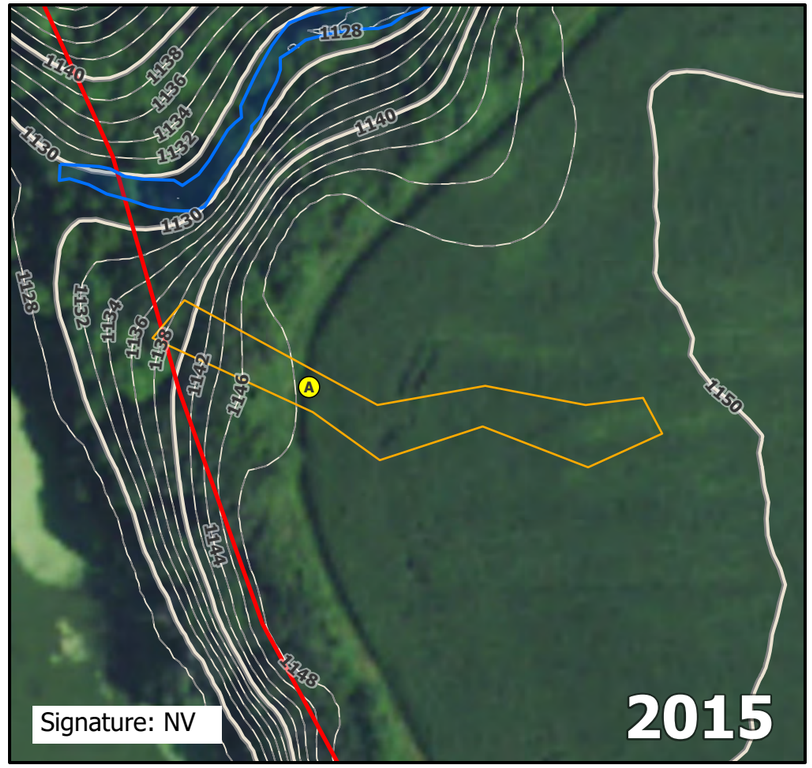
Remarks:

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







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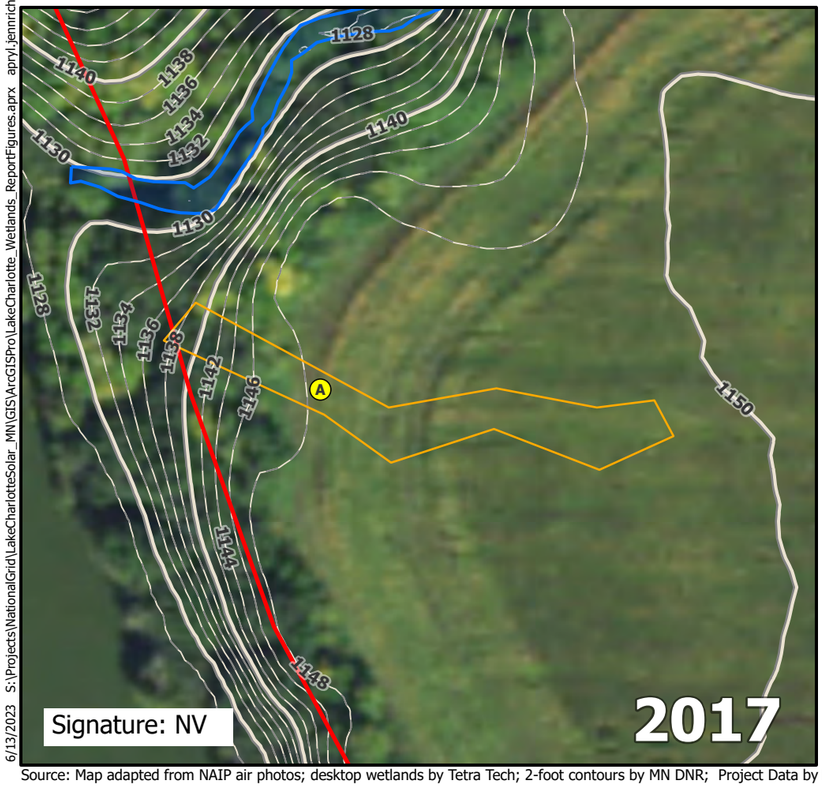
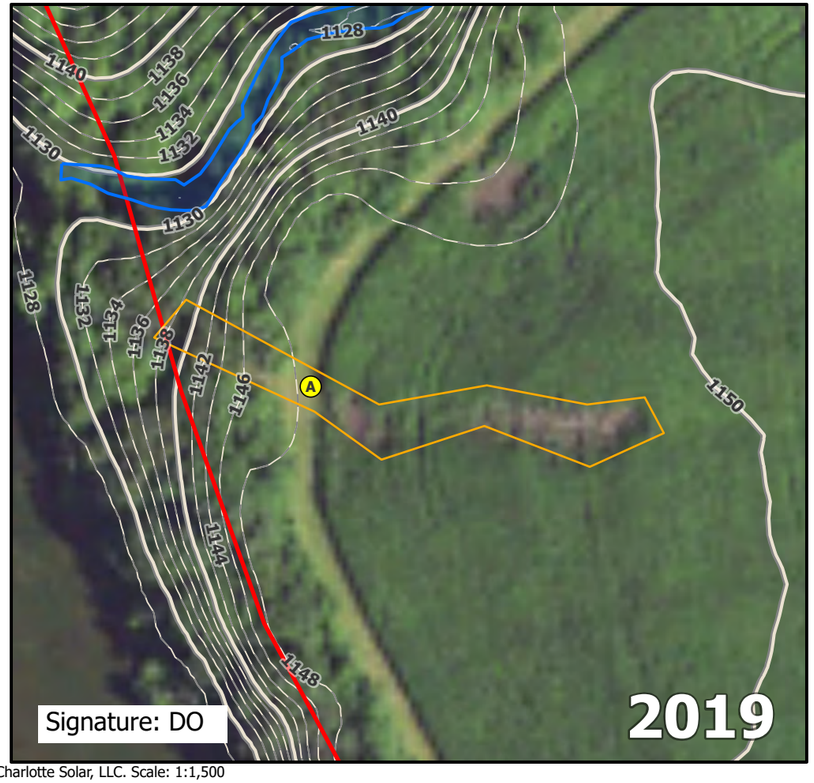
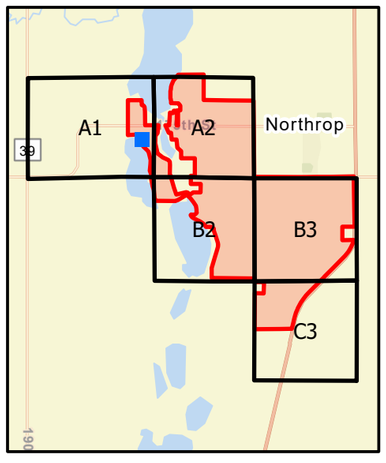
Feet







Feature ID: NWA025

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

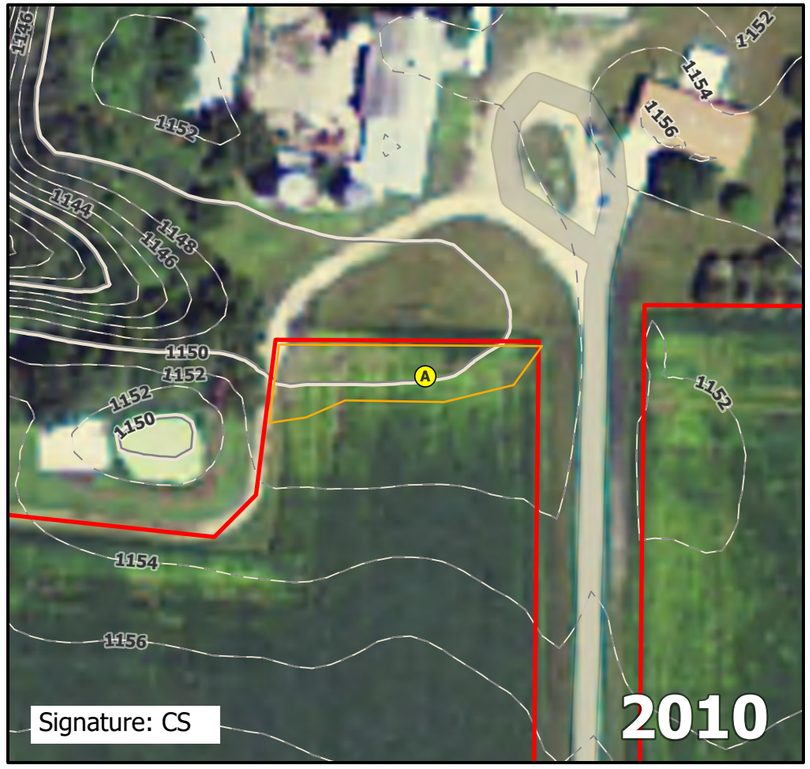
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

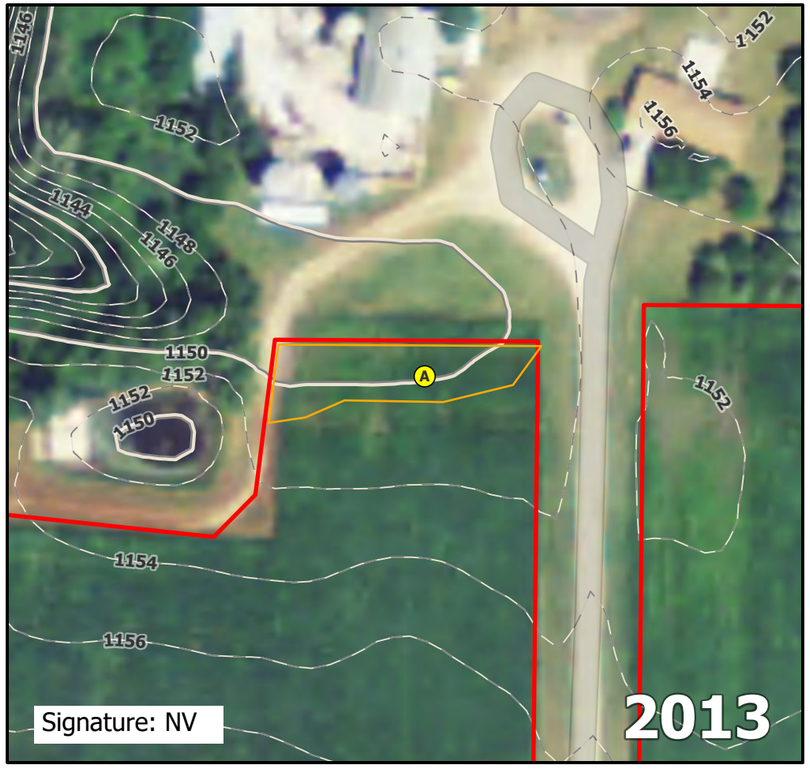
Wetland Hydrology Present? No

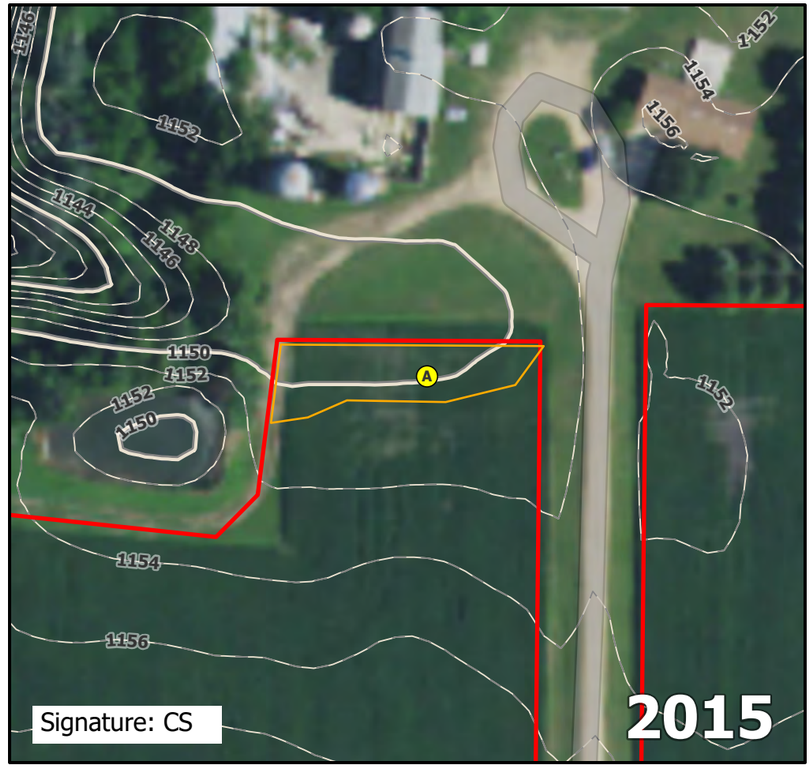
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWA026A.		
Direction: South	Photo ID: delin_photo-20221020-140245.jpg	Date: 10/20/2022
Project Name: Lake Charlotte		Feature ID: NWA026







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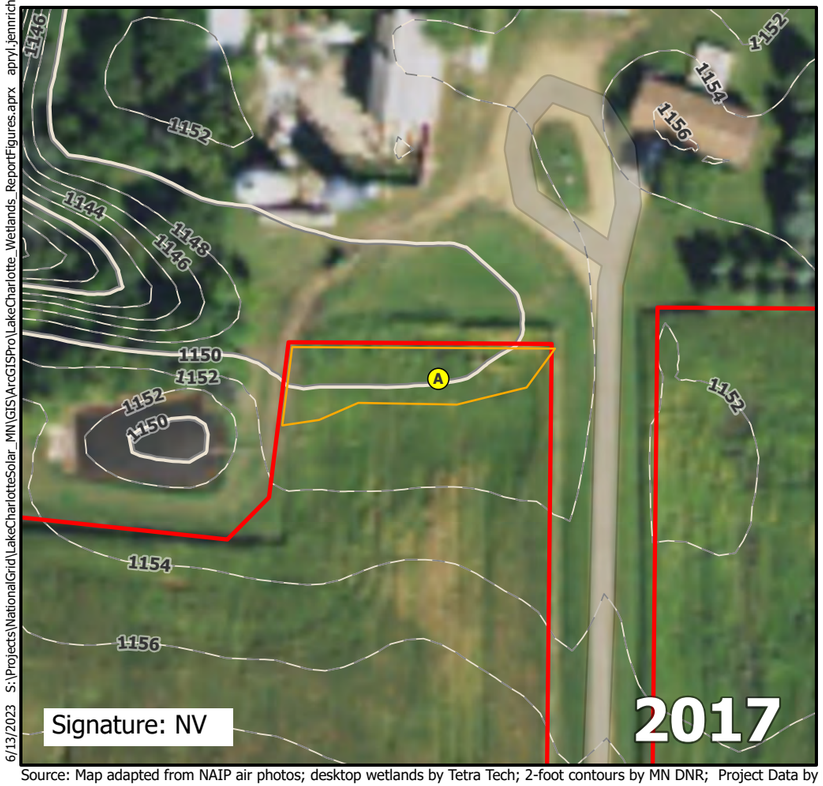
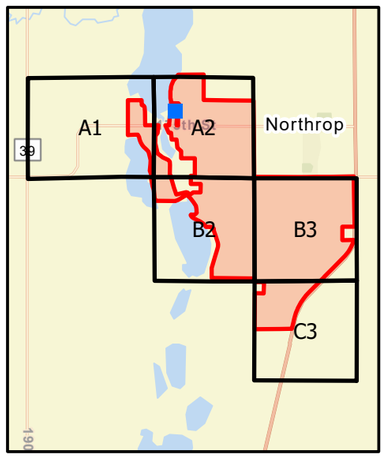
Feet





Feature ID: NWA026

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA027

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

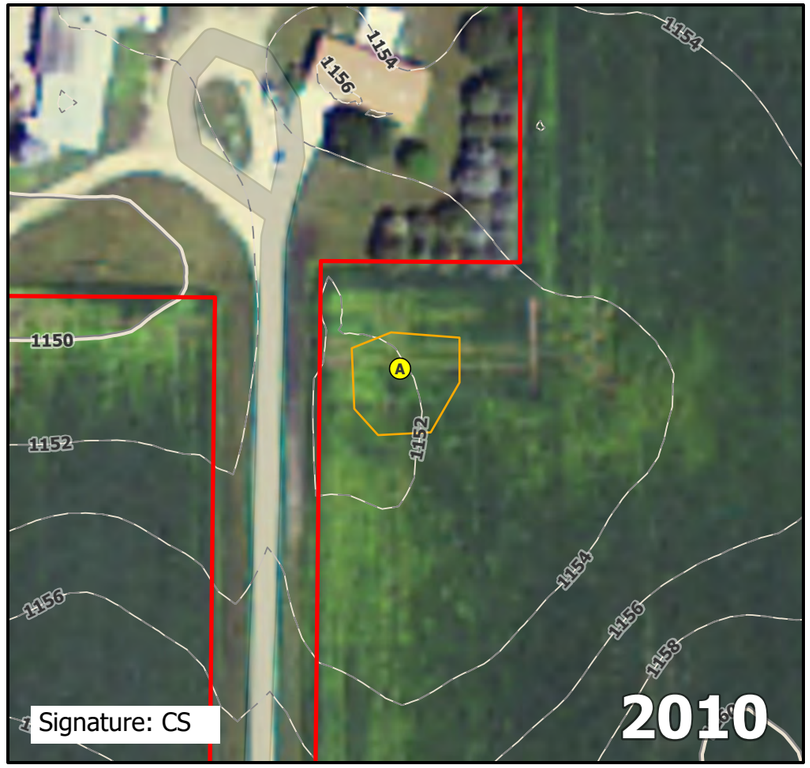
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

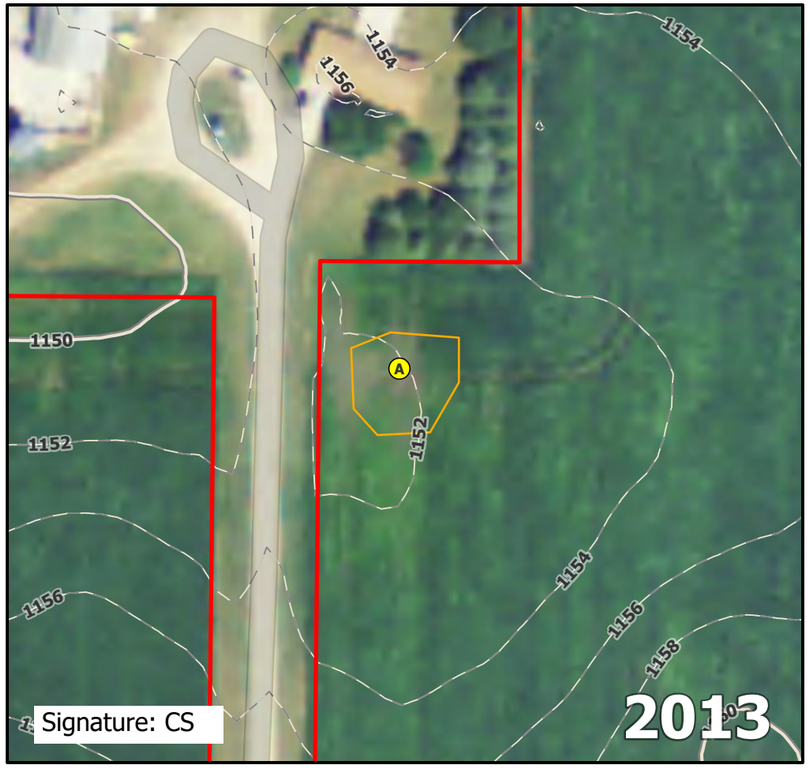
Wetland Hydrology Present? No

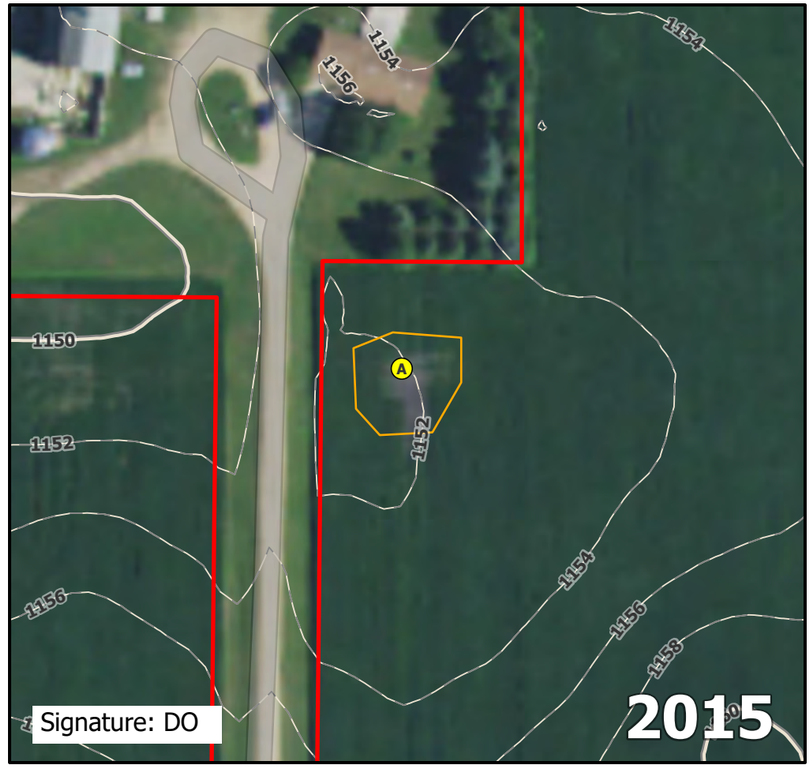
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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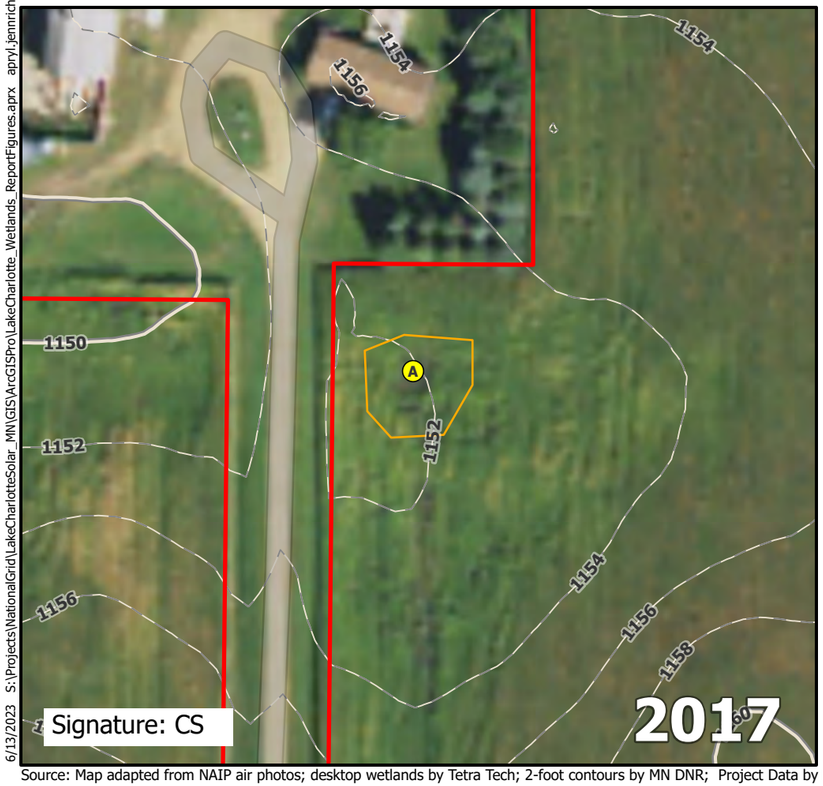
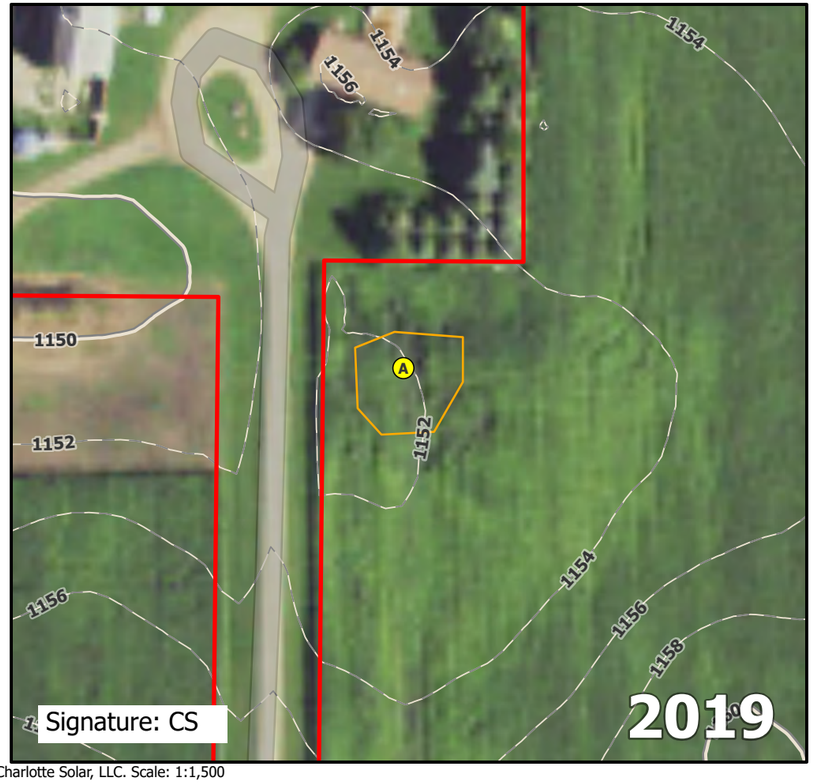
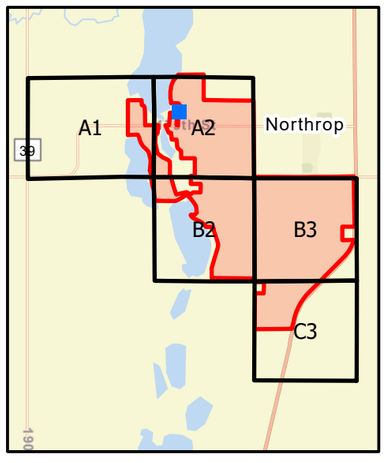
Feet







Feature ID: NWA027

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA028

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

(includes capillary fringe)

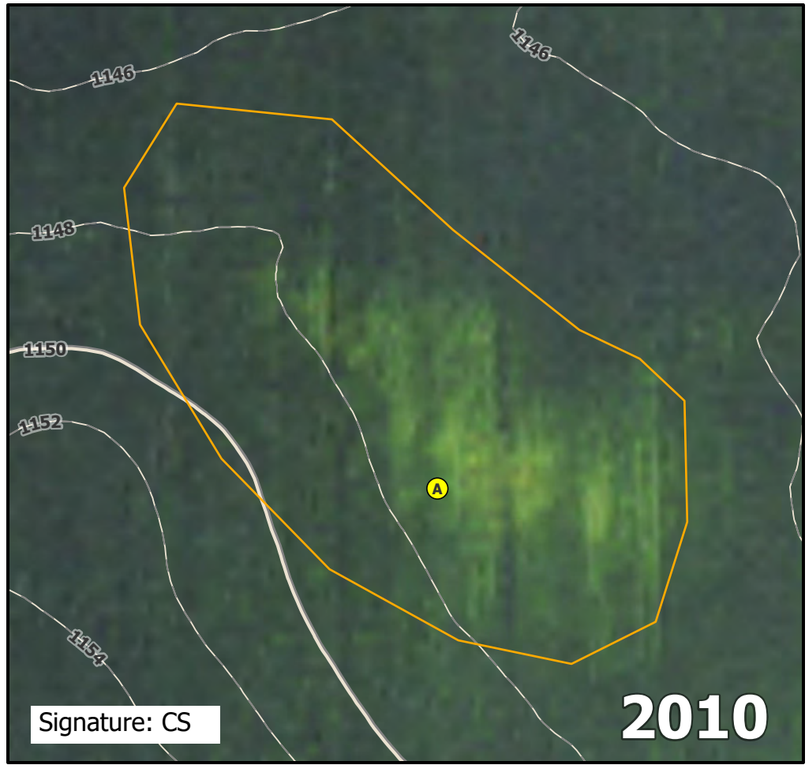
Wetland Hydrology Present? No

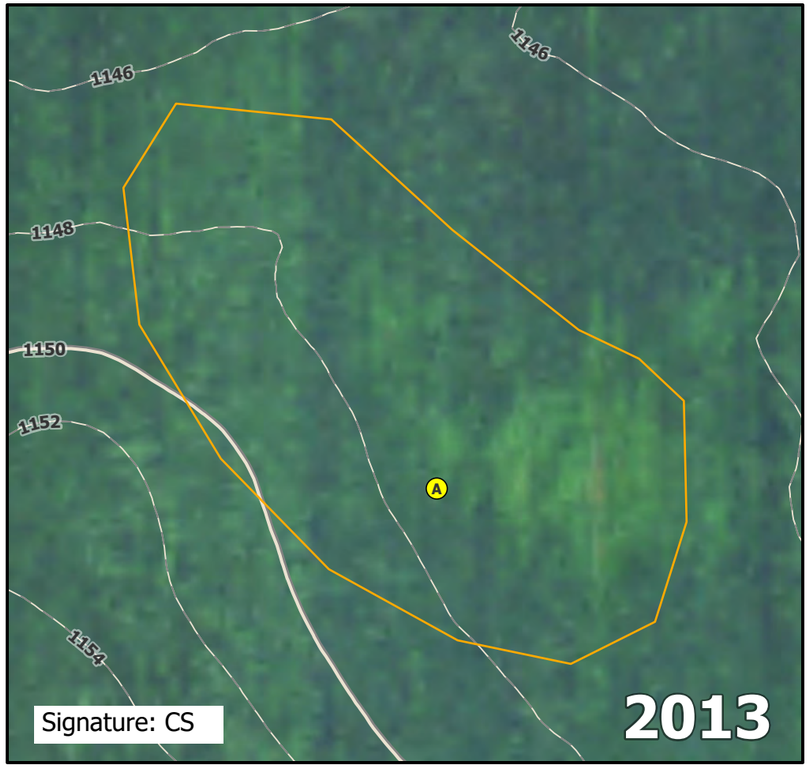
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

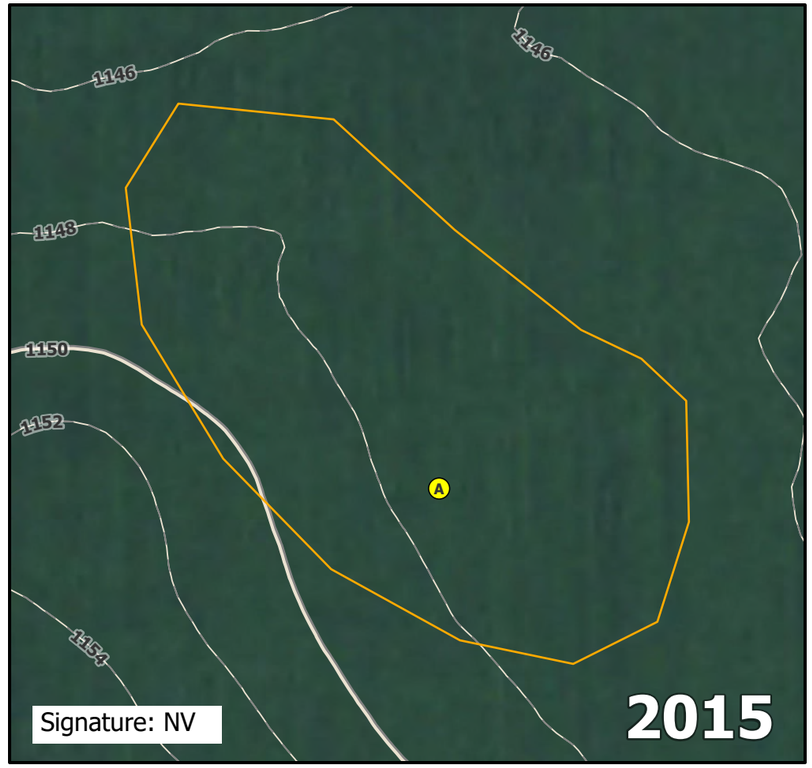
Remarks:

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







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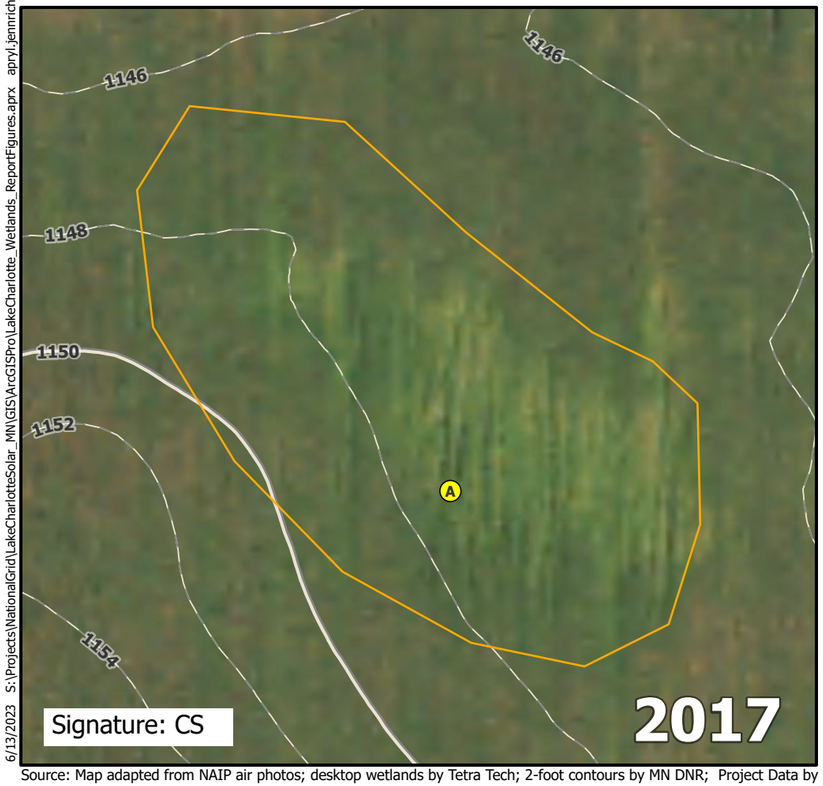
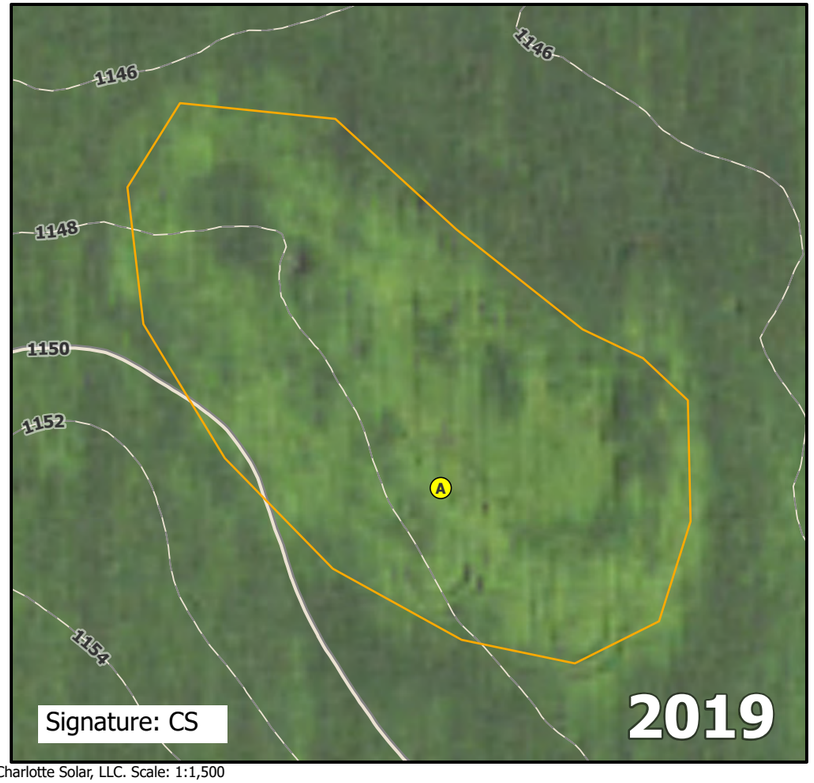
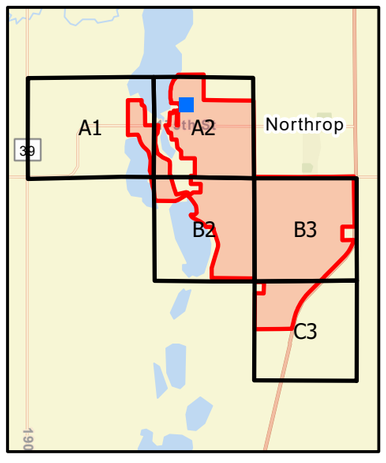
Feet







Feature ID: NWA028

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA030

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

(includes capillary fringe)

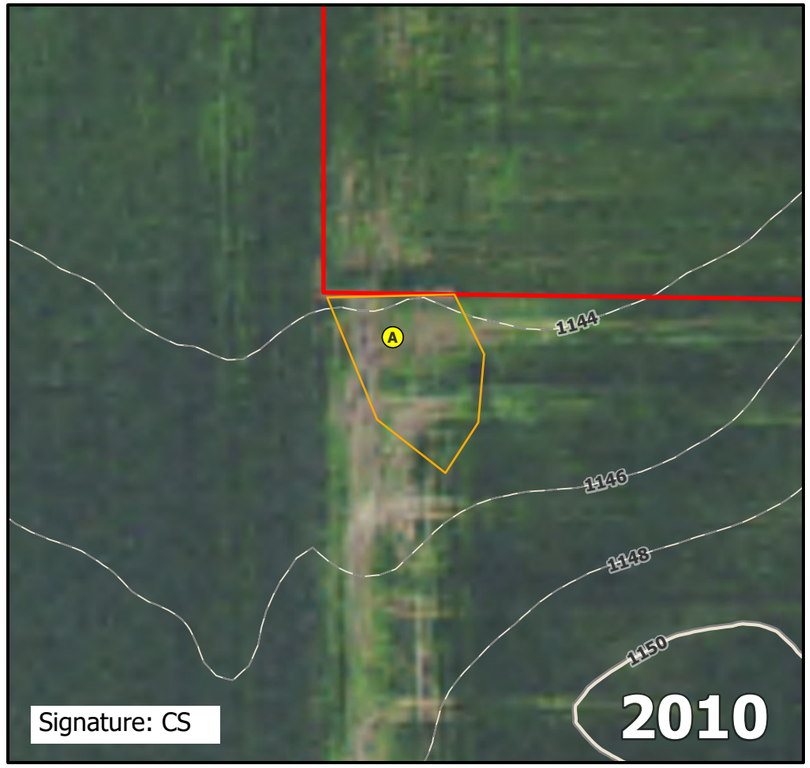
Wetland Hydrology Present? No

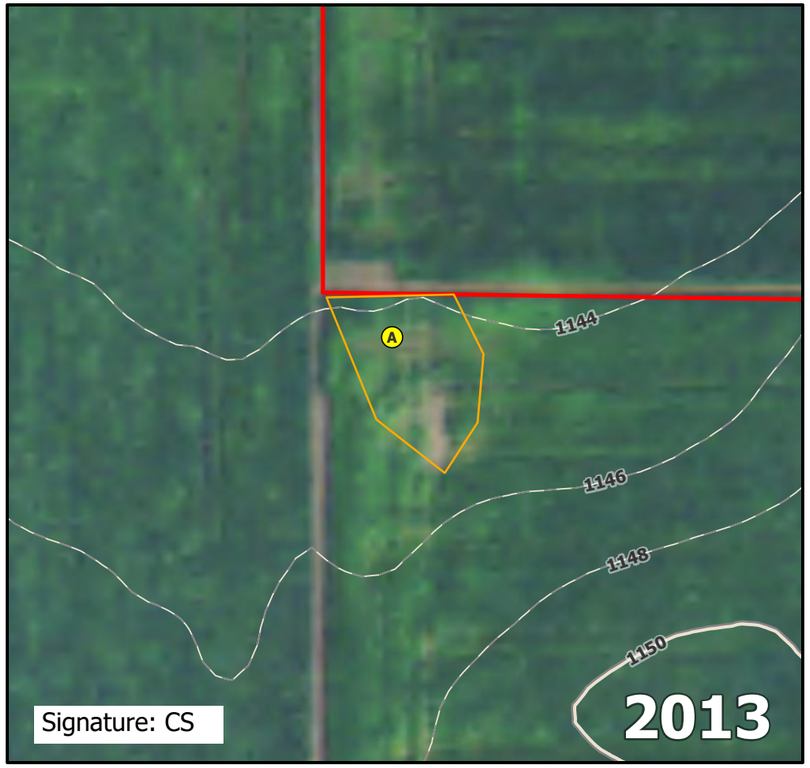
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

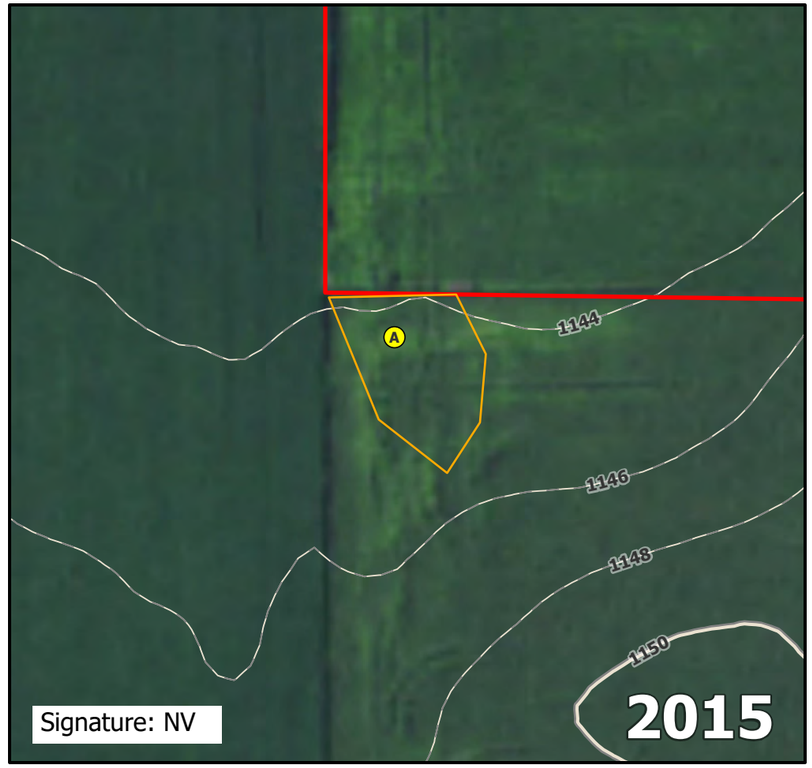
Remarks:

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







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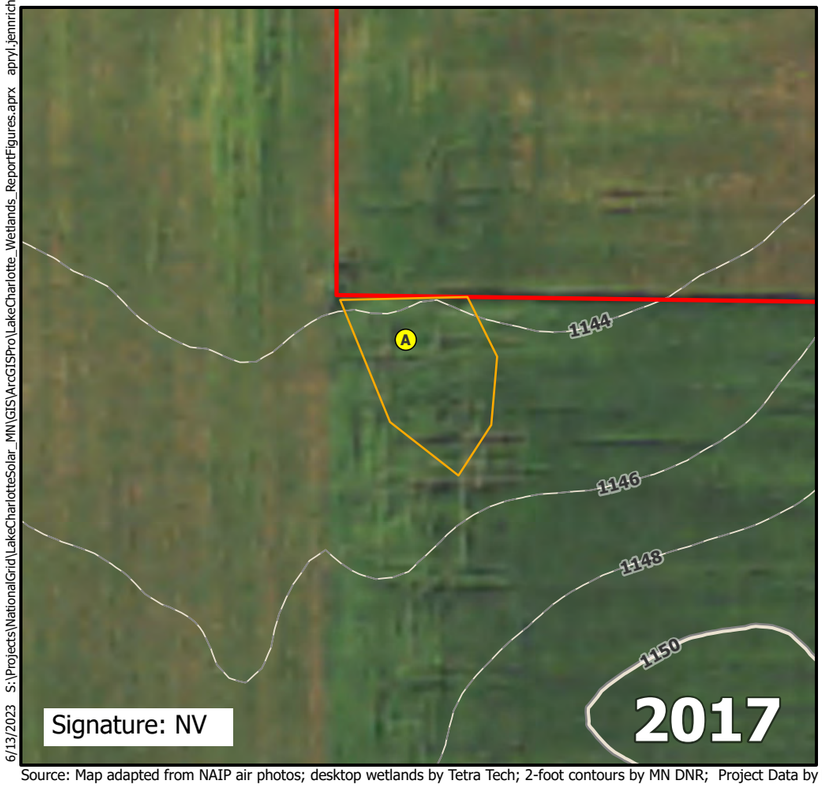
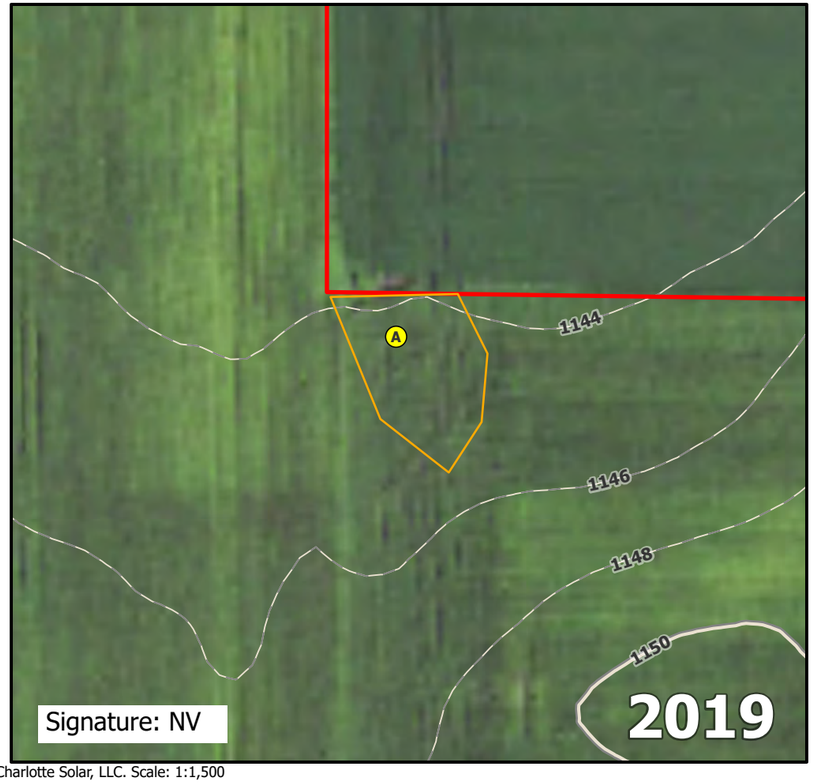
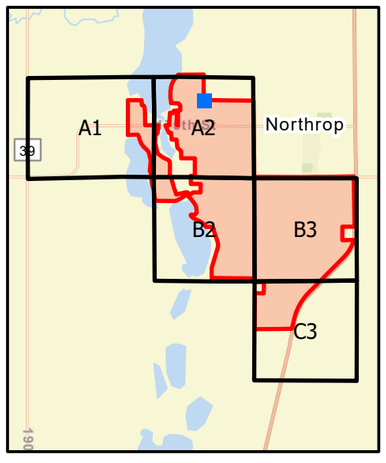
Feet







Feature ID: NWA030

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA031

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

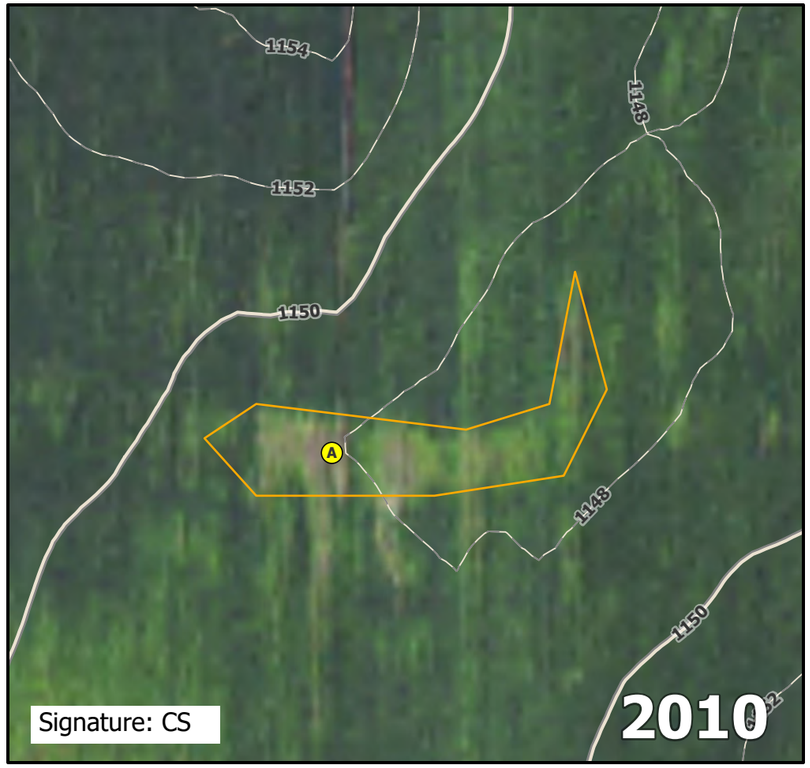
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

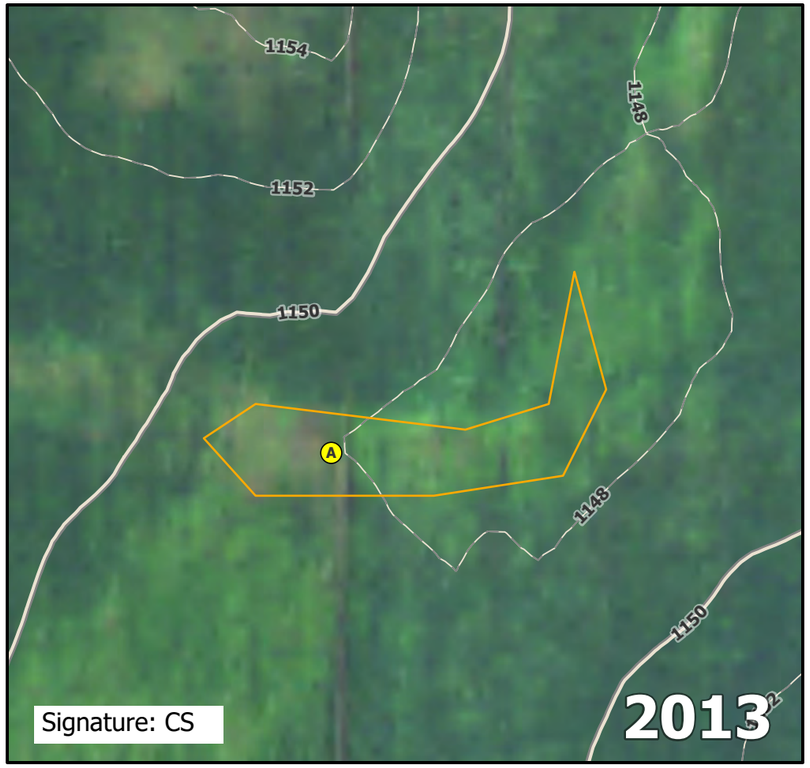
Wetland Hydrology Present? No

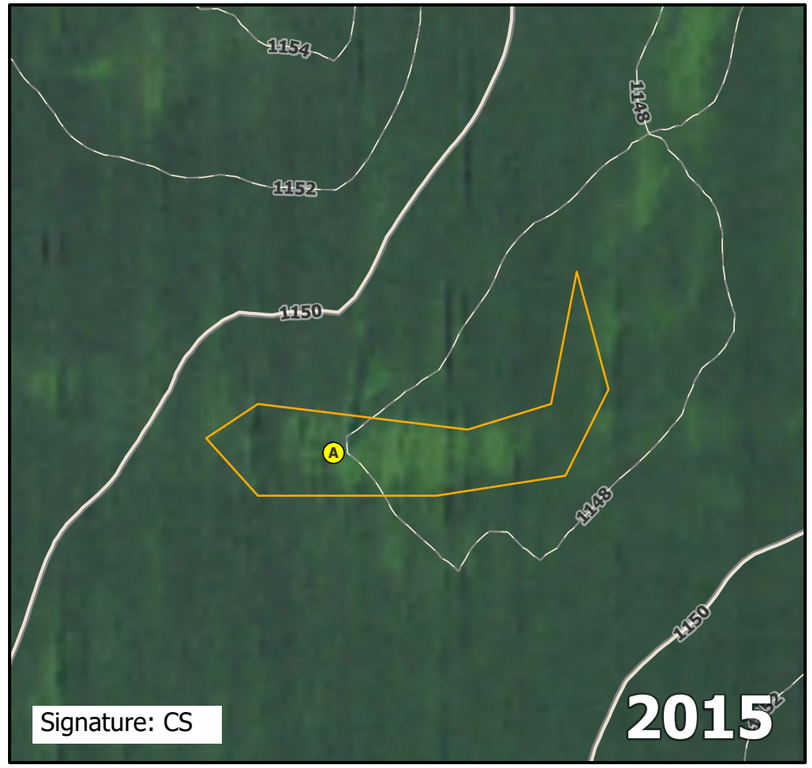
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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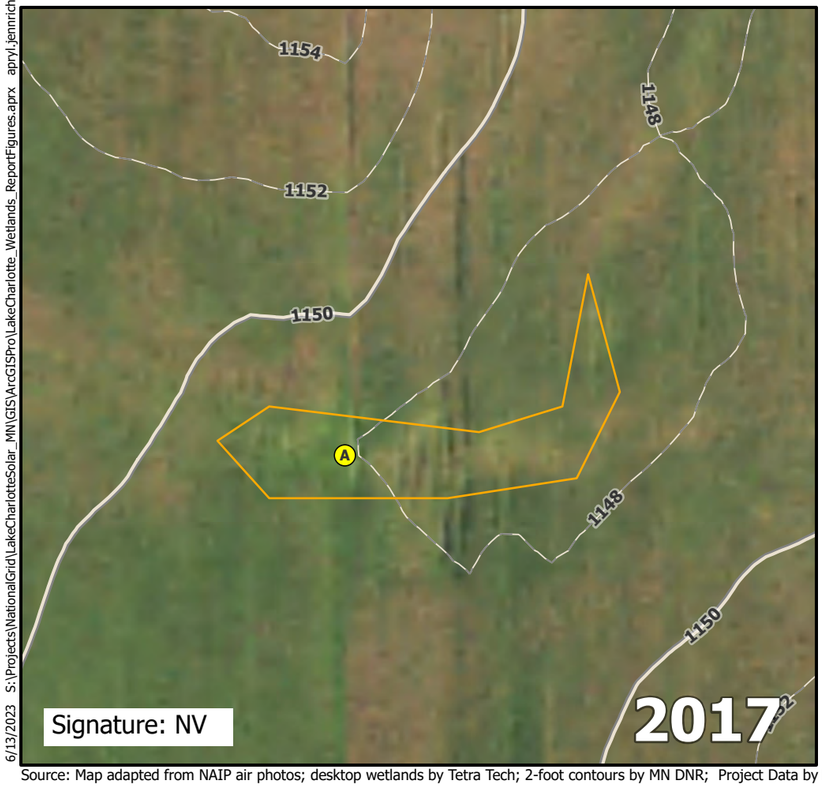
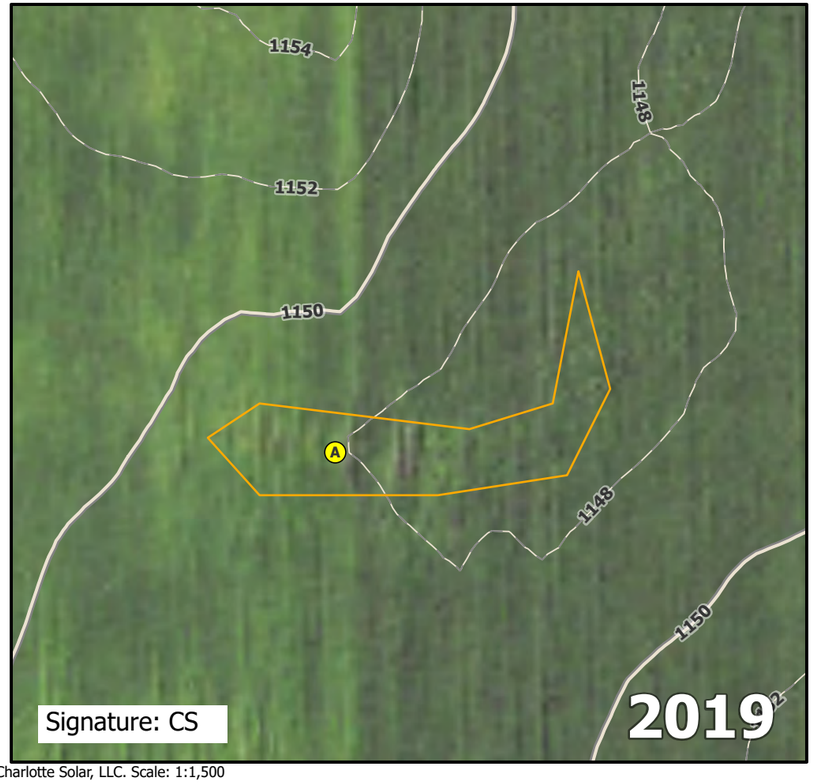
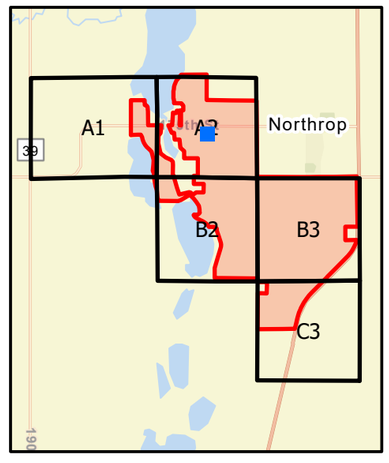
Feet







Feature ID: NWA031

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA032

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

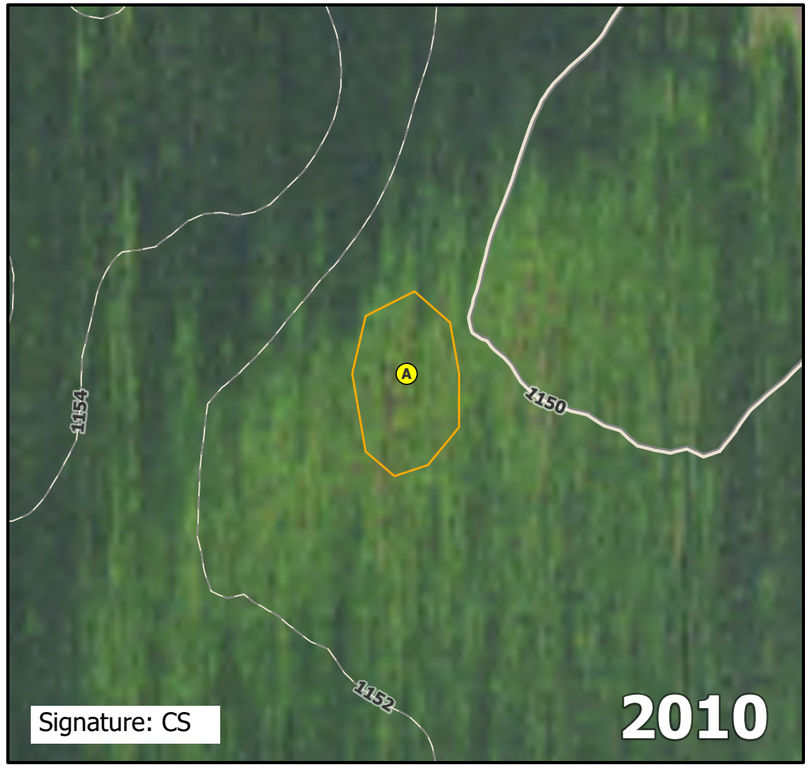
Wetland Hydrology Present? No

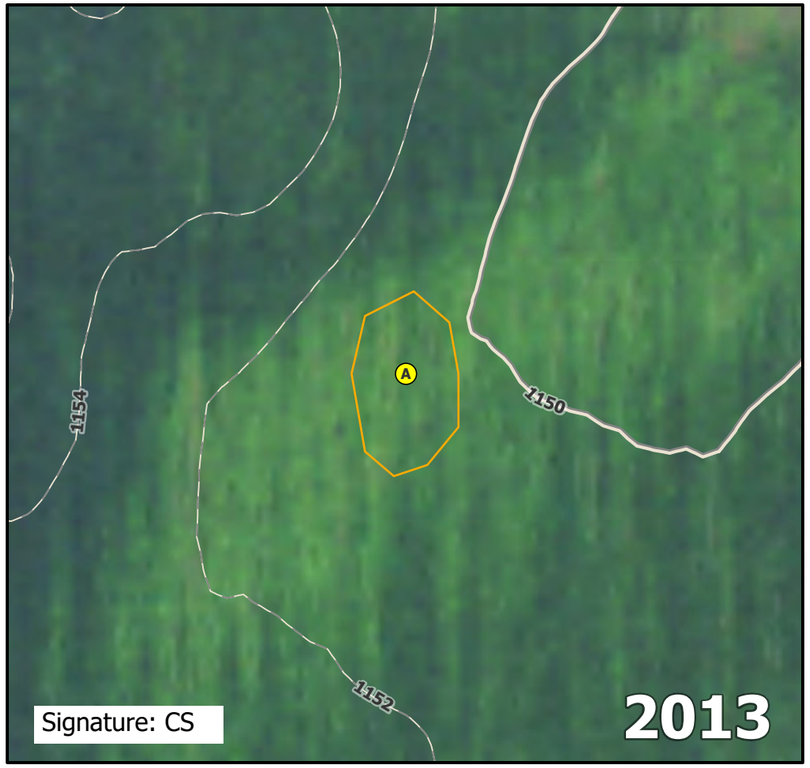
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

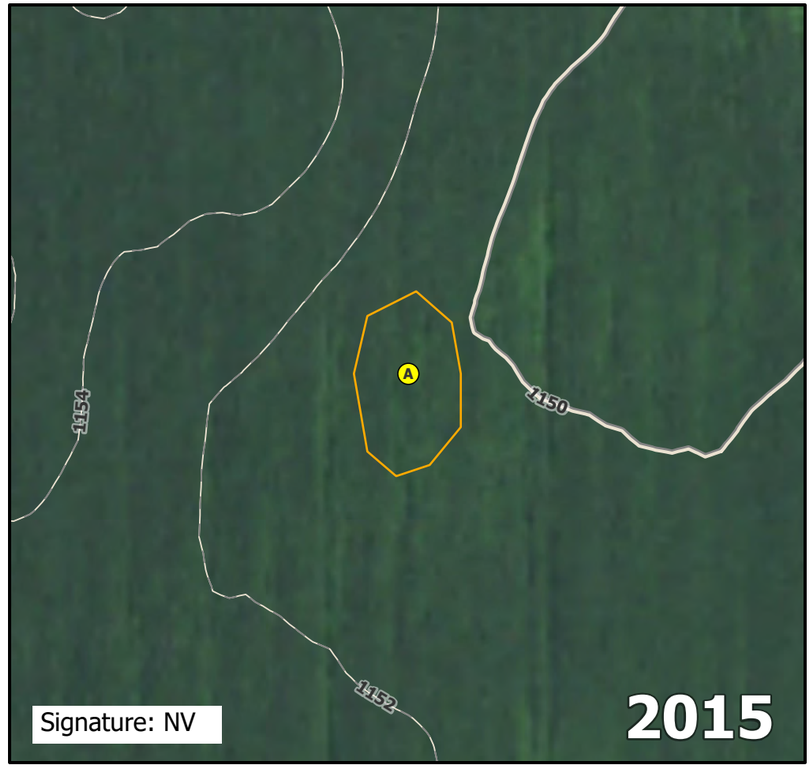
Remarks:

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







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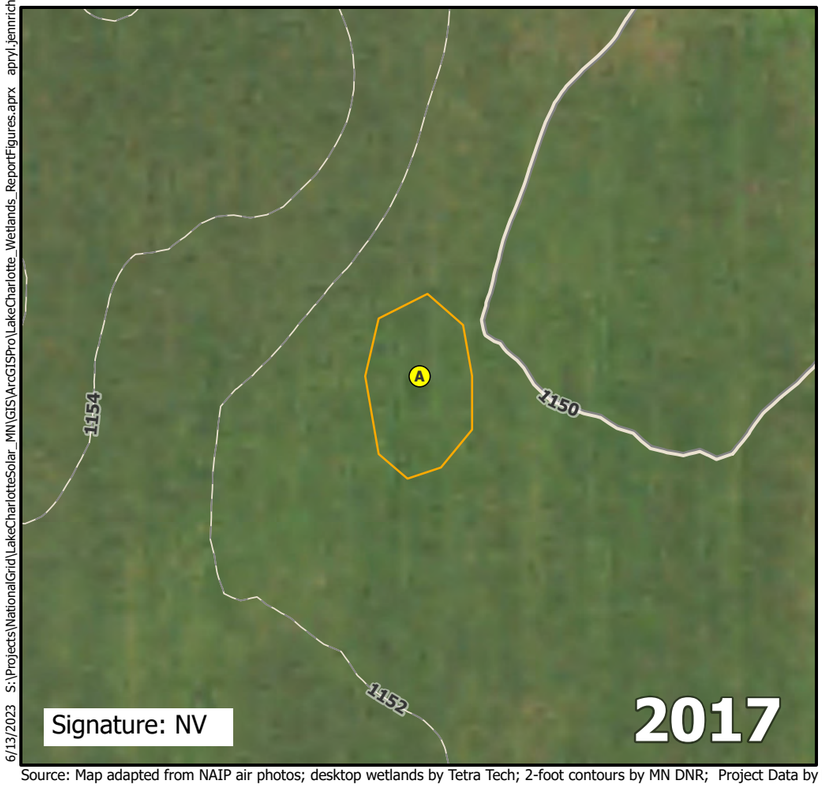
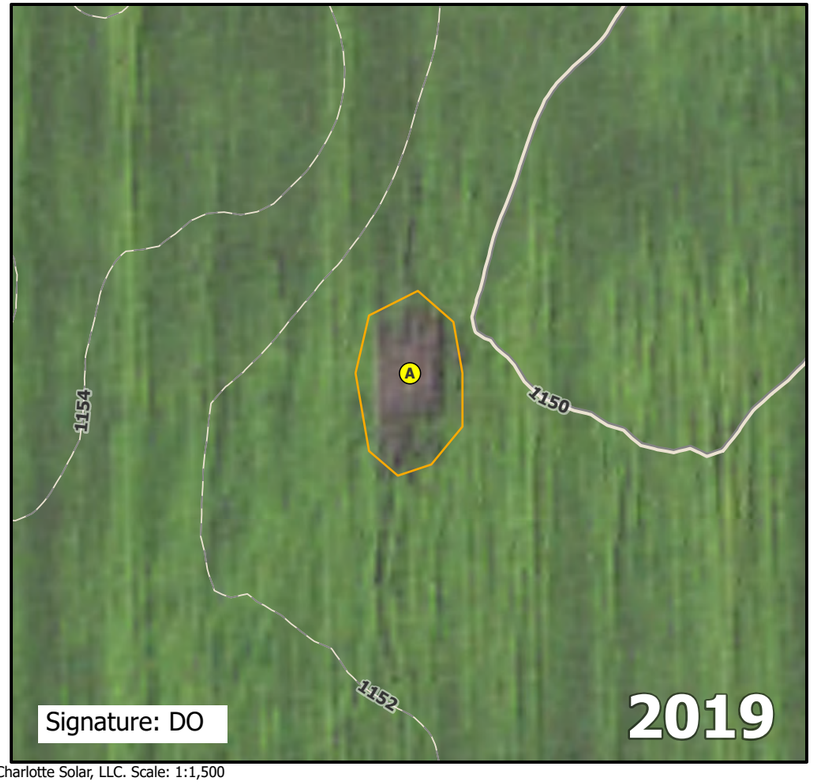
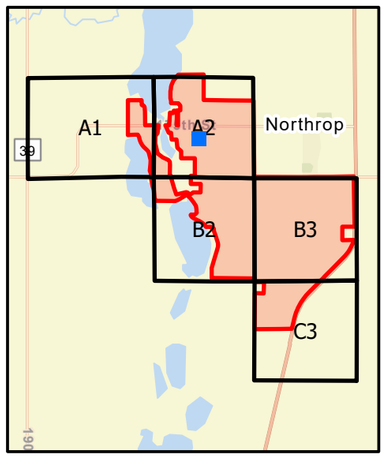
Feet







Feature ID: NWA032

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA033

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: 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 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? No

Hydric Soil Present? Yes

Wetland Hydrology Present? No

Is the sampled area within a wetland? No

If yes, optional wetland site ID: ____

Remarks:

Recently harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- X 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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

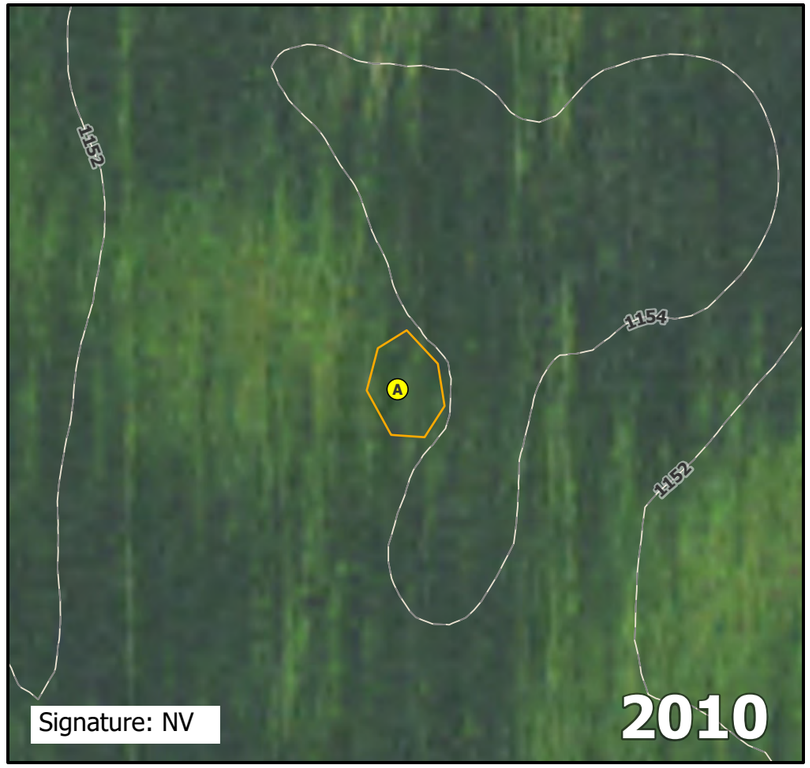
Wetland Hydrology Present? No

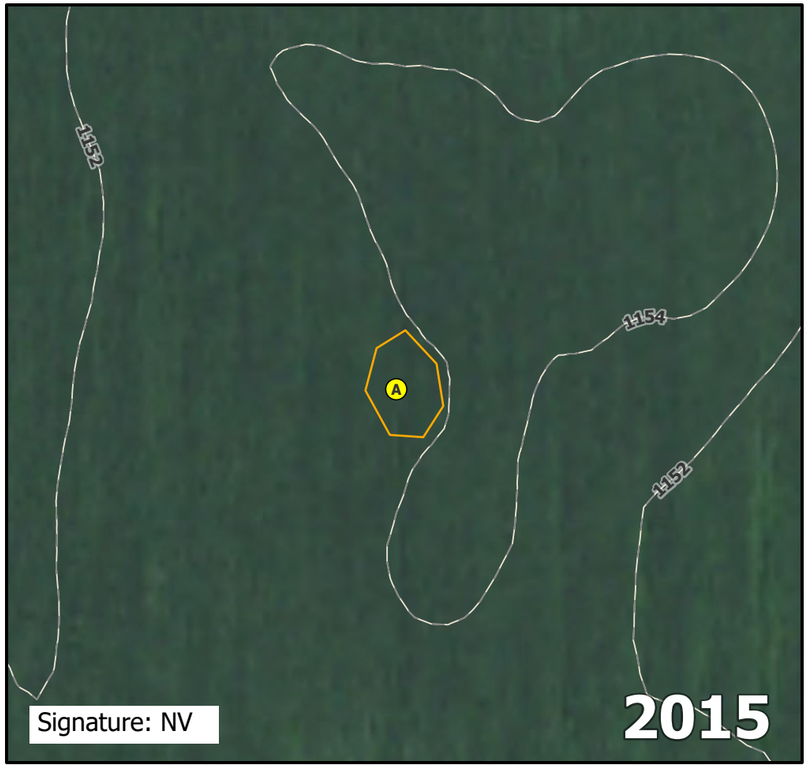
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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





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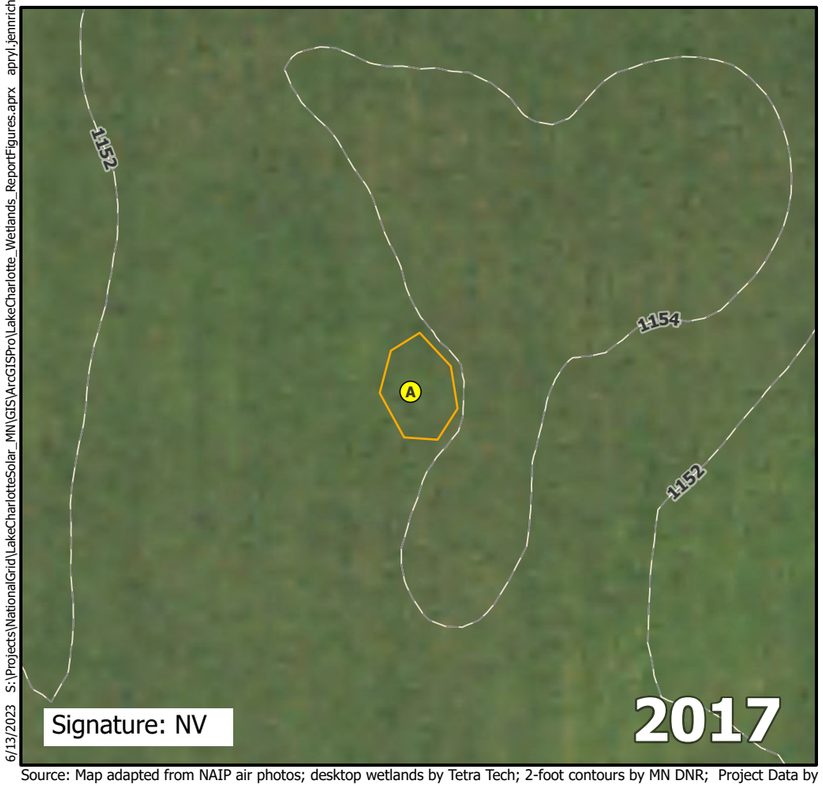
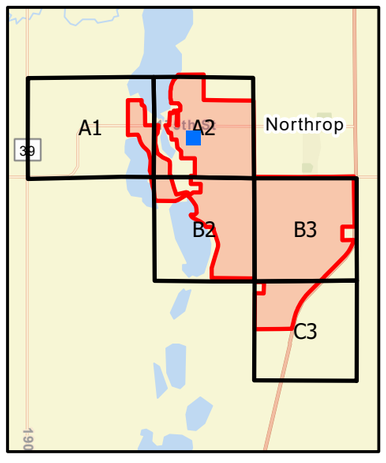
Feet





Feature ID: NWA033

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

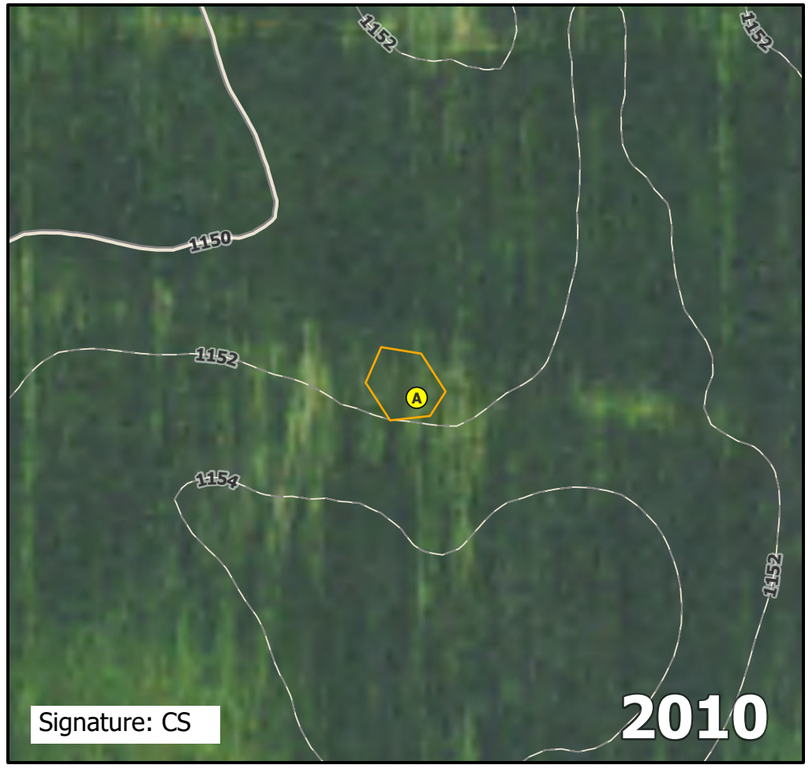
Wetland Hydrology Present? No

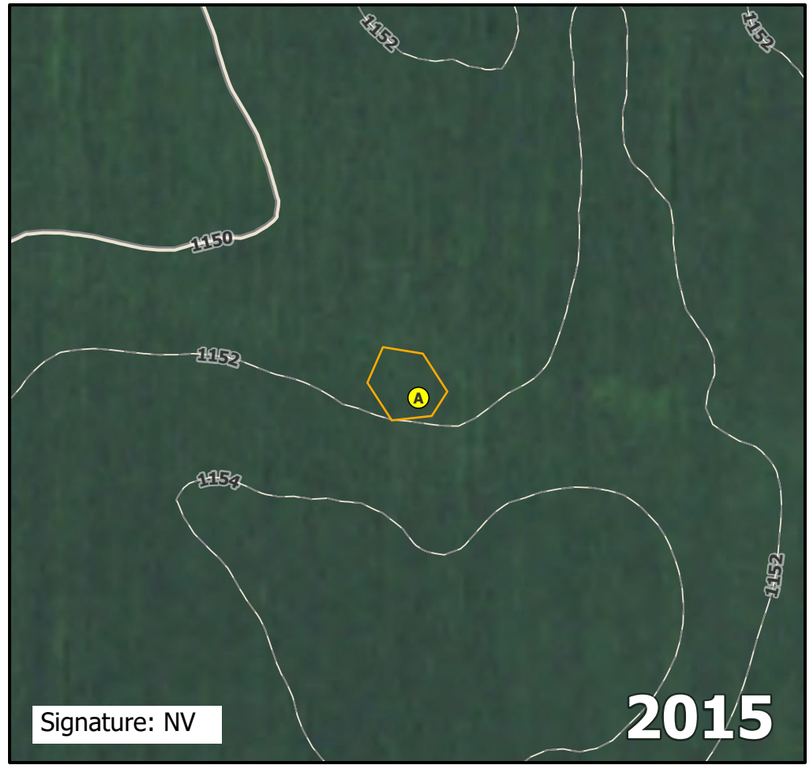
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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





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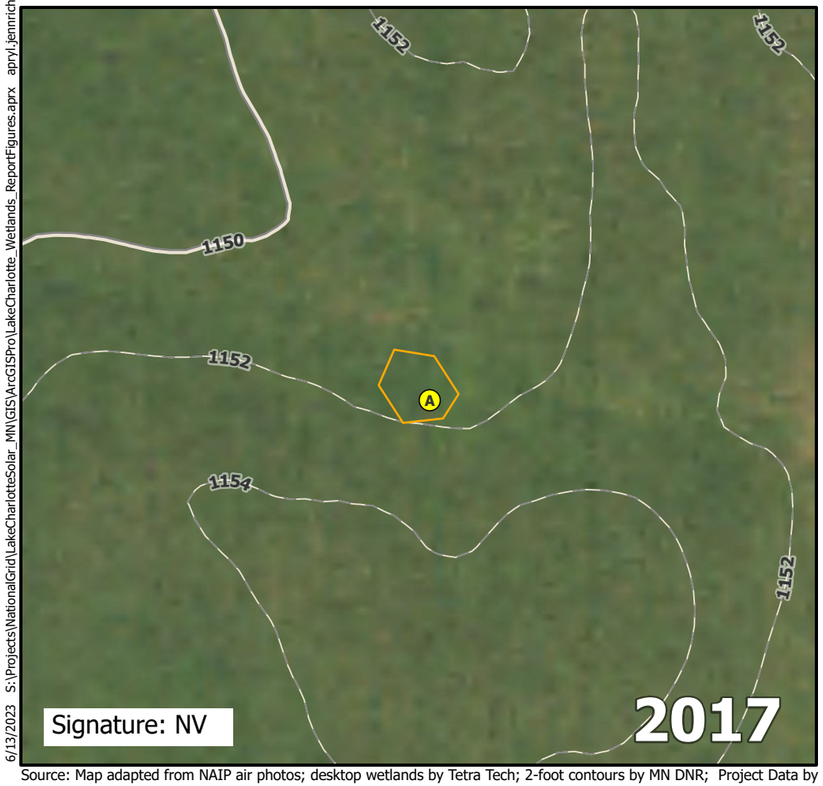
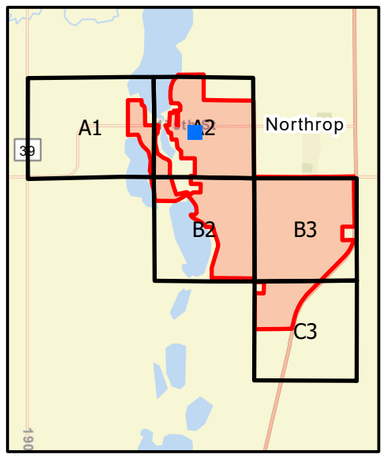
Feet





Feature ID: NWA034

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

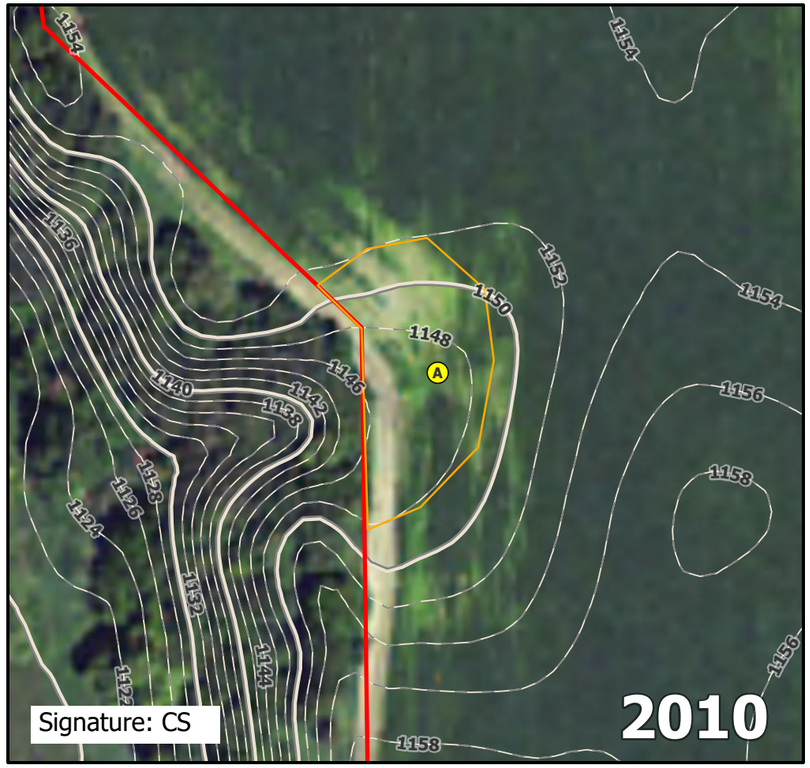
(includes capillary fringe)

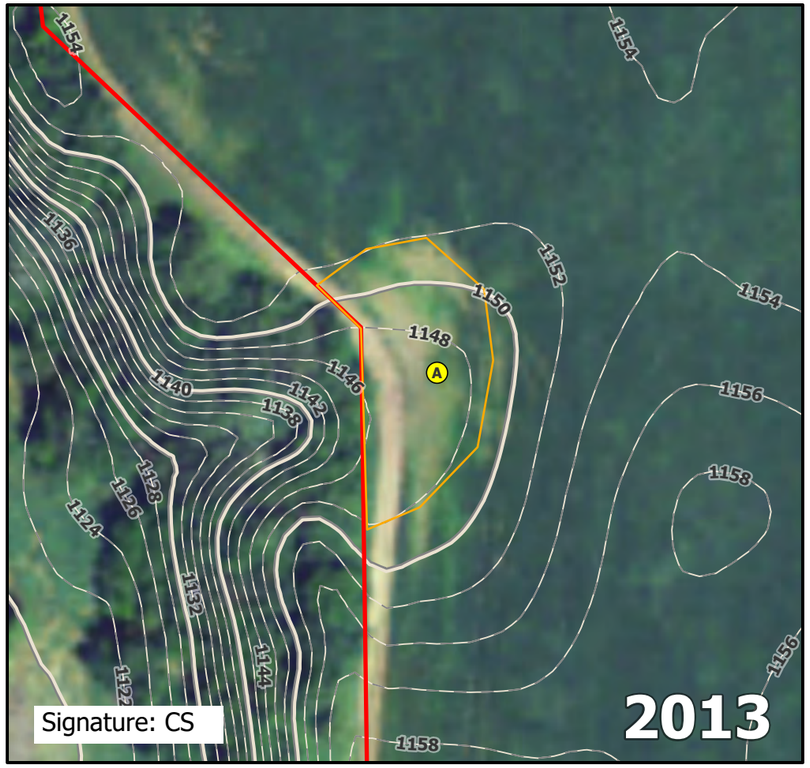
Wetland Hydrology Present? No

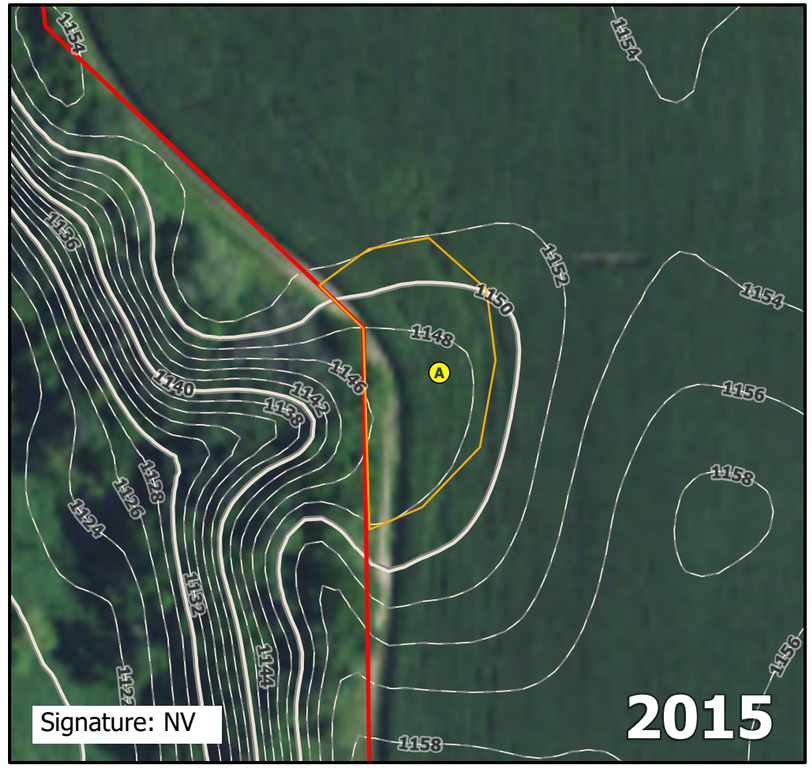
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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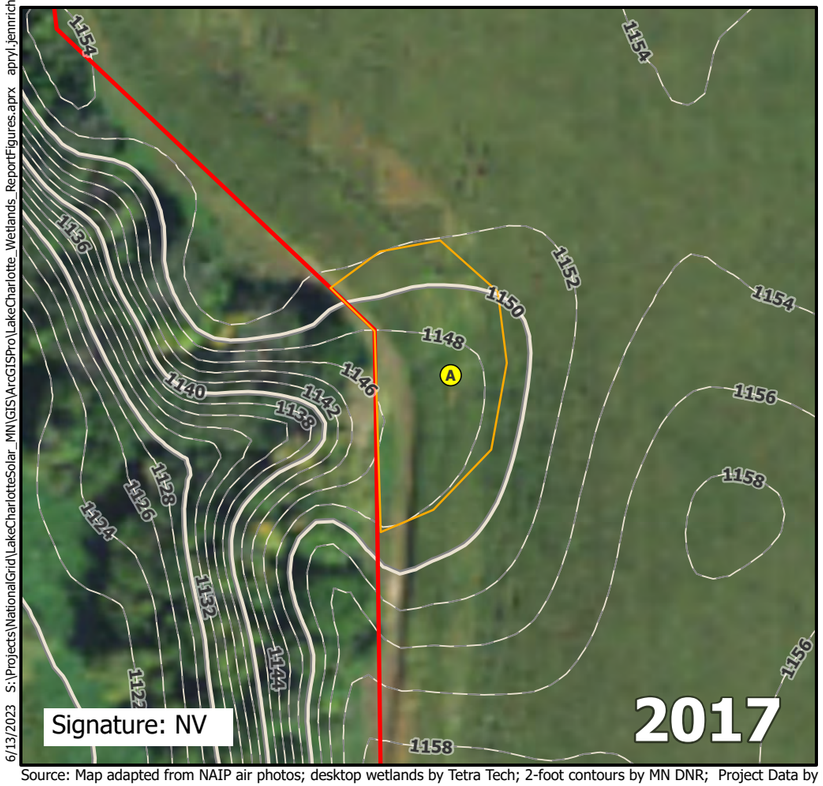
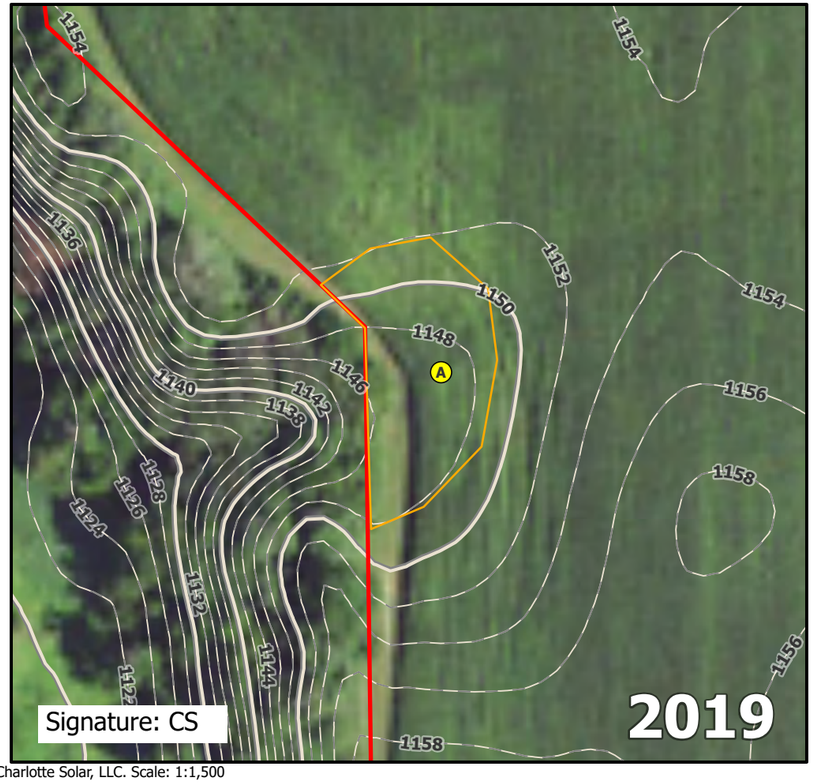
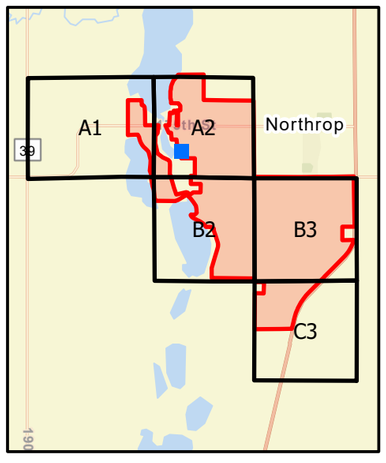
Feet







Feature ID: NWA035

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Bromus inermis*	99	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	99	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	99	x 4 =	396
UPL species	0	x 5 =	0
Column totals	99 (A)		396 (B)

Prevalence Index = B/A = 4

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Bromus inermis*	90	Y	FACU
2. *Phalaris arundinacea*	2	N	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	92	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 0% (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	2	x 2 =	4
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column totals	92 (A)		364 (B)

Prevalence Index = B/A = 3.96

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

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

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

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

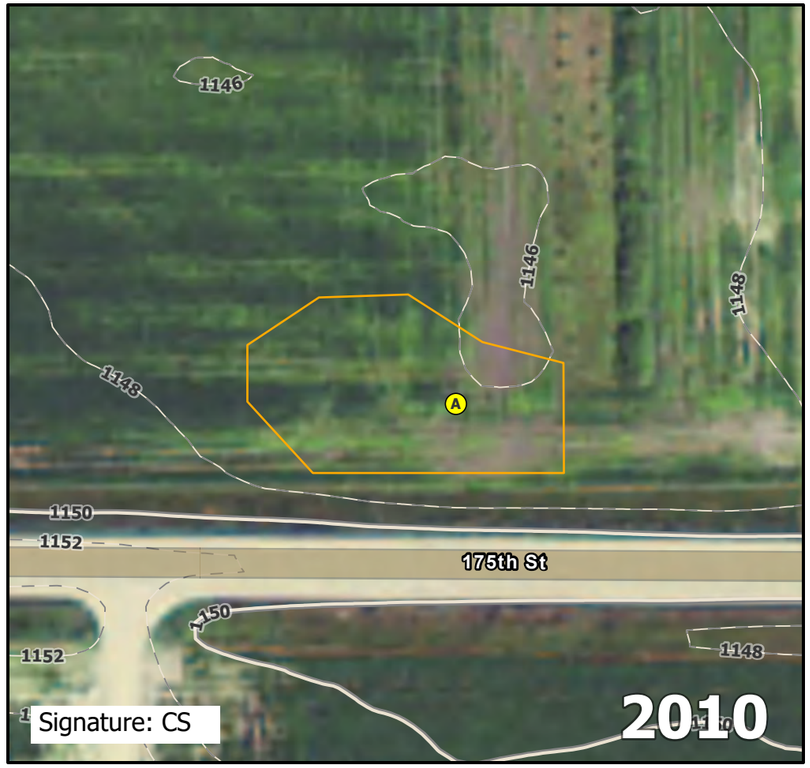
Wetland Hydrology Present? No

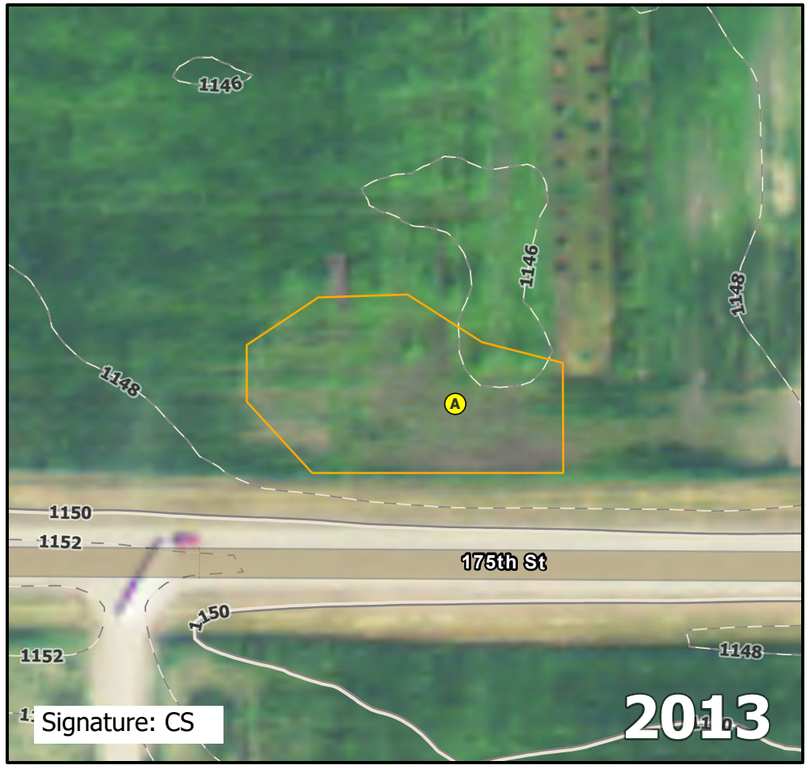
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

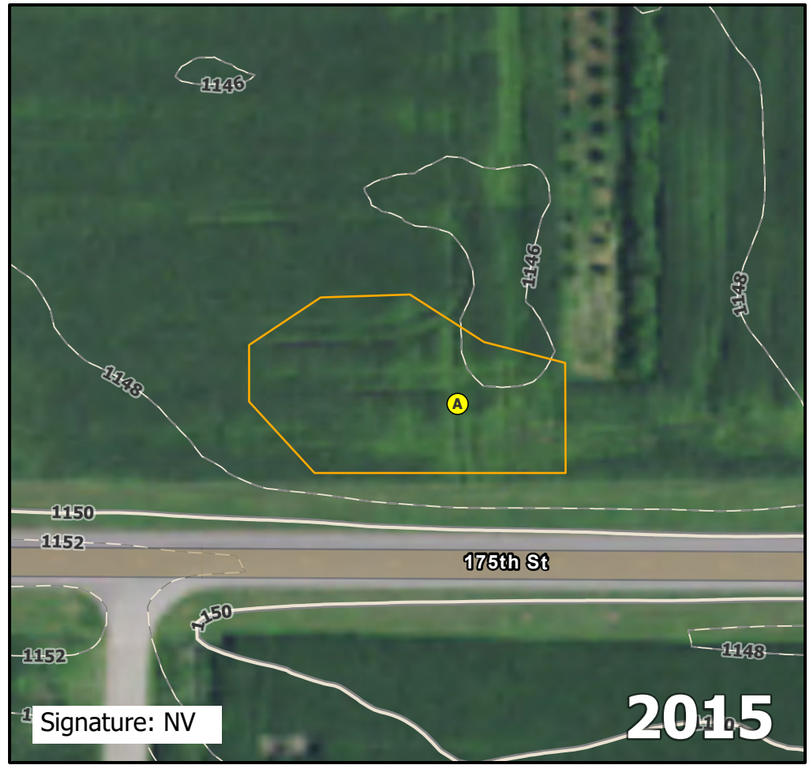
Remarks:

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







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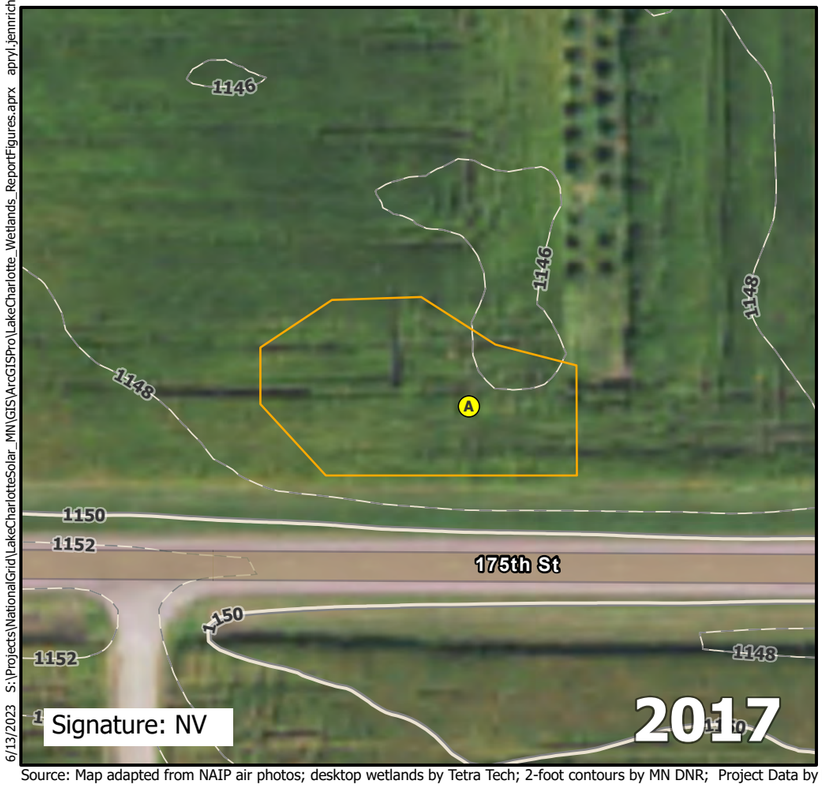
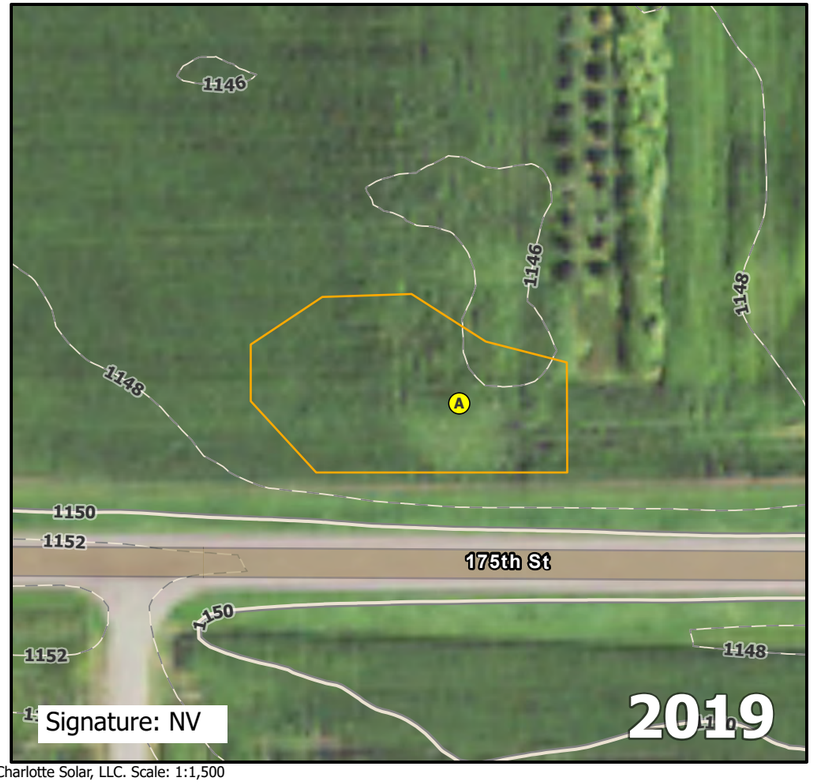
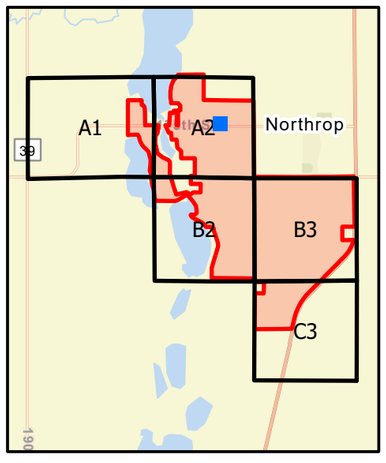
Feet







Feature ID: NWA038

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

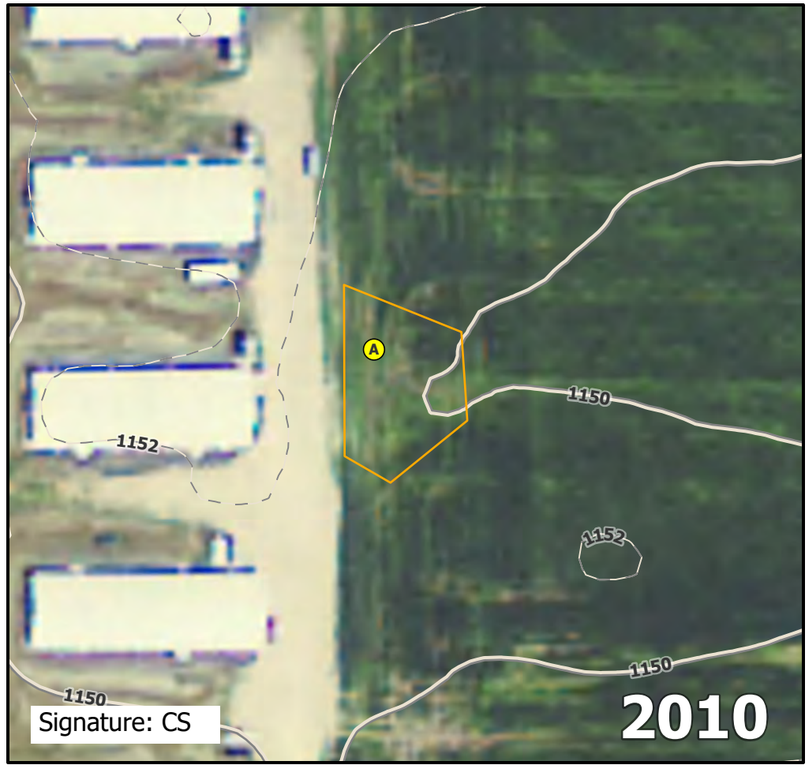
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

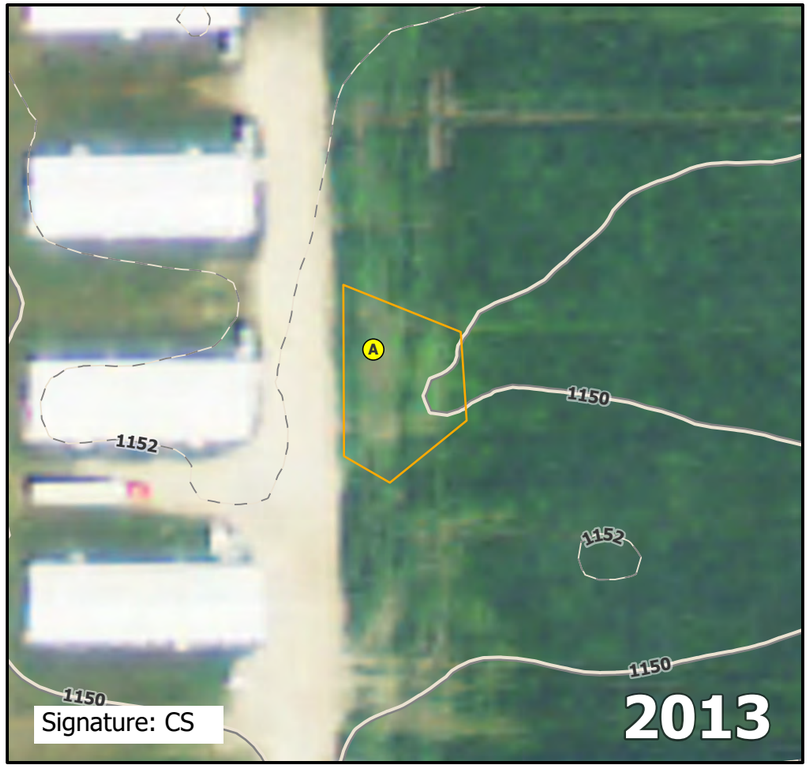
Wetland Hydrology Present? No

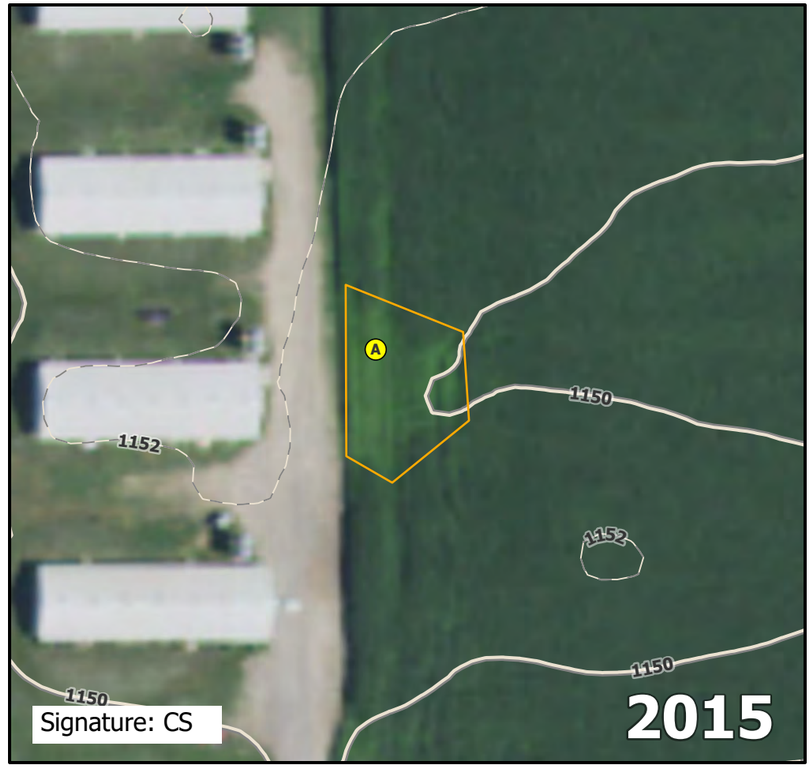
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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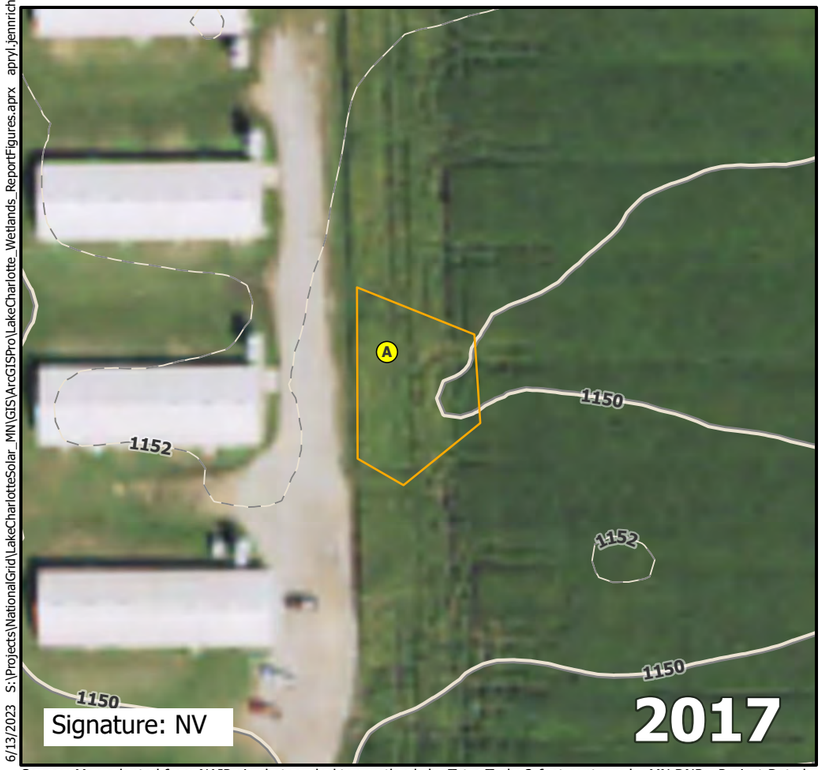
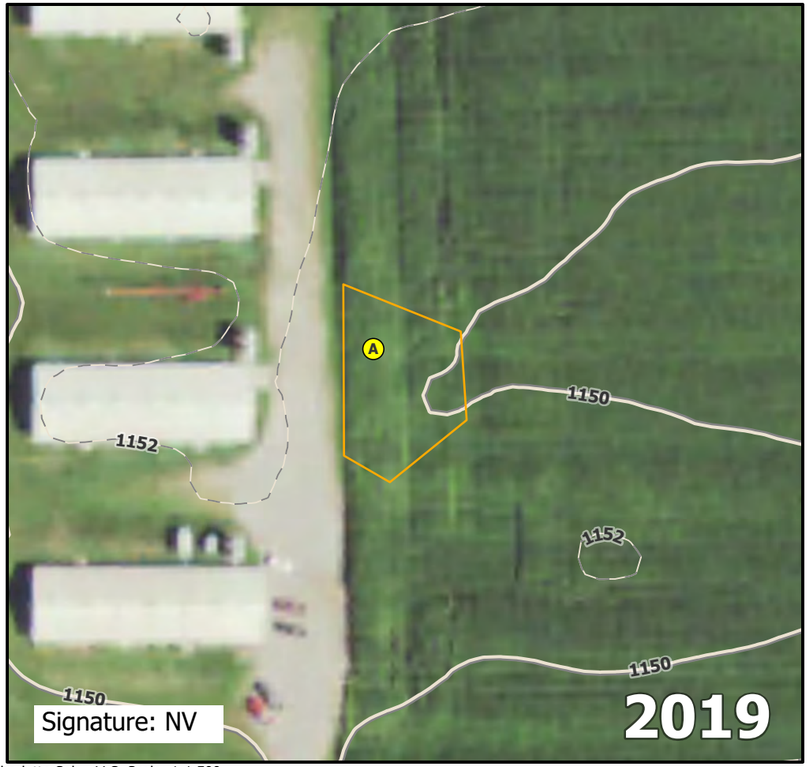
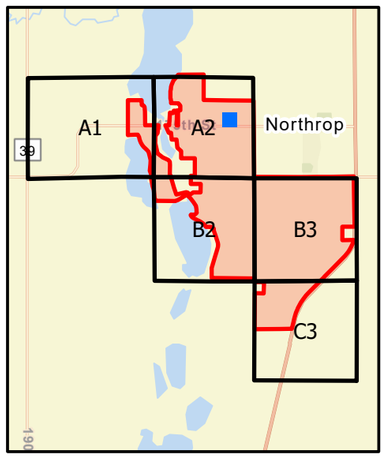
Feet







Feature ID: NWA039

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

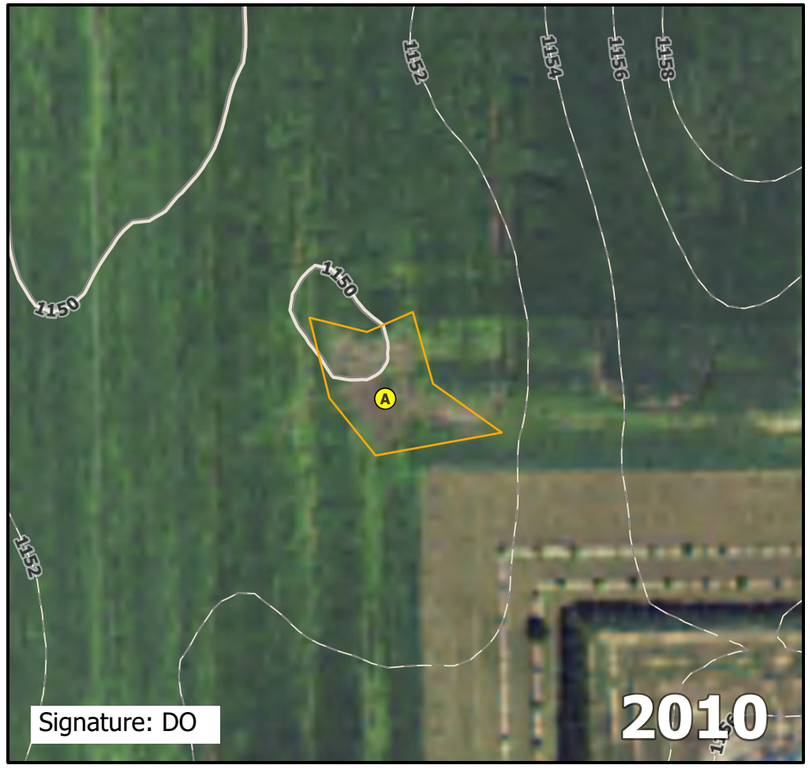
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

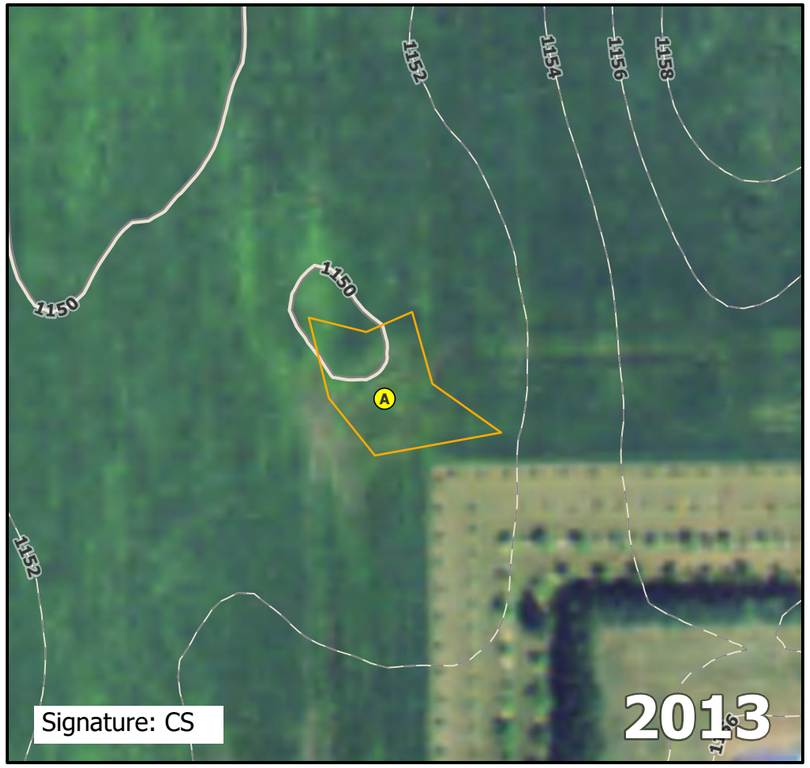
Wetland Hydrology Present? No

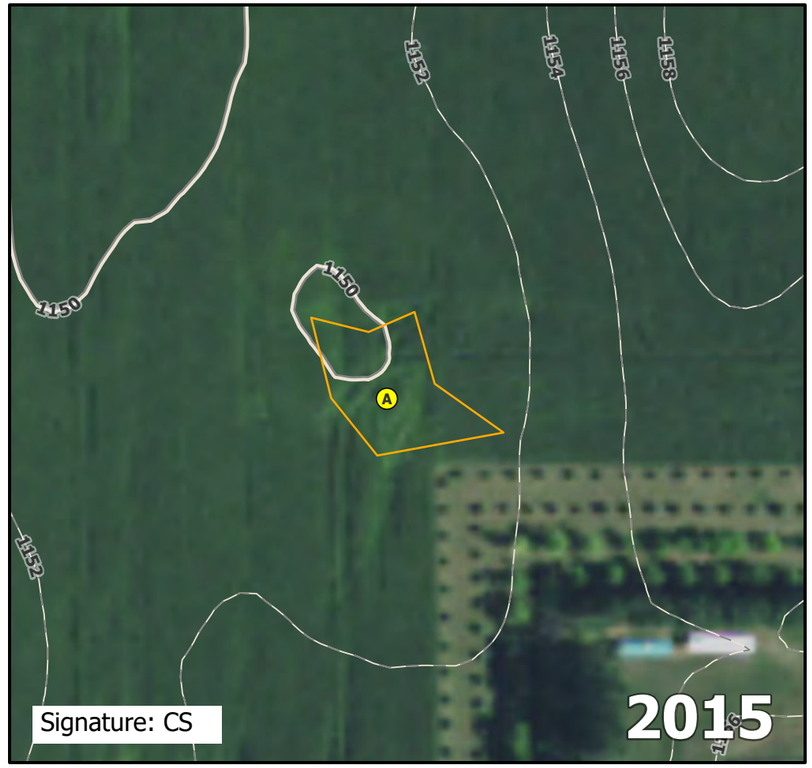
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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

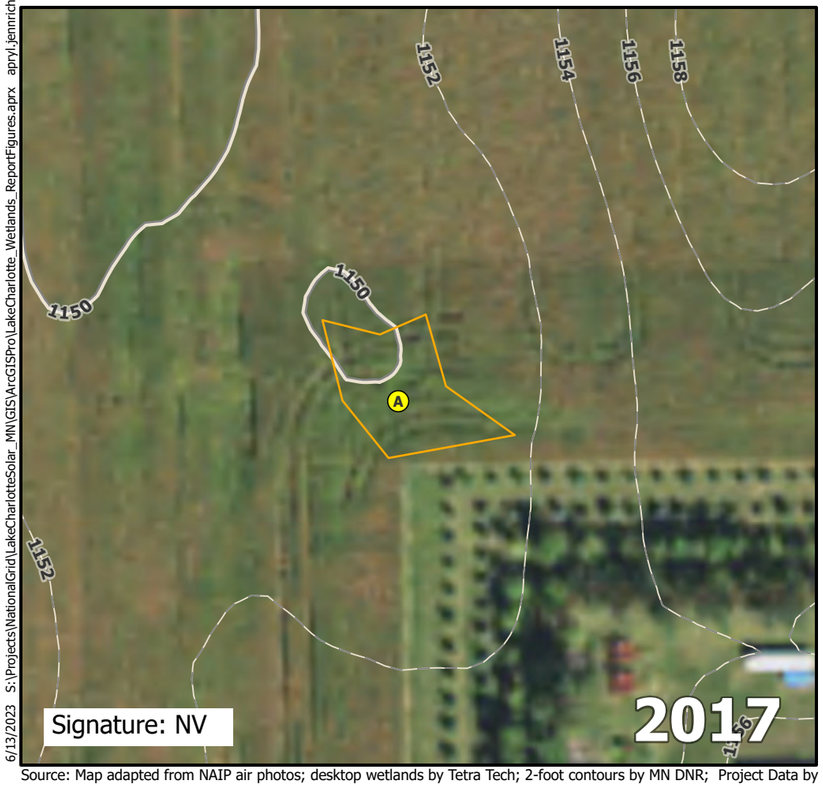


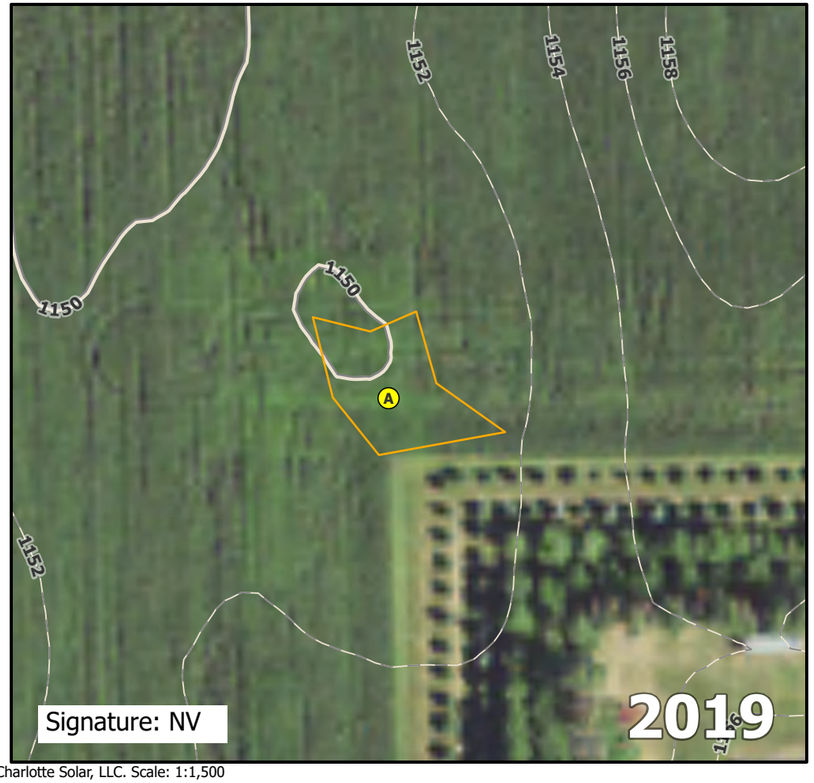


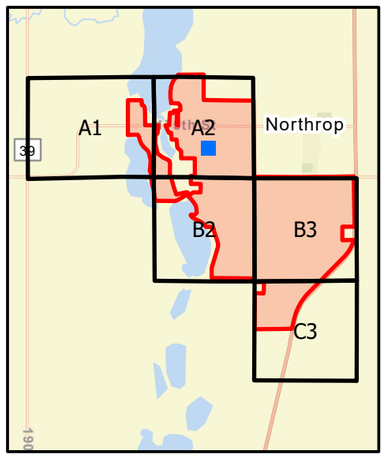


0 40 80 120 160 200

Feet







Feature ID: NWA040

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA041

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

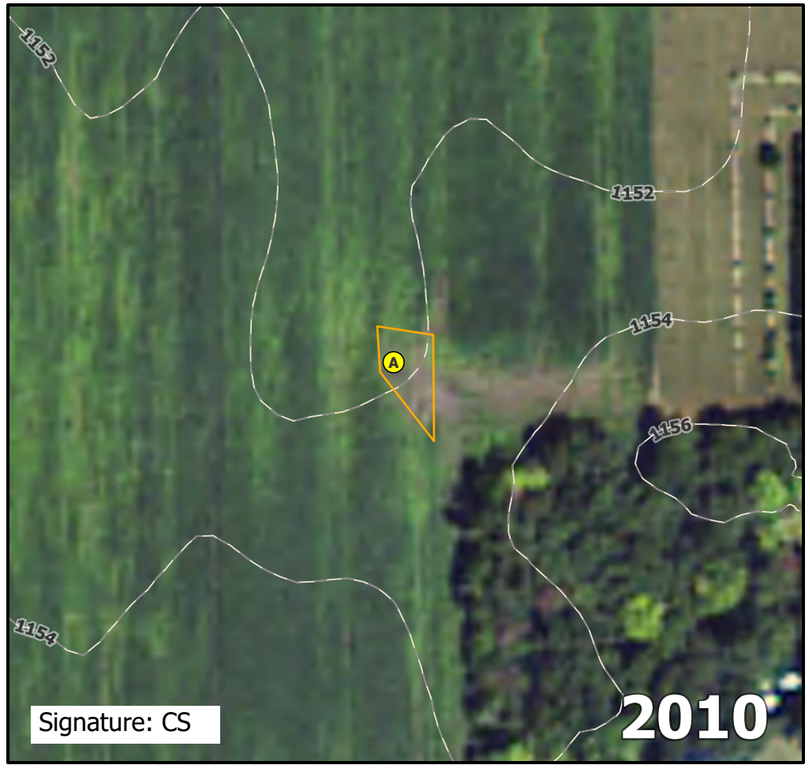
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

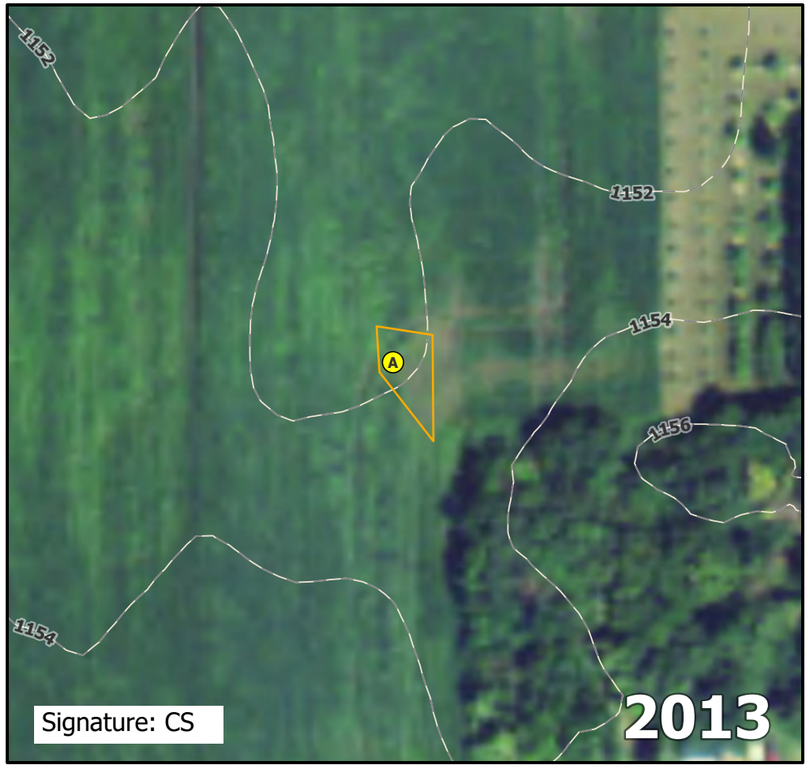
Wetland Hydrology Present? No

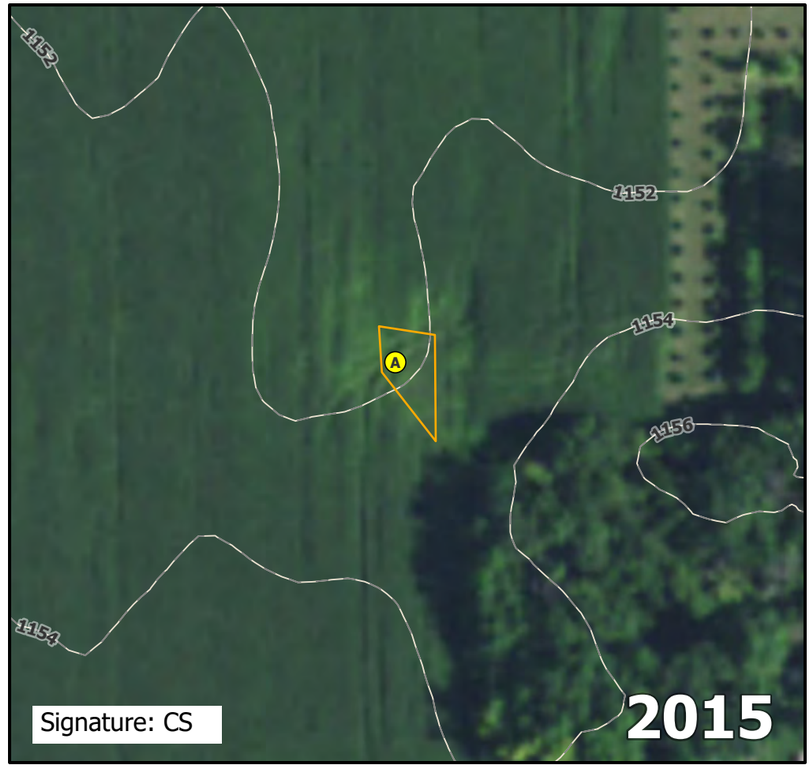
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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

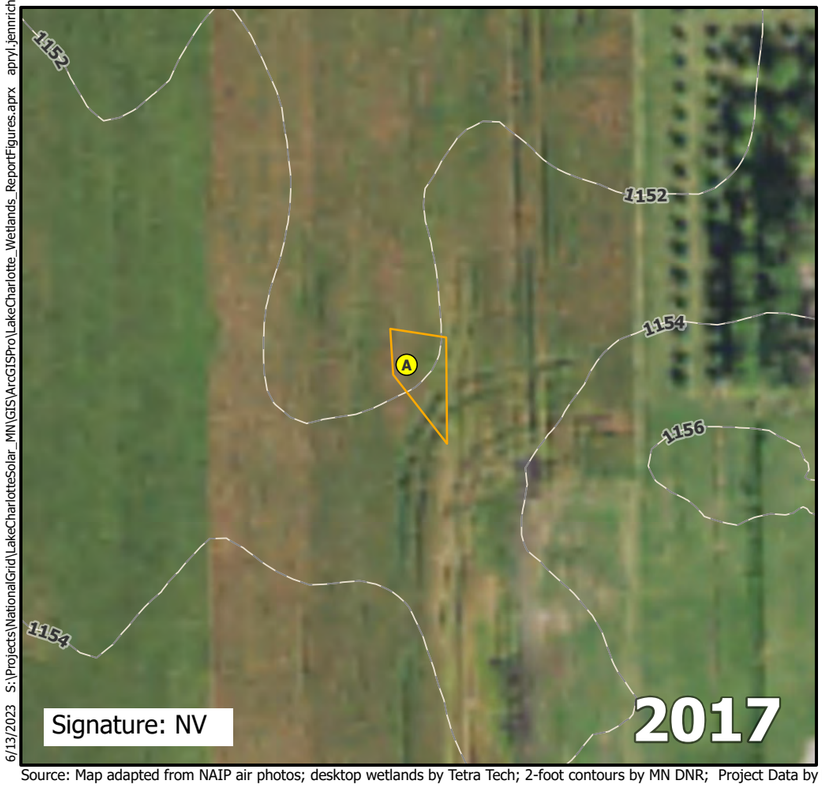


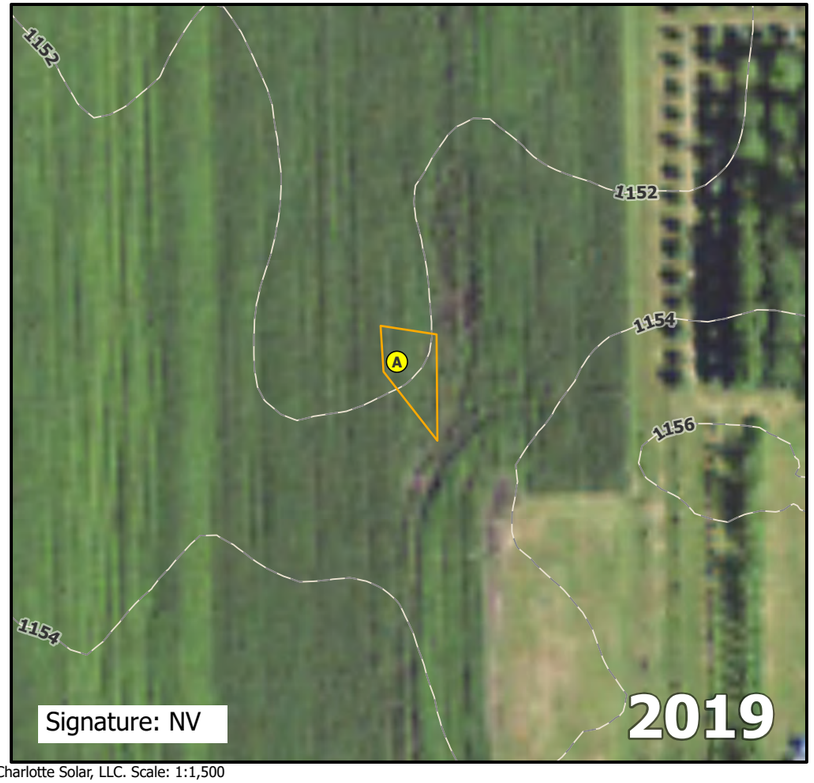


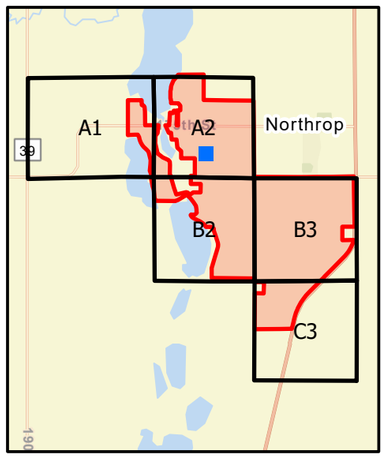


0 40 80 120 160 200

Feet







Feature ID: NWA041

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

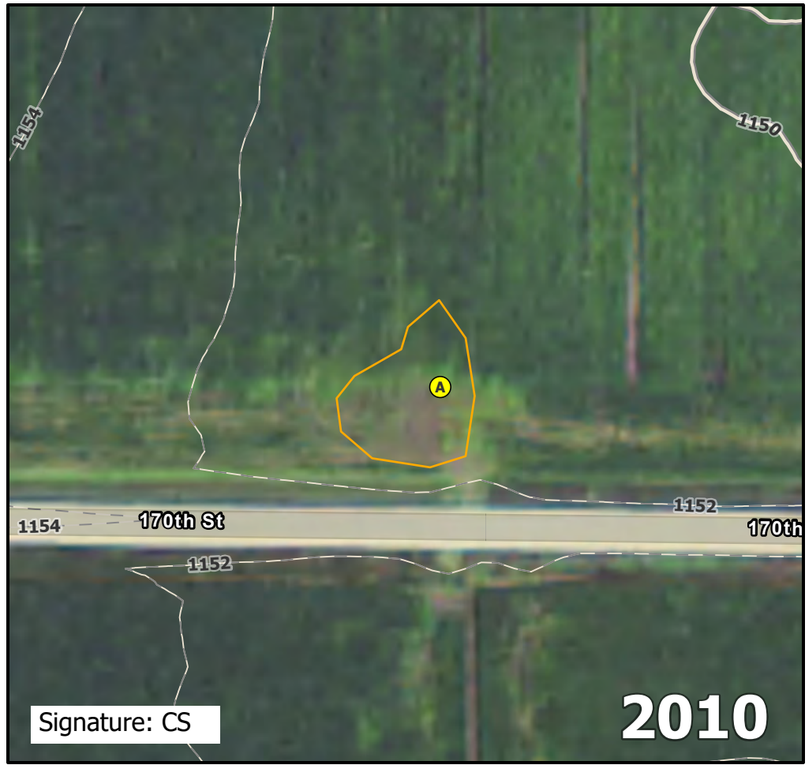
Wetland Hydrology Present? No

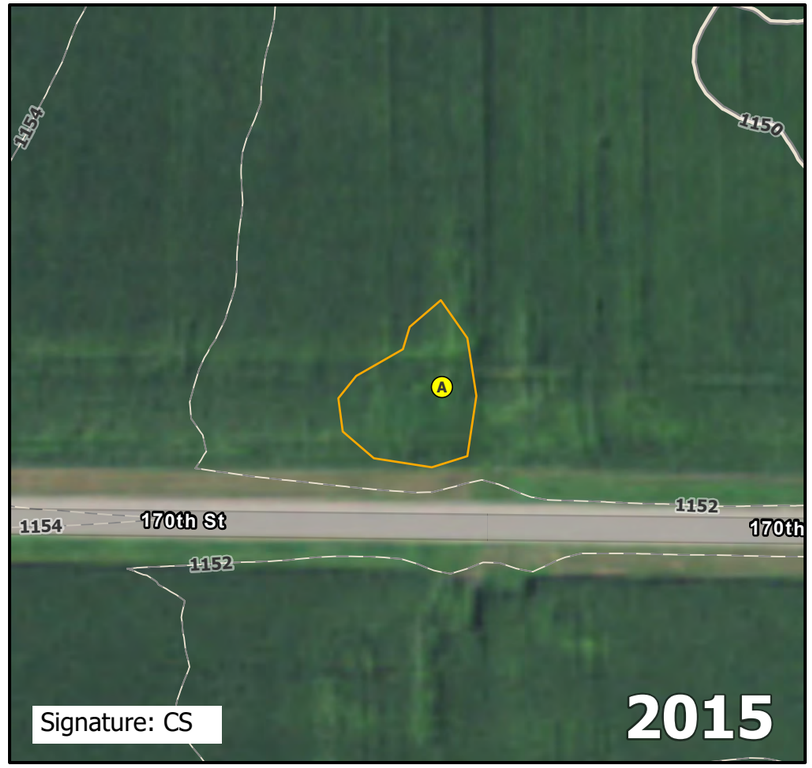
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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





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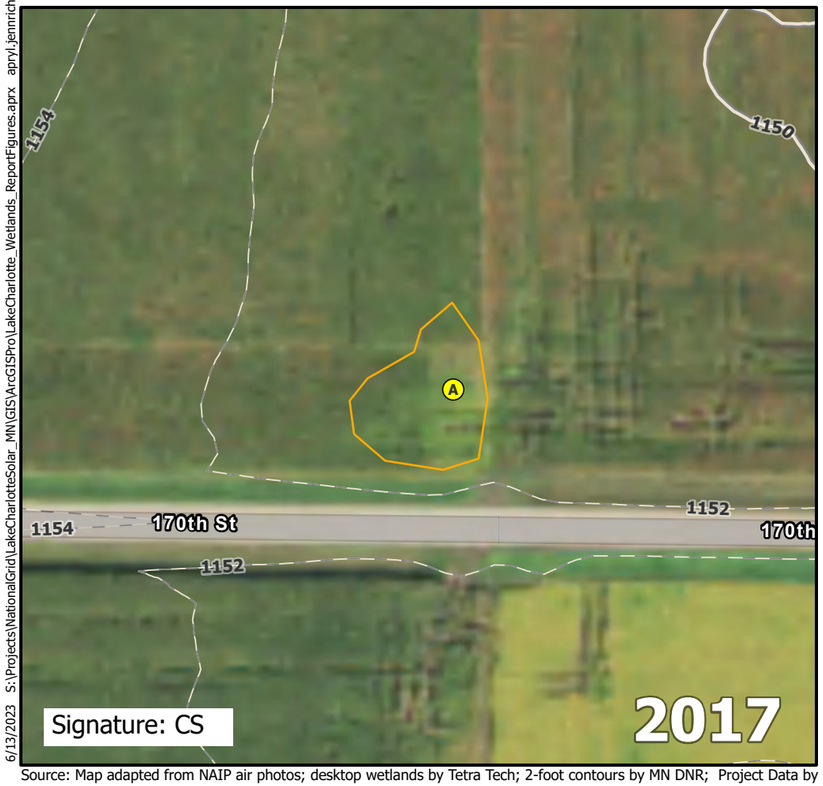
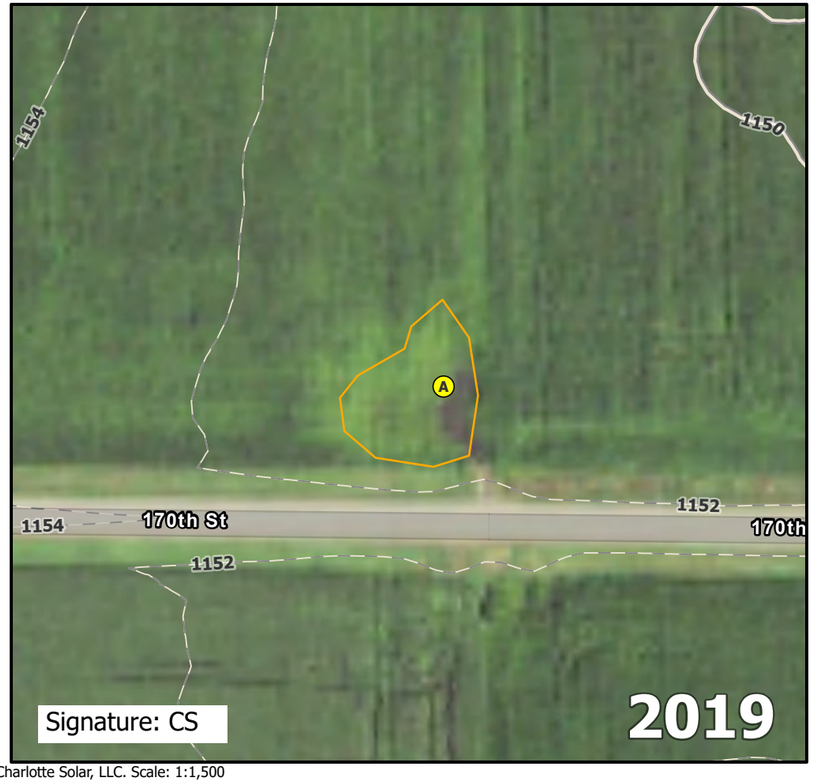
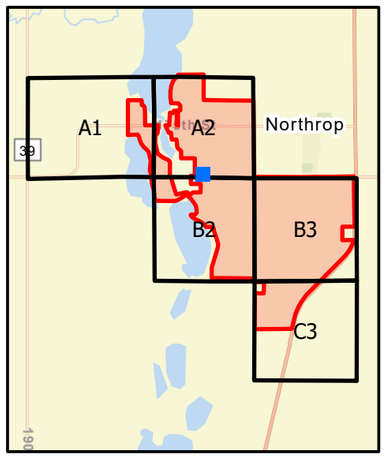
Feet







Feature ID: NWA042

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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: 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species	Indicator 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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

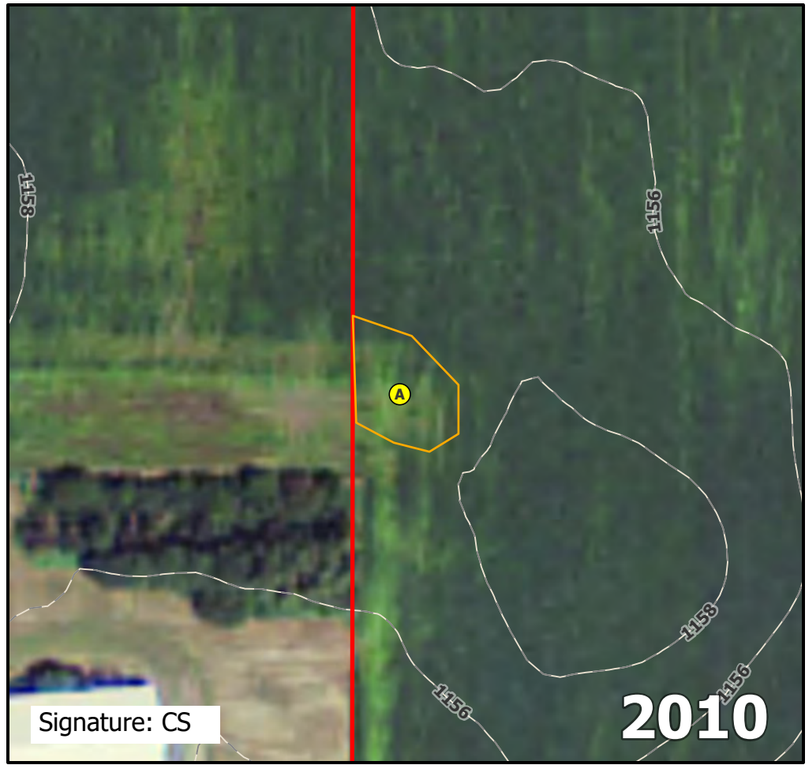
Wetland Hydrology Present? No

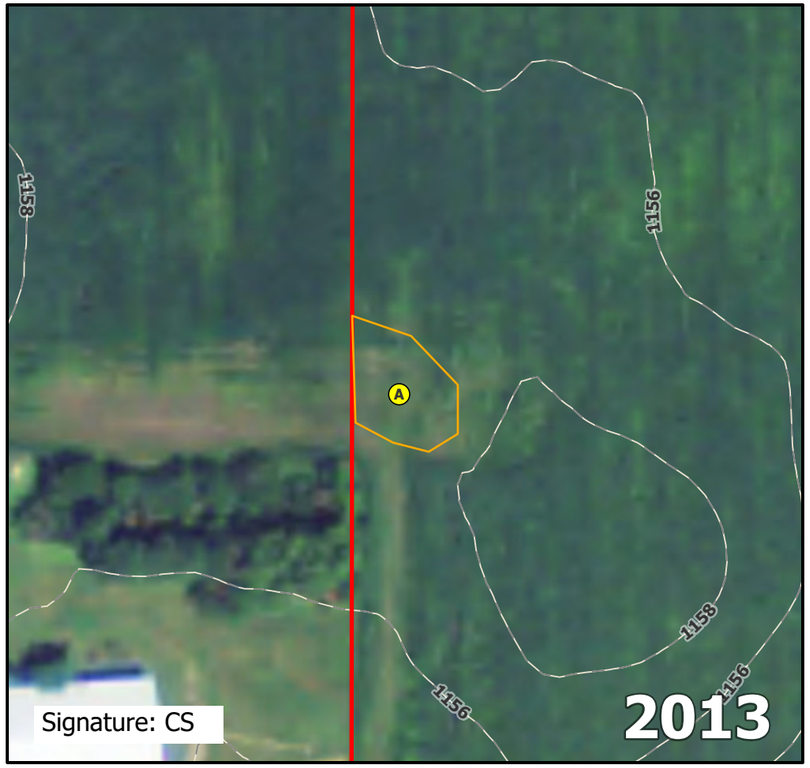
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

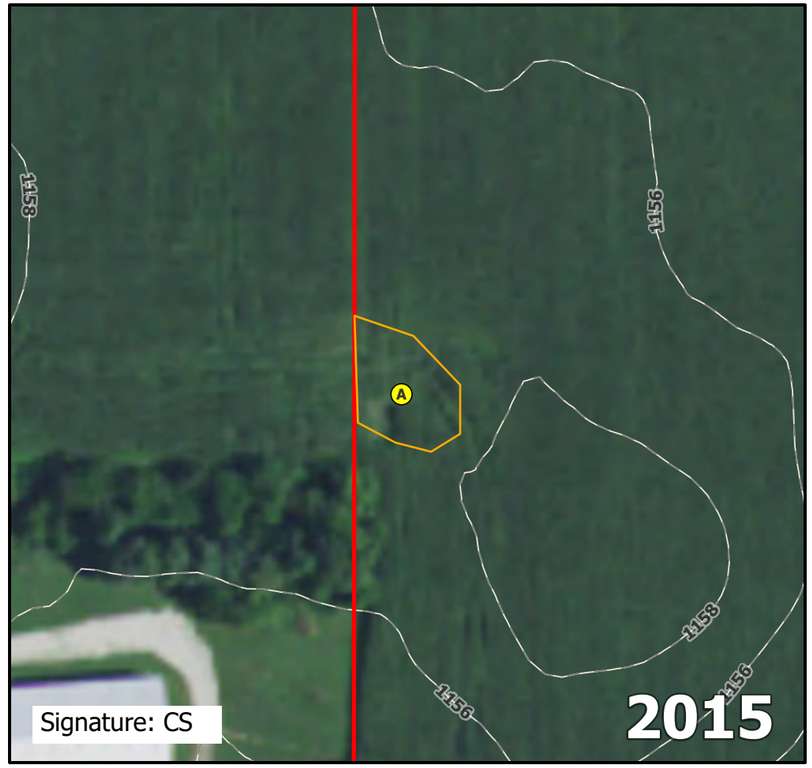
Remarks:

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

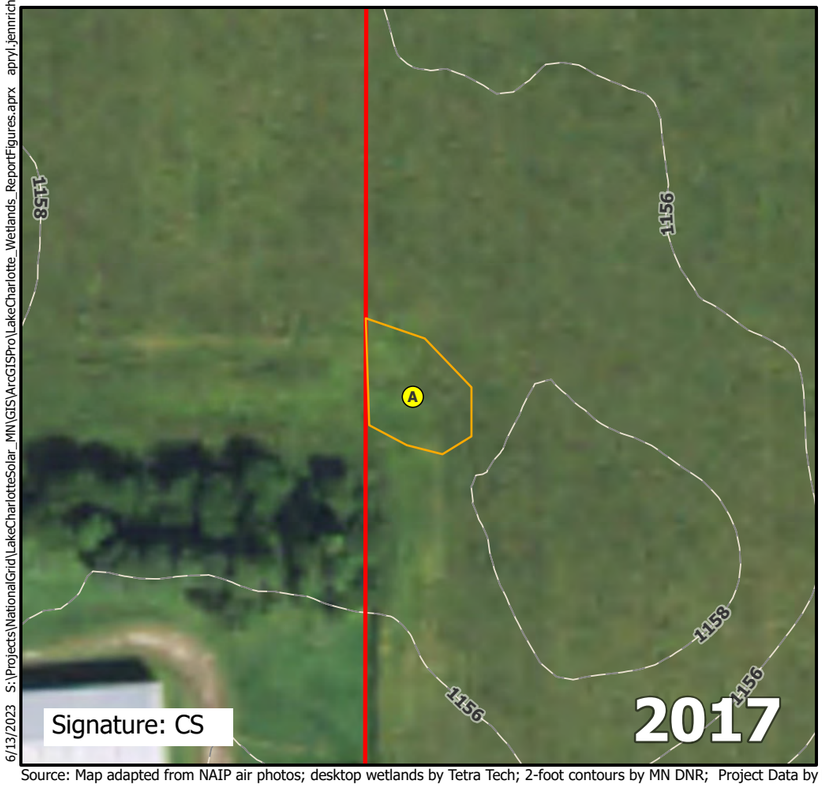


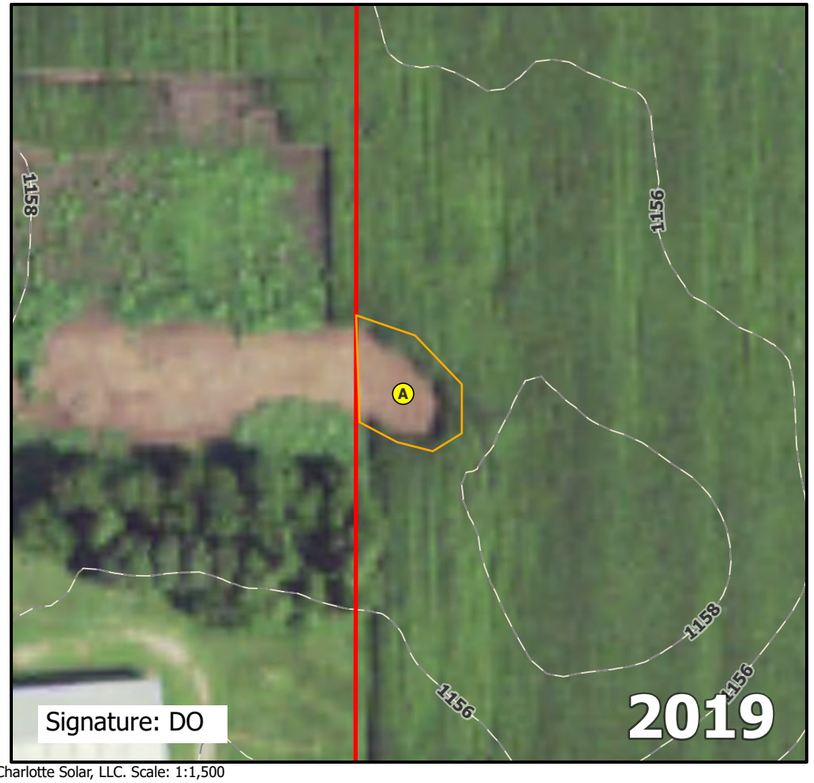


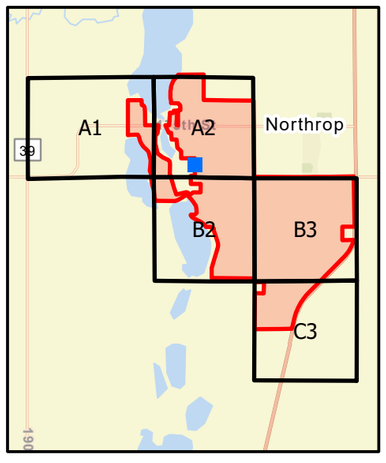


0 40 80 120 160 200

Feet







Feature ID: NWA043

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA044

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

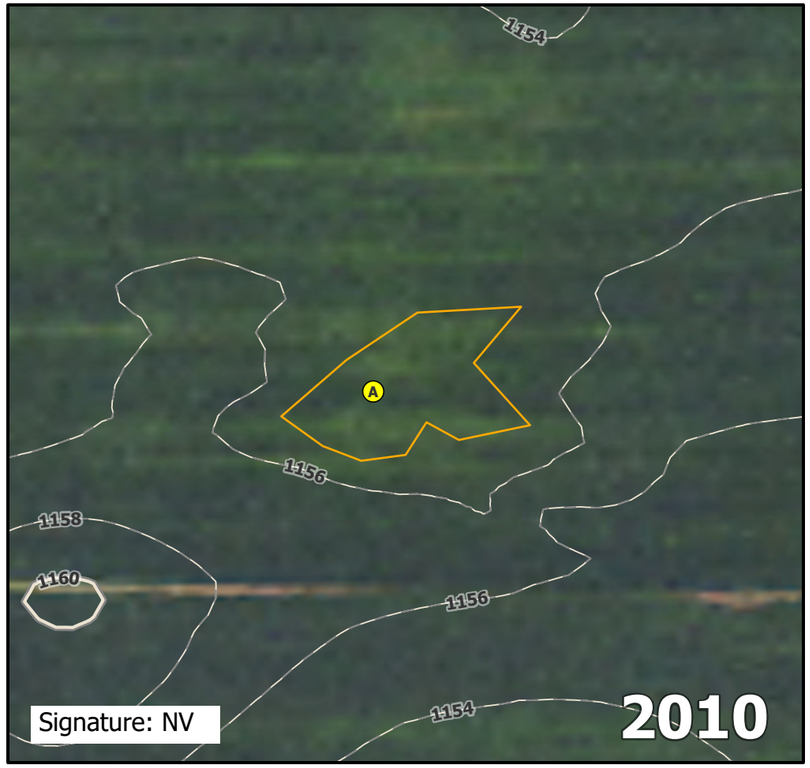
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

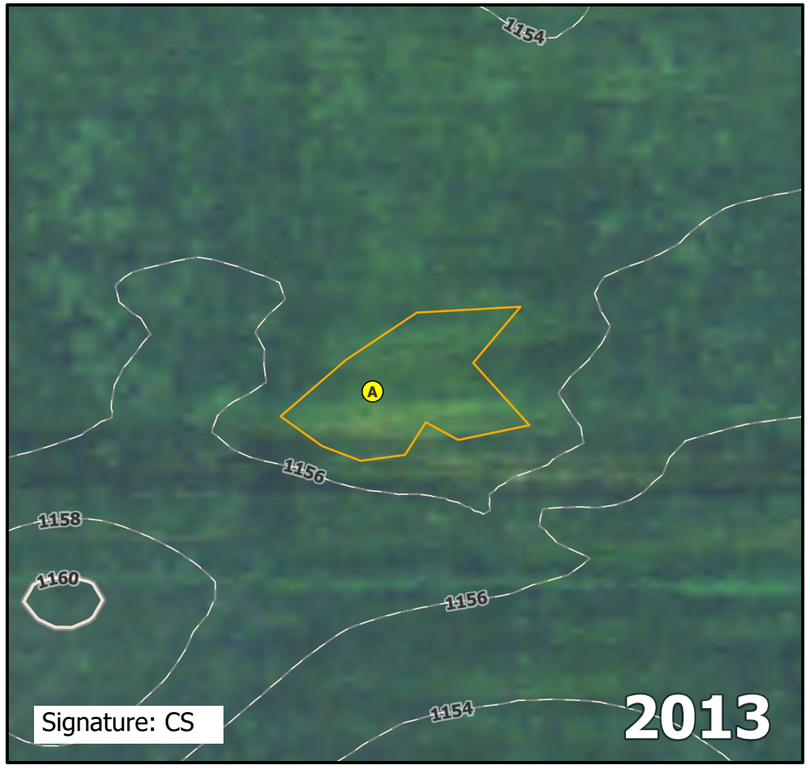
Wetland Hydrology Present? No

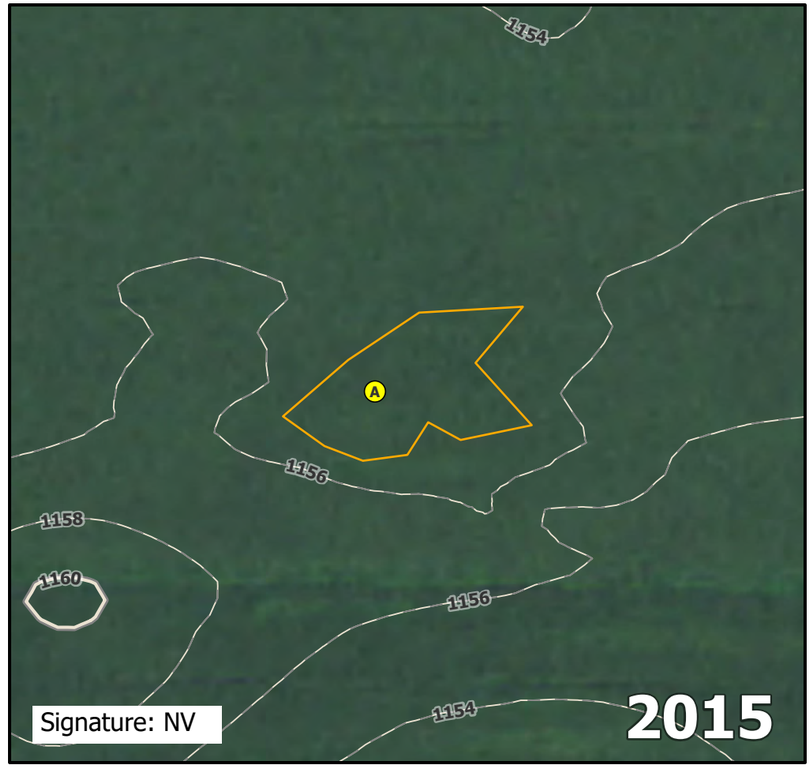
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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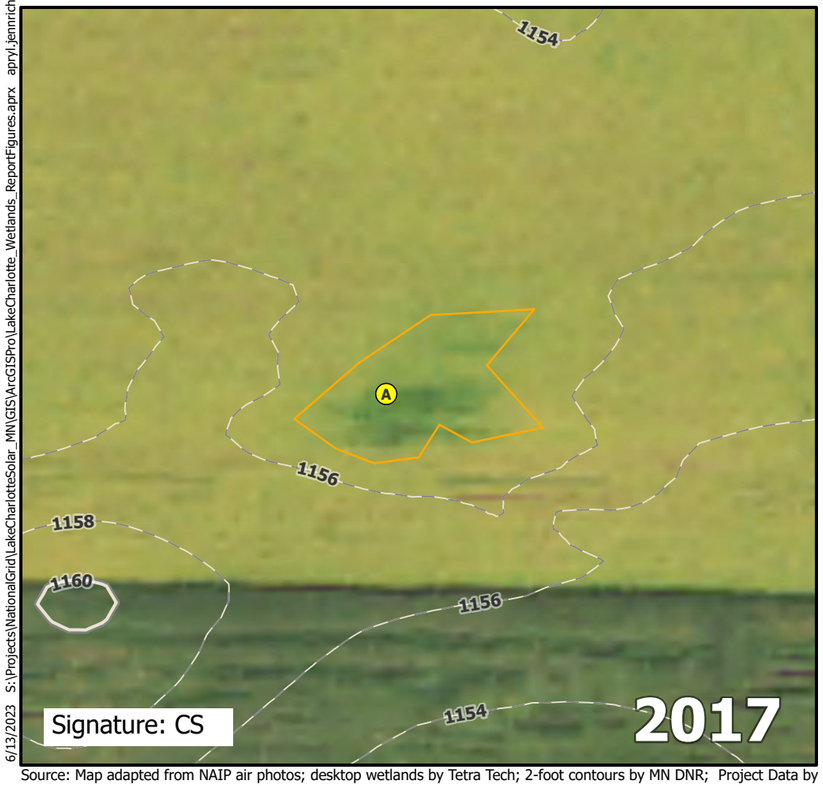
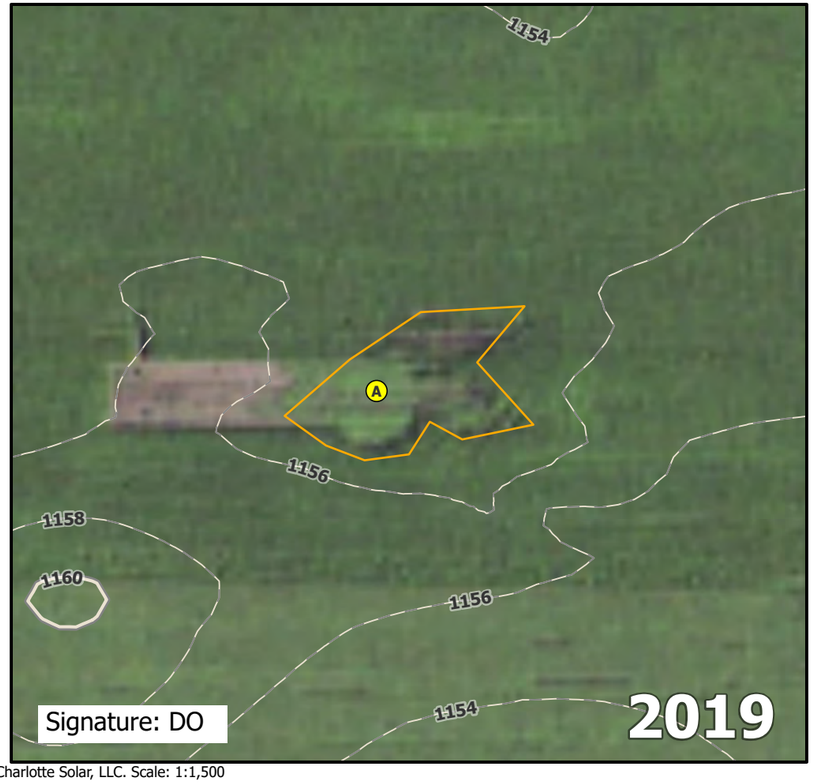
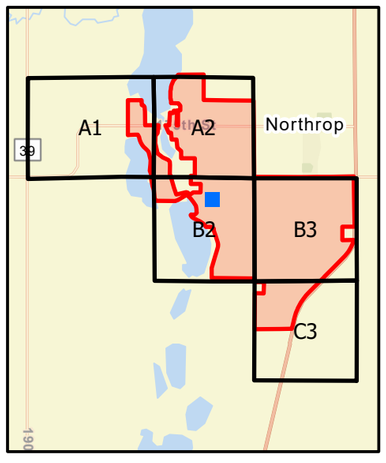
Feet







Feature ID: NWA044

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA047

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

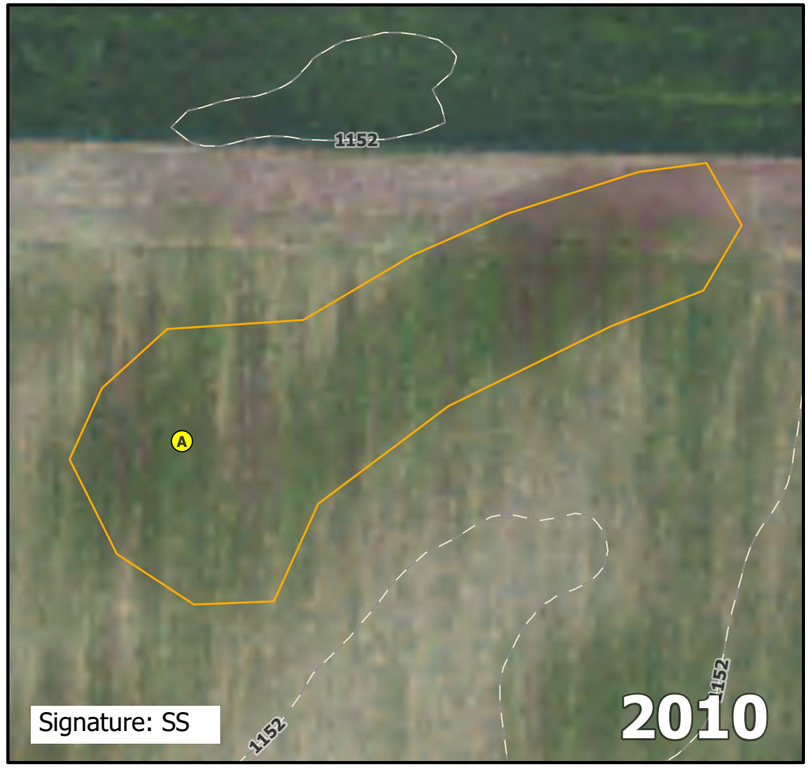
(includes capillary fringe)

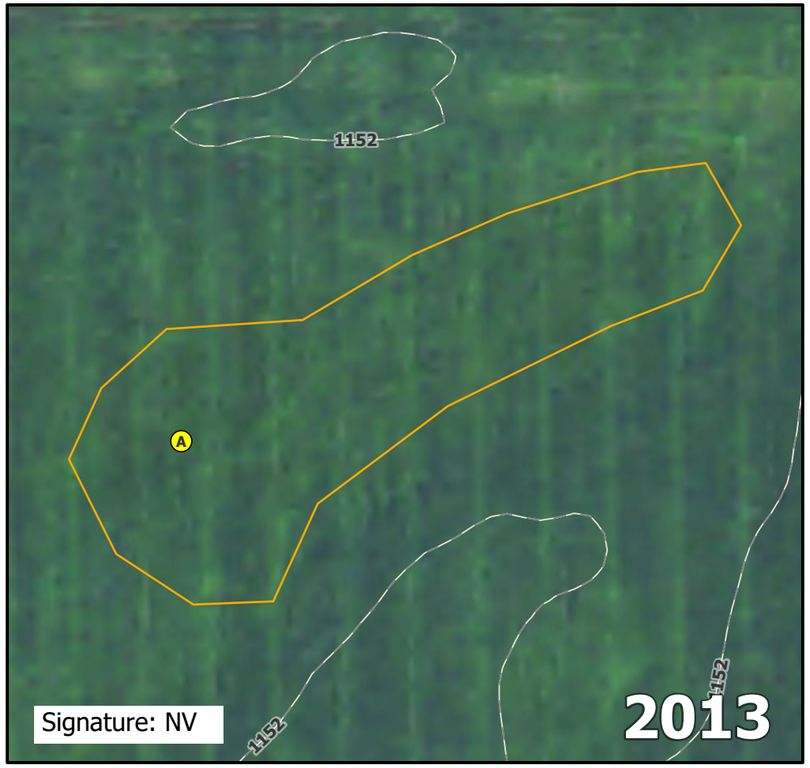
Wetland Hydrology Present? No

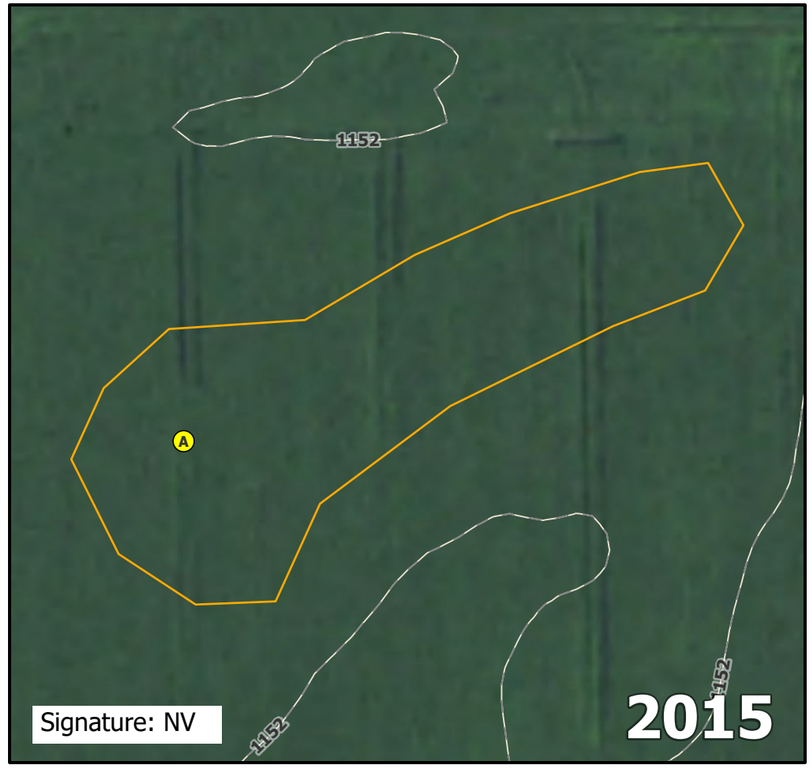
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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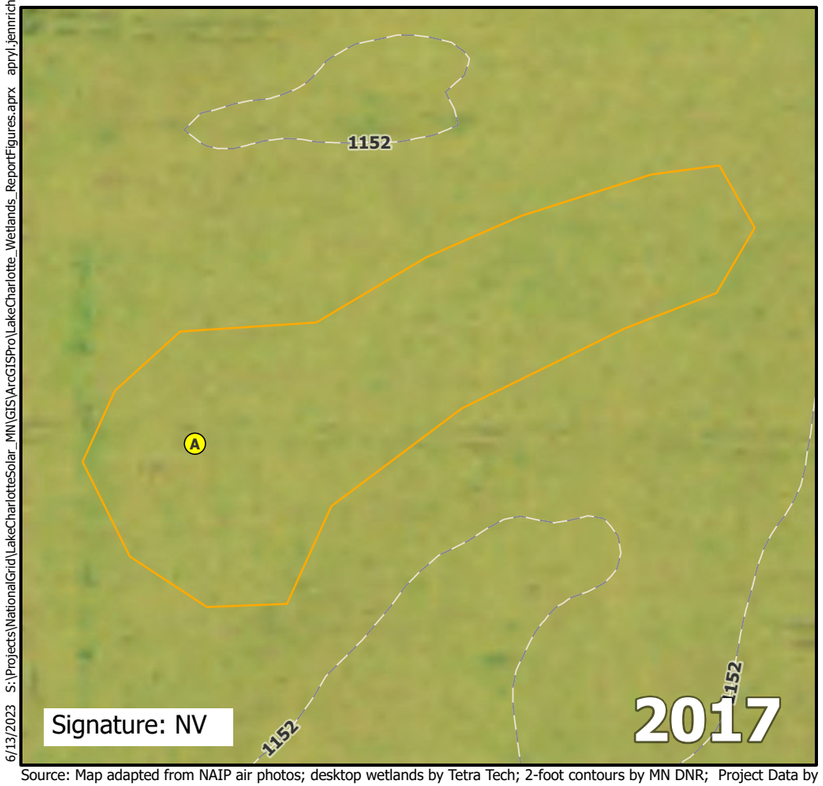
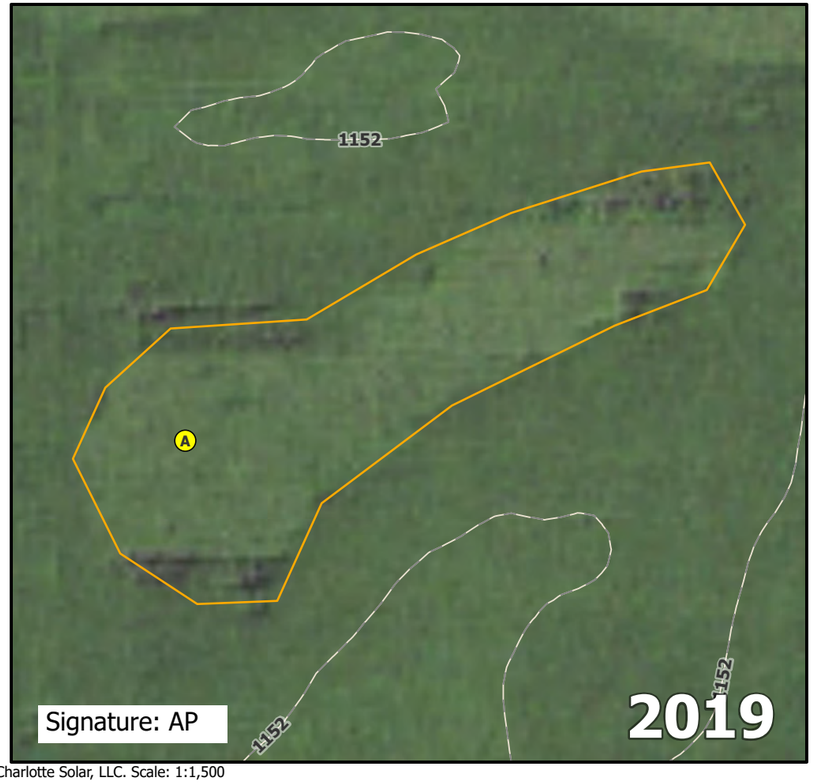
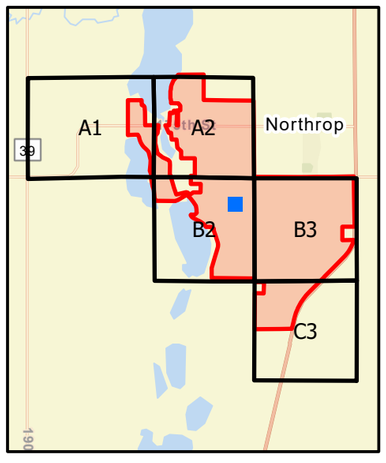
Feet







Feature ID: NWA047

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWA048

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

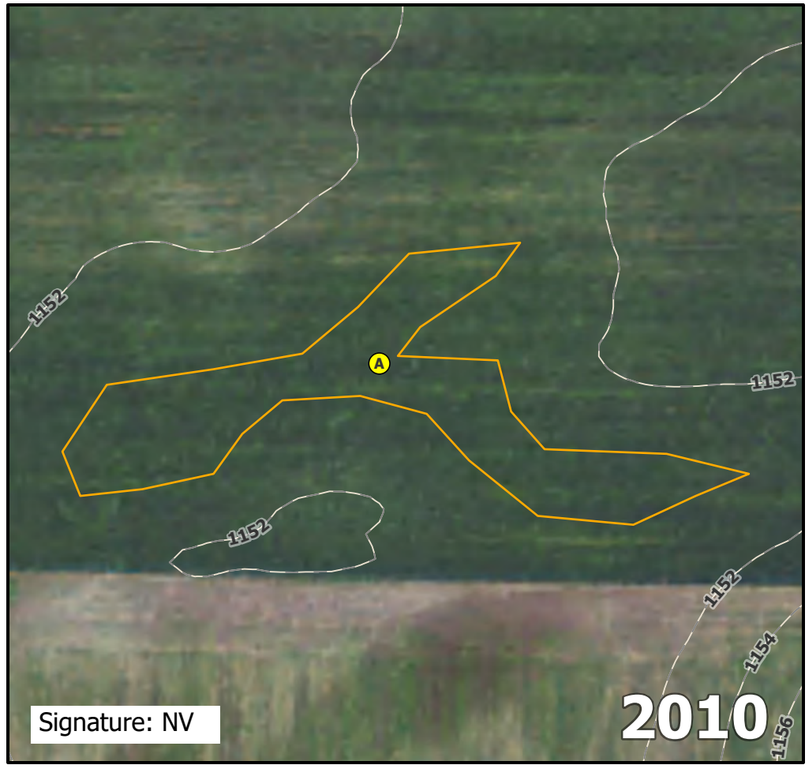
Wetland Hydrology Present? No

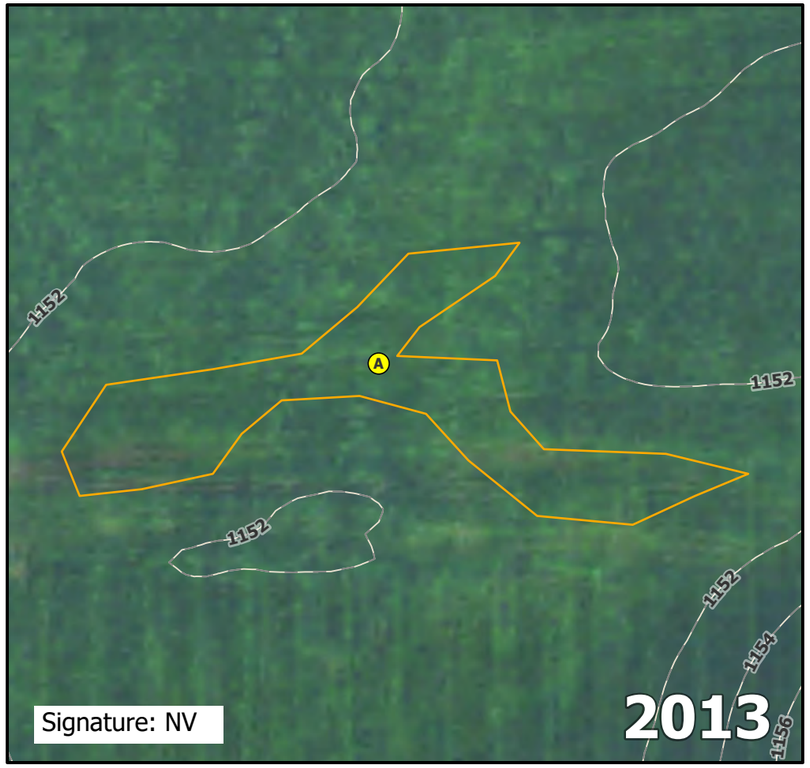
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

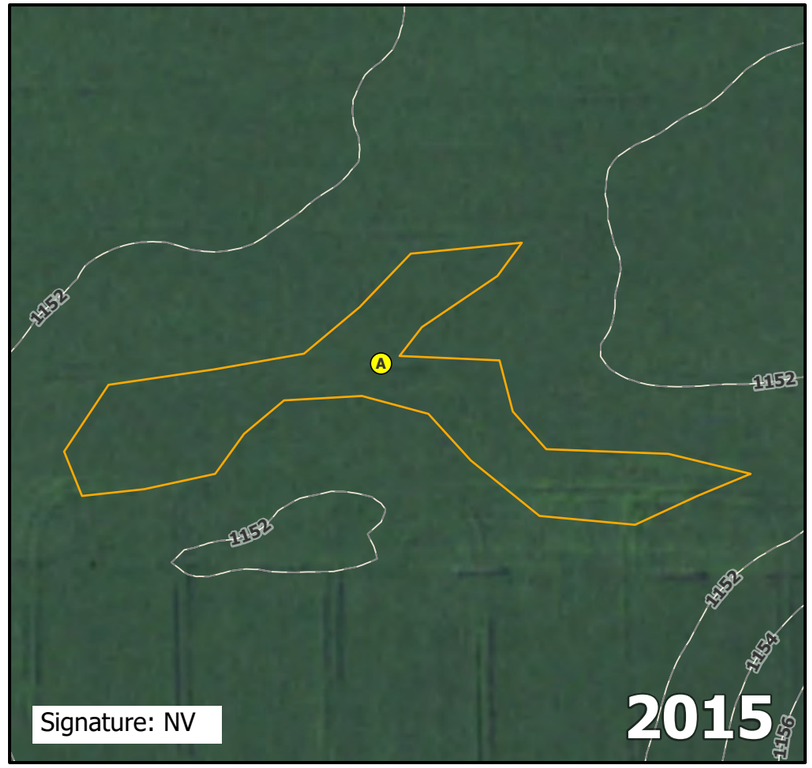
Remarks:

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







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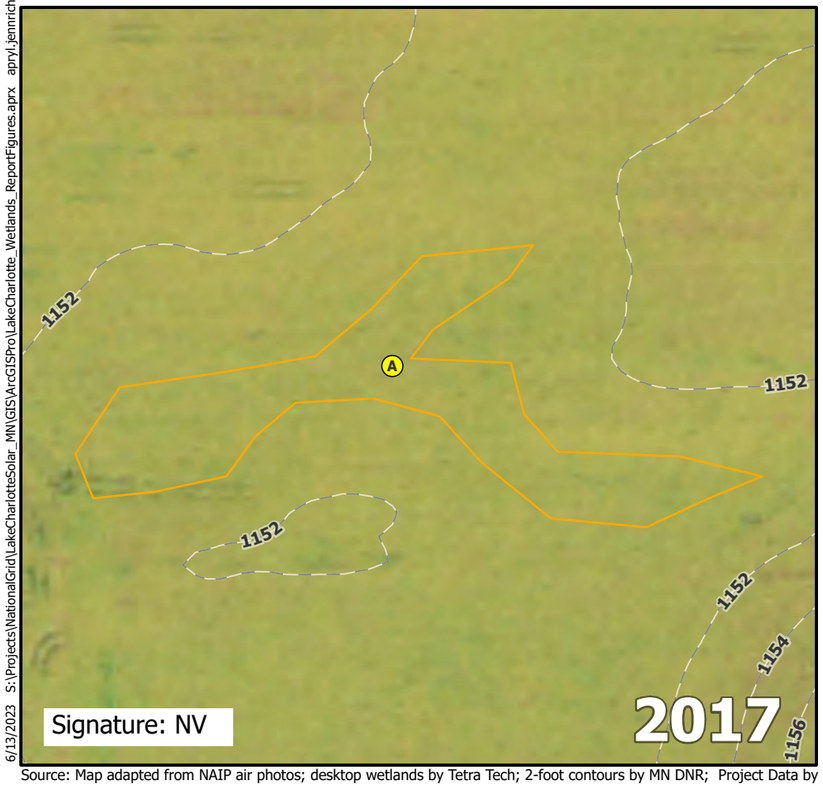
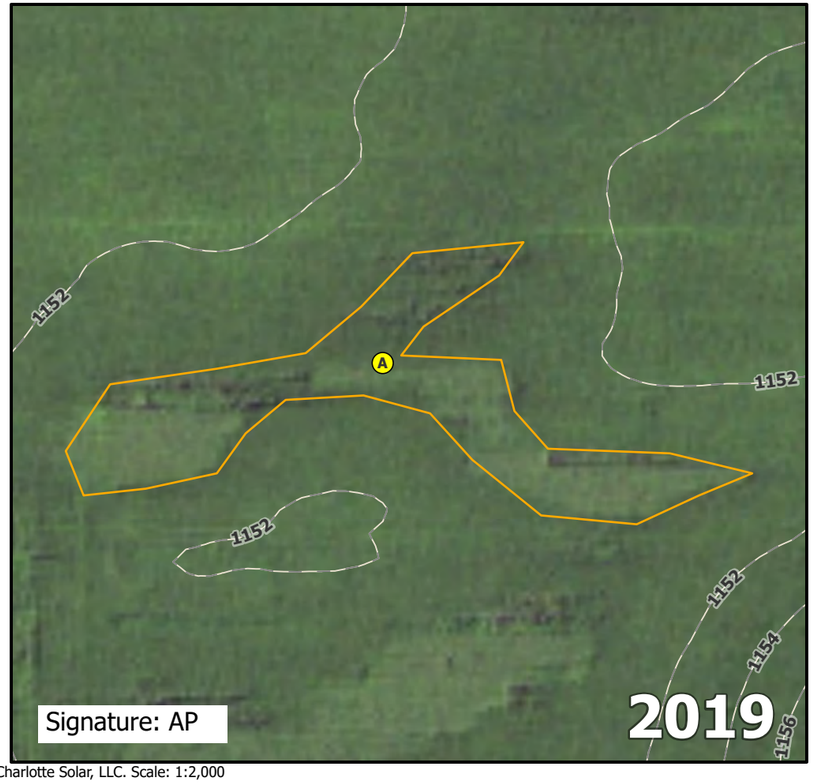
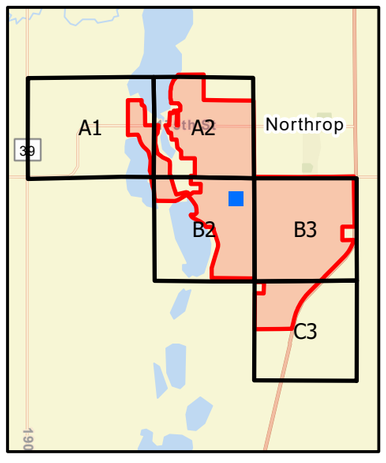
Feet







Feature ID: NWA048

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

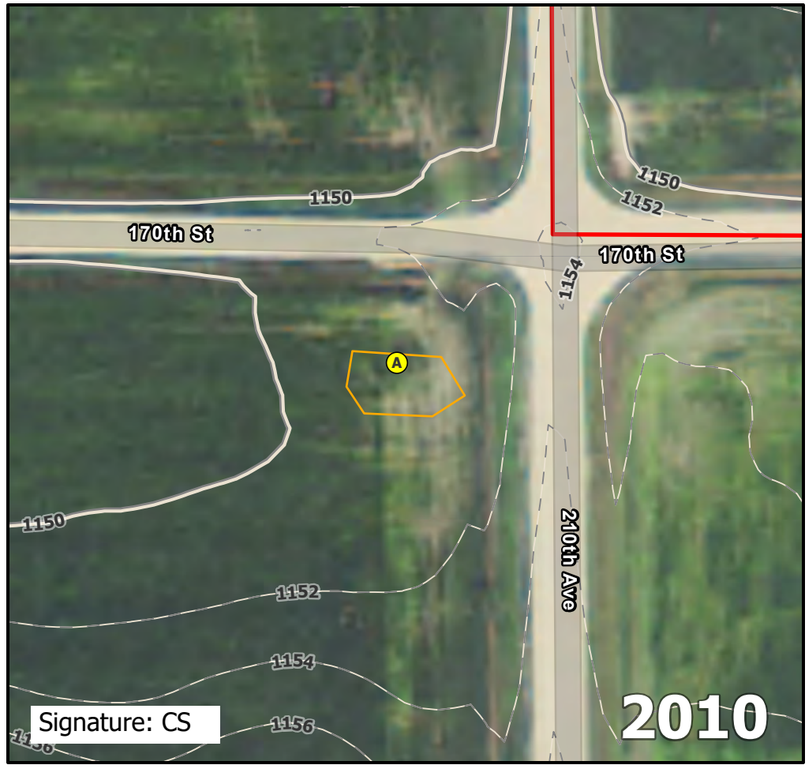
(includes capillary fringe)

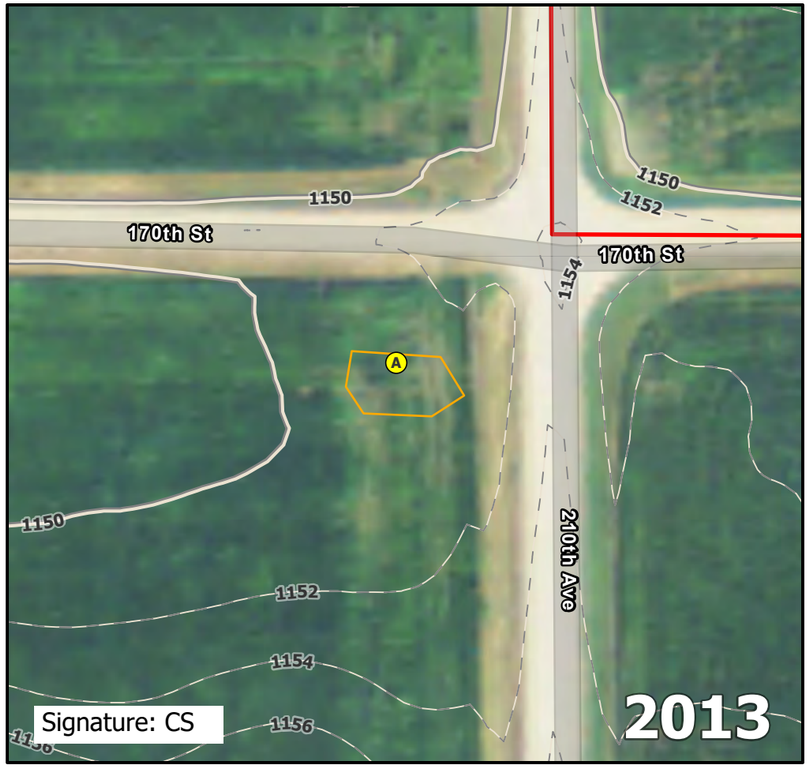
Wetland Hydrology Present? No

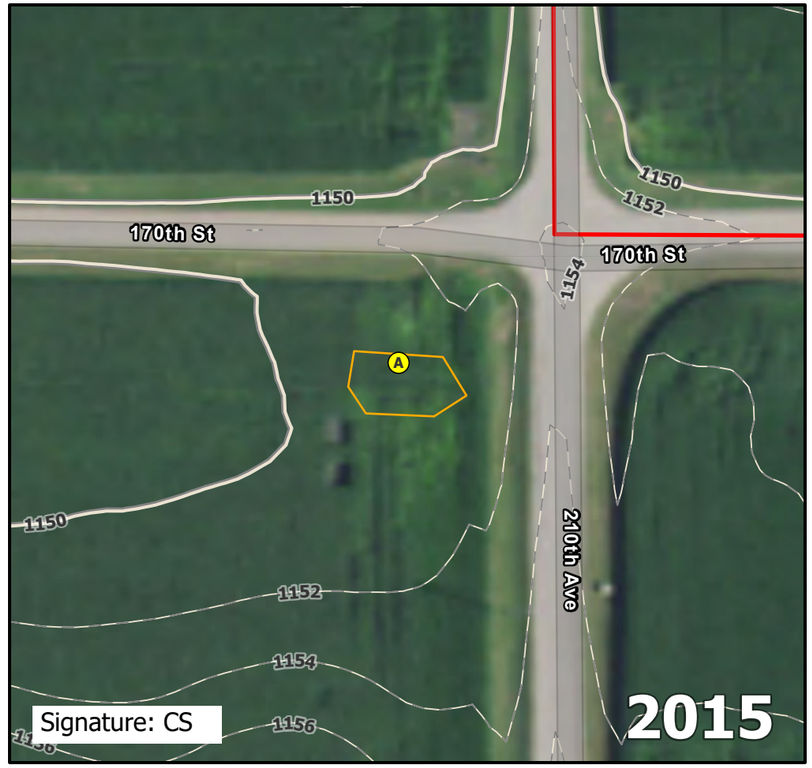
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWA049A.		
Direction: West	Photo ID: delin_photo-20221020-223000.jpg	Date: 10/20/2022
Project Name: Lake Charlotte		Feature ID: NWA049







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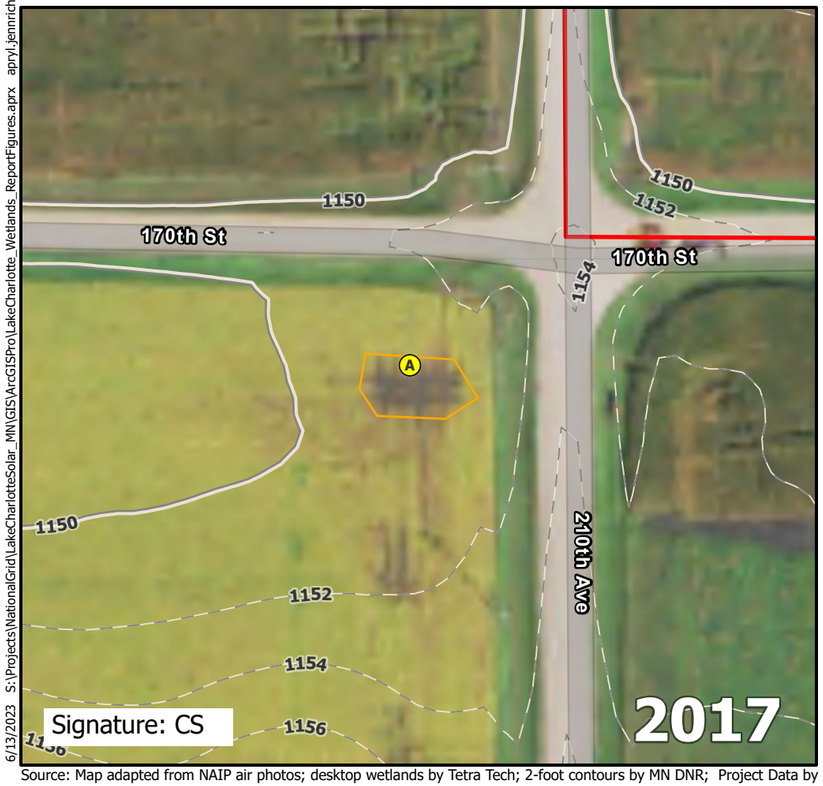
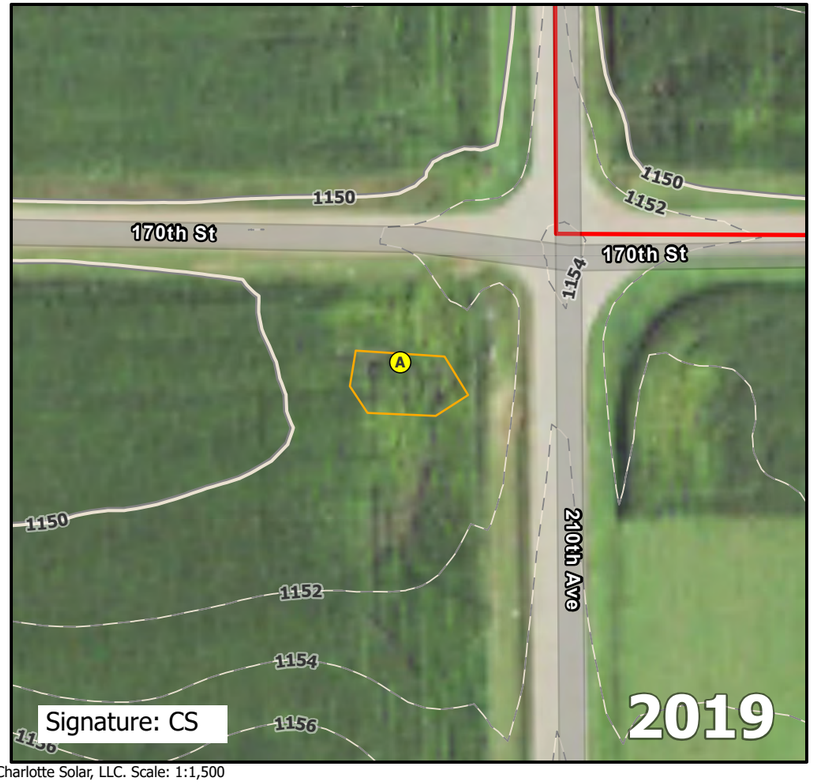
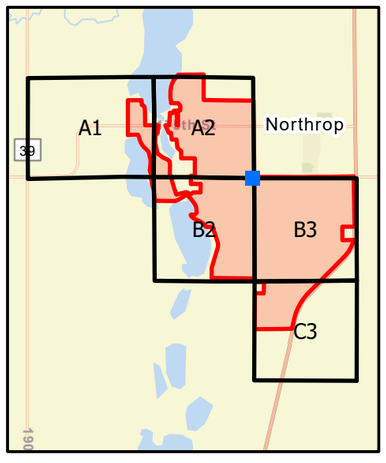
Feet







Feature ID: NWA049

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA050

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: 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size:)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

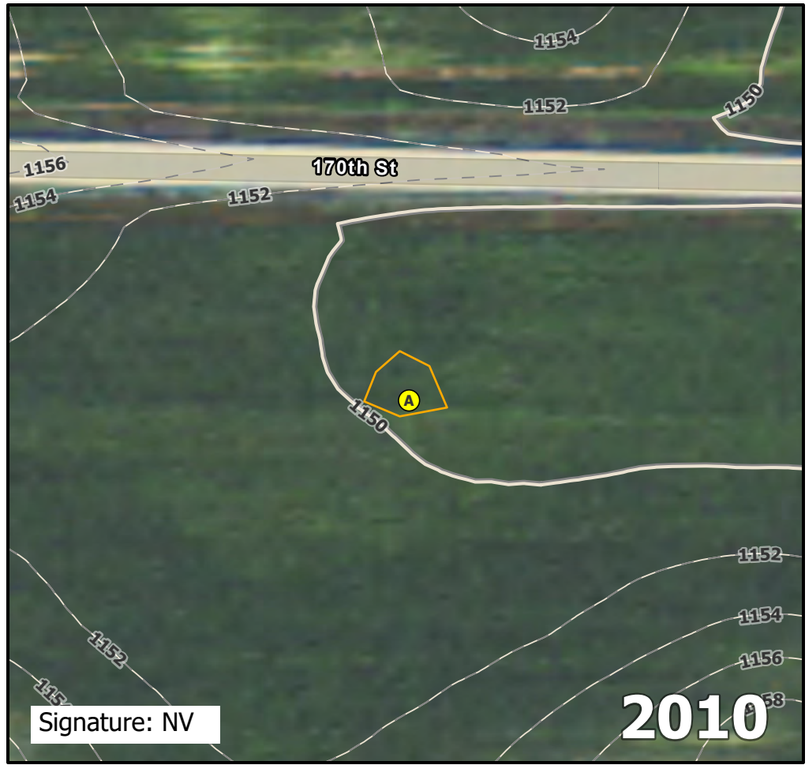
Wetland Hydrology Present? No

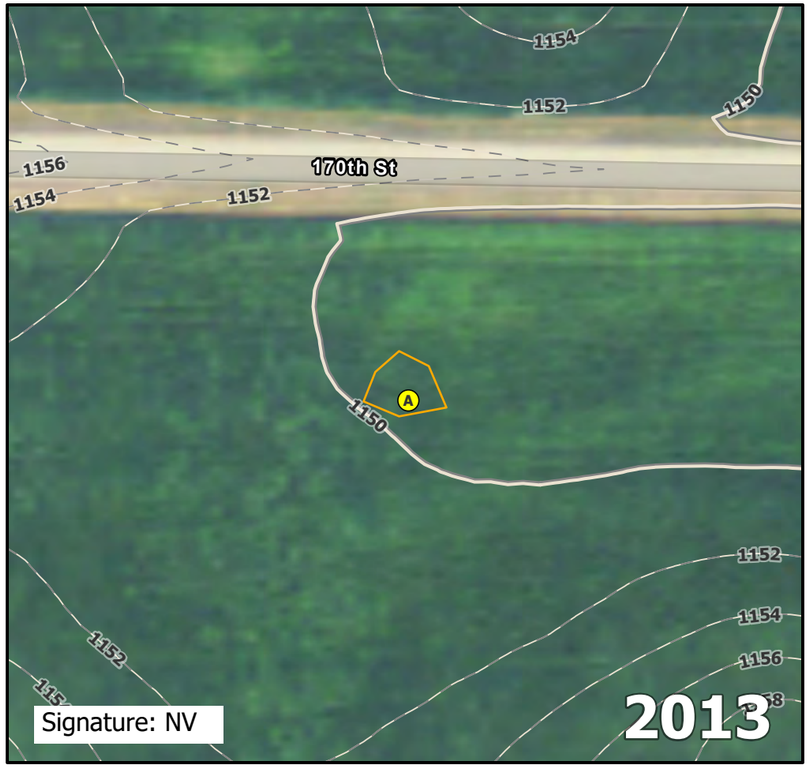
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

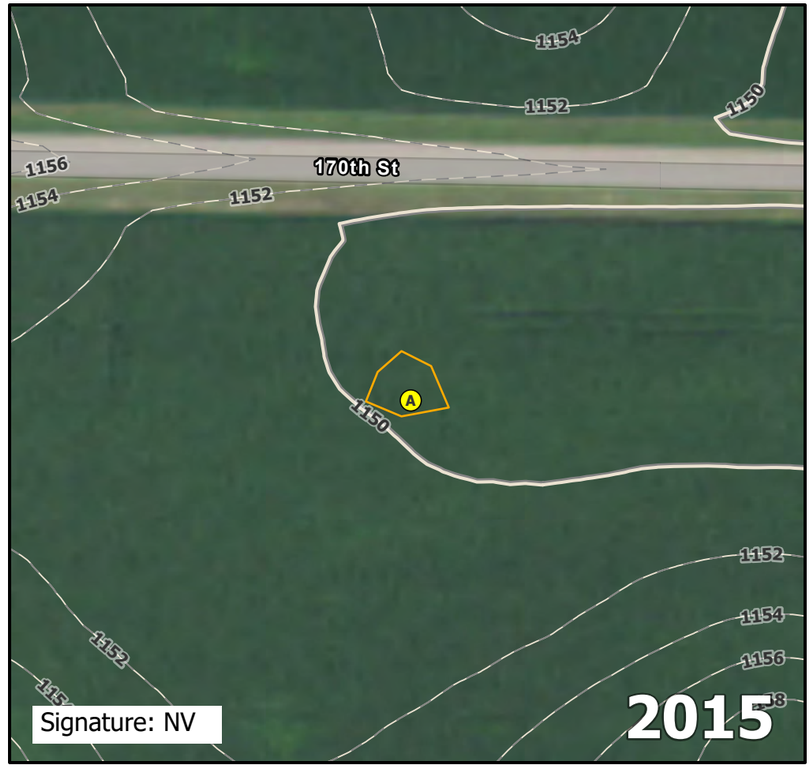
Remarks:

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

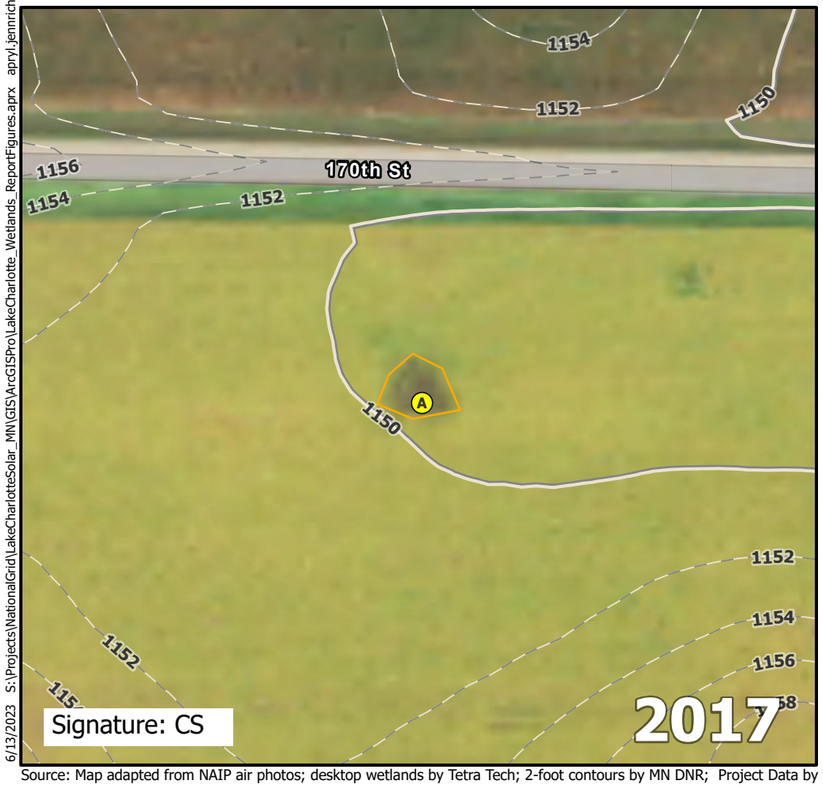


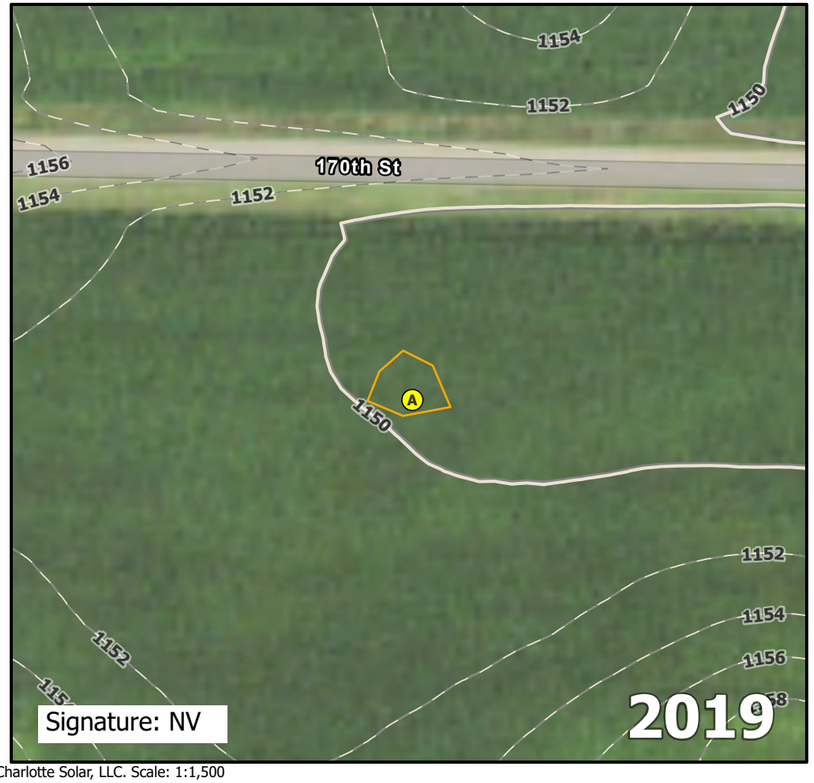


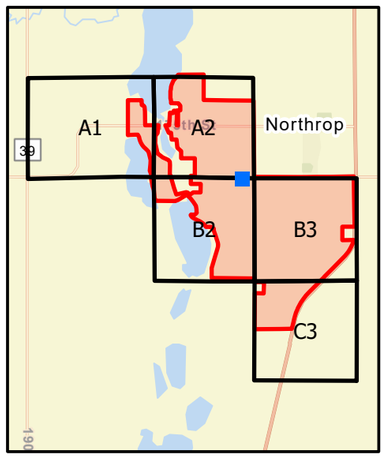


0 40 80 120 160 200

Feet







Feature ID: NWA050

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Zea mays*	50	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	50	x 5 =	250
Column totals	50 (A)		250 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

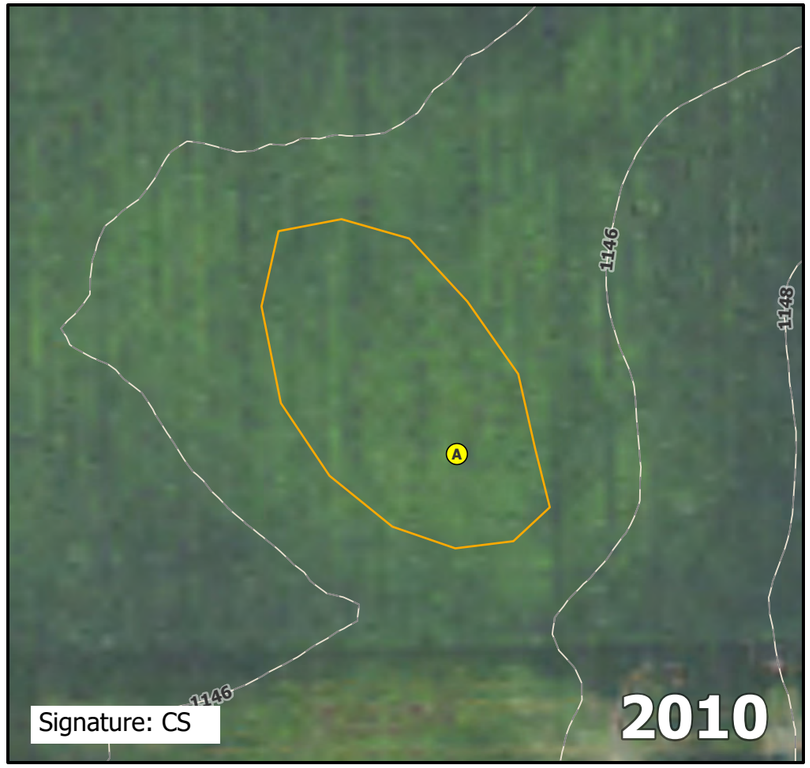
Wetland Hydrology Present? No

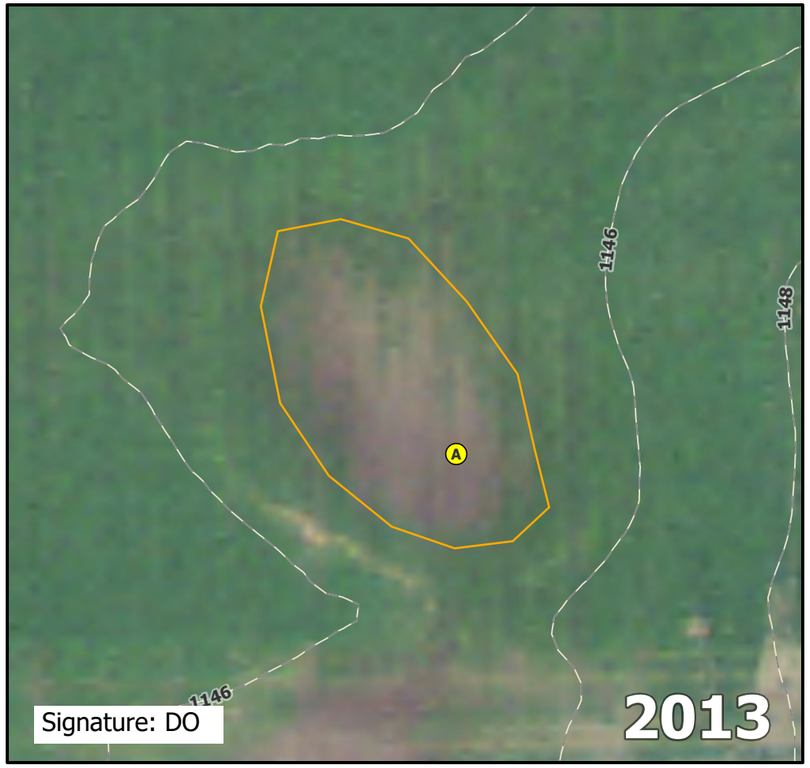
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

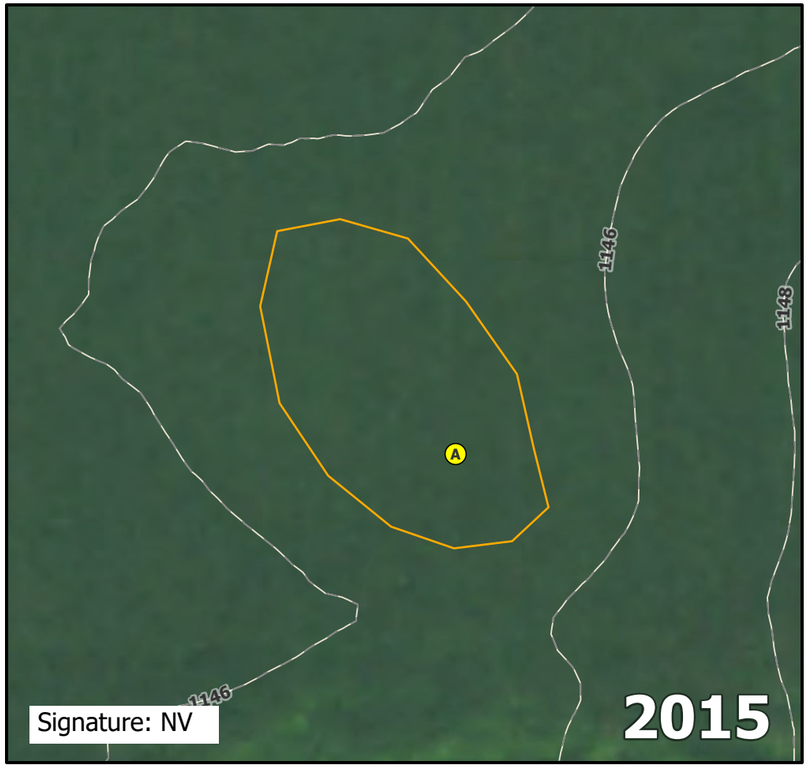
Remarks:

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

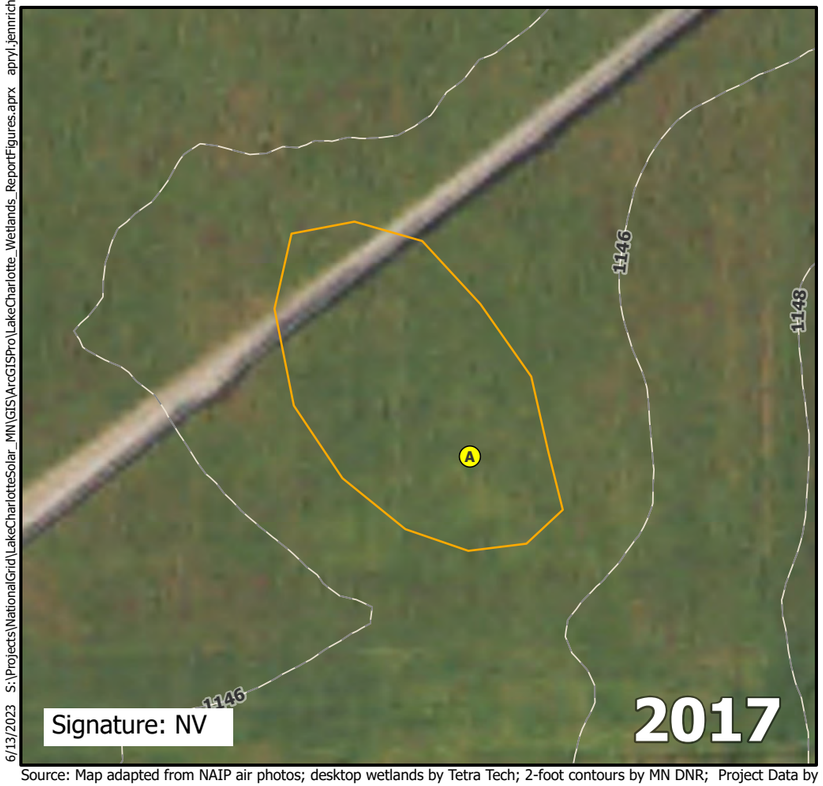


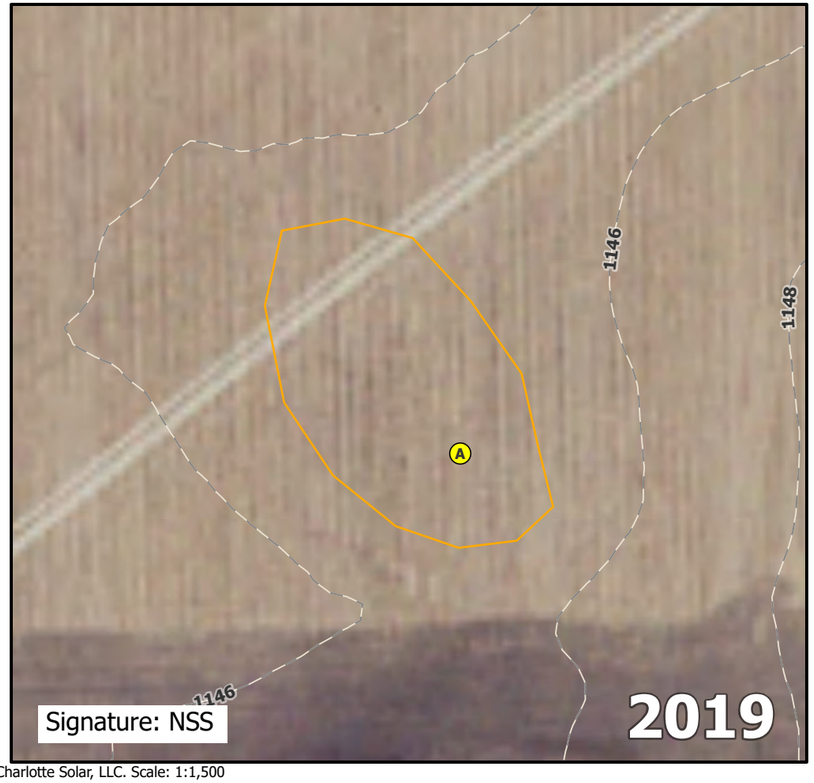


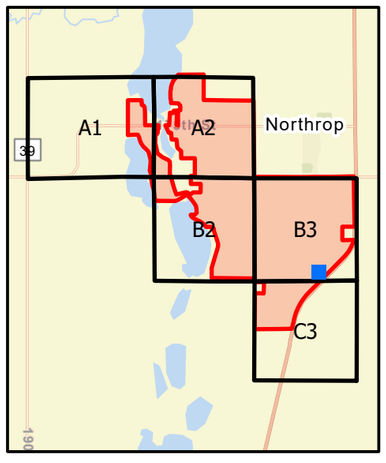


0 40 80 120 160 200

Feet







Feature ID: NWA052

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

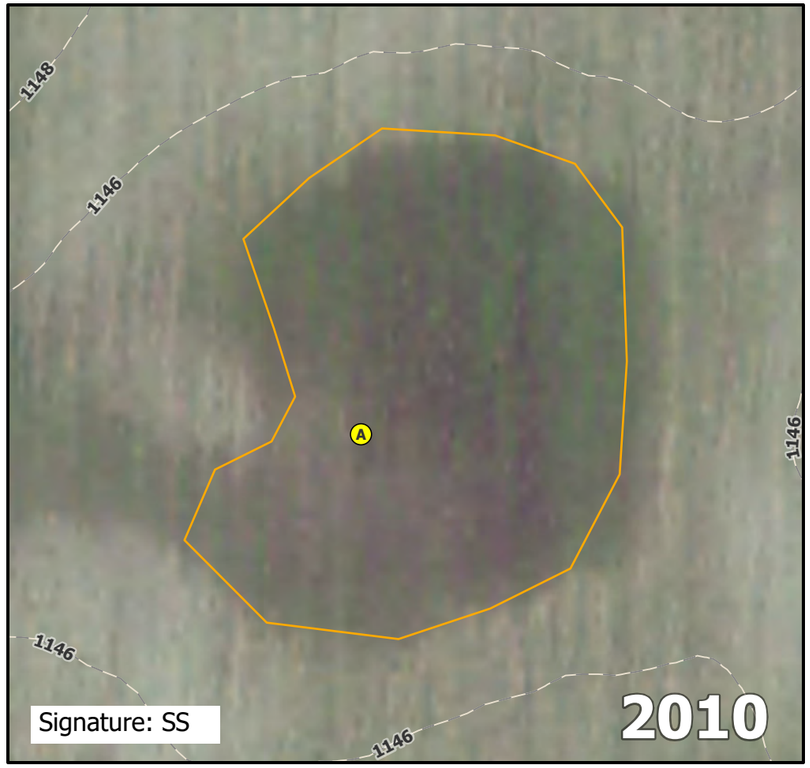
Wetland Hydrology Present? No

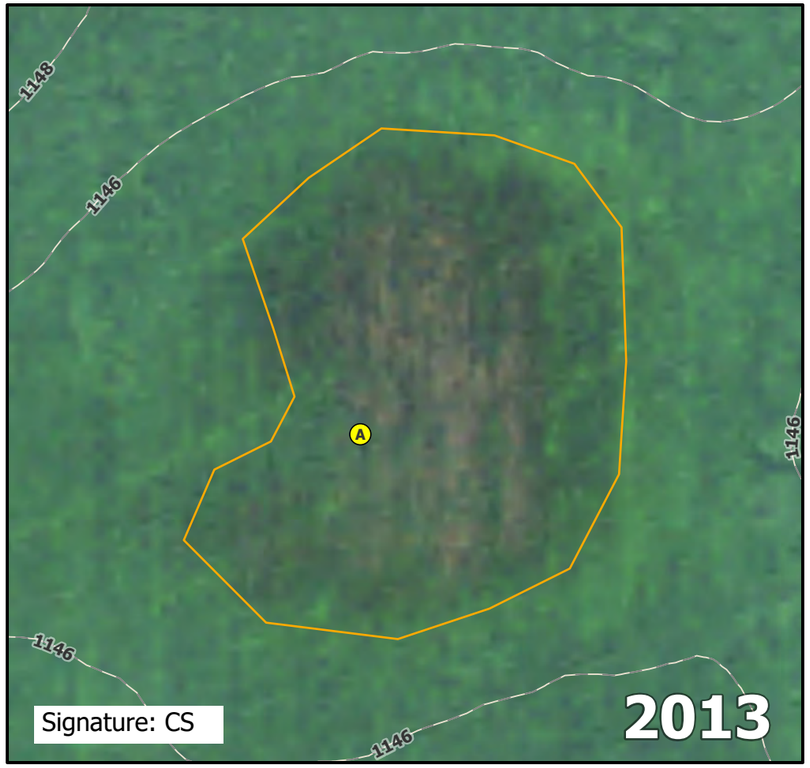
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

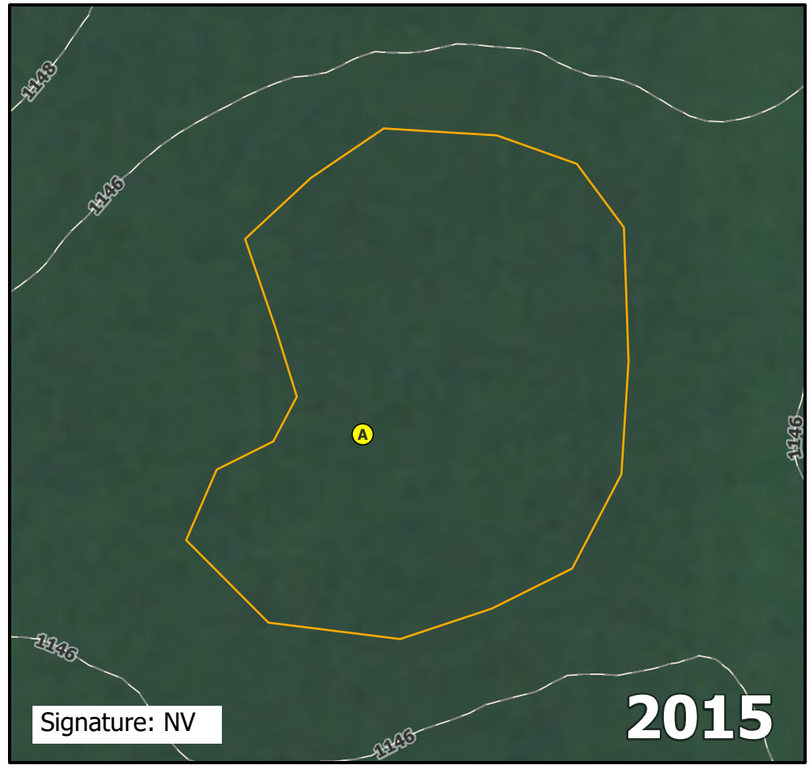
Remarks:

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







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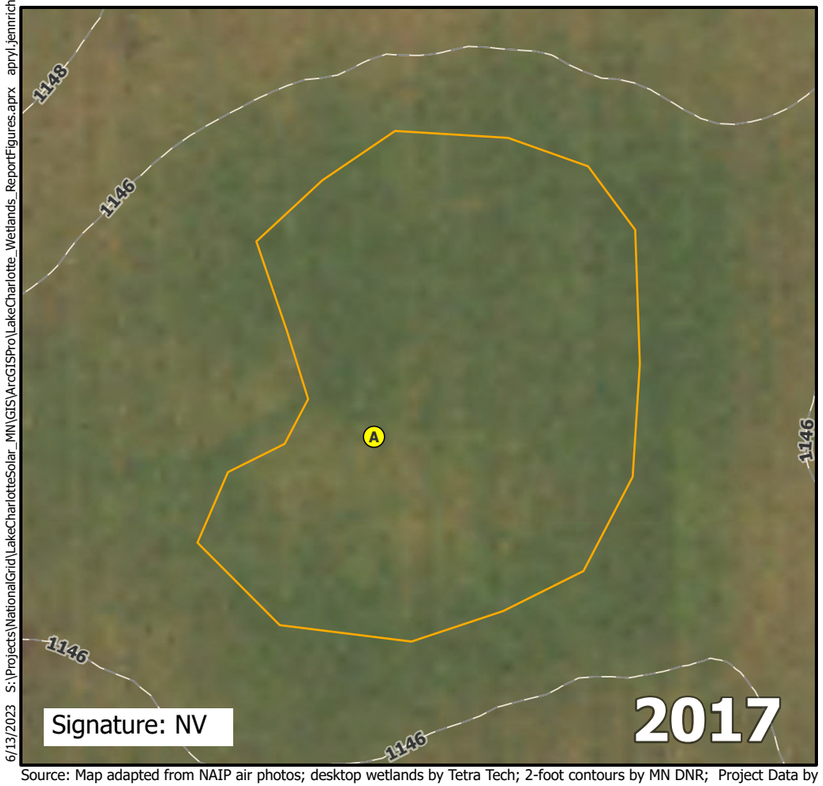
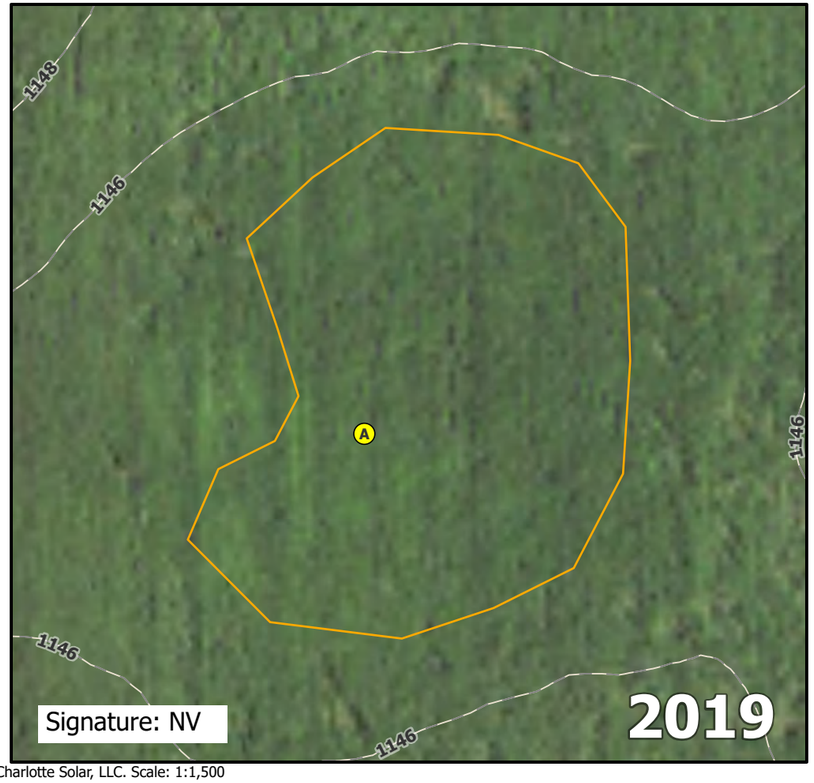
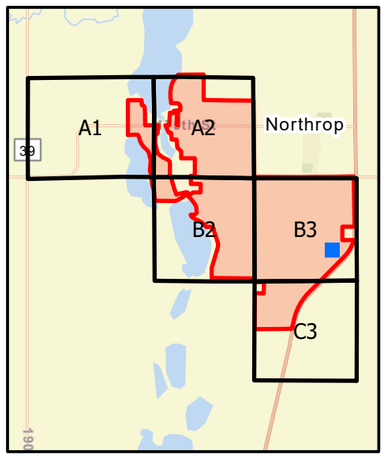
Feet







Feature ID: NWA053

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA054

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

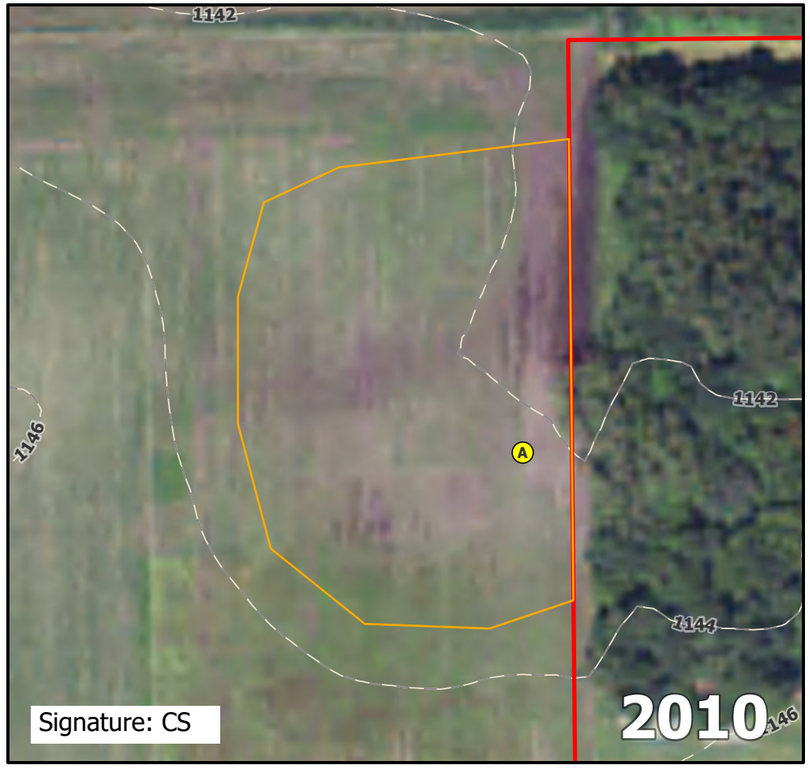
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

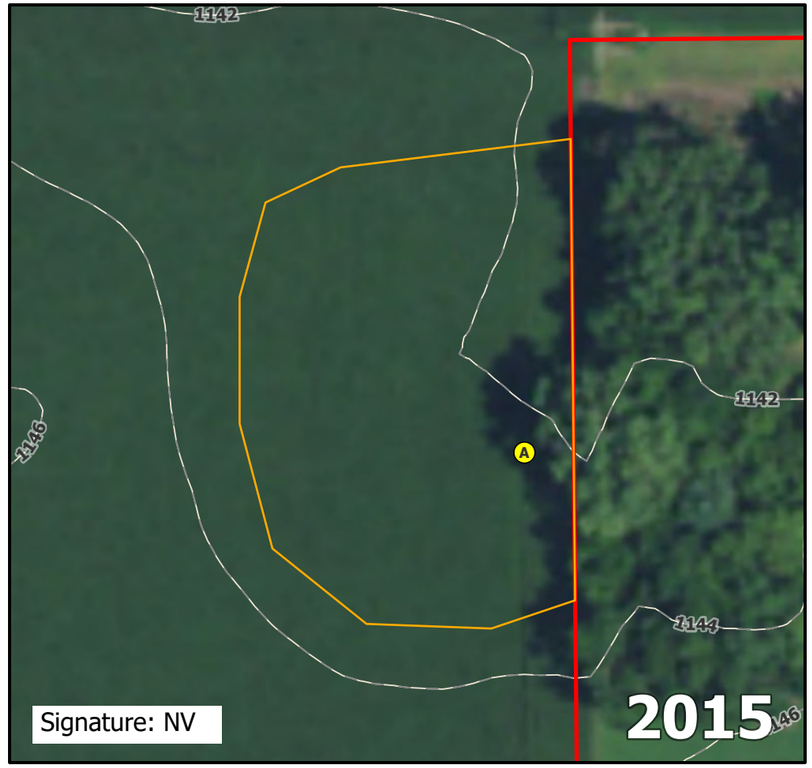
Wetland Hydrology Present? No

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

Remarks:

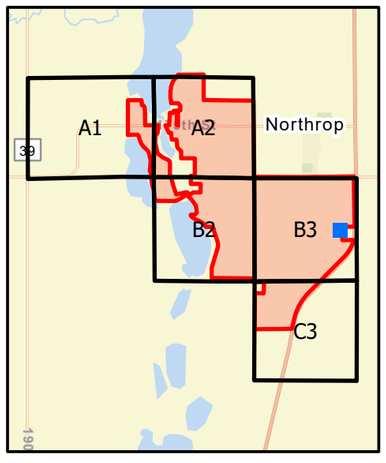
Overview of upland sample point NWA054A.		
Direction: Southwest	Photo ID: delin_photo-20221021-142727.jpg	Date: 10/21/2022
Project Name: Lake Charlotte		Feature ID: NWA054





0 40 80 120 160 200

Feet



Feature ID: NWA054

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA055

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? Yes

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? Yes — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Echinochloa crus-galli*	70	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	____	=Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
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

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

Hydrophytic Vegetation Present? Yes

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

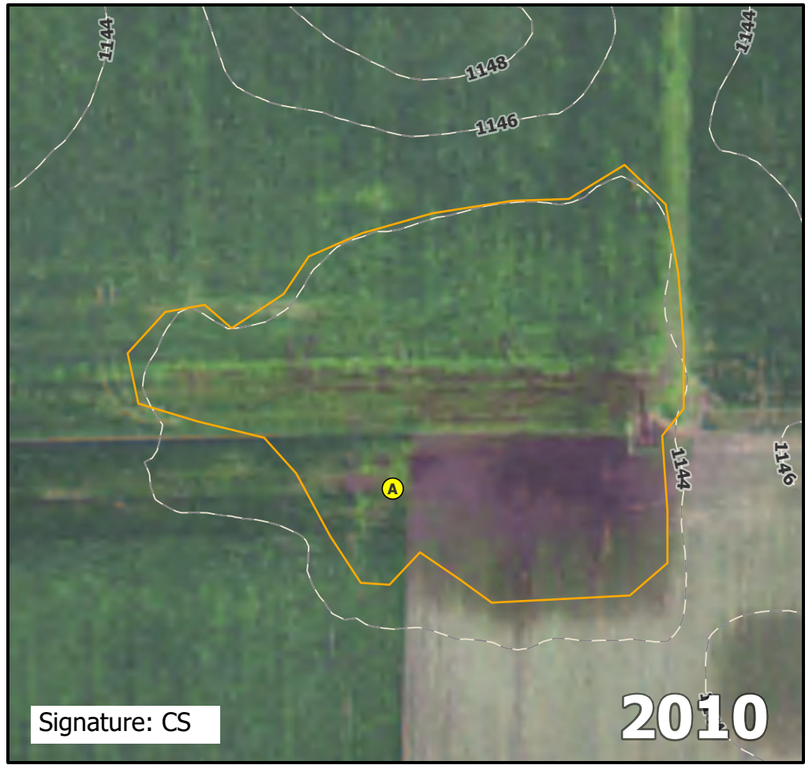
Wetland Hydrology Present? Yes

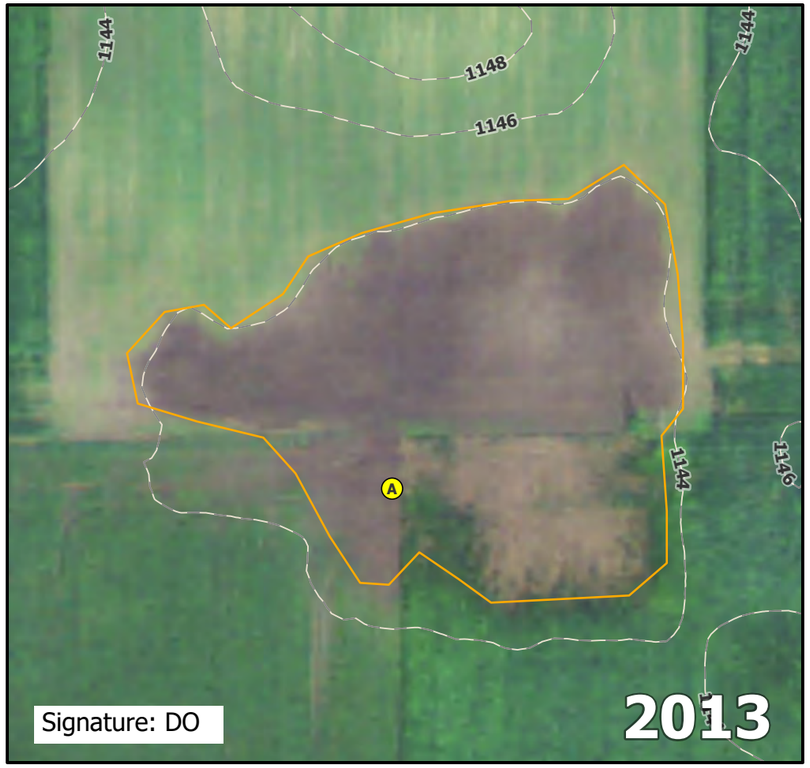
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

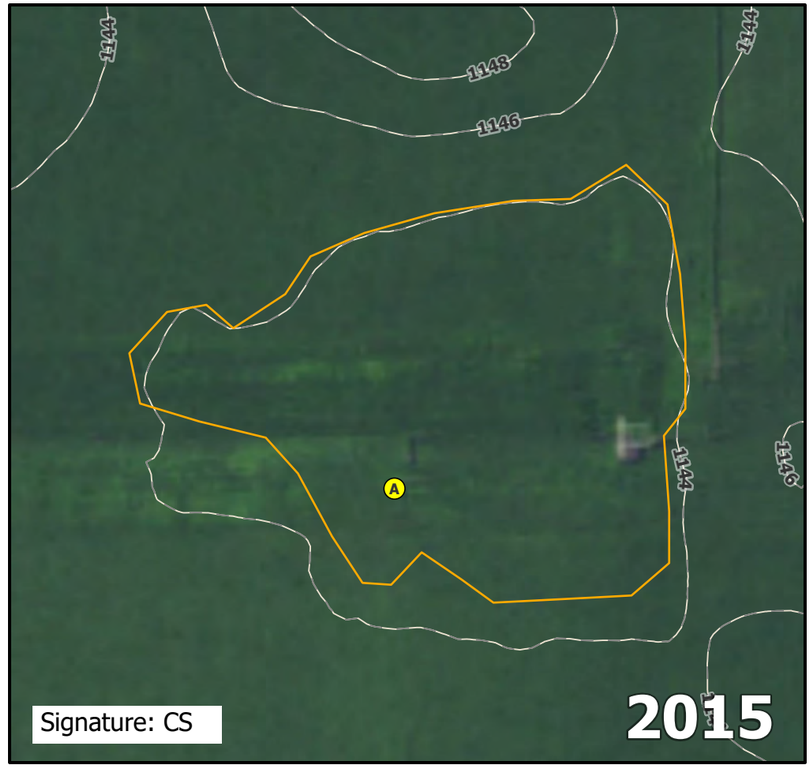
Remarks:

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

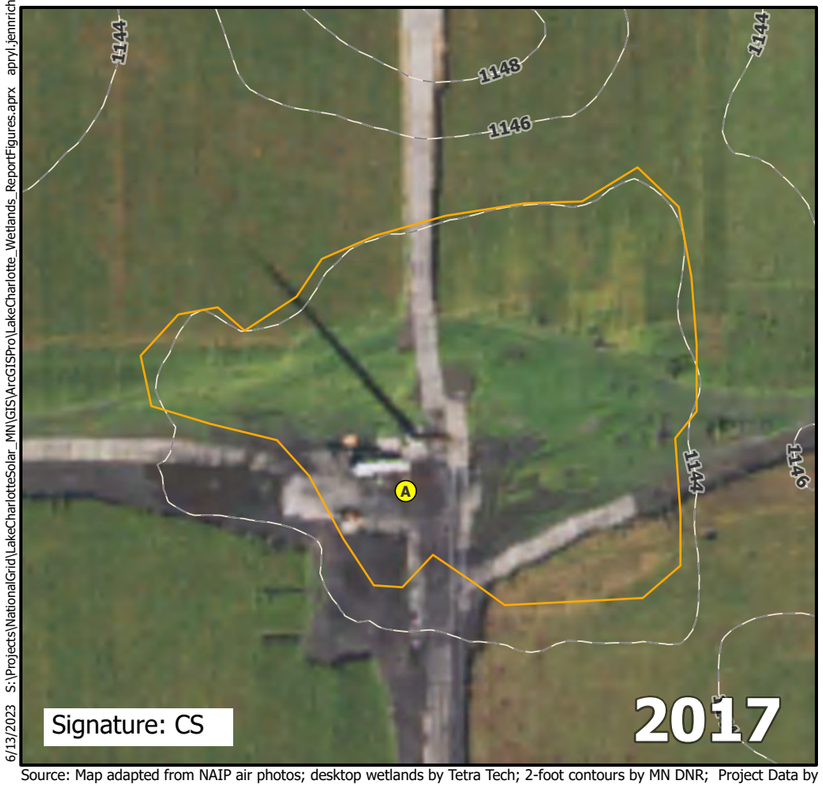


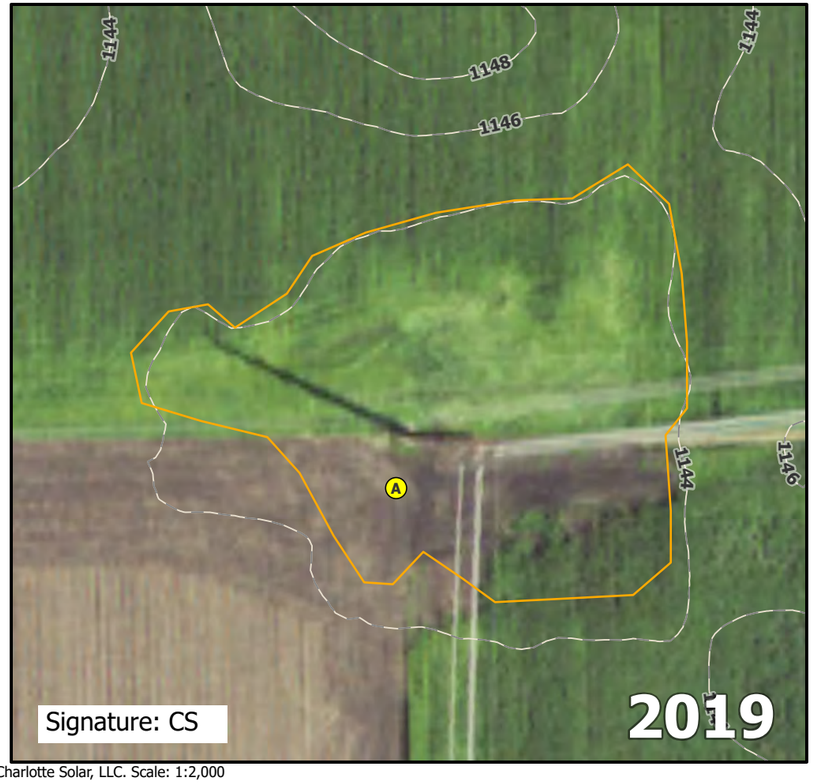


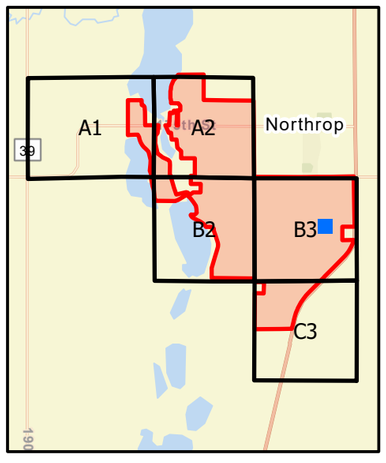


0 50 100 150 200 250

Feet







Feature ID: NWA055

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWA058

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size:)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

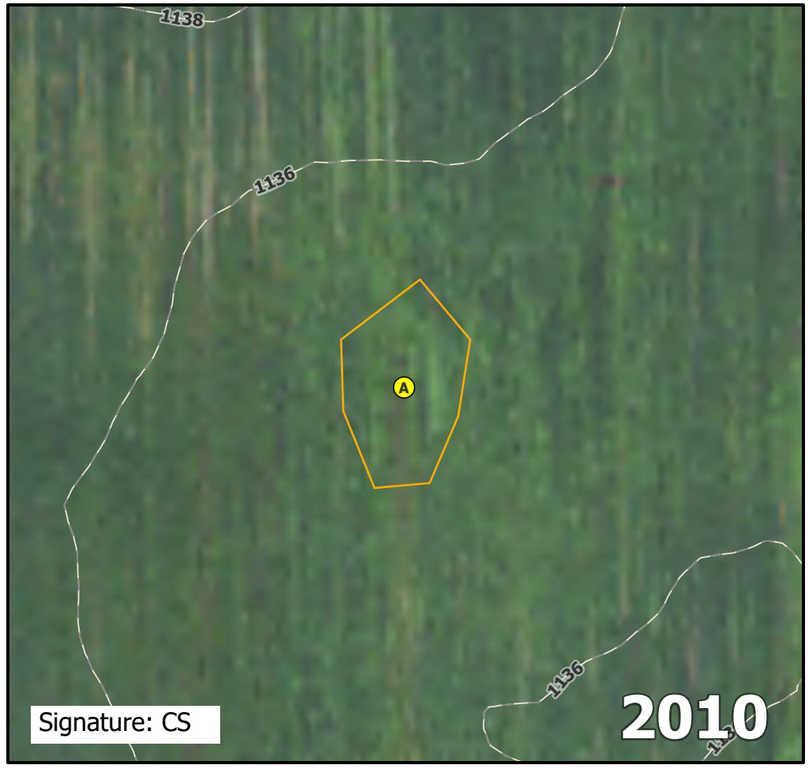
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

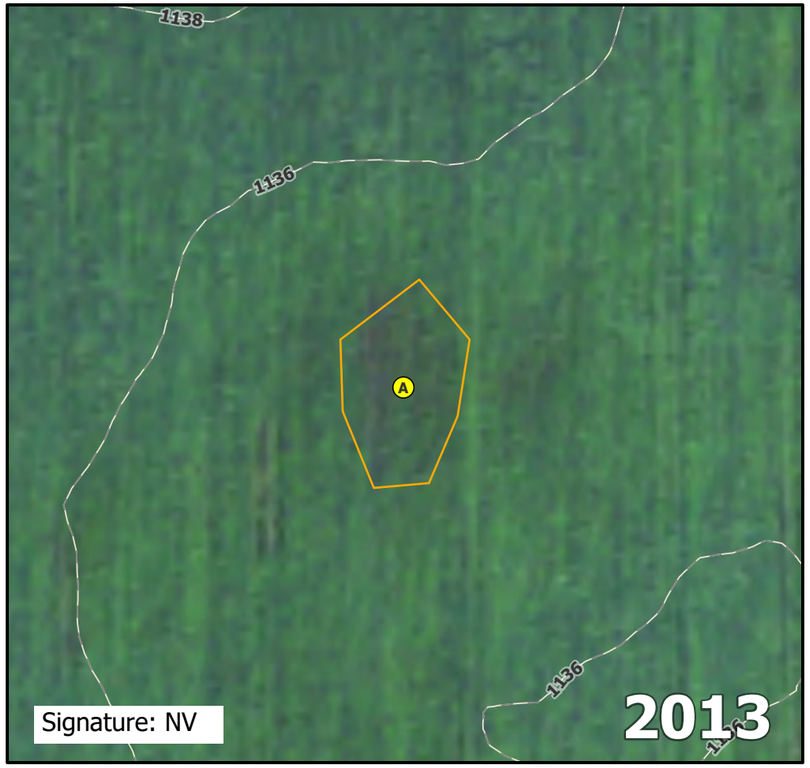
Wetland Hydrology Present? No

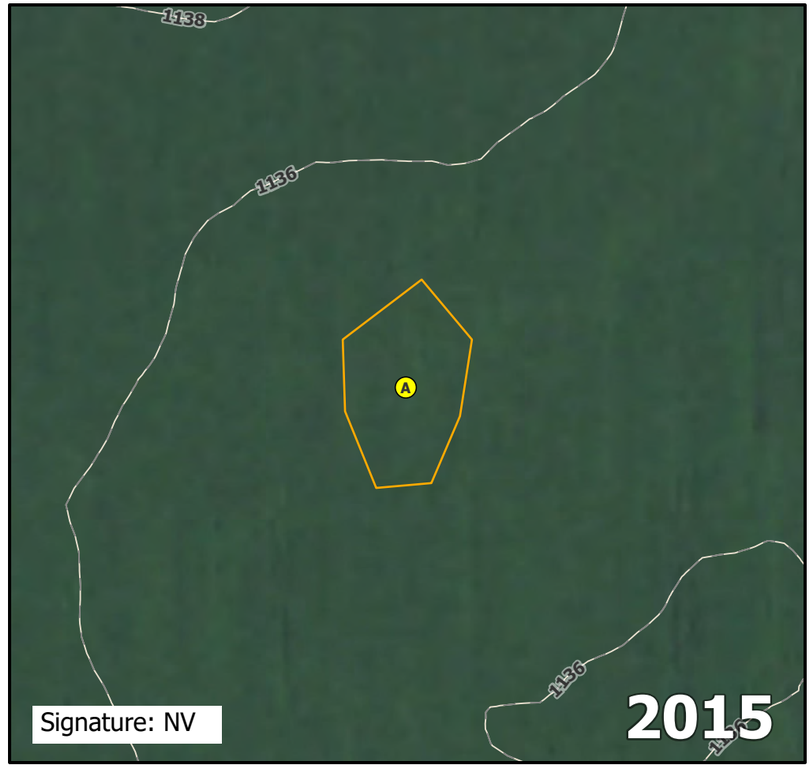
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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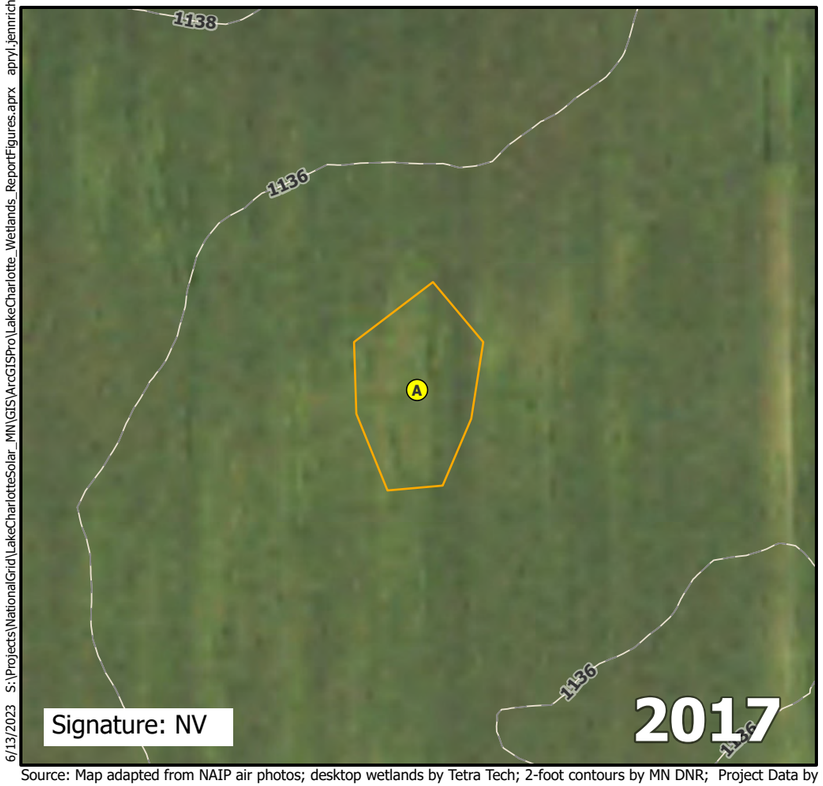
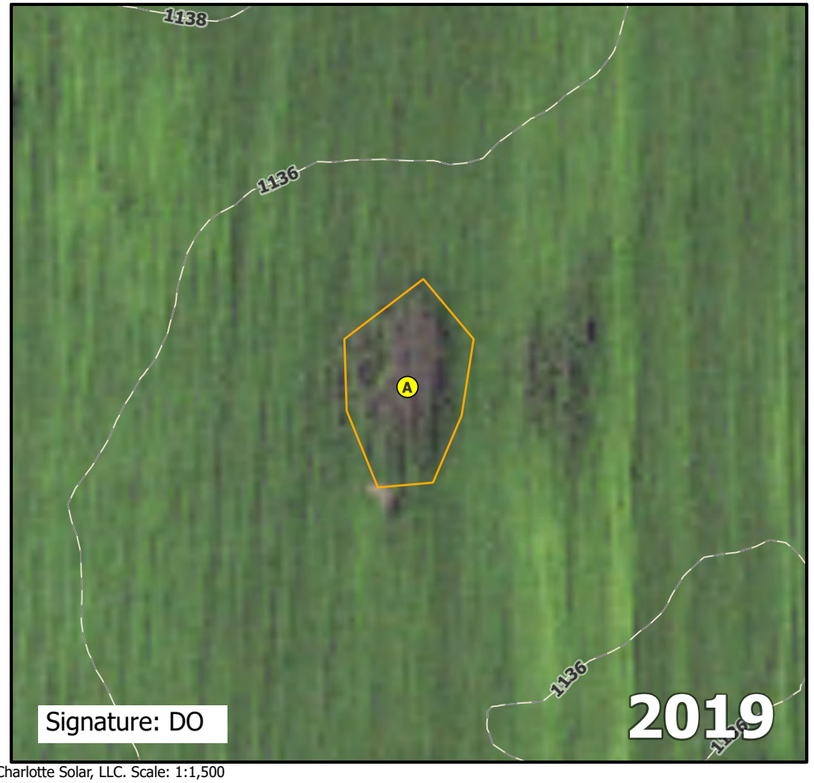
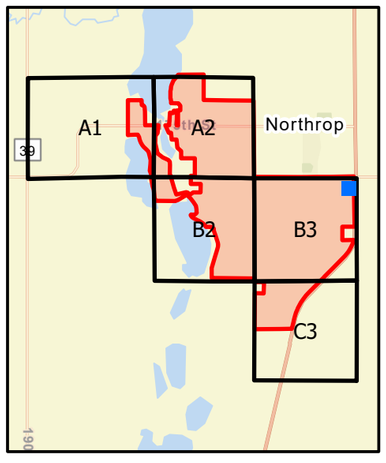
Feet







Feature ID: NWA058

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWA059

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

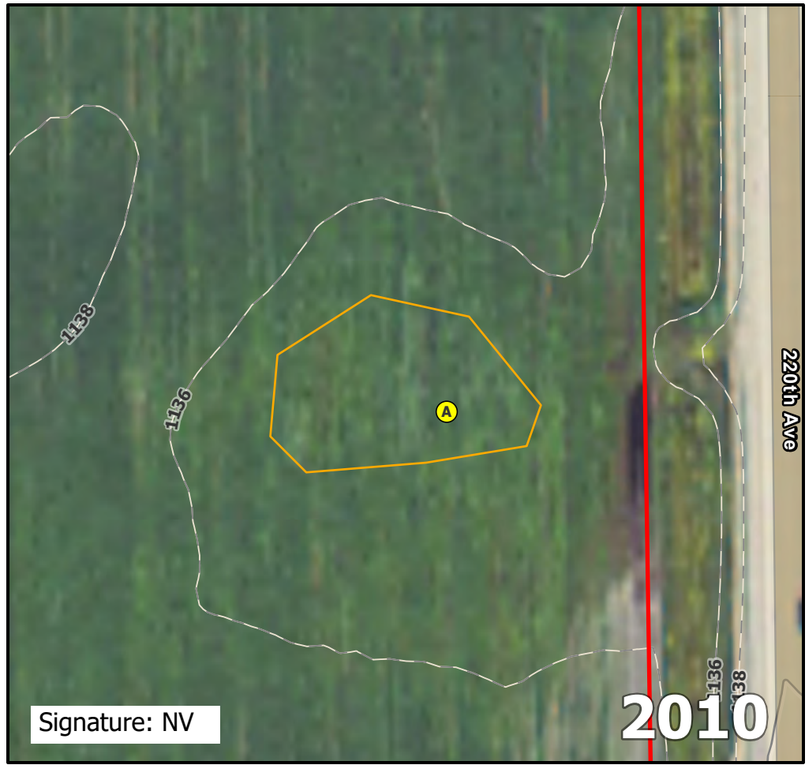
Wetland Hydrology Present? No

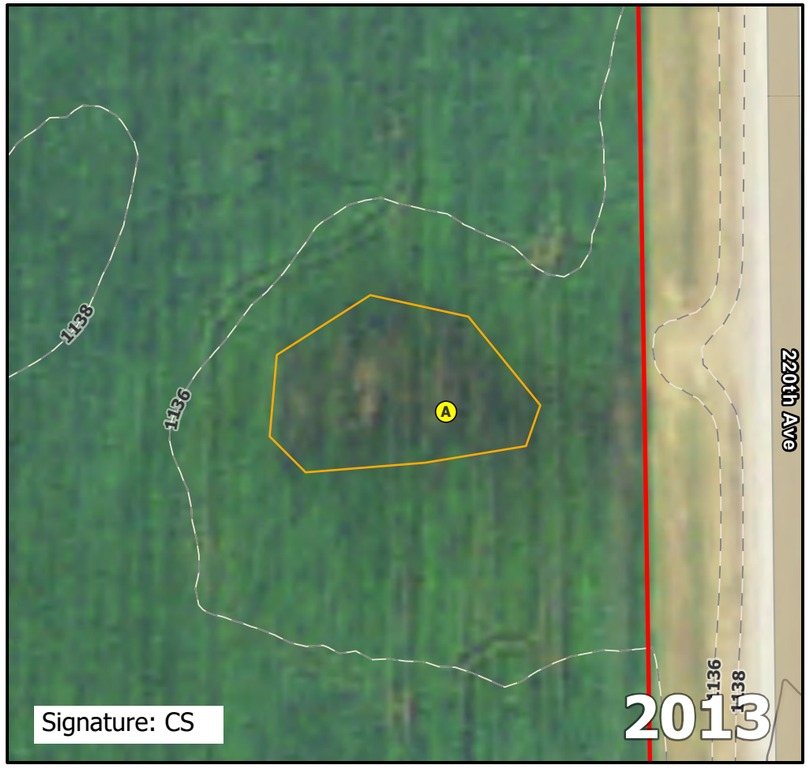
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

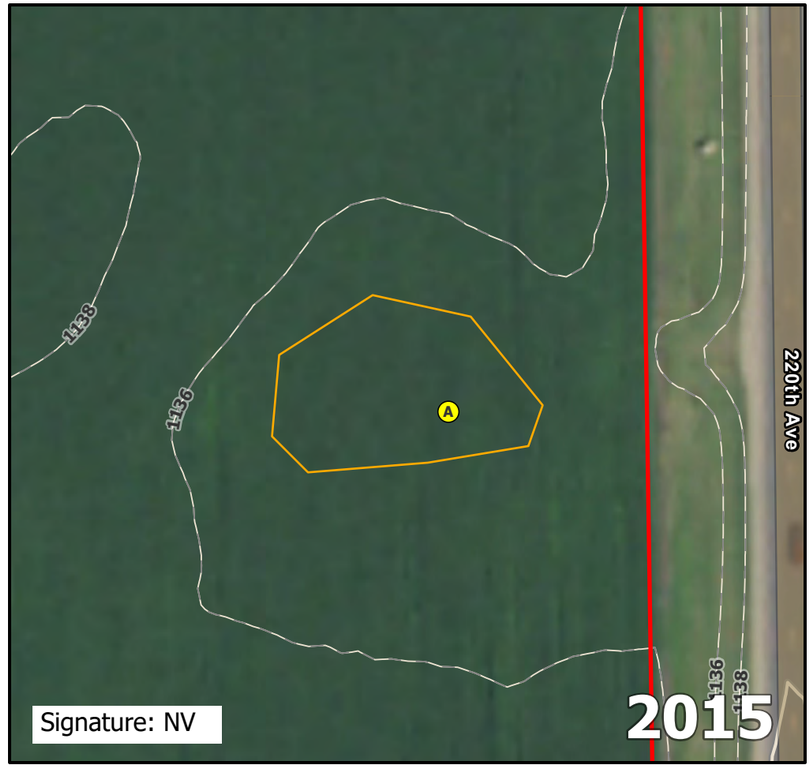
Remarks:

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







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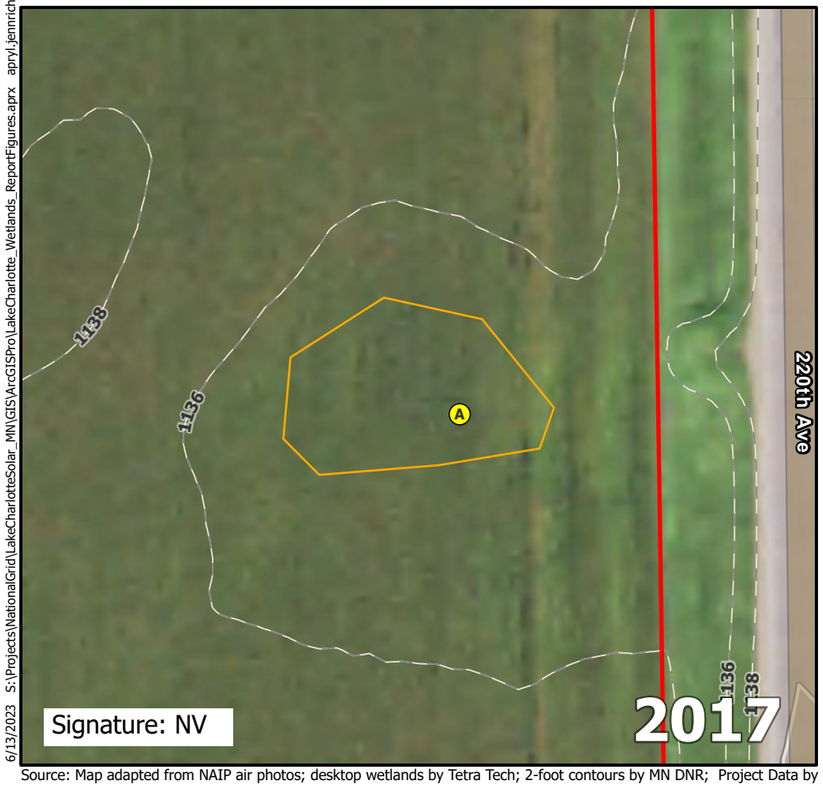
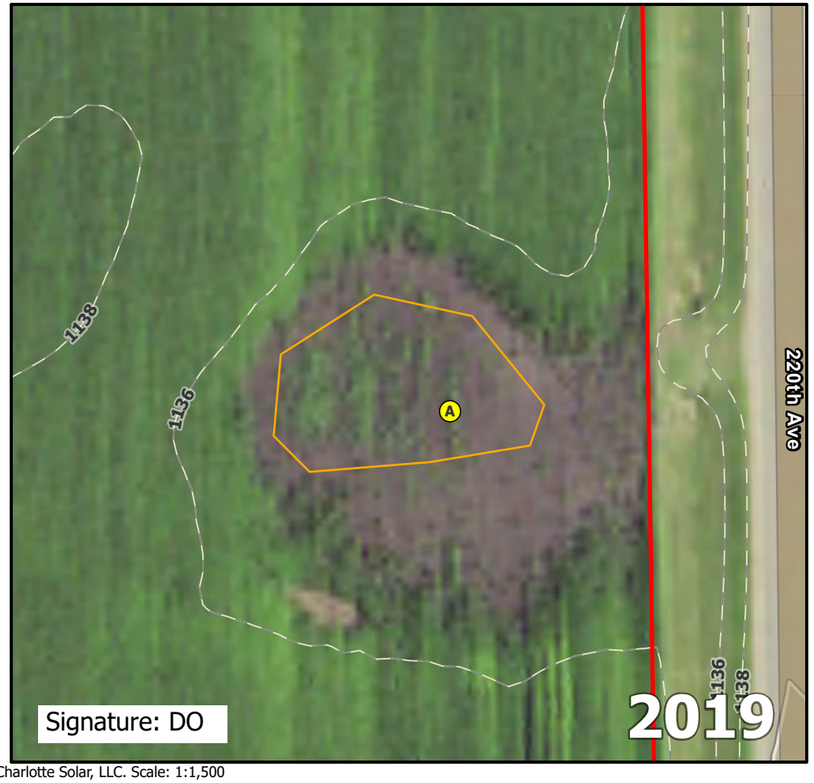
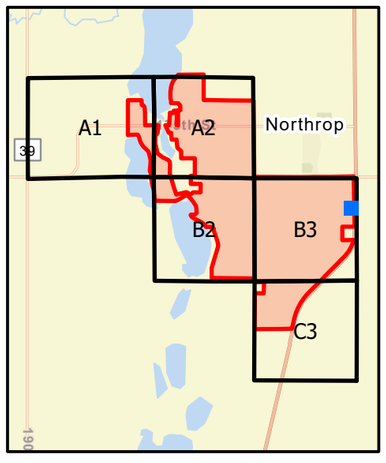
Feet







Feature ID: NWA059

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWA060

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

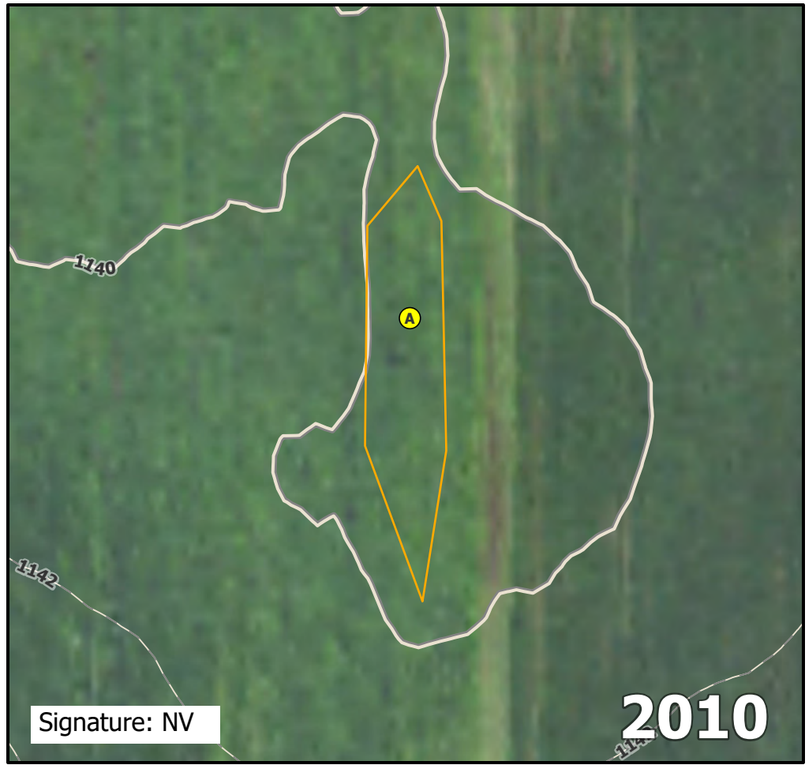
(includes capillary fringe)

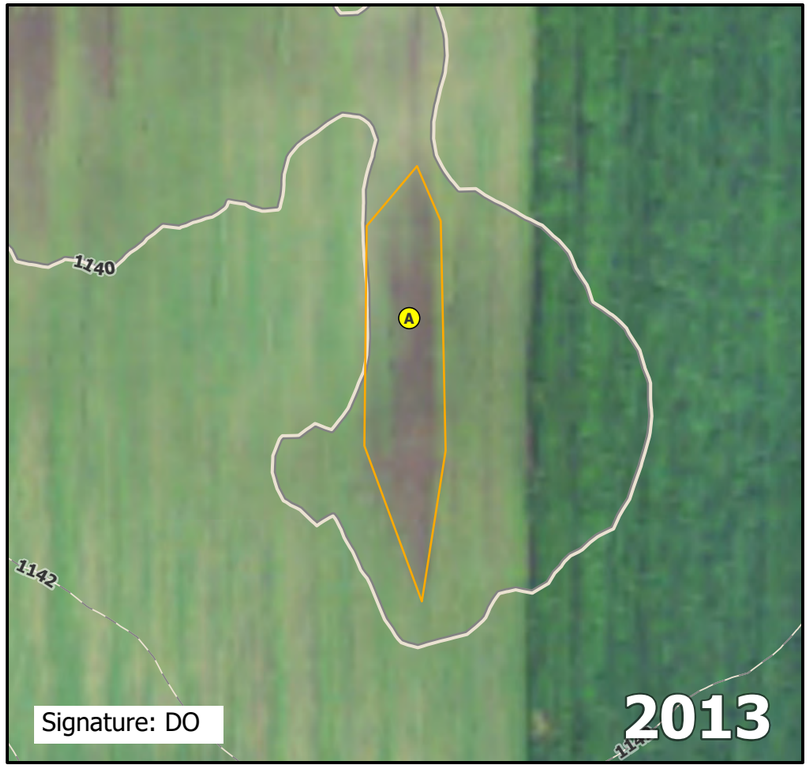
Wetland Hydrology Present? No

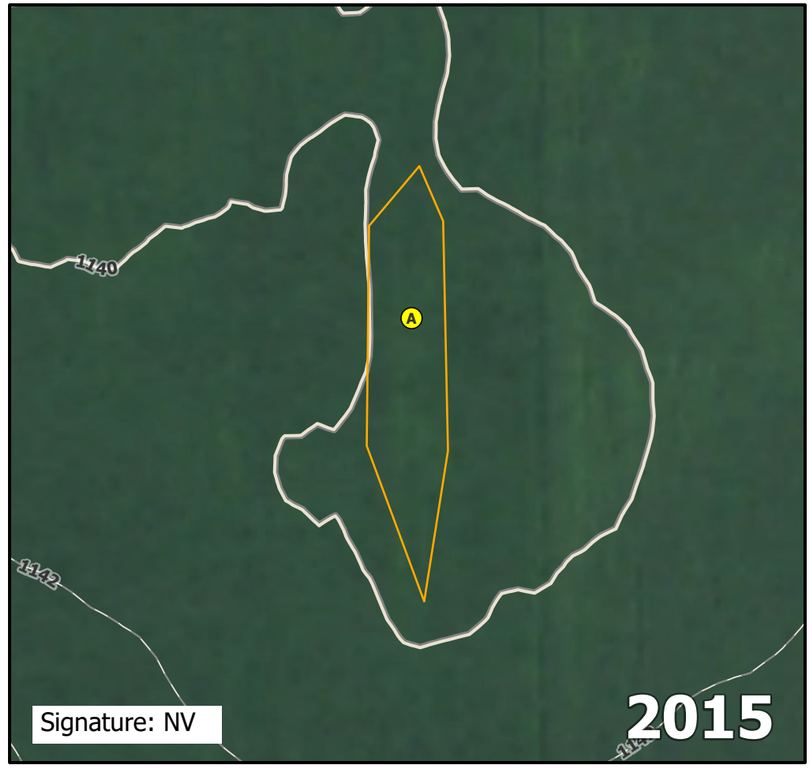
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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







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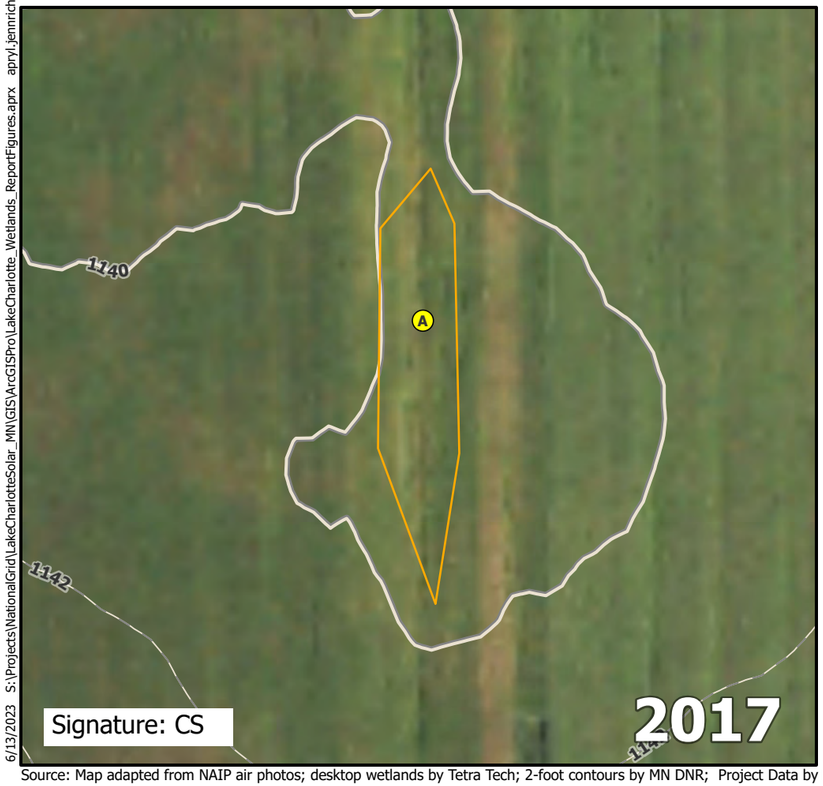
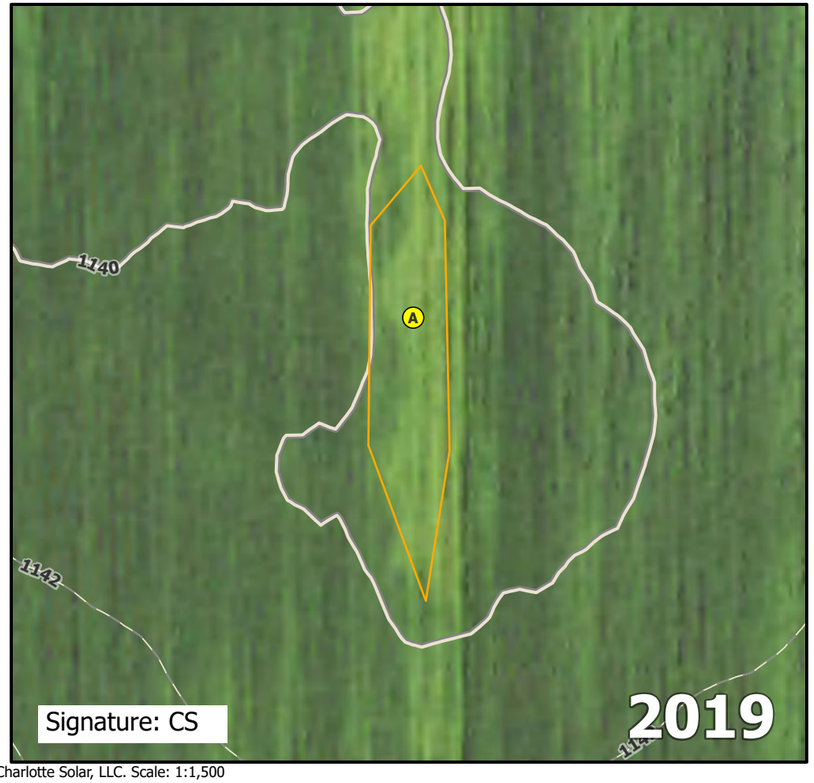
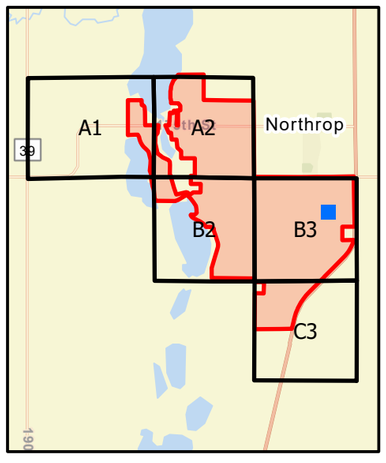






Feature ID: NWA060

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA061

WETLAND DETERMINATION DATA FORM - Midwest Region

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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size:)			
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

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

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

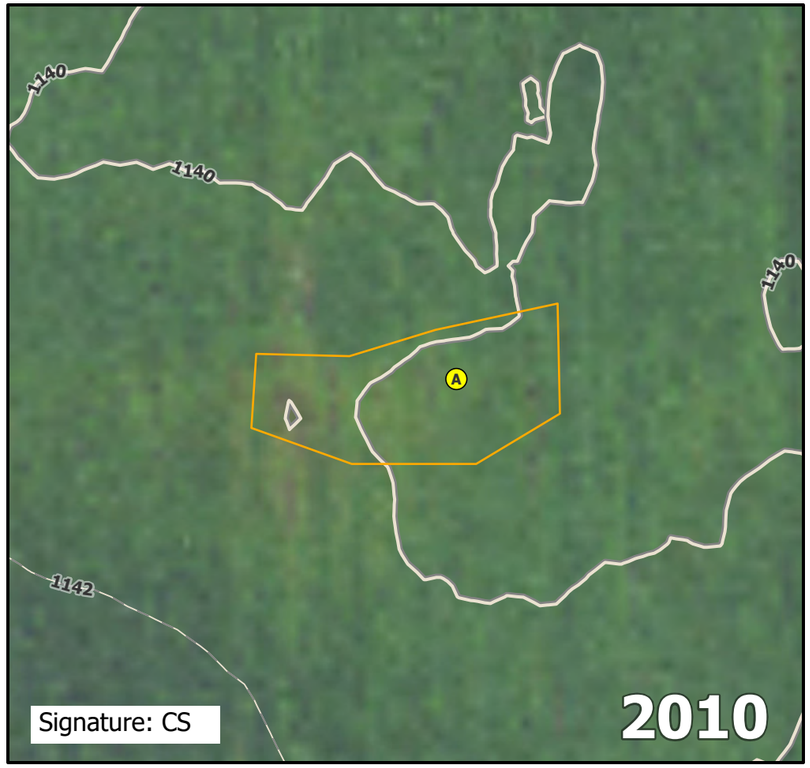
Wetland Hydrology Present? No

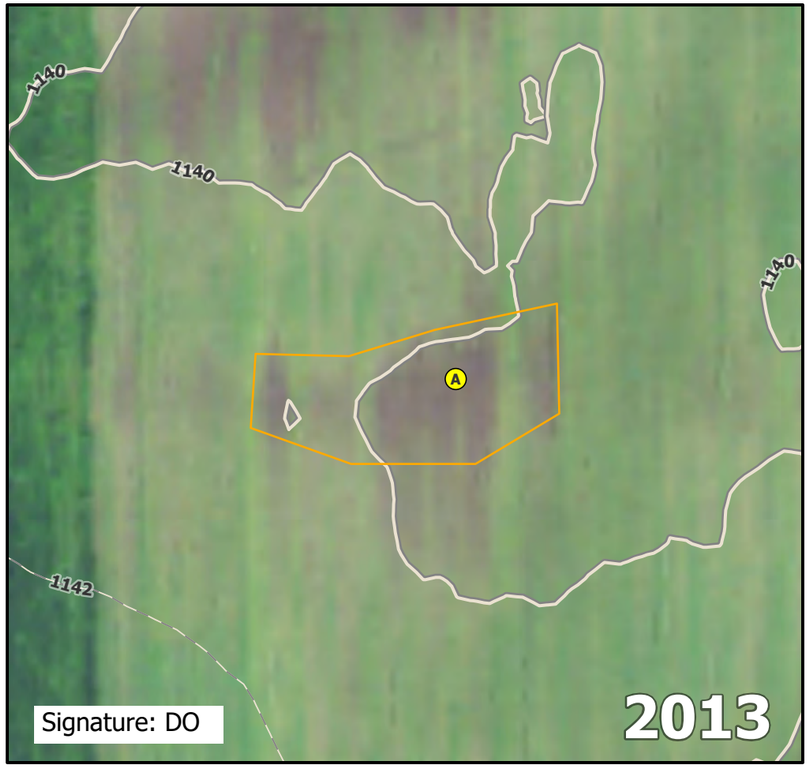
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

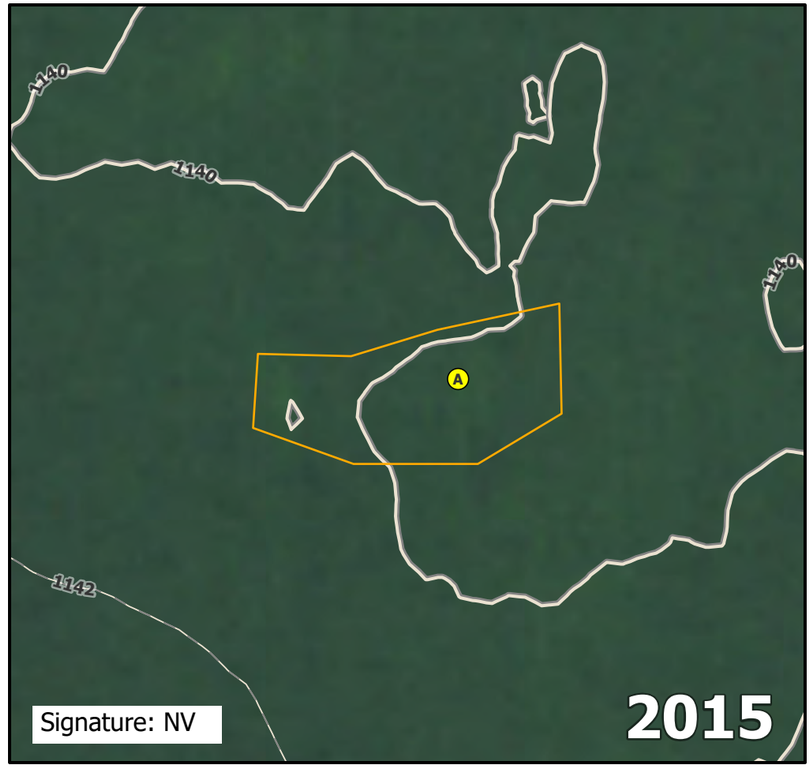
Remarks:

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

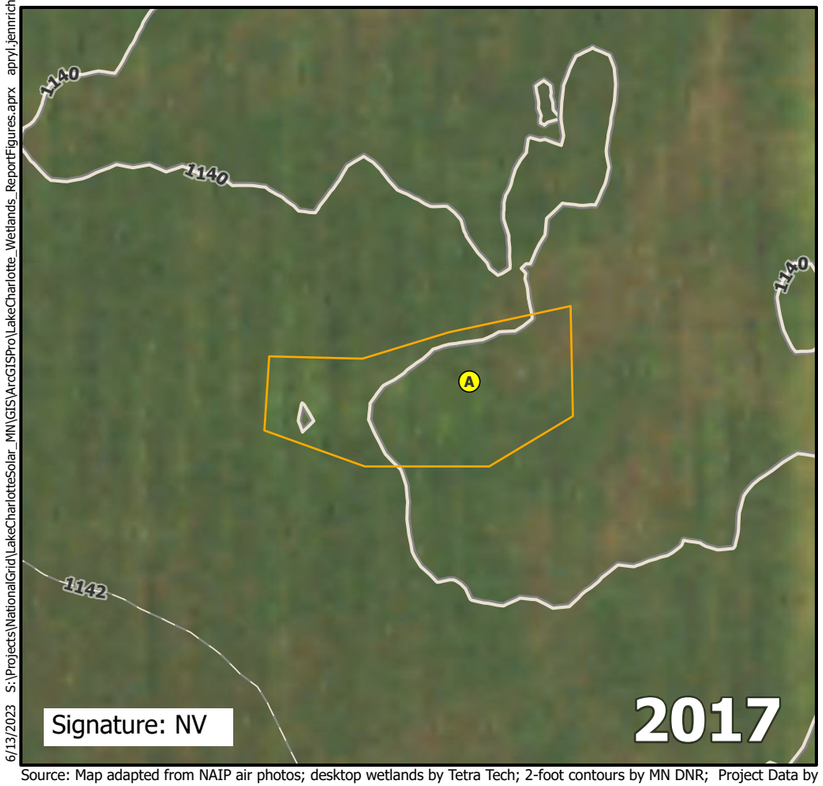


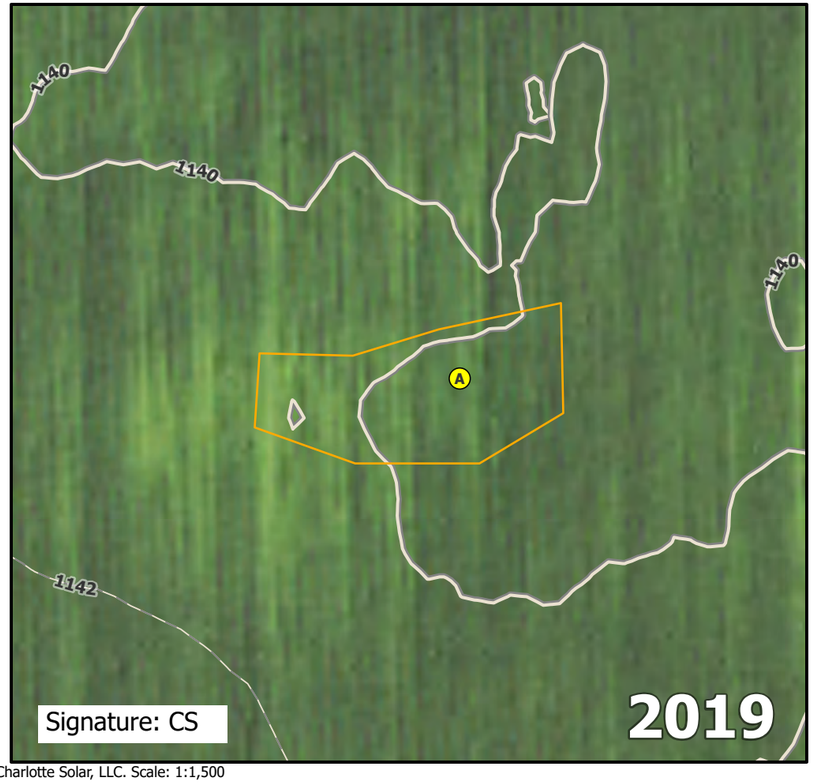


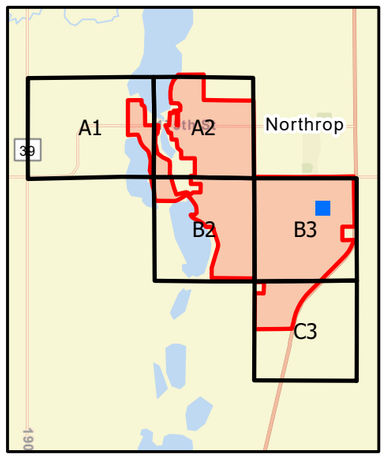


0 40 80 120 160 200

Feet







Feature ID: NWA061

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWA062

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/21/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWA062A

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: 43.72749 | Long: -94.43446 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA062A

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**		
0-34	10YR 2/1	100					Clay Loam	
34-36	2.5Y 3/2	90	2.5Y 4/2	10	D	M	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

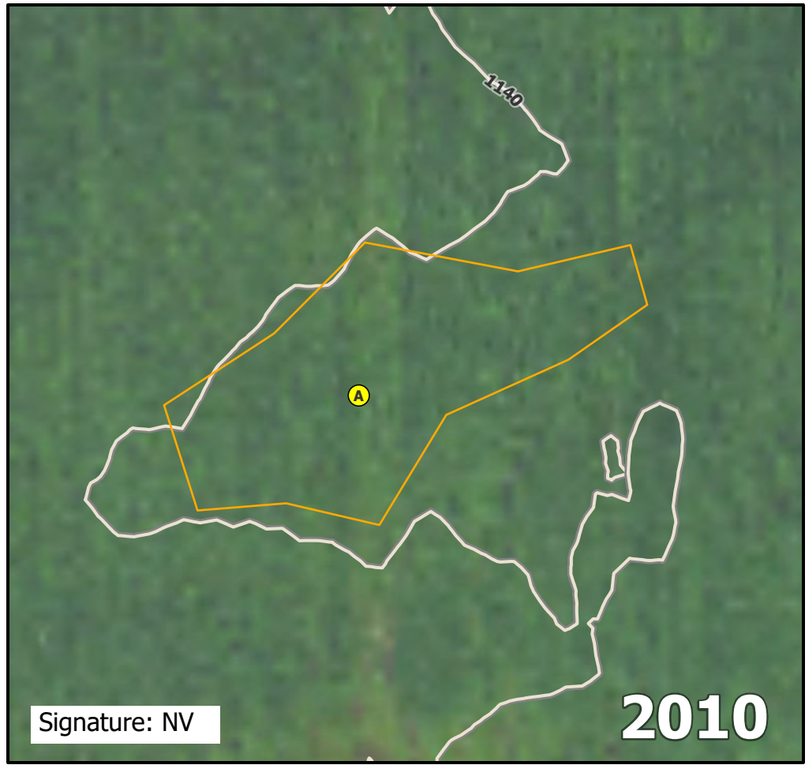
Wetland Hydrology Present? No

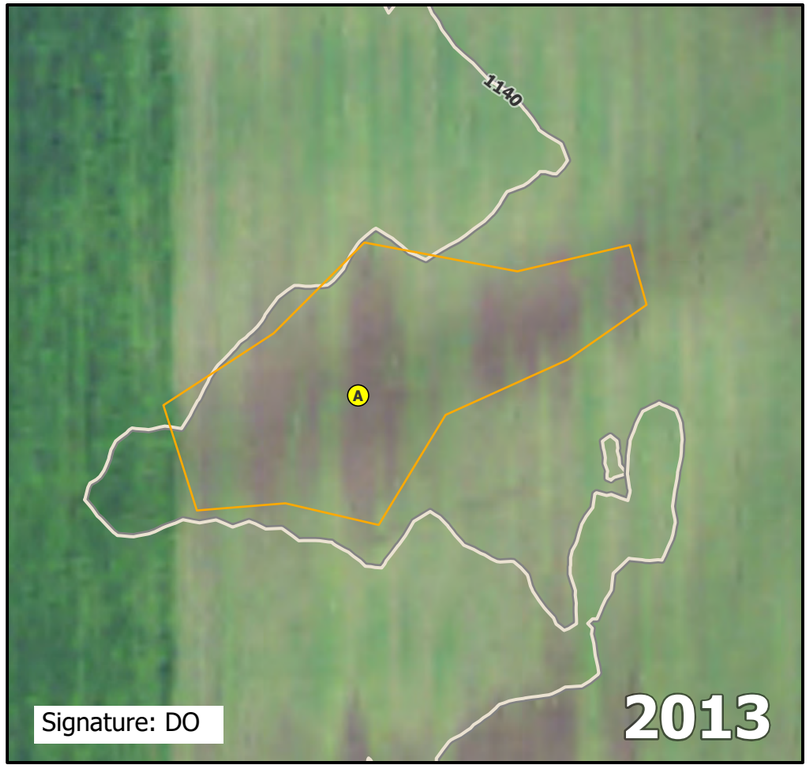
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

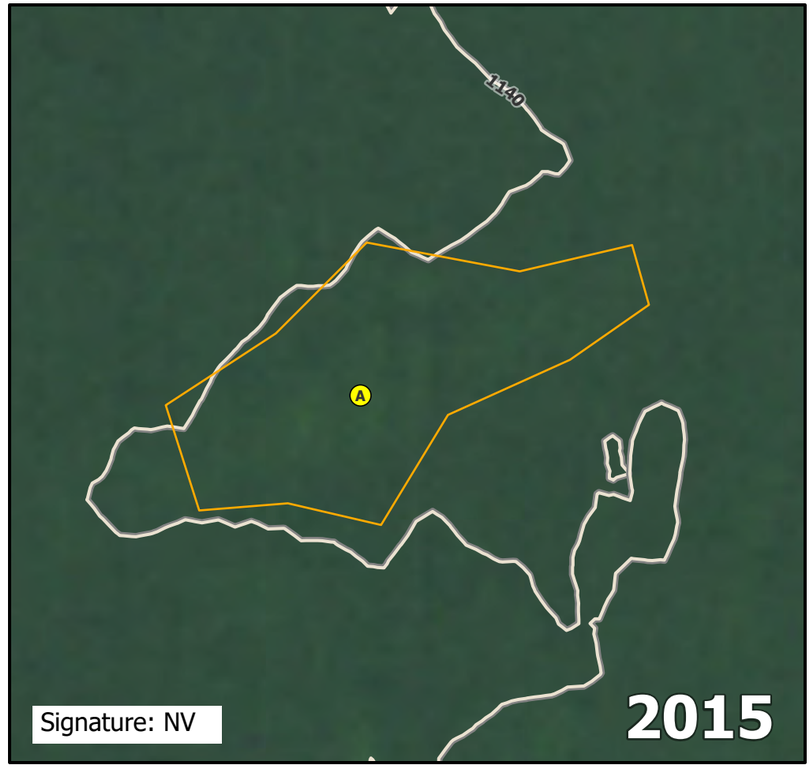
Remarks:

Overview of upland sample point NWA062A.

Direction: East	Photo ID: delin_photo-20221021-174545.jpg	Date: 10/21/2022
Project Name: Lake Charlotte		Feature ID: NWA062







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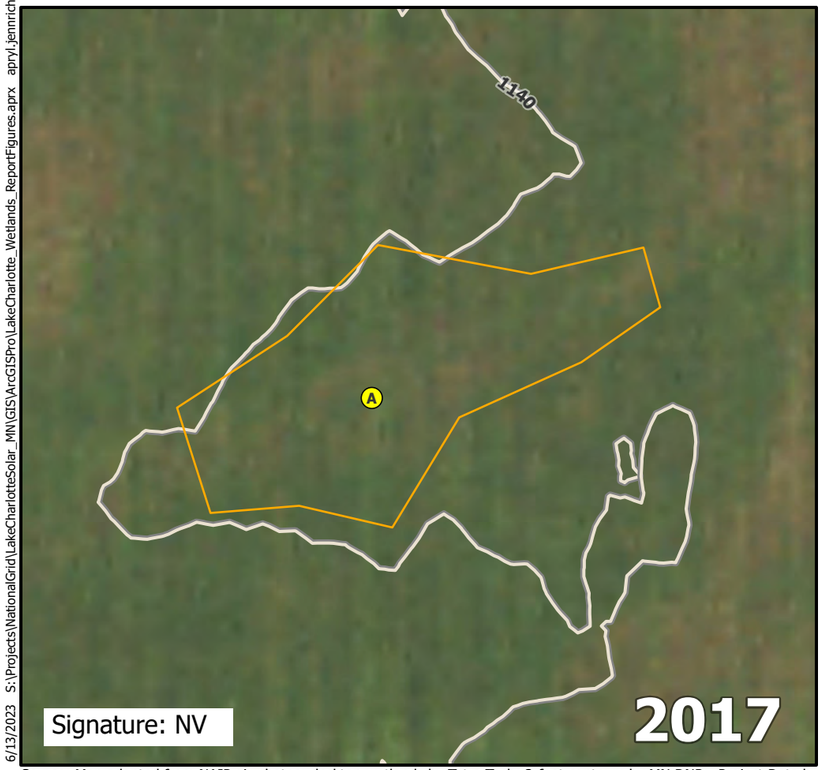
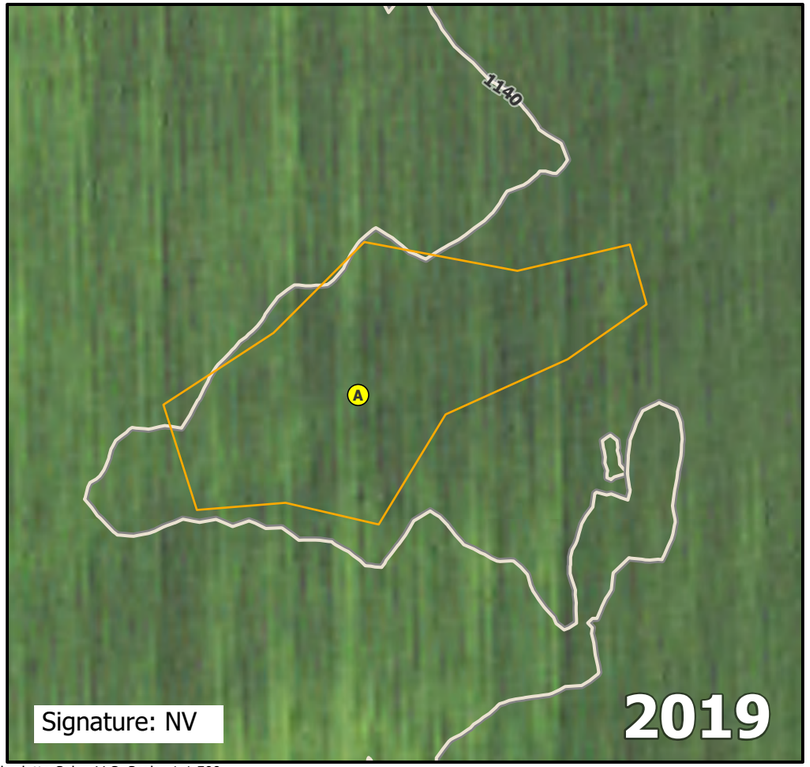
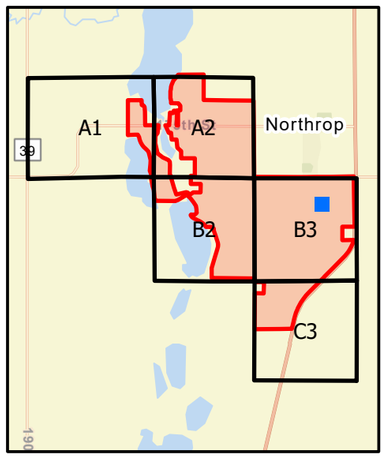
Feet







Feature ID: NWA062

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWA063

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/21/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWA063A

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: 43.72826 | Long: -94.43323 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA063A

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	
16-22	2.5Y 4/2	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

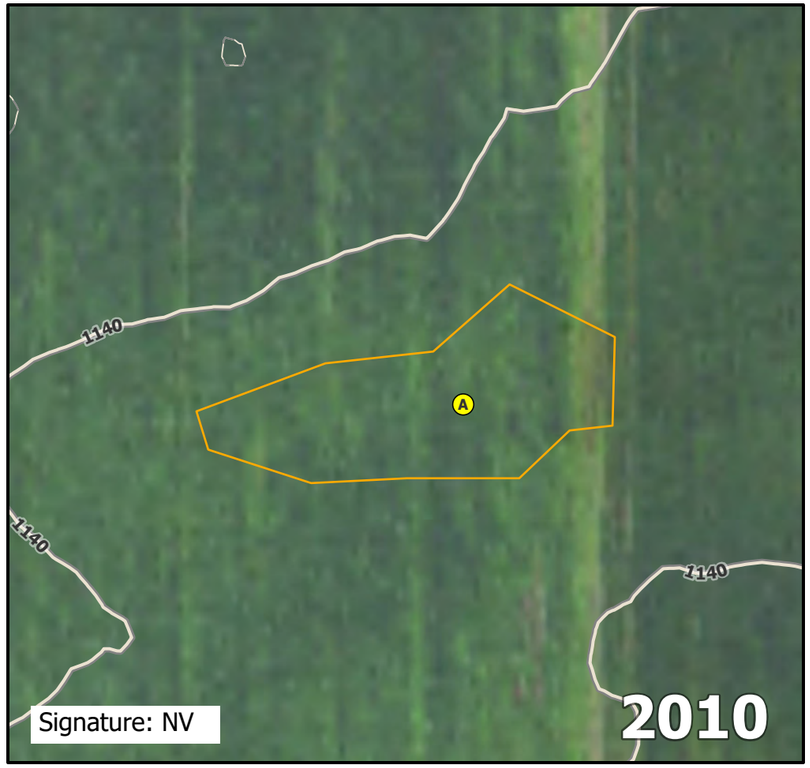
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

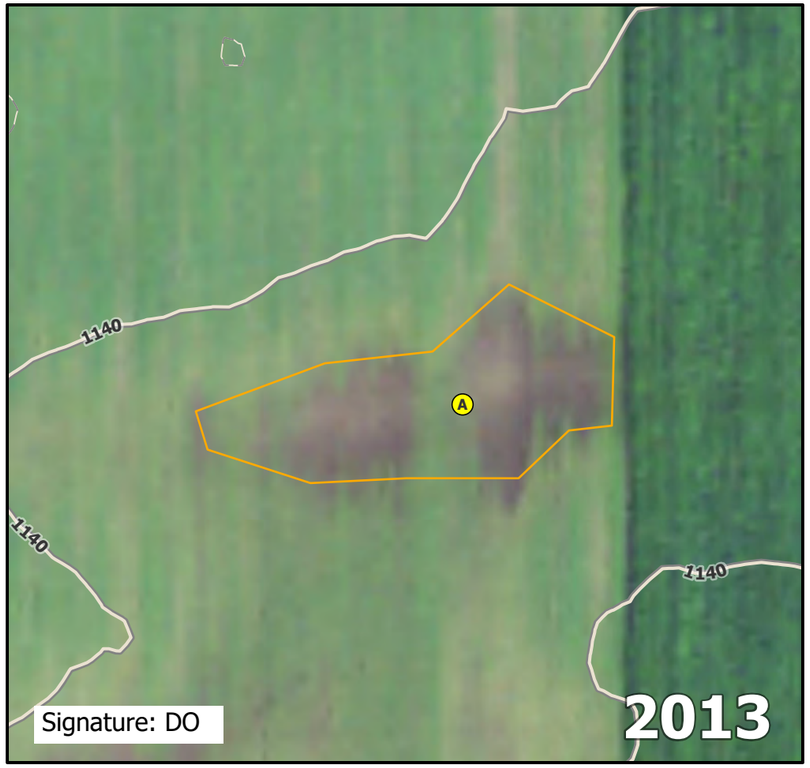
Wetland Hydrology Present? No

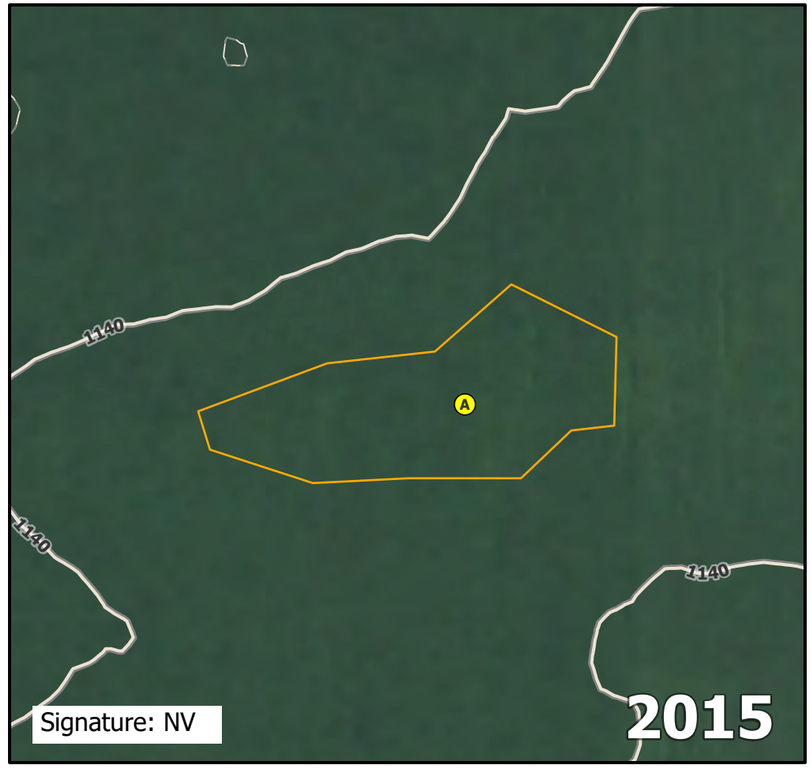
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWA063A.		
Direction: East	Photo ID: delin_photo-20221021-175400.jpg	Date: 10/21/2022
Project Name: Lake Charlotte		Feature ID: NWA063







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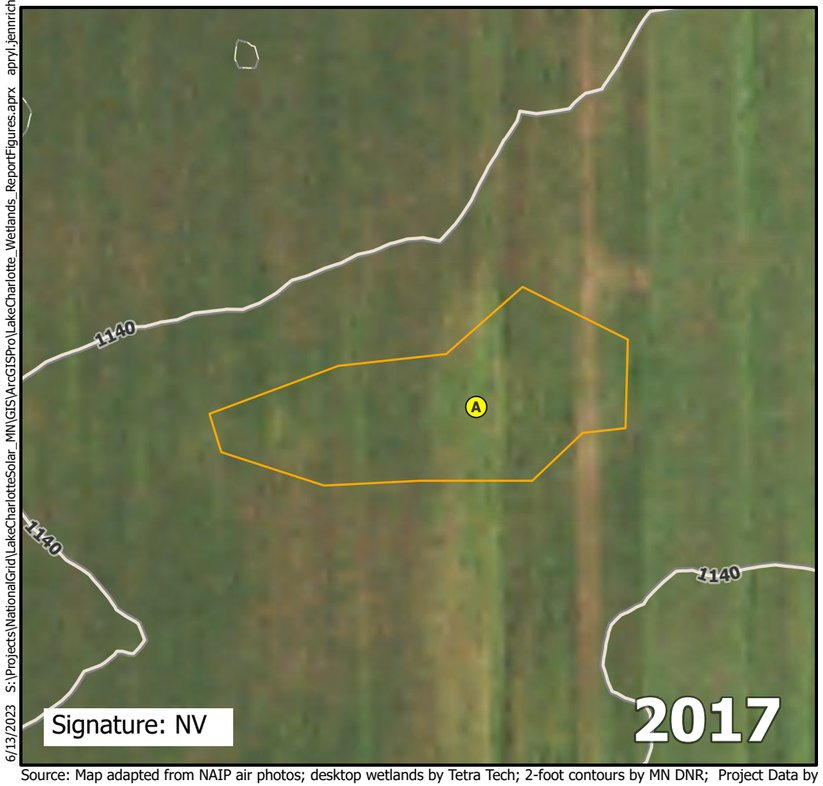
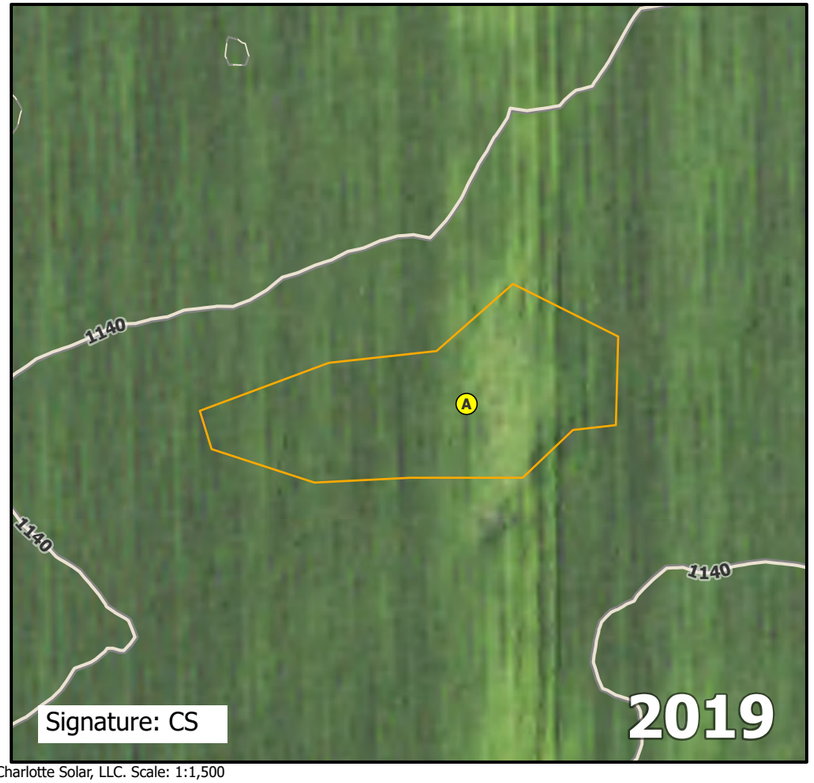
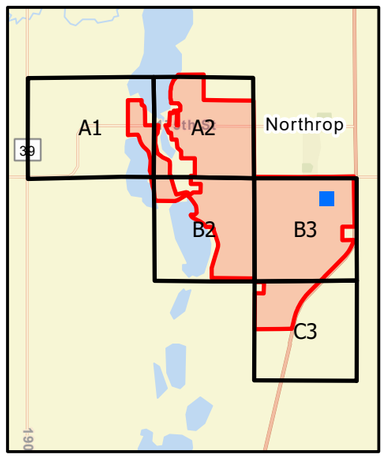
Feet







Feature ID: NWA063

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA064

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/21/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWA064A

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: 43.72948 | Long: -94.43429 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? No **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA064A

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	
23-26	2.5Y 5/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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:

Bicarbonate

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

(includes capillary fringe)

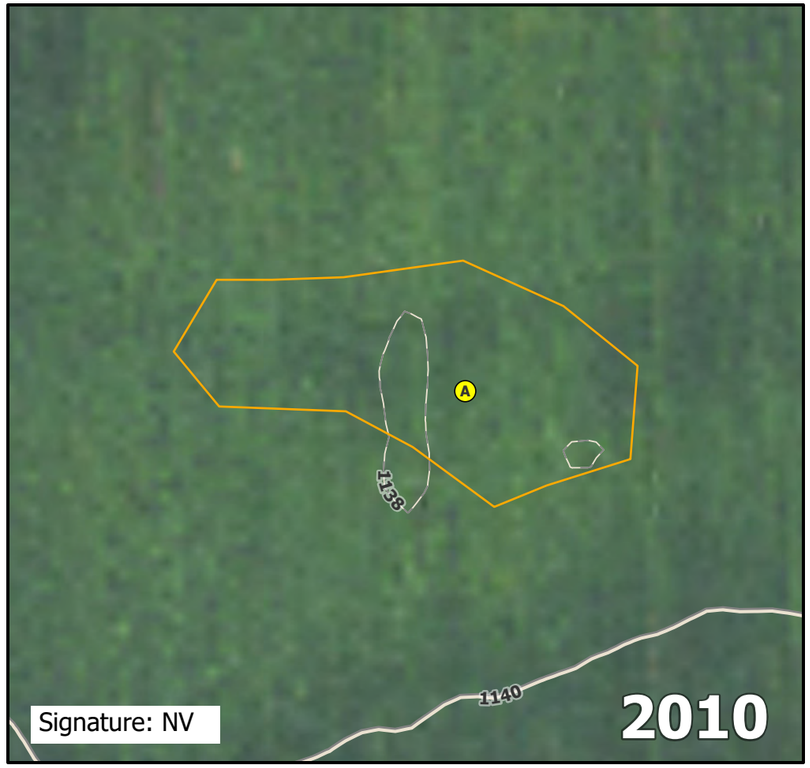
Wetland Hydrology Present? No

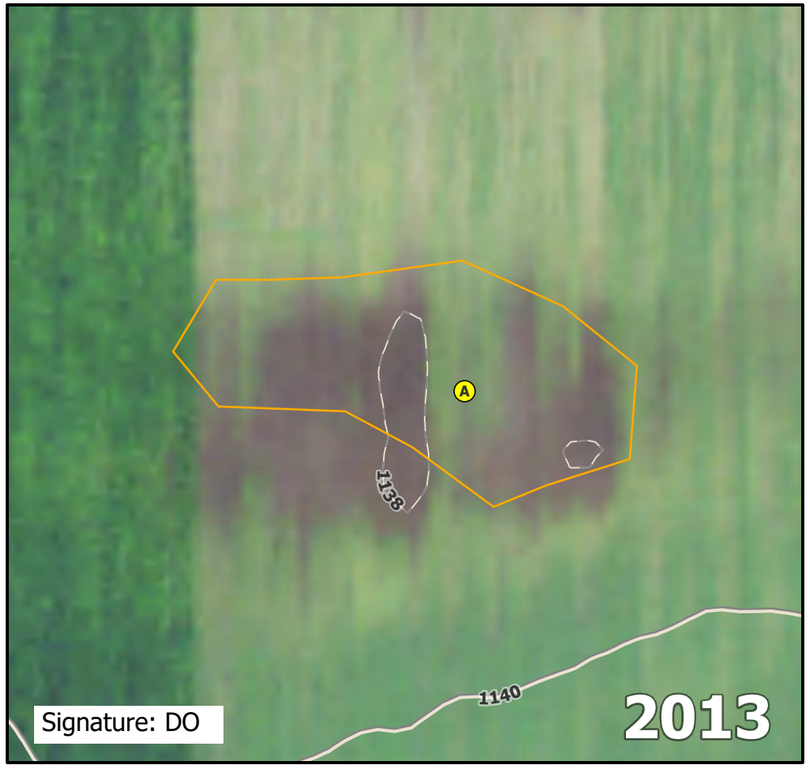
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

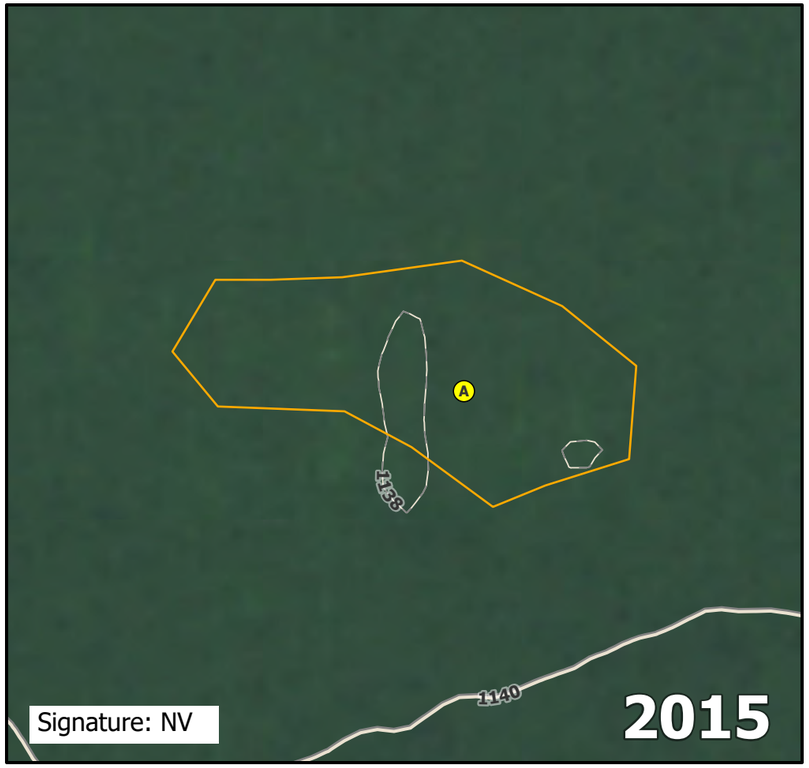
Remarks:

Overview of upland sample point NWA064A.

Direction: Southeast	Photo ID: delin_photo-20221021-180538.jpg	Date: 10/21/2022
Project Name: Lake Charlotte		Feature ID: NWA064

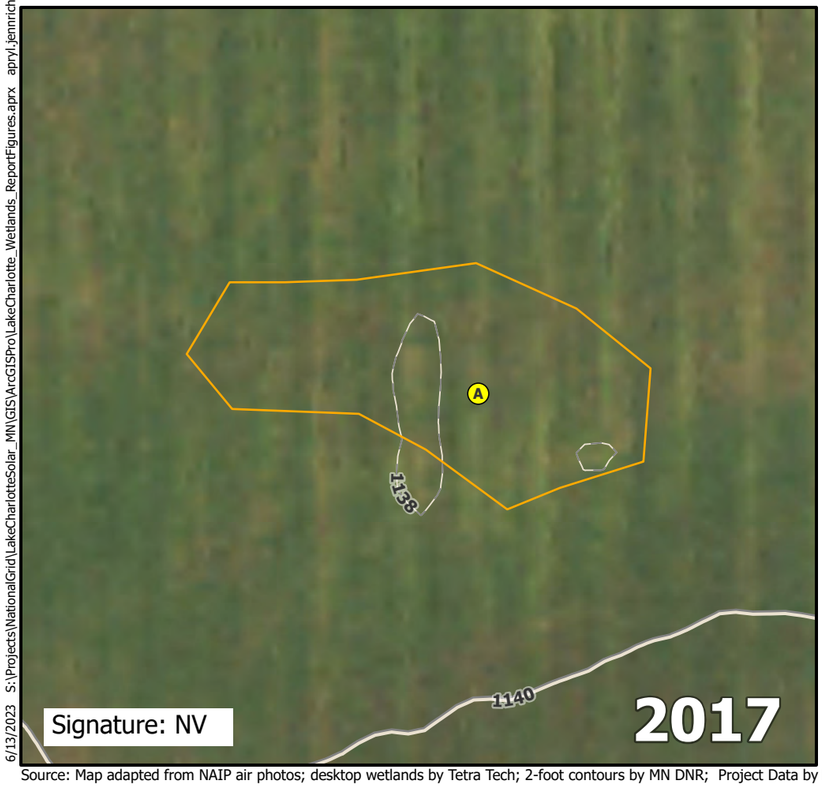


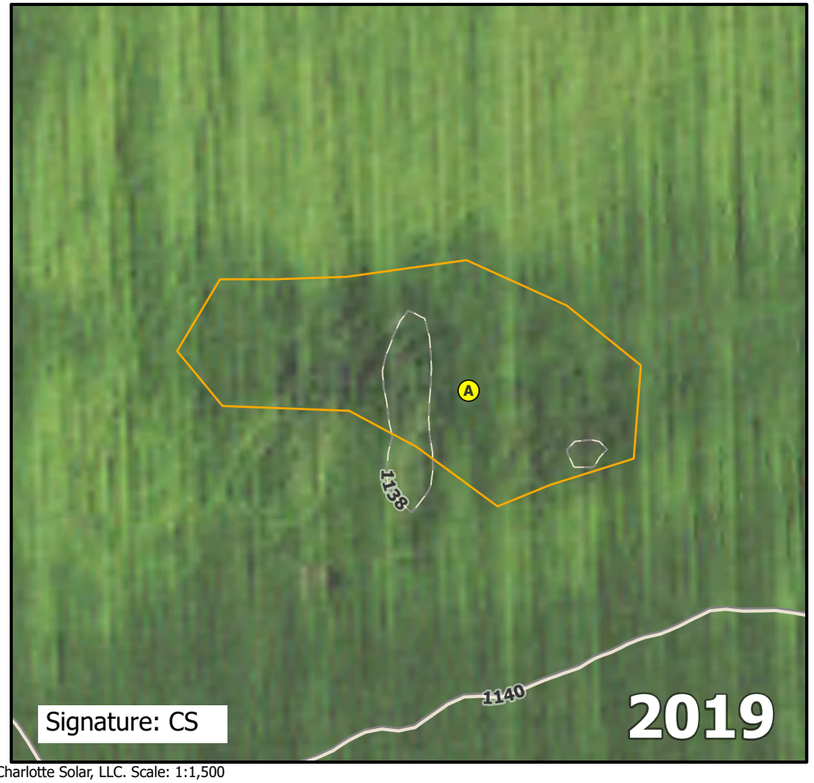


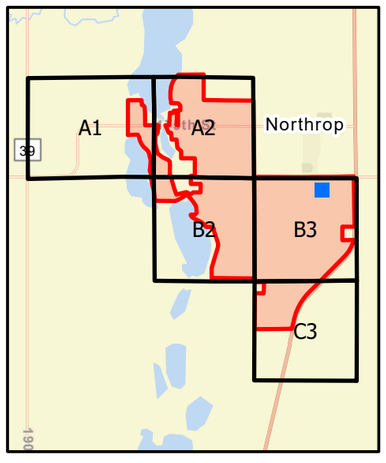


0 40 80 120 160 200

Feet







Feature ID: NWA064

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA065

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/21/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWA065A

Investigator(s): Apryl Jennrich | Section, Township, Range: Sec.9 T103N R30W

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

Slope (%): 0 | Lat: 43.73125 | Long: -94.43399 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Some dead barnyard grass present. Bare ground: 100%

SOIL

Sampling Point: NWA065A

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**		
0-35	10YR 2/1	100					Clay	
35-37	2.5Y 4/2	100					Sandy Clay	
37-39	2.5Y 4/3	97	10YR 5/6	3	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

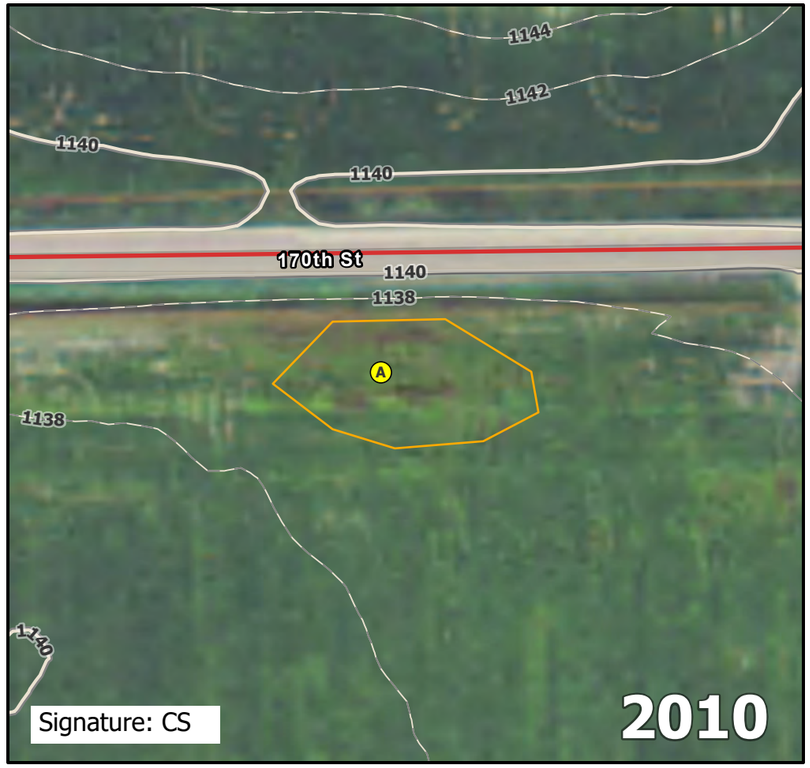
Wetland Hydrology Present? No

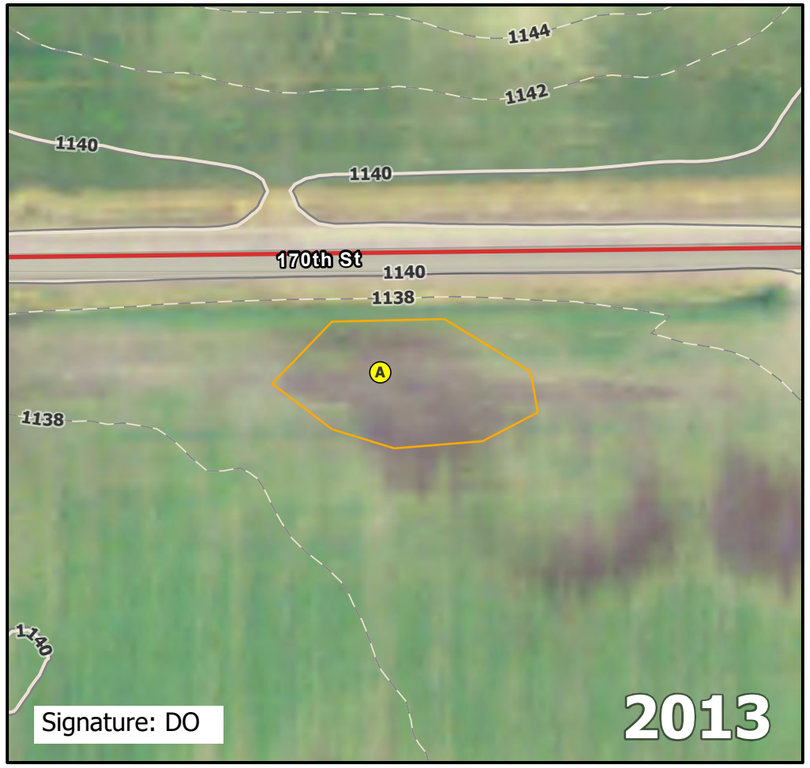
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

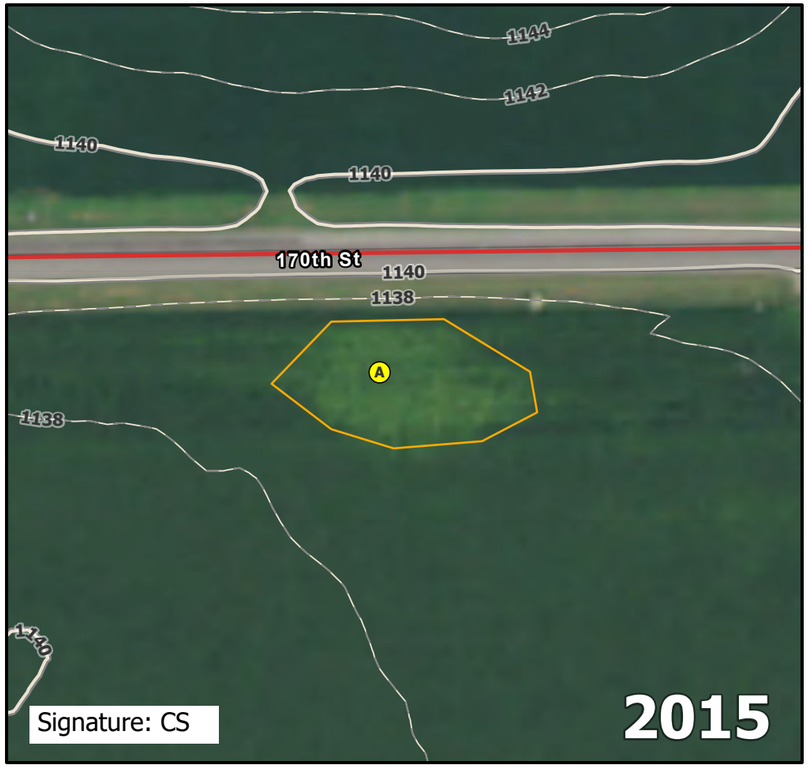
Remarks:

Overview of upland sample point NWA065A.

Direction: Southeast	Photo ID: delin_photo-20221021-181747.jpg	Date: 10/21/2022
Project Name: Lake Charlotte		Feature ID: NWA065







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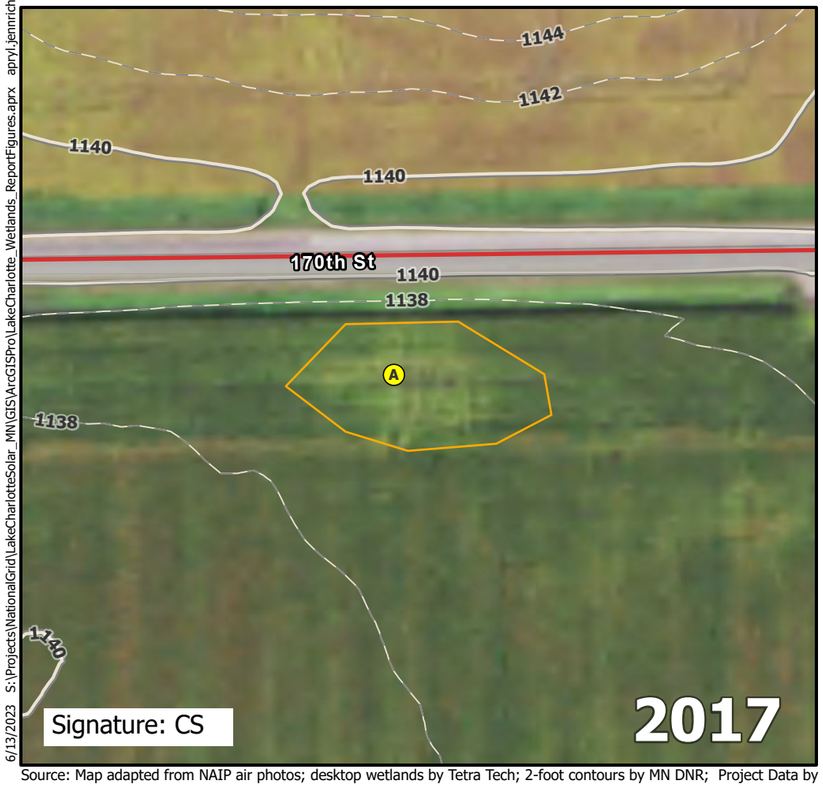
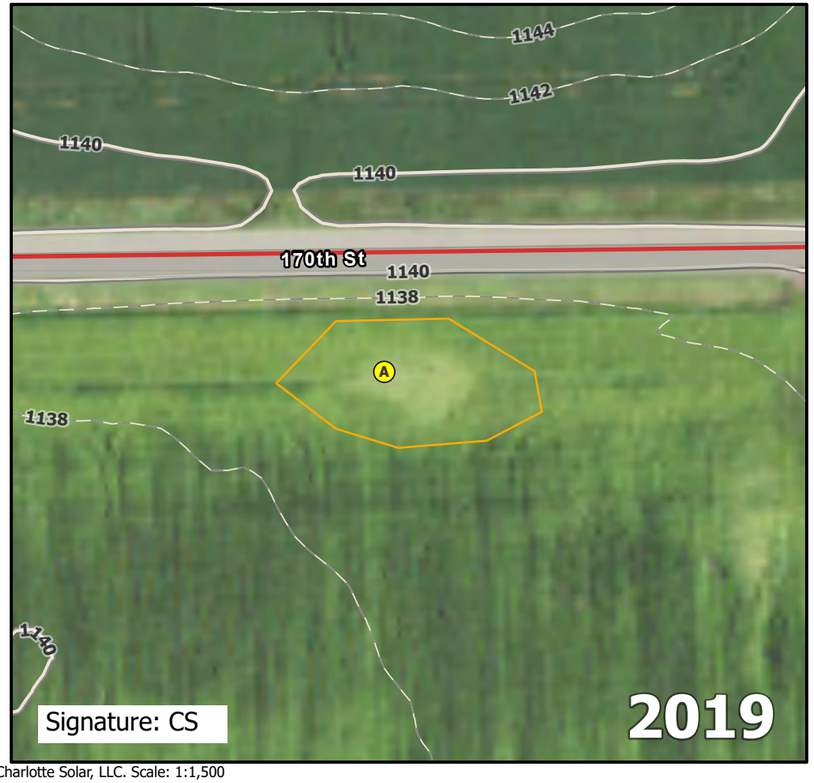
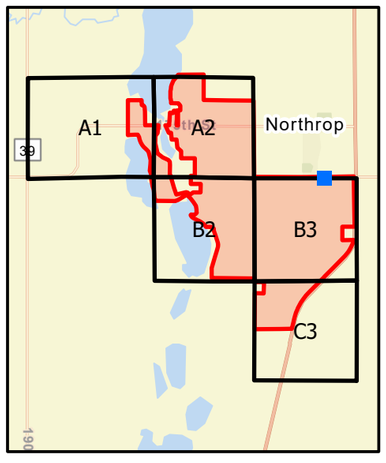
Feet







Feature ID: NWA065

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWA066

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/21/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWA066A

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: 43.73102 | Long: -94.43306 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size:)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWA066A

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	2.5Y 3/2	10	D	M	Clay	
23-33	2.5Y 3/1	90	2.5Y 4/2	10	D	M	Clay	
33-38	2.5Y 4/3	99	2.5Y 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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

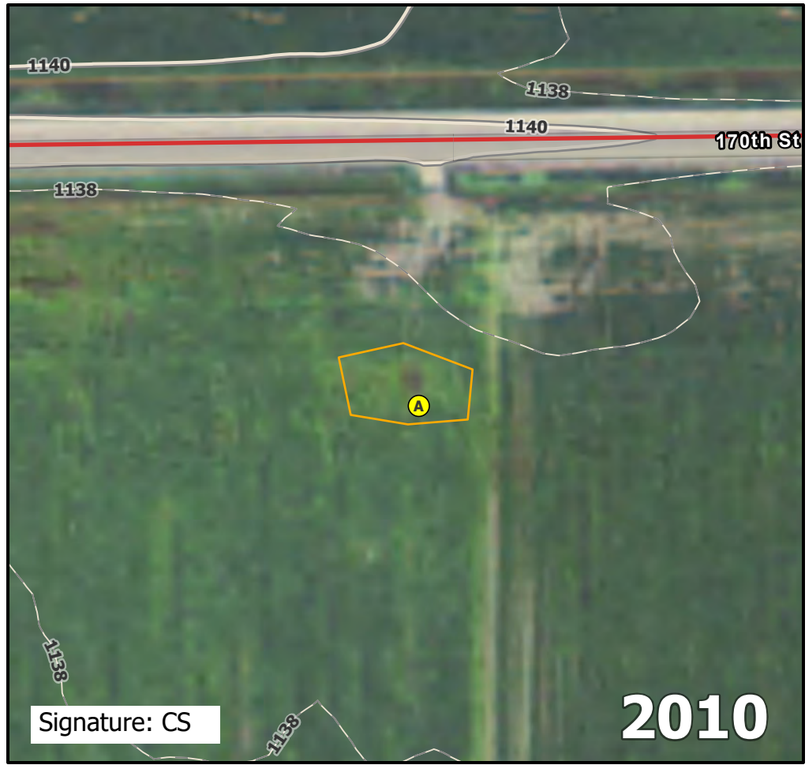
Wetland Hydrology Present? No

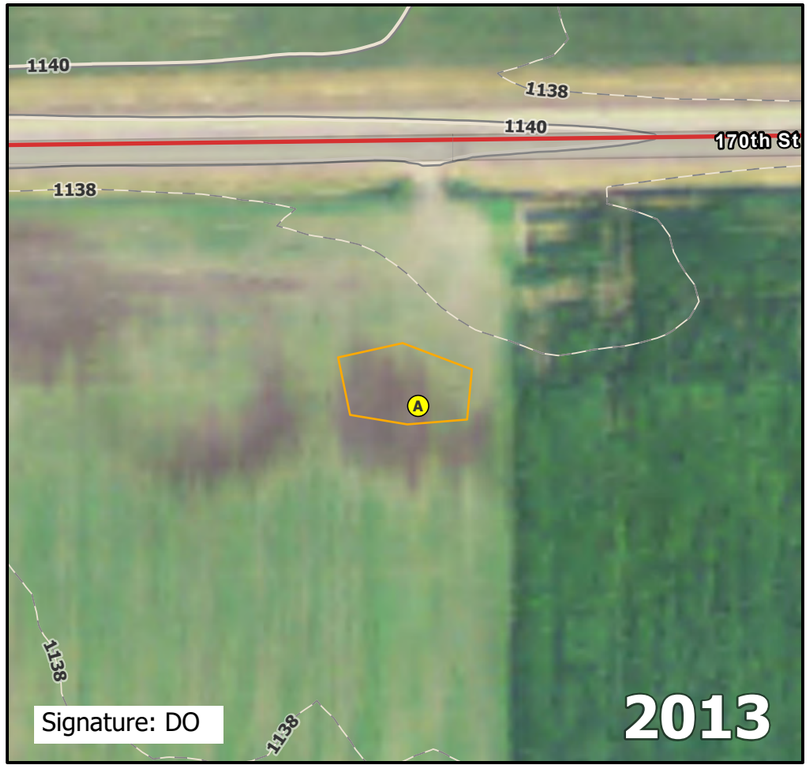
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

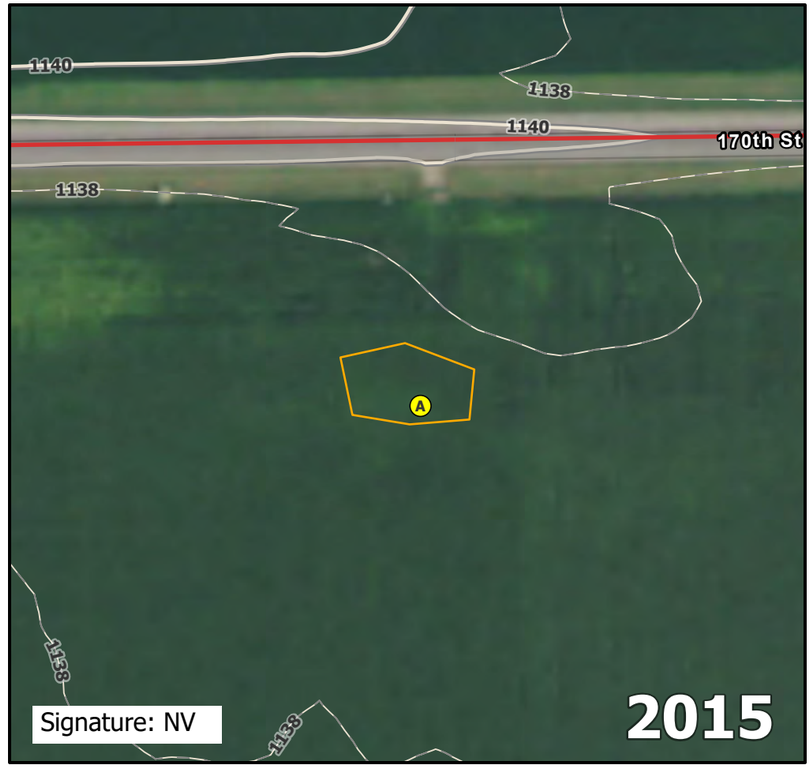
Remarks:

Overview of upland sample point NWA066A.

Direction: Southeast	Photo ID: delin_photo-20221021-182901.jpg	Date: 10/21/2022
Project Name: Lake Charlotte		Feature ID: NWA066







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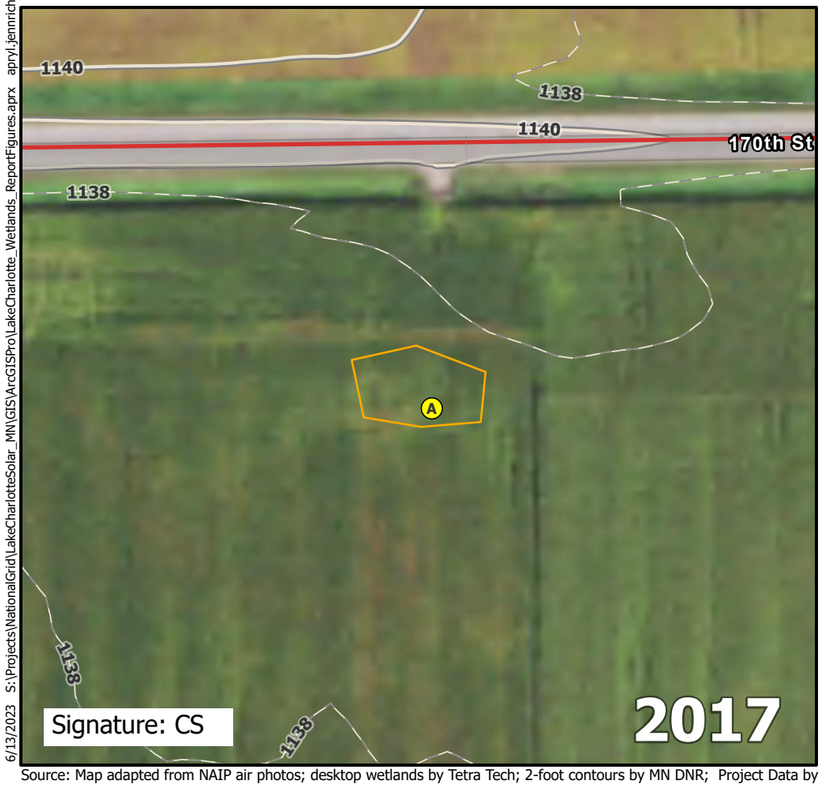
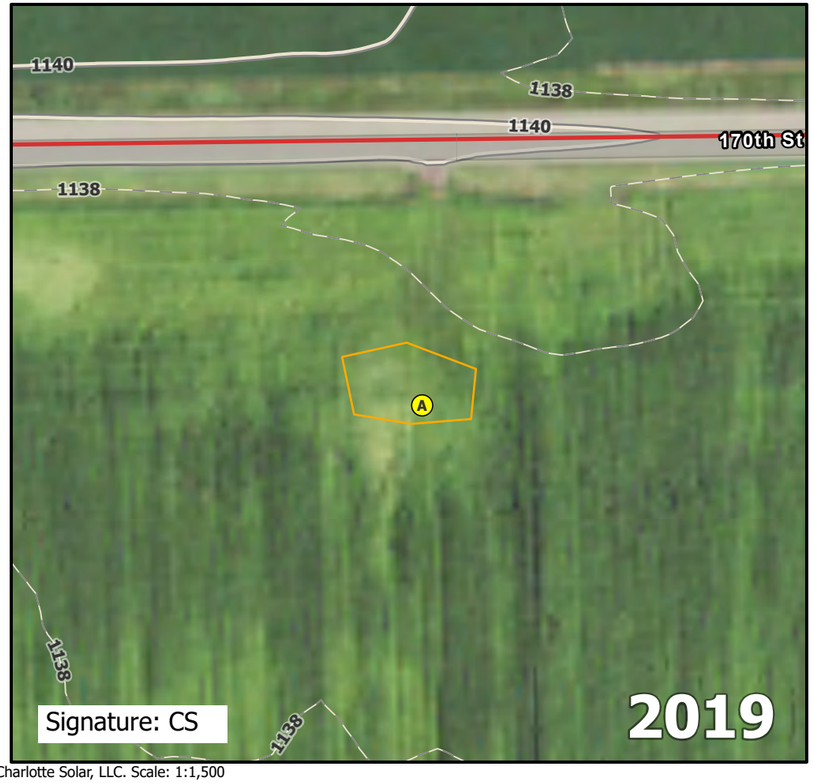
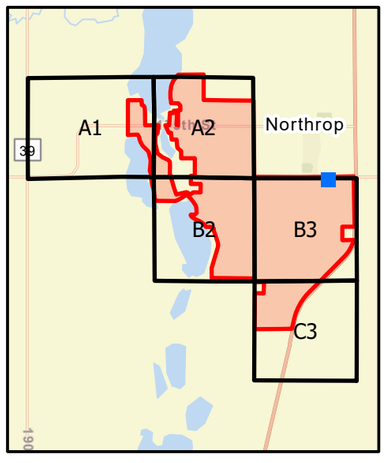
Feet







Feature ID: NWA066

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB067

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB067A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 1 | Lat: 43.7312 | Long: -94.43739 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB067A

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	
18-23	10YR 2/1	60					Clay	
	2.5Y 5/3	40						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

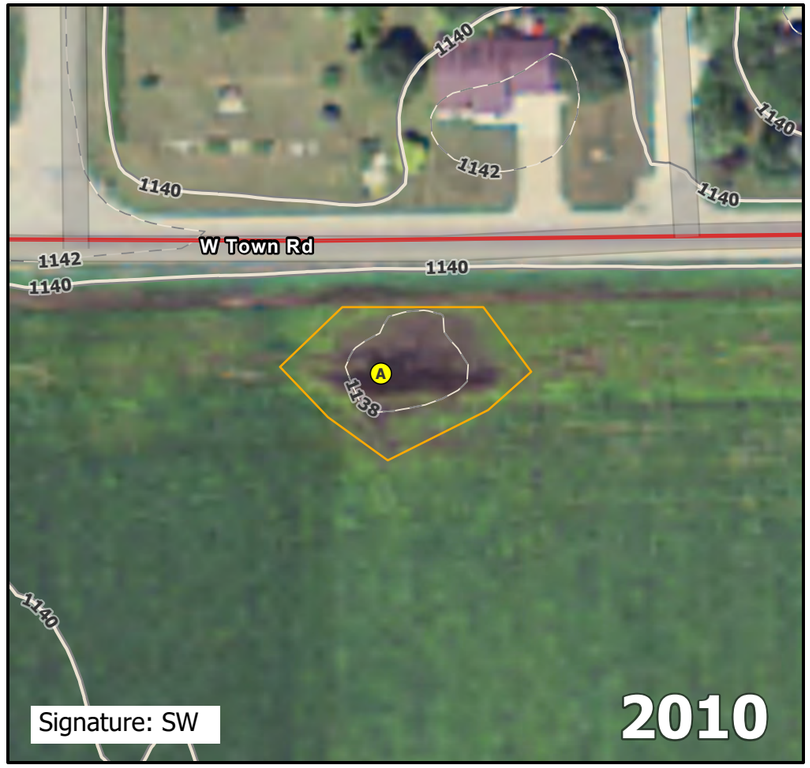
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

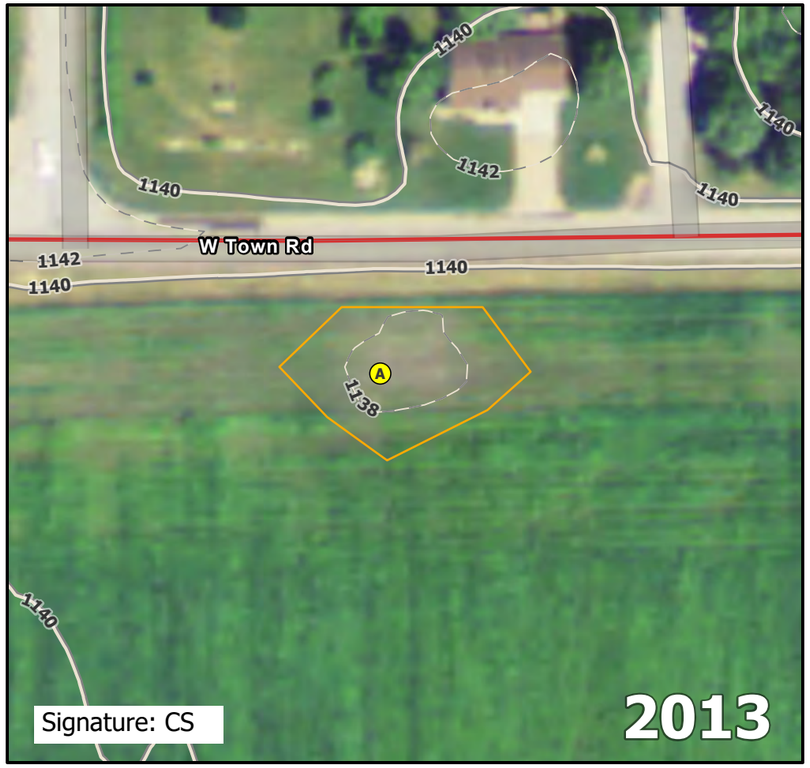
Wetland Hydrology Present? No

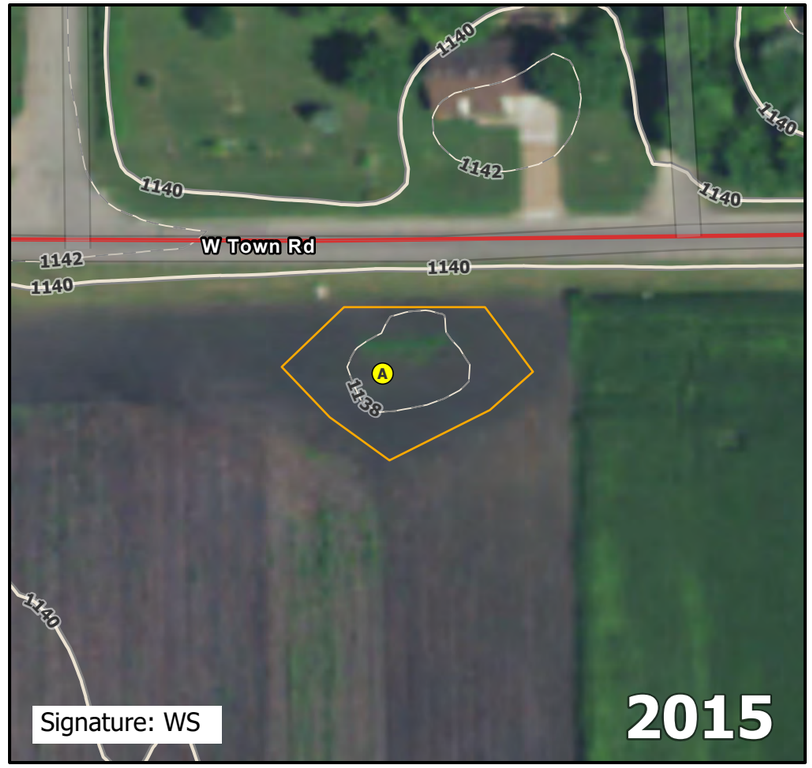
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB067A.		
Direction: East	Photo ID: delin_photo-20221024-155645.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB067







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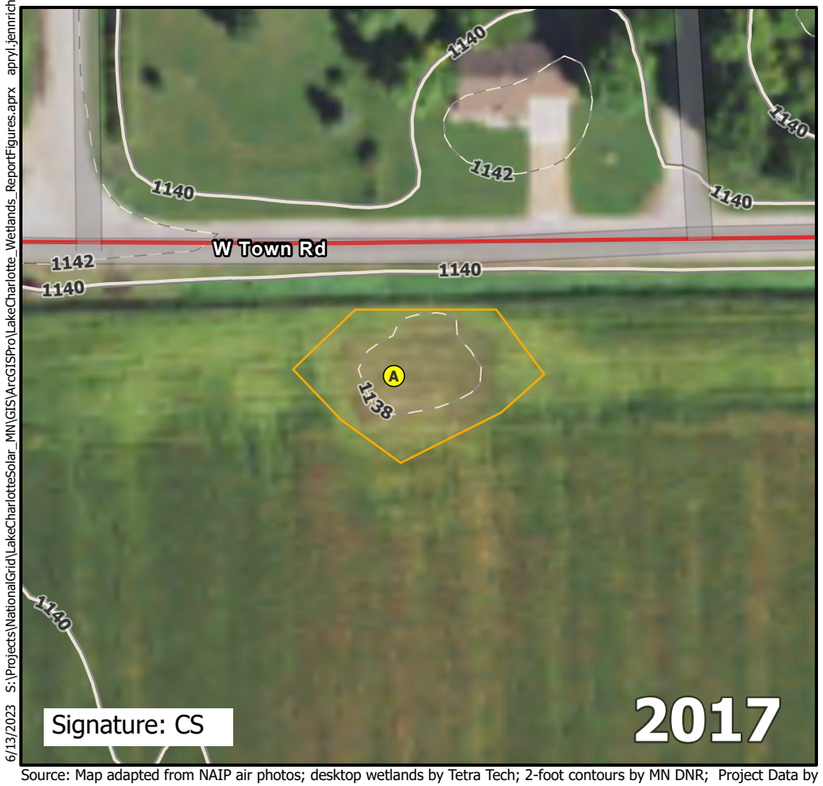
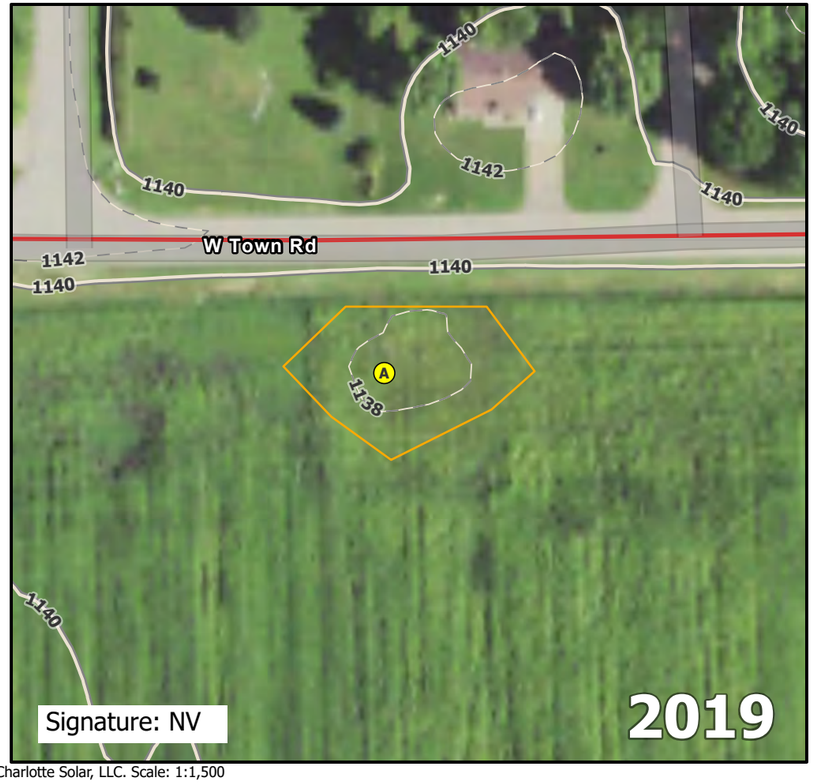
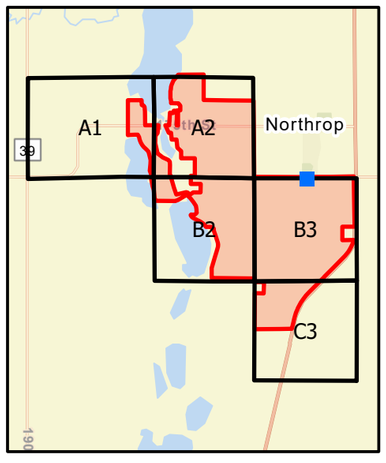
Feet







Feature ID: NWB067

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB070

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB070A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 1 | Lat: 43.72769 | Long: -94.43802 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? Yes **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Zea mays*	50	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	50	x 5 =	250
Column totals	50 (A)		250 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 50%

SOIL

Sampling Point: NWB070A

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**		
0-40	10YR 2/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- X 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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

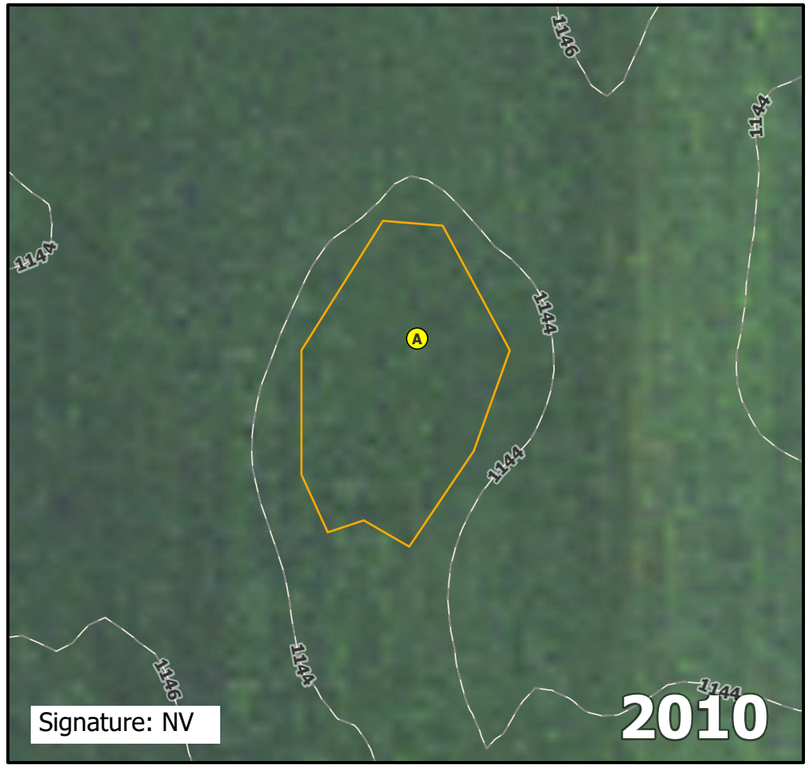
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

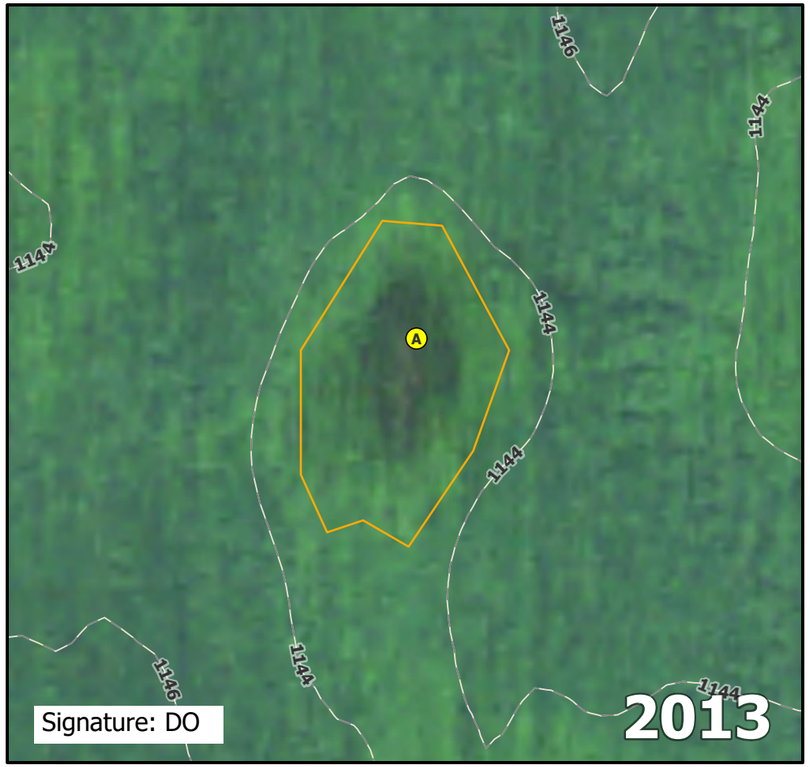
Wetland Hydrology Present? No

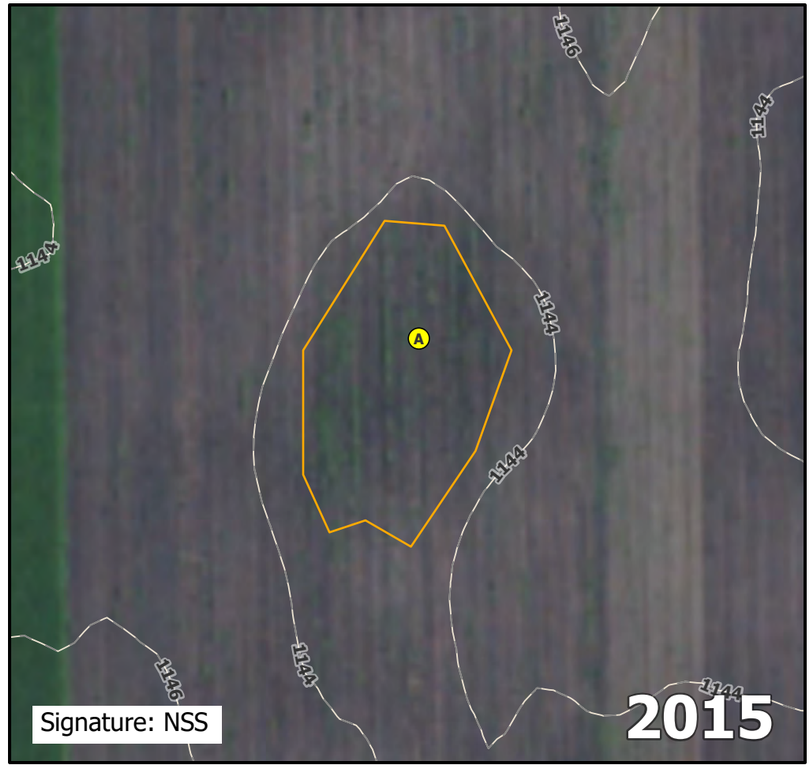
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB070A.		
Direction: South	Photo ID: delin_photo-20221024-170003.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB070







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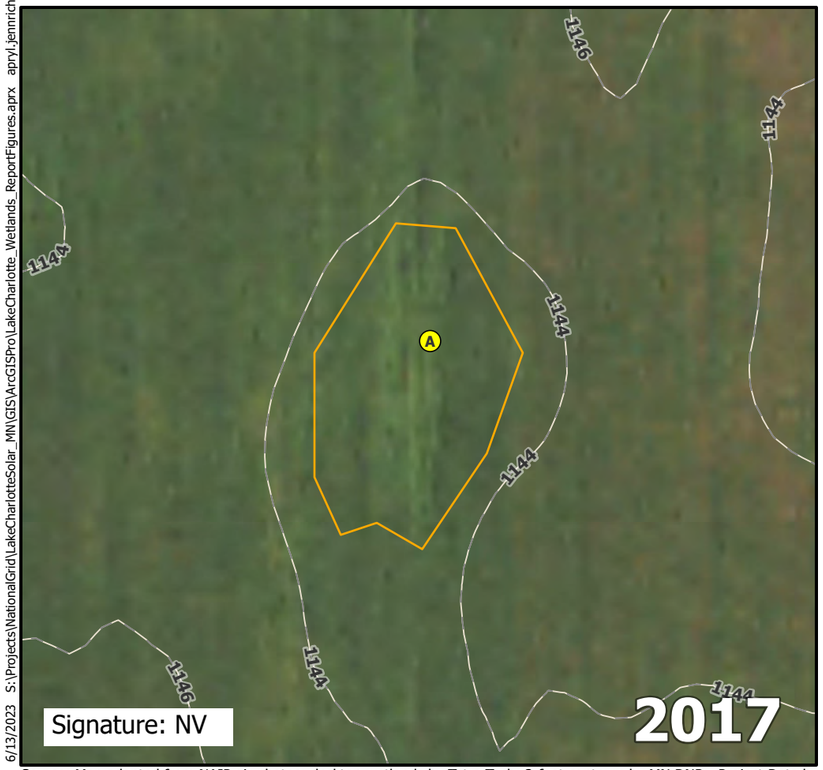
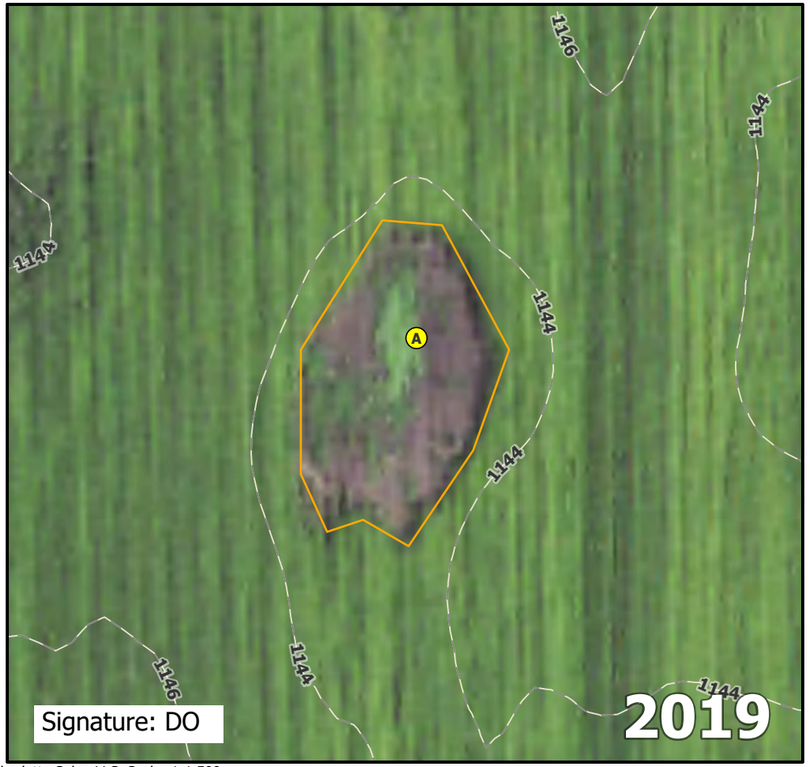
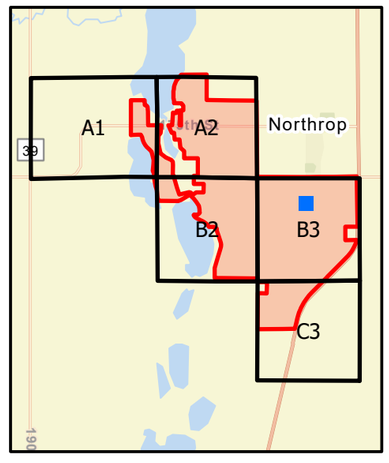
Feet







Feature ID: NWB070

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWB071

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB071A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.72789 | Long: -94.43891 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Zea mays*	50	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	50	x 5 =	250
Column totals	50 (A)		250 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 50%

SOIL

Sampling Point: NWB071A

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	
20-35	10YR 3/1	100					Clay	
35-40	2.5Y 4/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

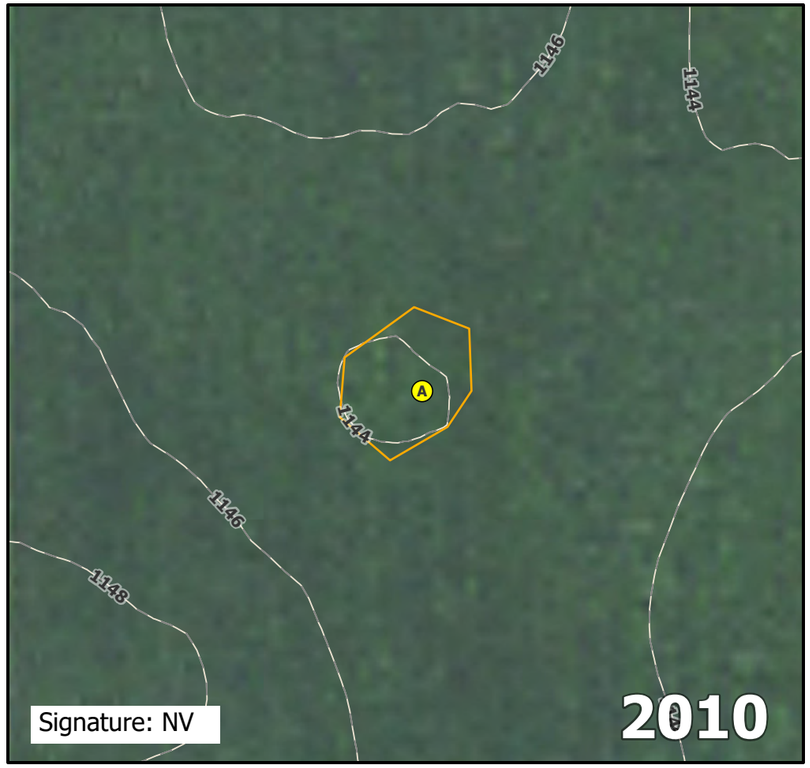
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

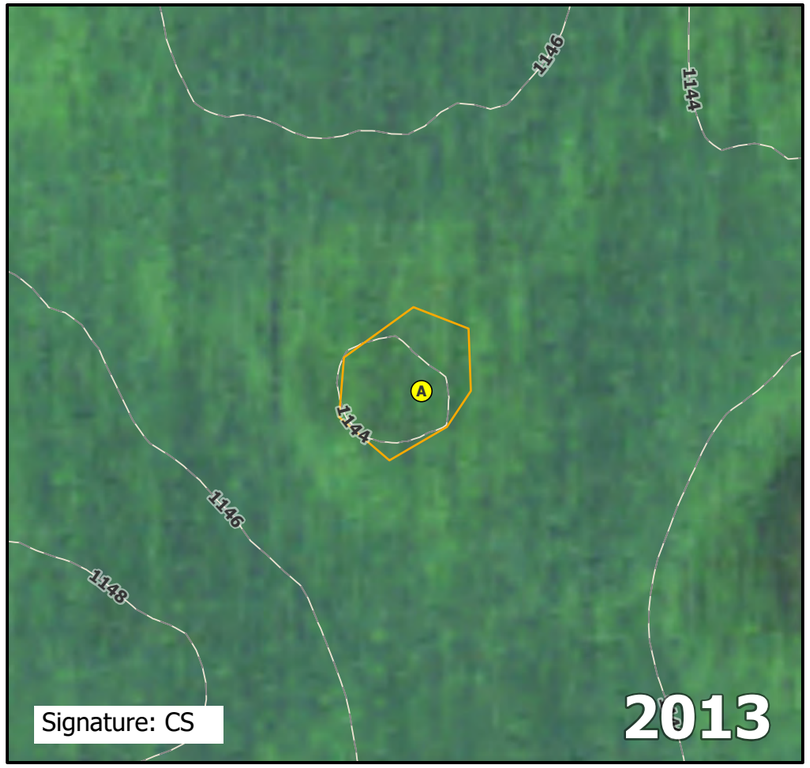
Wetland Hydrology Present? No

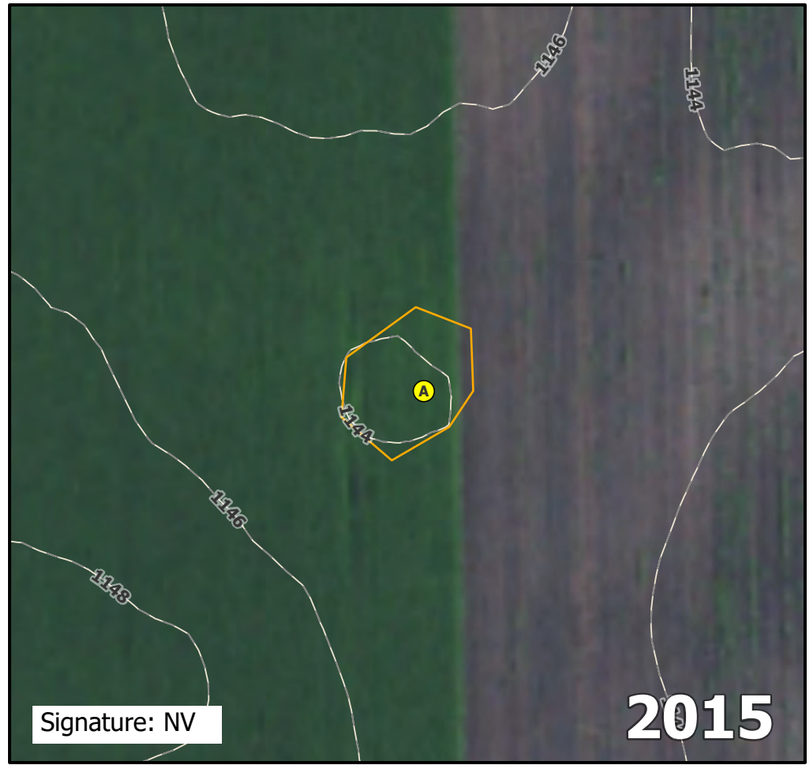
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB071A.		
Direction: North	Photo ID: delin_photo-20221024-171423.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB071







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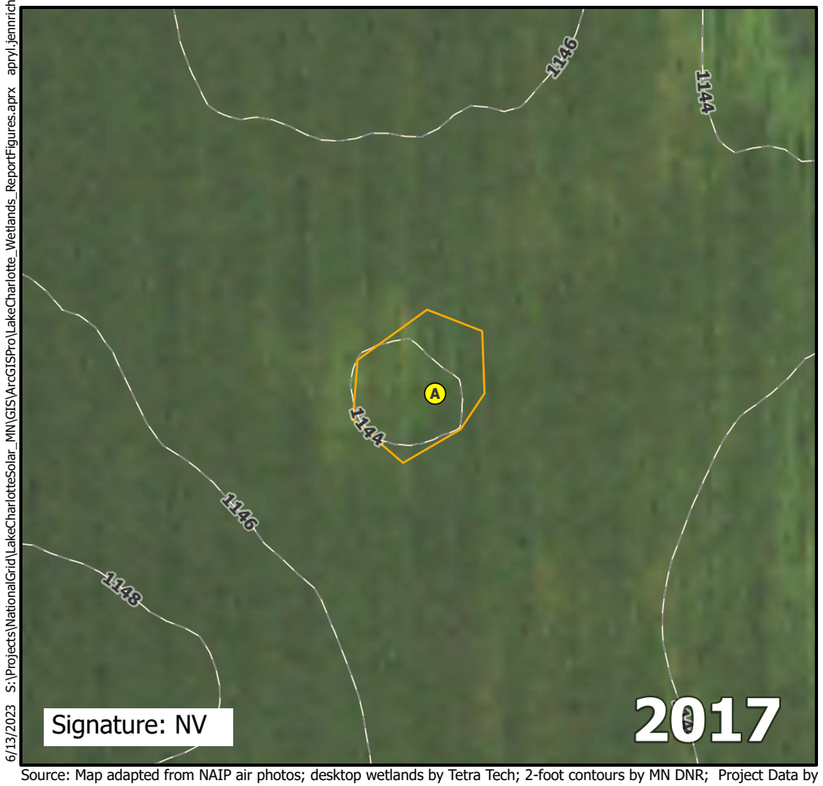
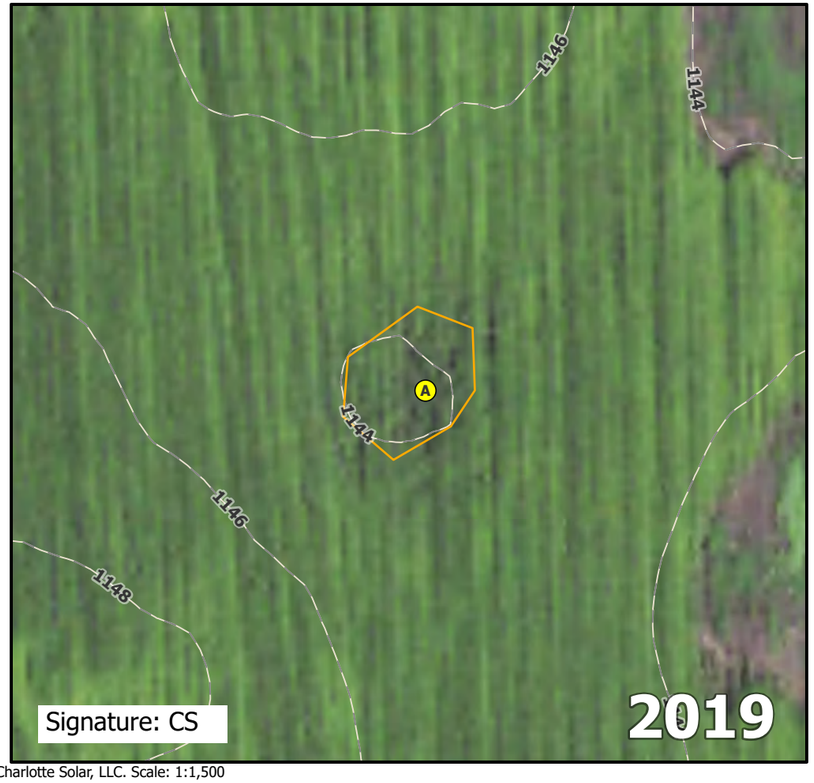
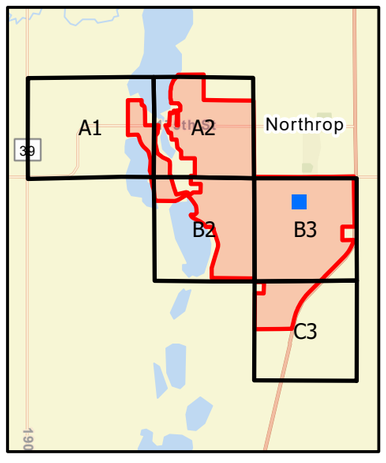






Feature ID: NWB071

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB074

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB074A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.71828 | Long: -94.4416 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 0 to 2 percent slopes | NWI Classification: PEM1Af

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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB074A

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	
17-23	10YR 2/1	50					Clay	
	2.5Y 4/2	50						Mixed Matrix
23-30	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

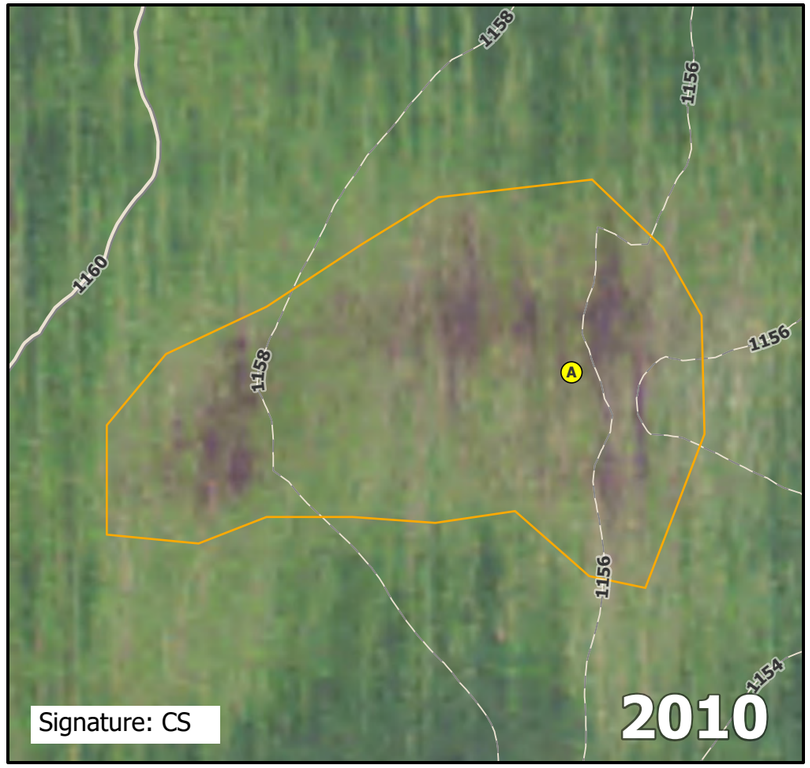
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

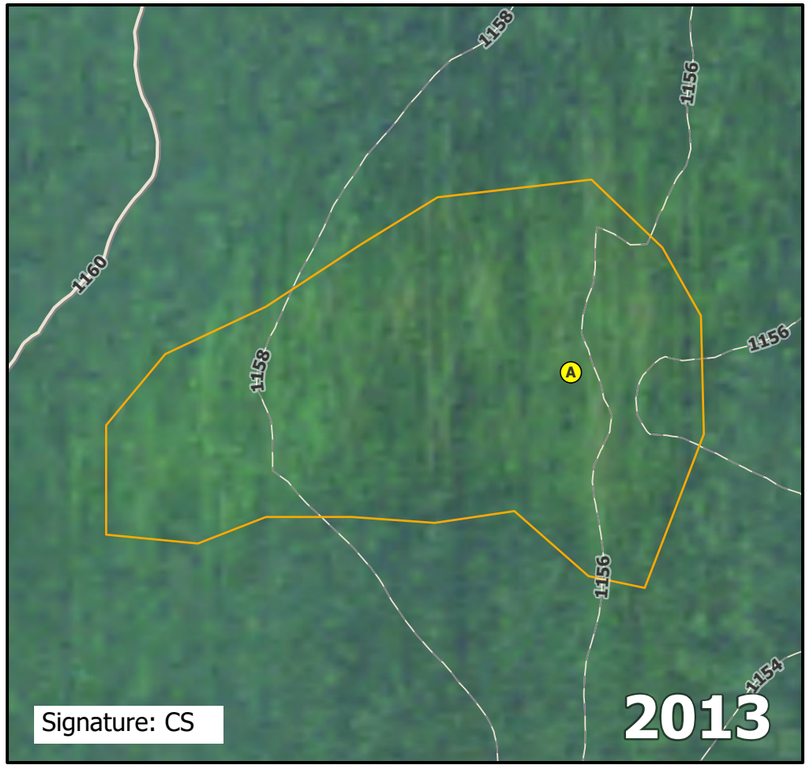
Wetland Hydrology Present? No

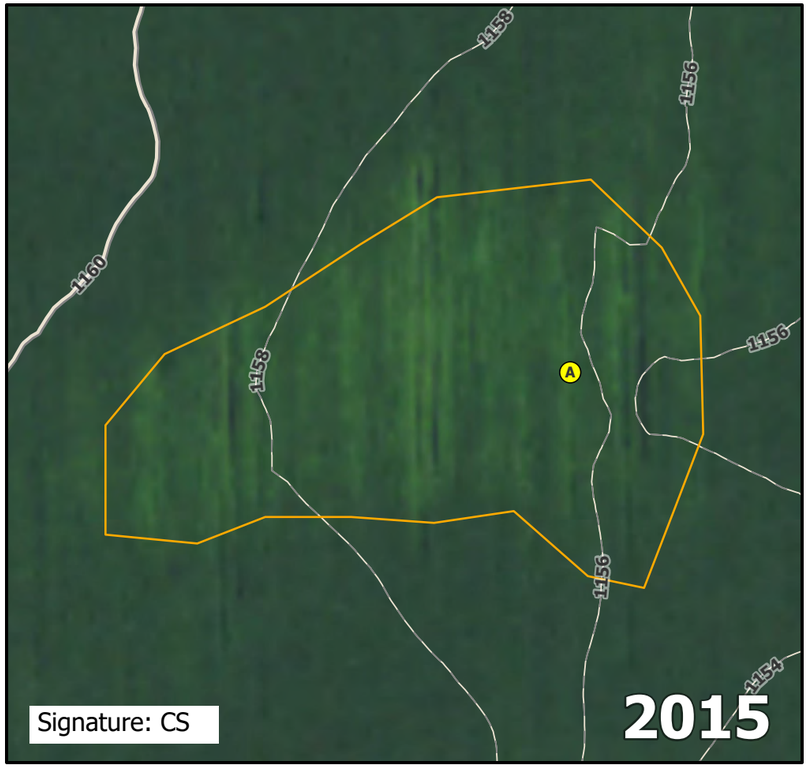
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB074A.		
Direction: East	Photo ID: delin_photo-20221024-191445.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB074







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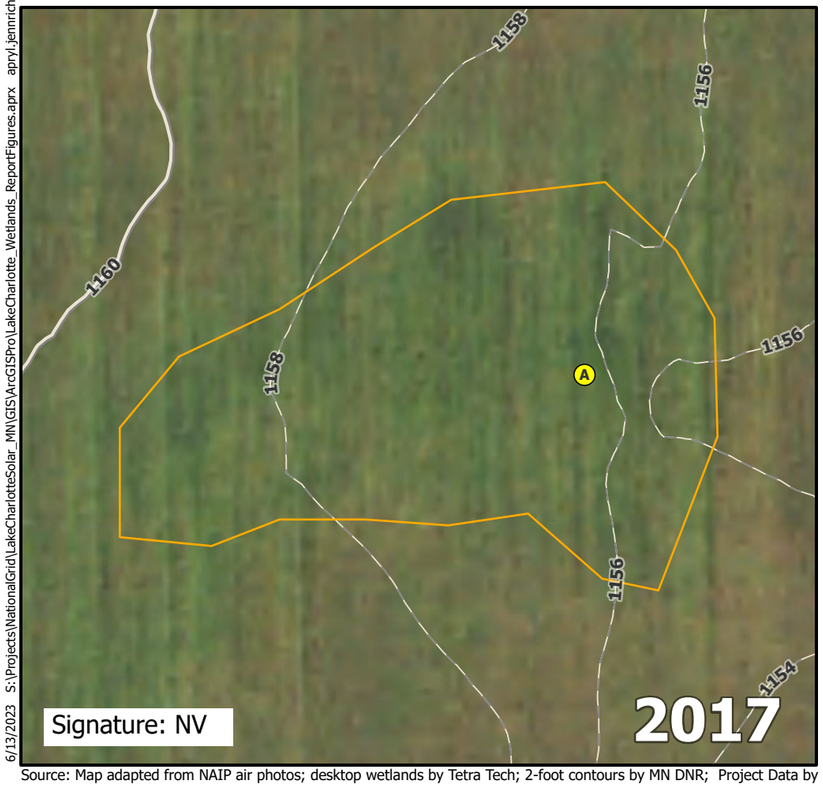
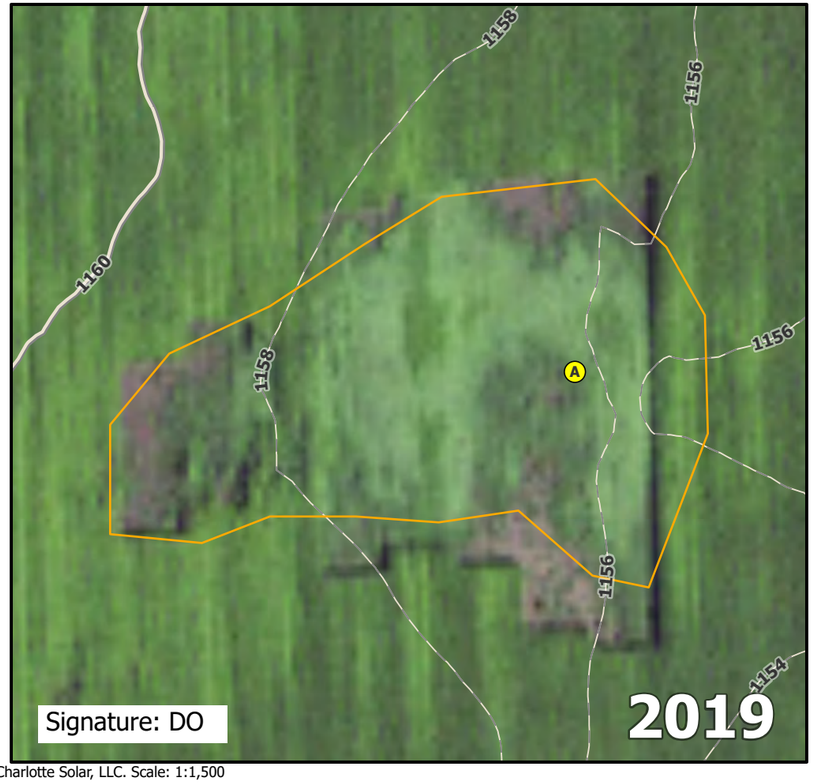
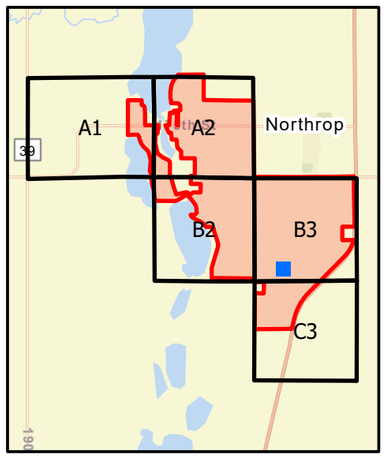
Feet







Feature ID: NWB074

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWB075

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB075A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 1 | Lat: 43.71894 | Long: -94.44383 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? Yes

Wetland Hydrology Present? No

Is the sampled area within a wetland? No

If yes, optional wetland site ID: ____

Remarks:

Recently tilled agricultural field. Recently harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB075A

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	
20-40	10YR 3/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- X 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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

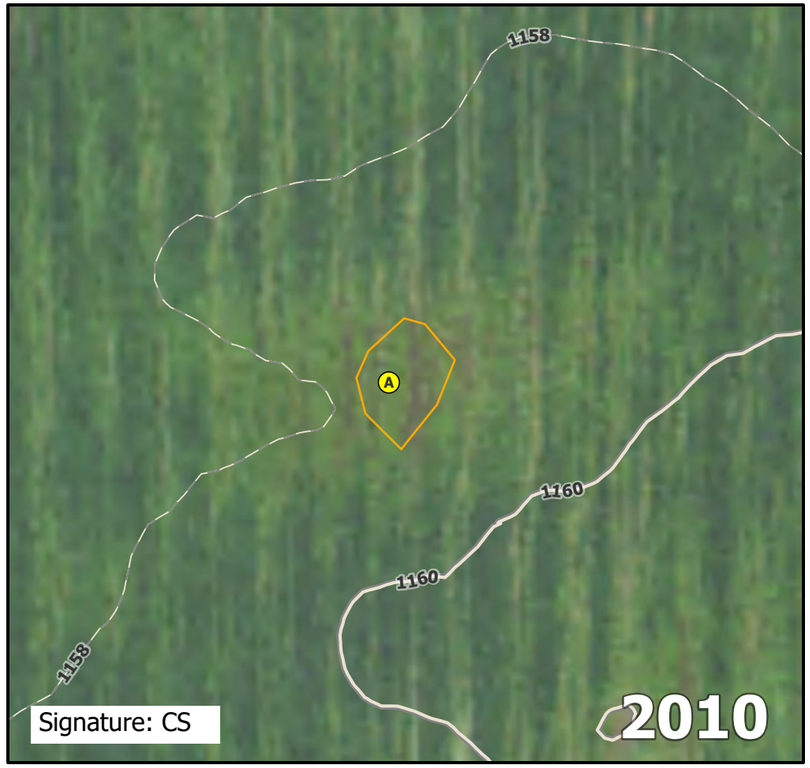
Wetland Hydrology Present? No

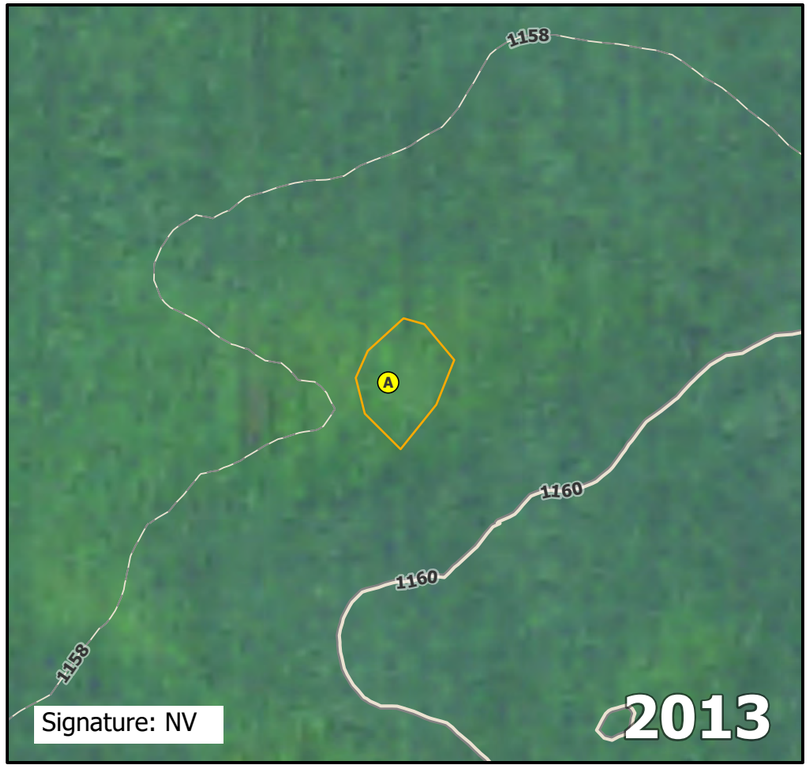
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

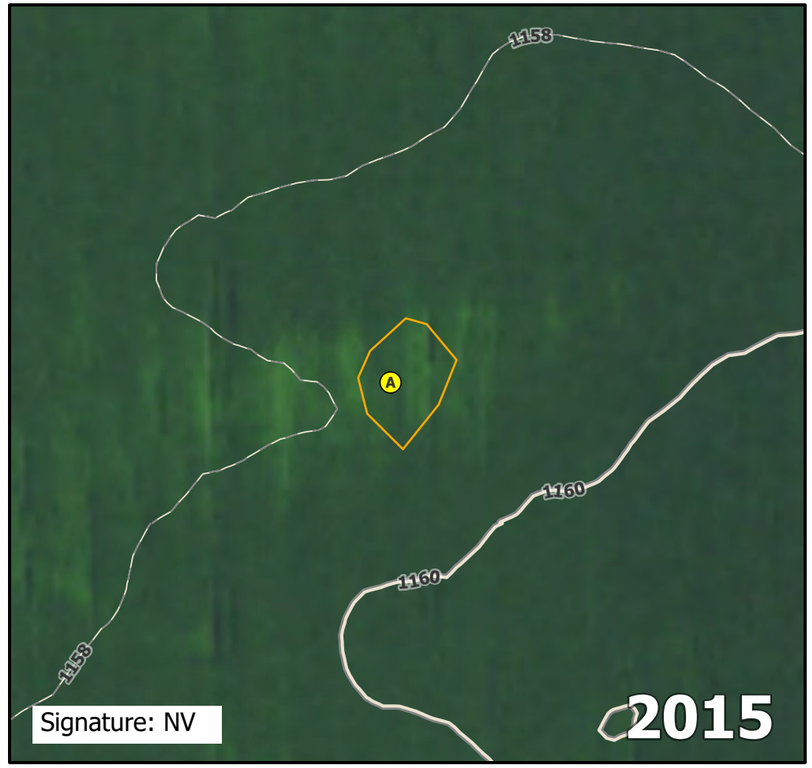
Remarks:

Overview of upland sample point NWB075A.

Direction: East	Photo ID: delin_photo-20221024-193059.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB075







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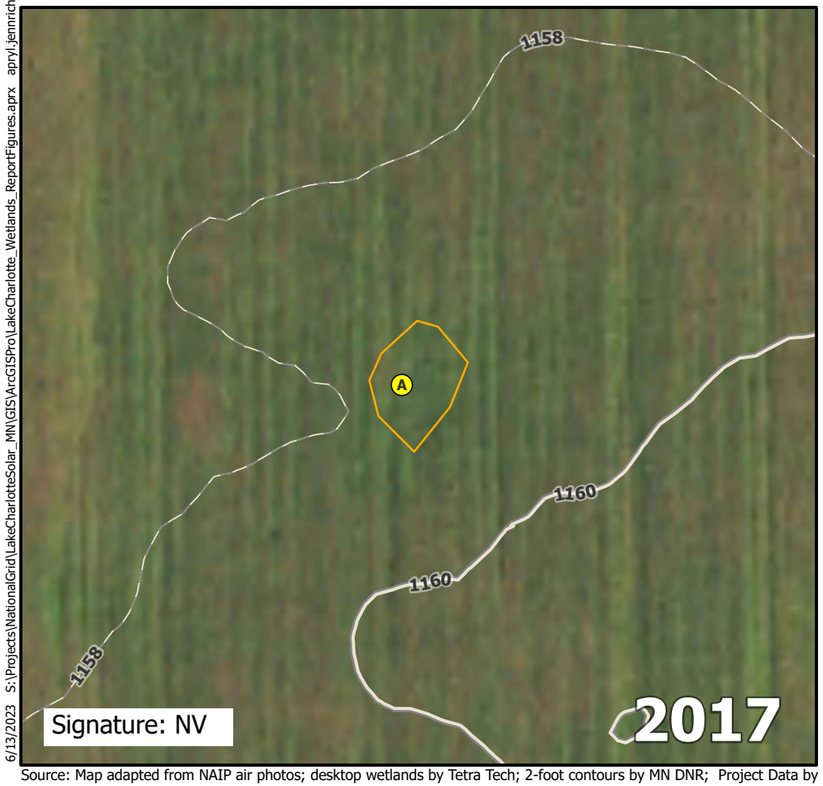
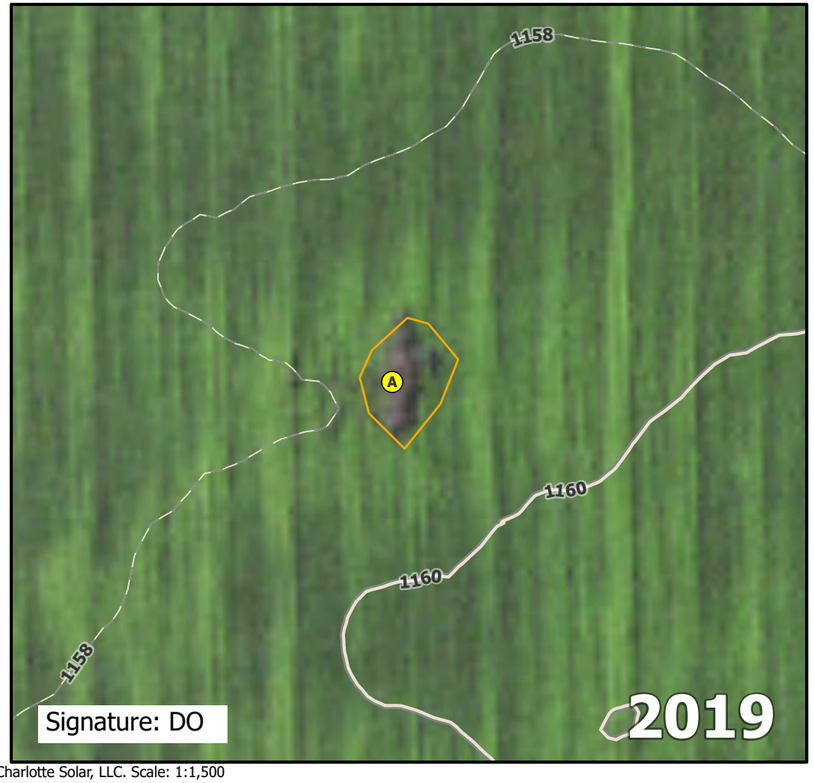
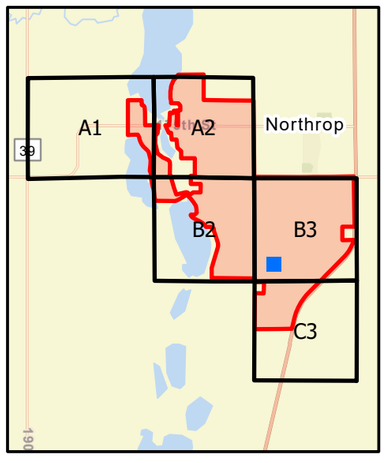
Feet







Feature ID: NWB075

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB076

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB076A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 2 | Lat: 43.71813 | Long: -94.44382 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? Yes **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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB076A

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**		
0-8	10YR 2/1	100					Clay	
8-40	2.5Y 5/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

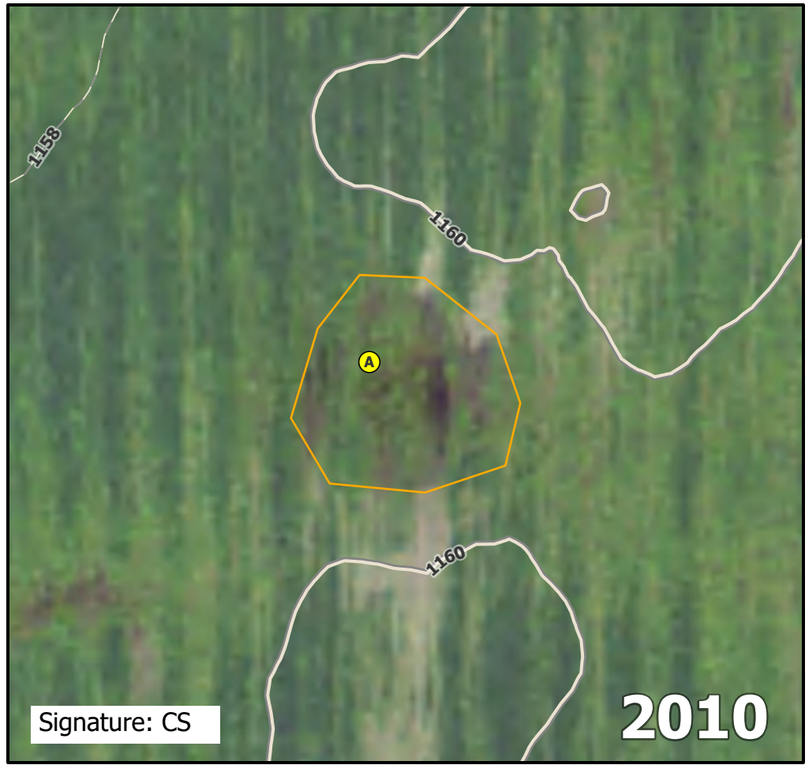
(includes capillary fringe)

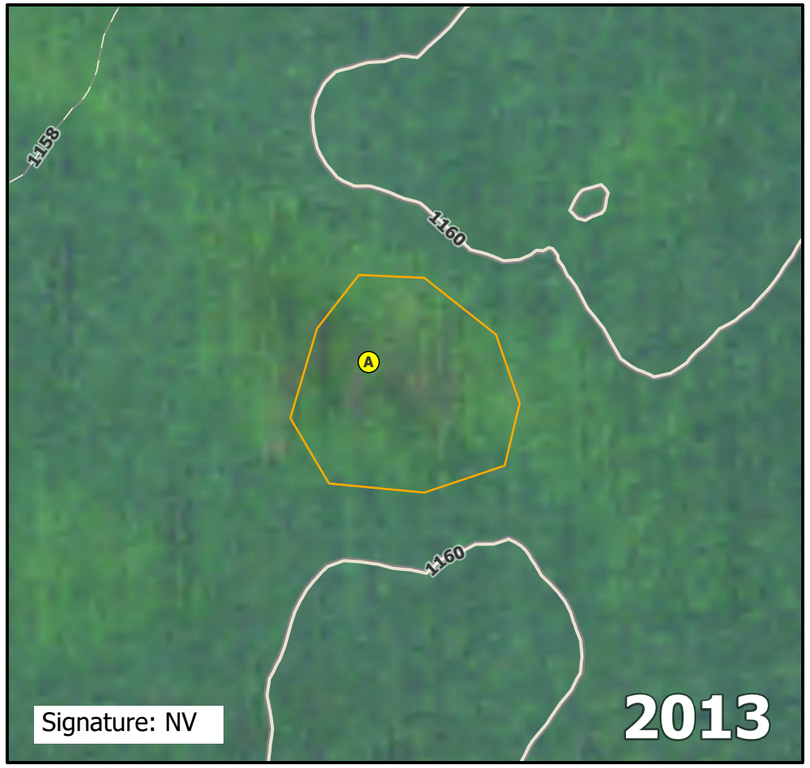
Wetland Hydrology Present? No

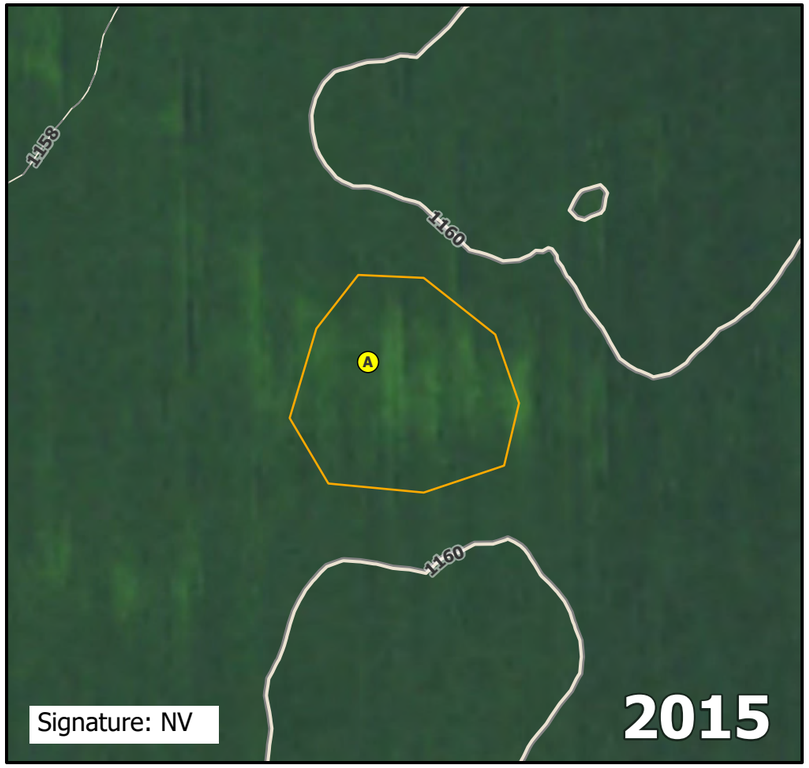
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB076A.		
Direction: East	Photo ID: delin_photo-20221024-194606.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB076







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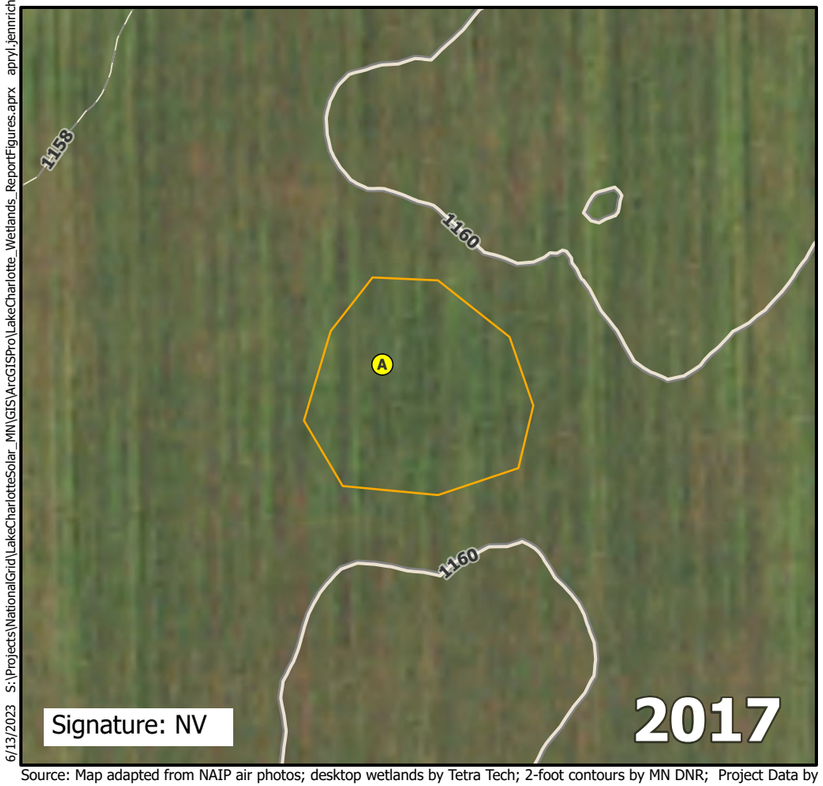
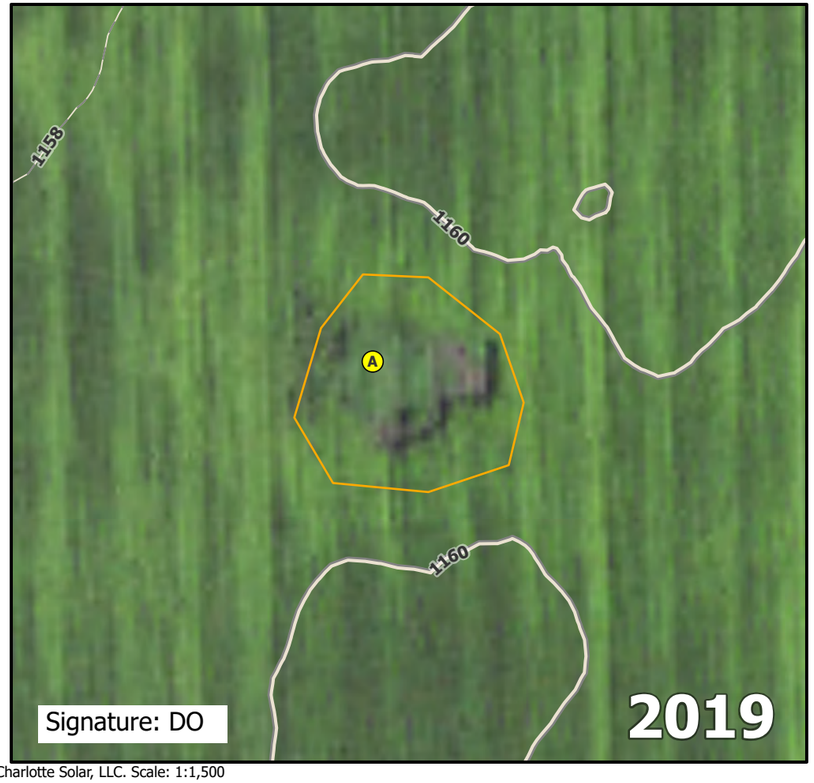
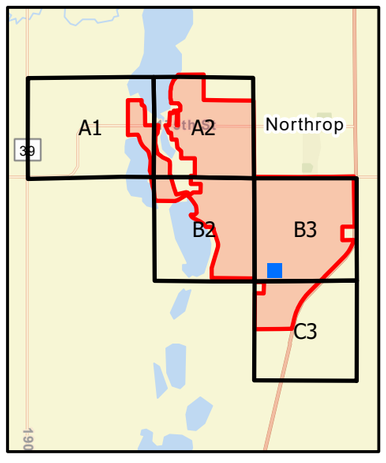
Feet







Feature ID: NWB076

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB077

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB077A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.71778 | Long: -94.44444 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB077A

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	
16-22	2.5Y 2.5/1	100					Clay	
22-26	5Y 5/3	90	2.5Y 5/6	1	C	PL	Sandy Clay	
	2.5Y 3/1	9						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

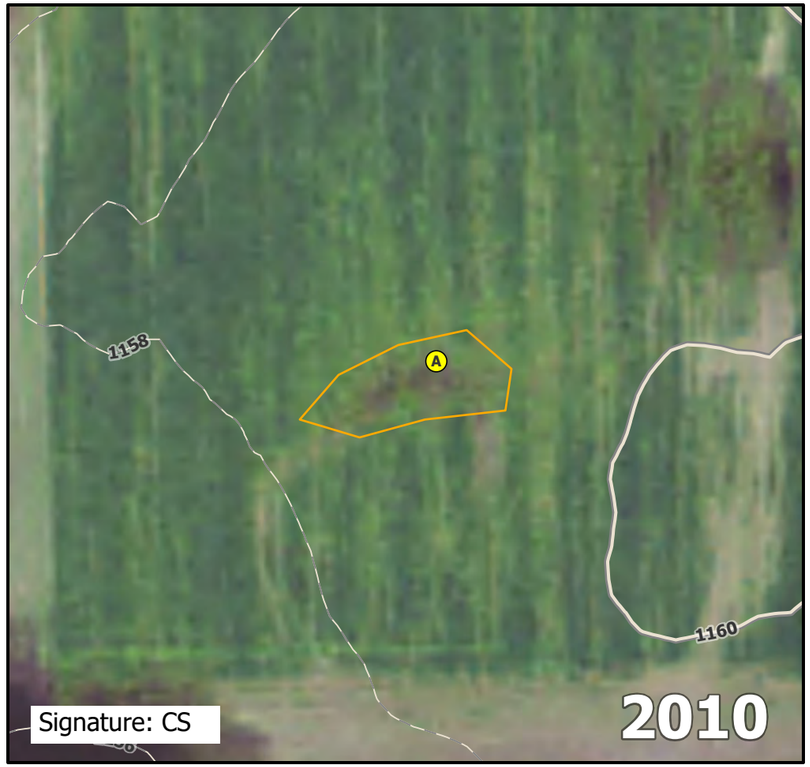
Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

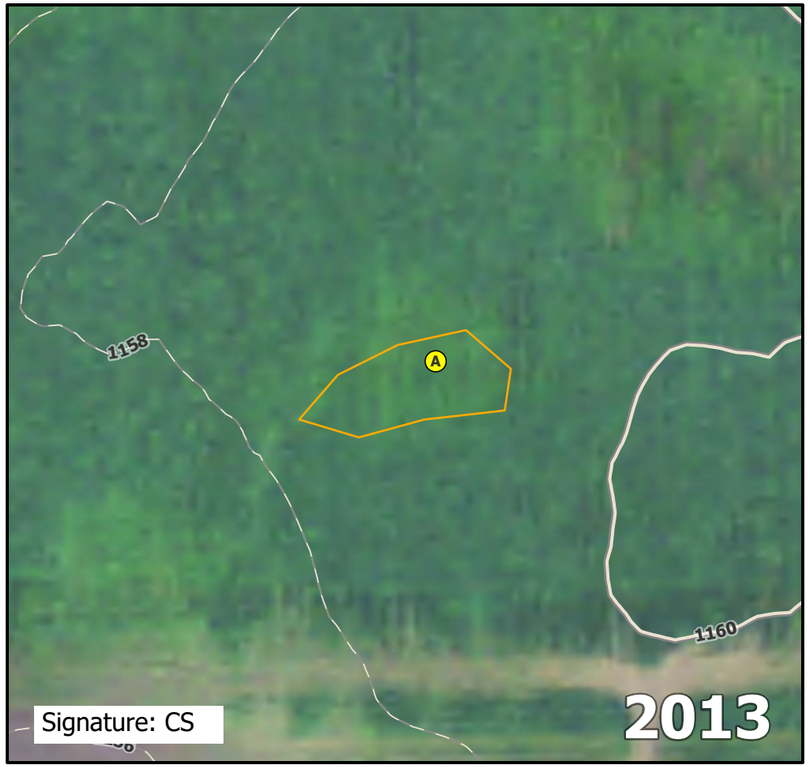
Wetland Hydrology Present? No

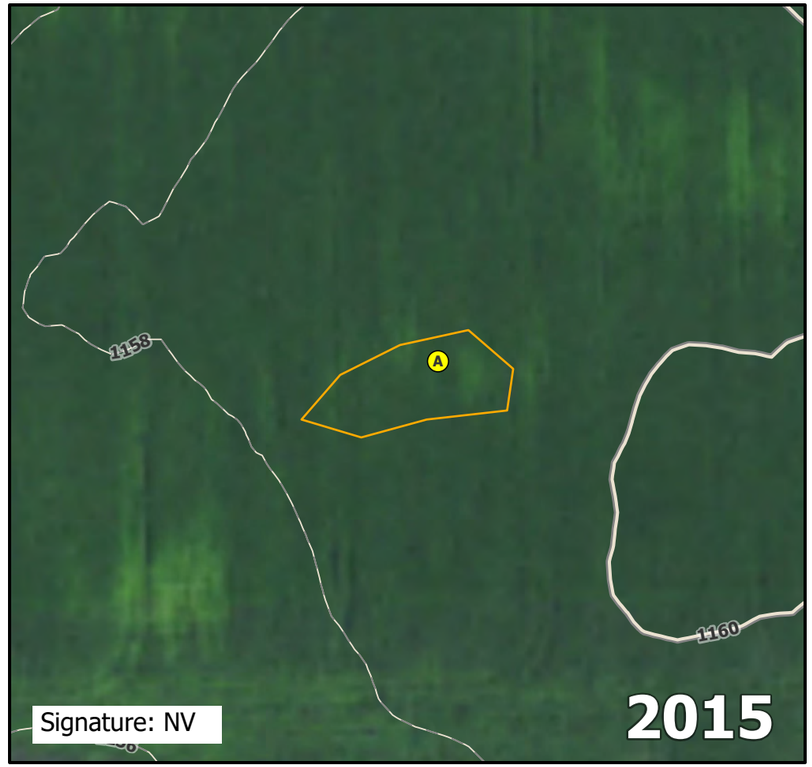
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB077A.		
Direction: East	Photo ID: delin_photo-20221024-195839.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB077







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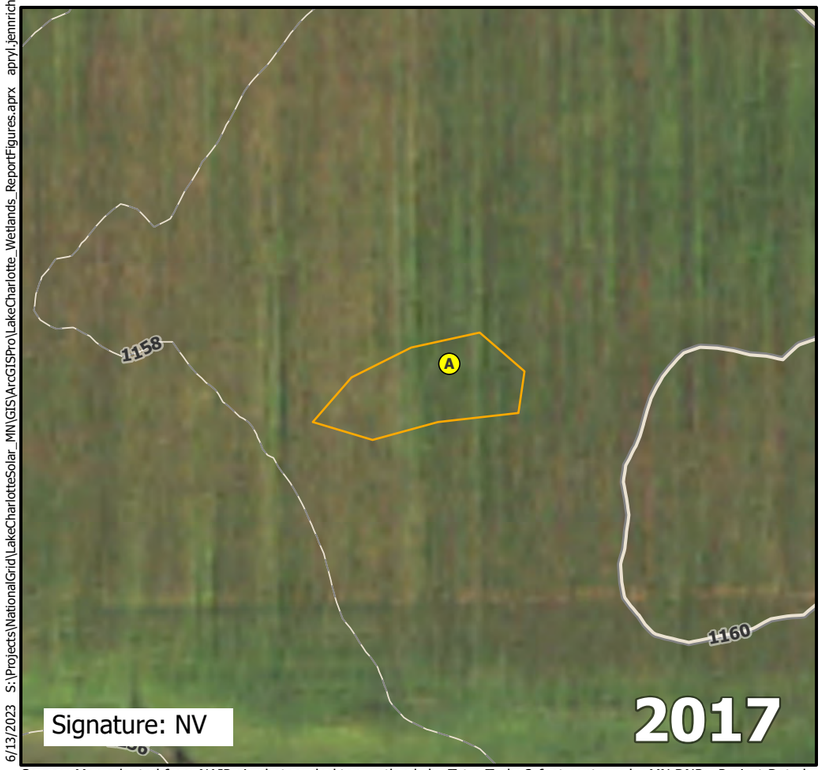
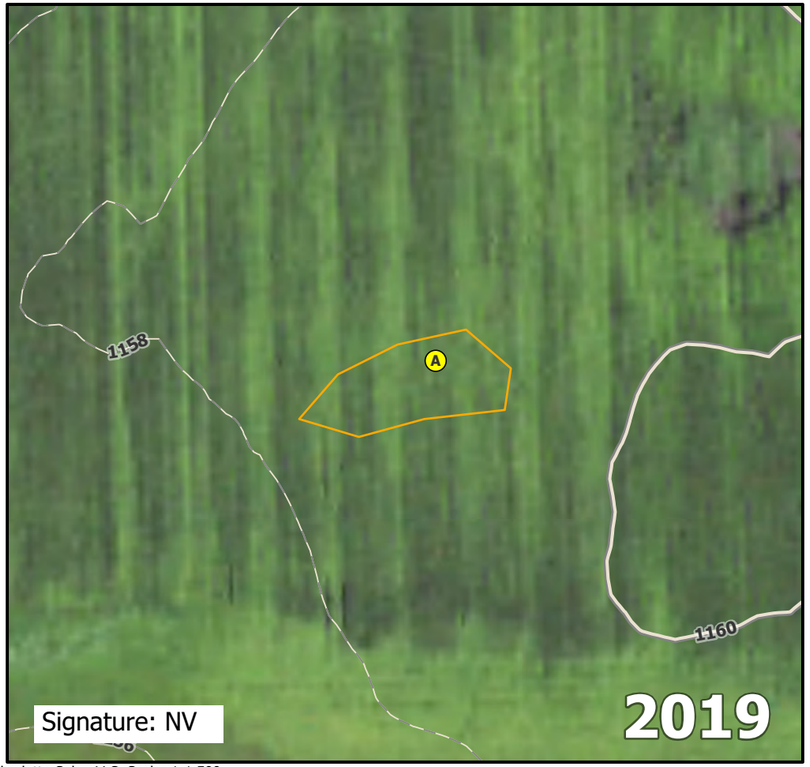
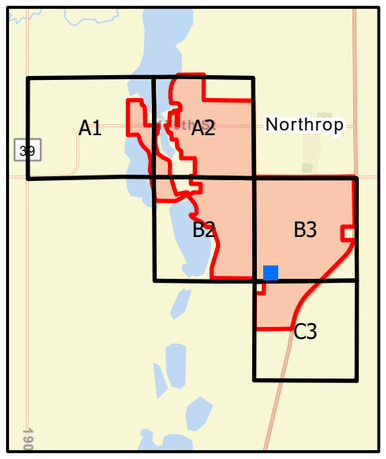
Feet







Feature ID: NWB077

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB078

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB078A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 1 | Lat: 43.71829 | Long: -94.44591 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 0 to 2 percent slopes | NWI Classification: PEM1Af

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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB078A

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	
20-25	10YR 2/1	97	10YR 3/2	3	D	M	Clay	
25-40	10YR 3/2	85	10YR 4/4	15	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

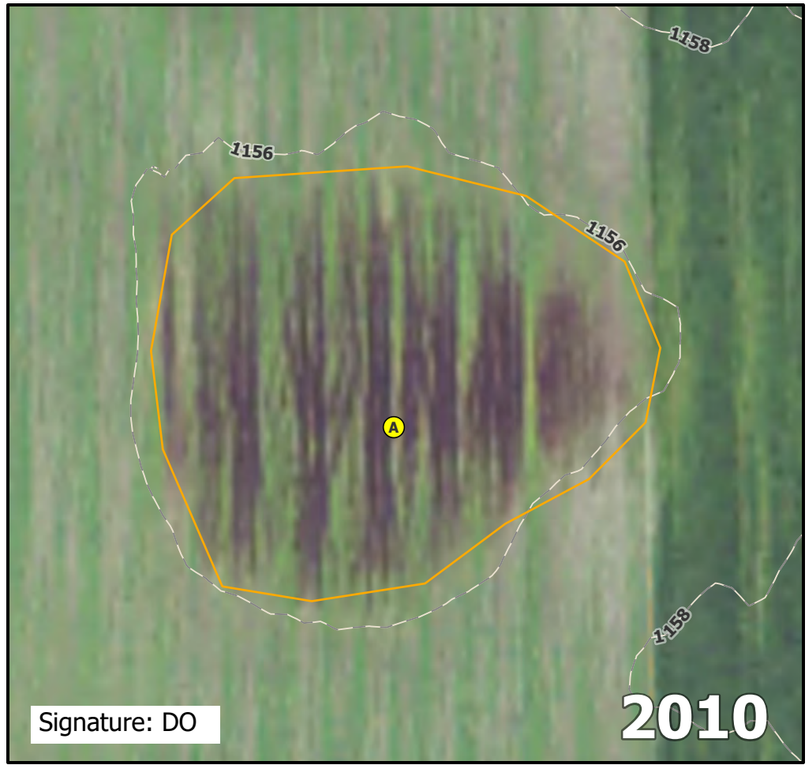
(includes capillary fringe)

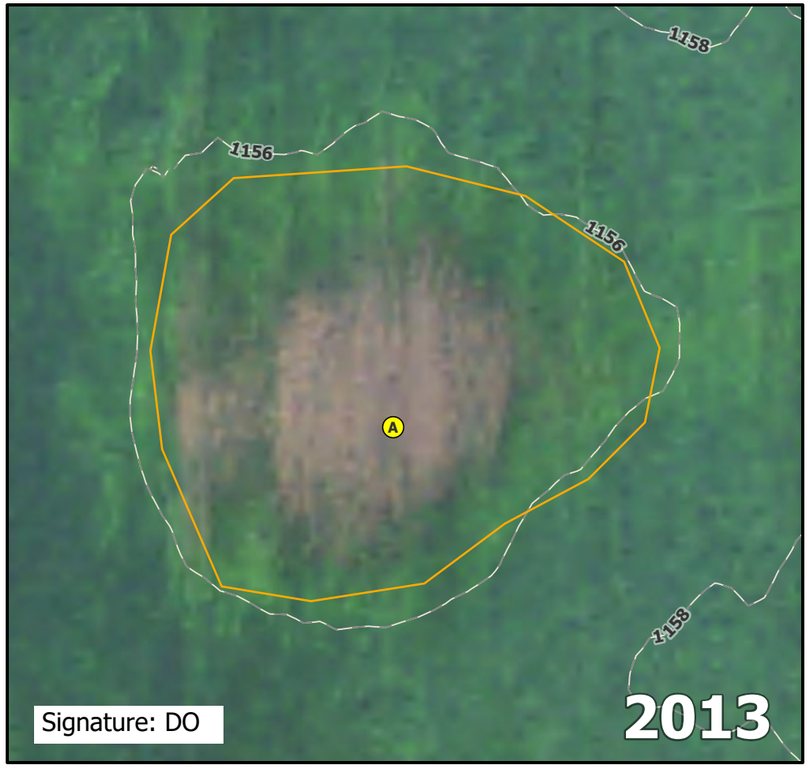
Wetland Hydrology Present? No

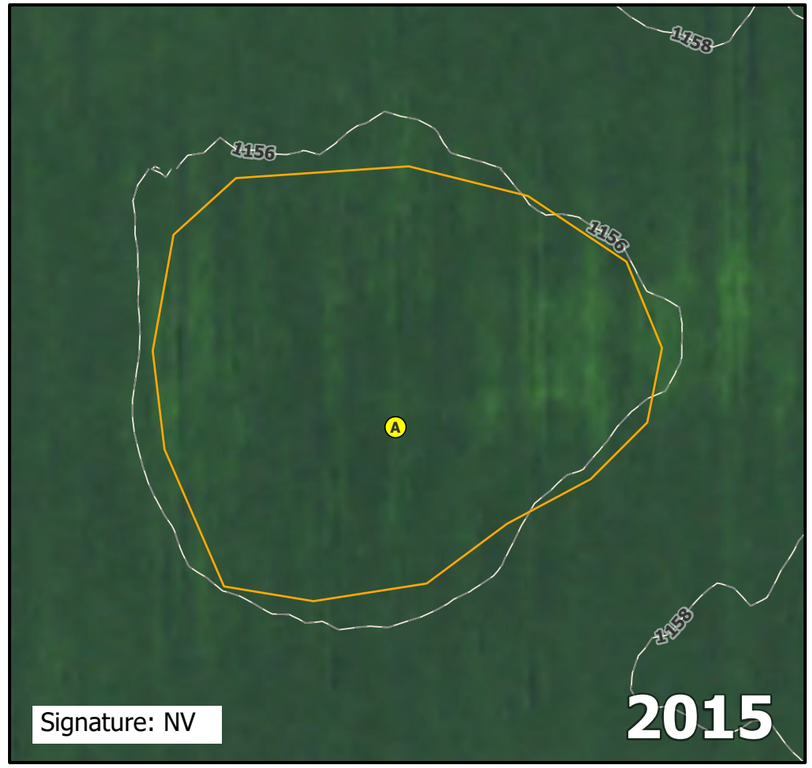
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB078A.		
Direction: East	Photo ID: delin_photo-20221024-201355.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB078







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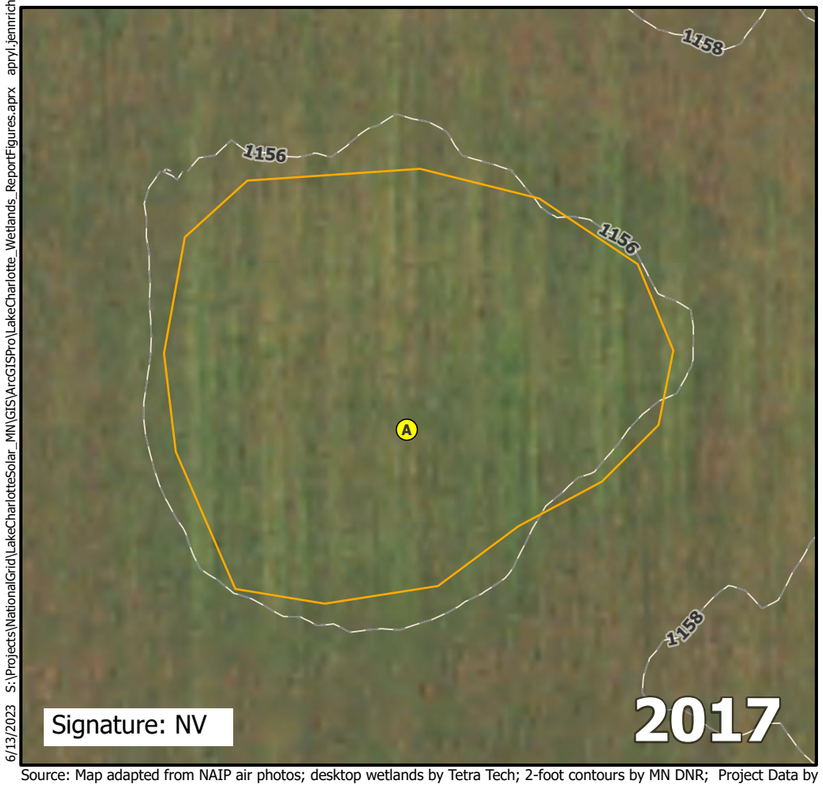
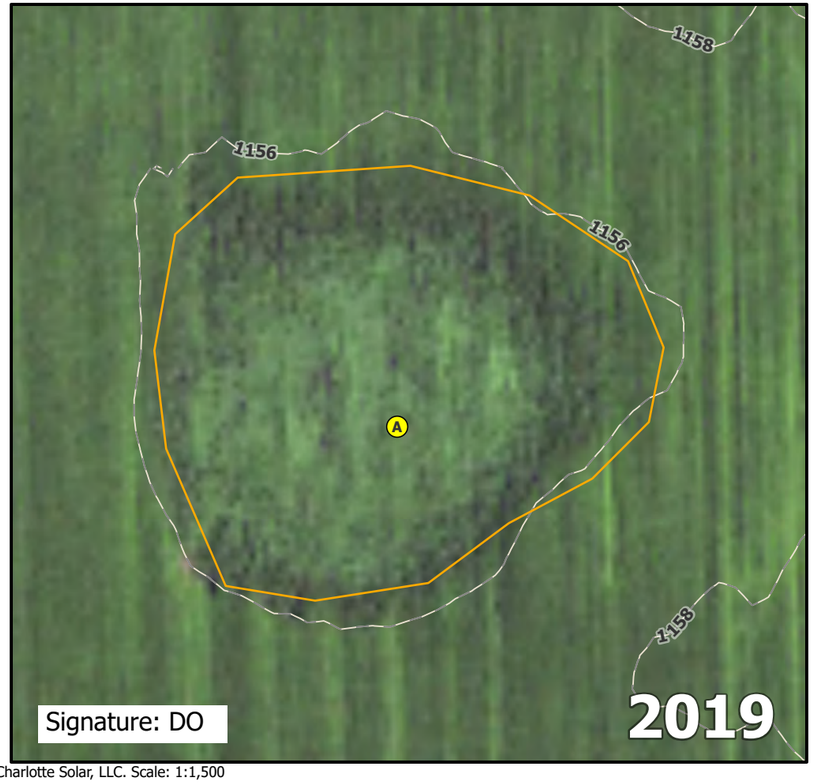
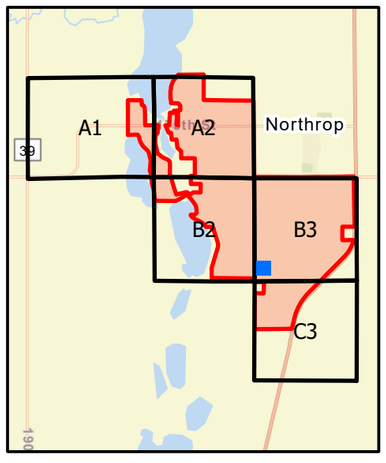
Feet







Feature ID: NWB078

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB082

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/24/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB082A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.72412 | Long: -94.44649 | Datum: WGS84

Soil Map Unit Name: Crippin loam, 1 to 3 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB082A

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**		
0-13	10YR 2/1	100					Clay	
13-15	2.5Y 4/1	100					Clay	
15-20	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

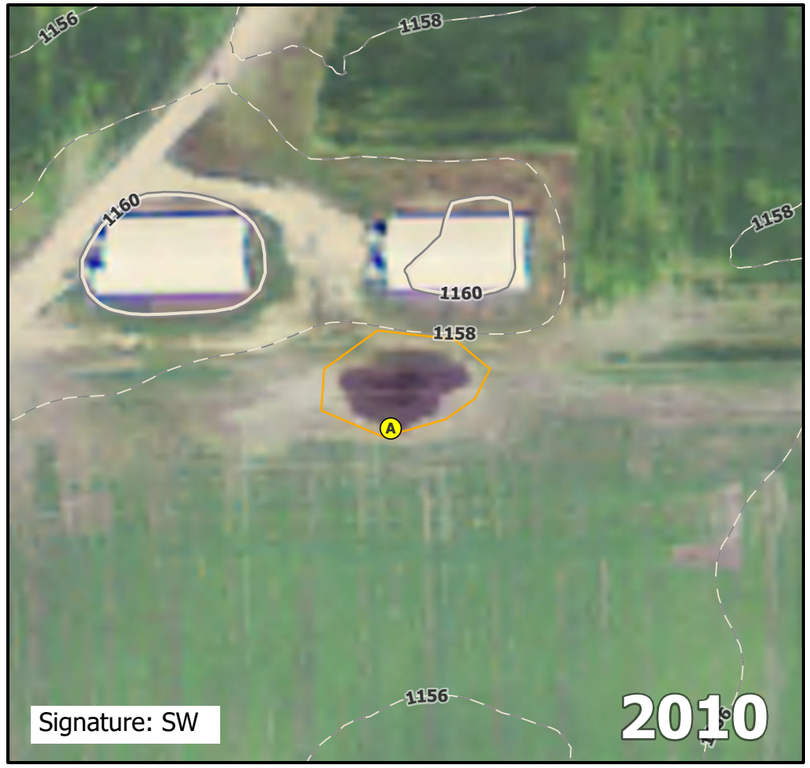
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

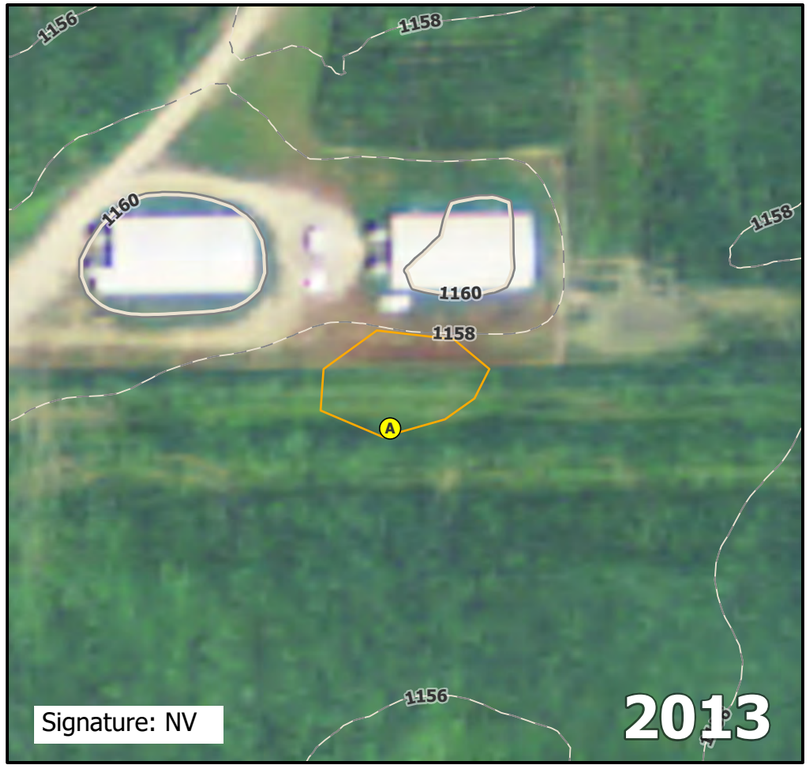
Wetland Hydrology Present? No

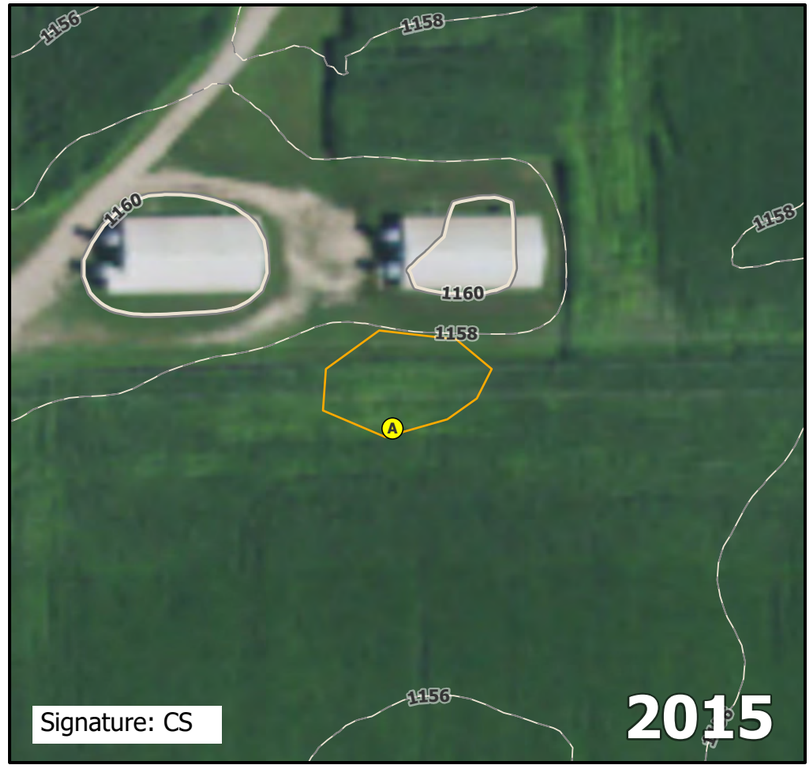
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB082A.		
Direction: East	Photo ID: delin_photo-20221024-214019.jpg	Date: 10/24/2022
Project Name: Lake Charlotte		Feature ID: NWB082







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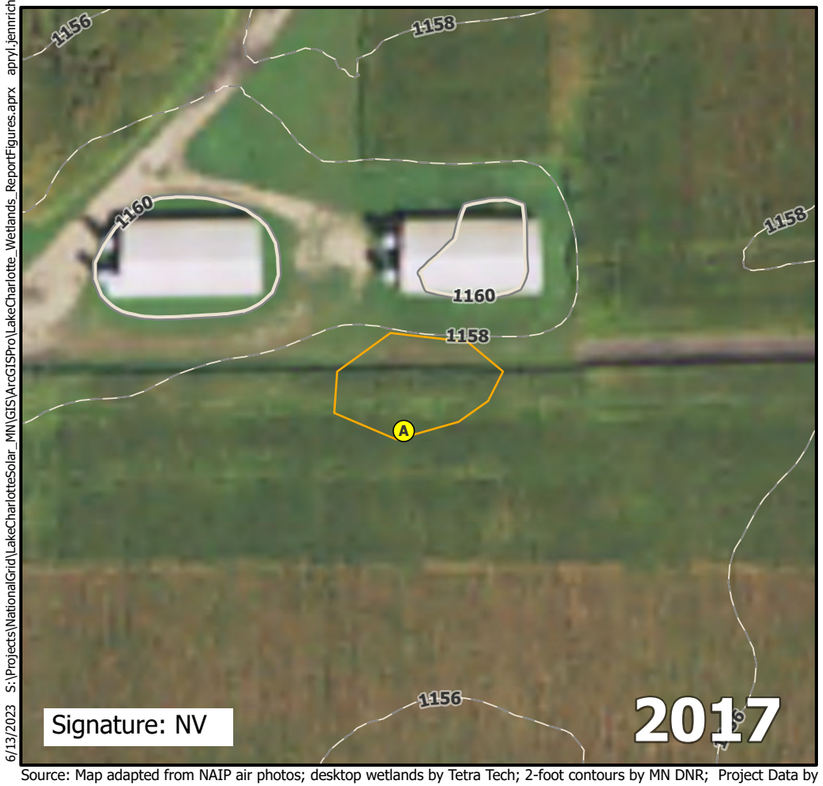
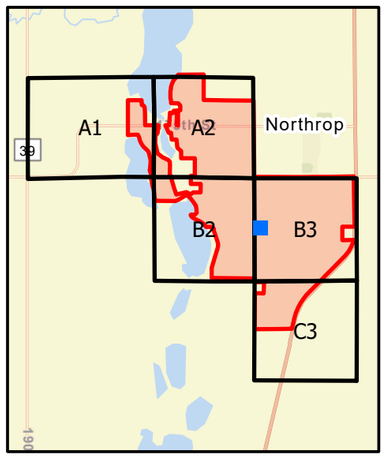
Feet





Feature ID: NWB082

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWB083

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB083A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.21 T103N R30W

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

Slope (%): 1 | Lat: 43.7164 | Long: -94.43727 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? Yes

Wetland Hydrology Present? No

Is the sampled area within a wetland? No

If yes, optional wetland site ID: ____

Remarks:

Recently harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB083A

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**		
0-40	10YR 2/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- X 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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

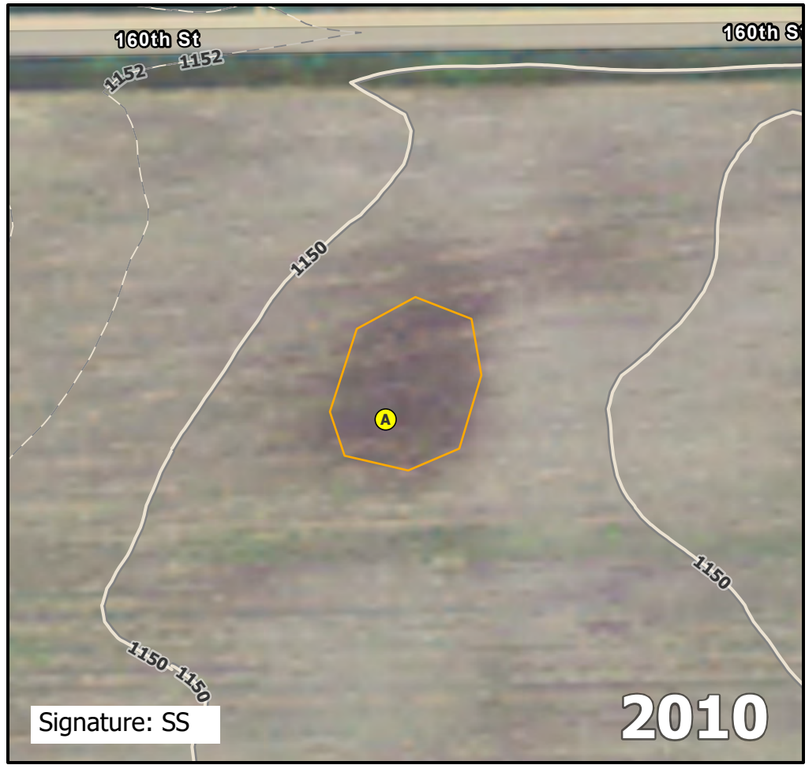
Wetland Hydrology Present? No

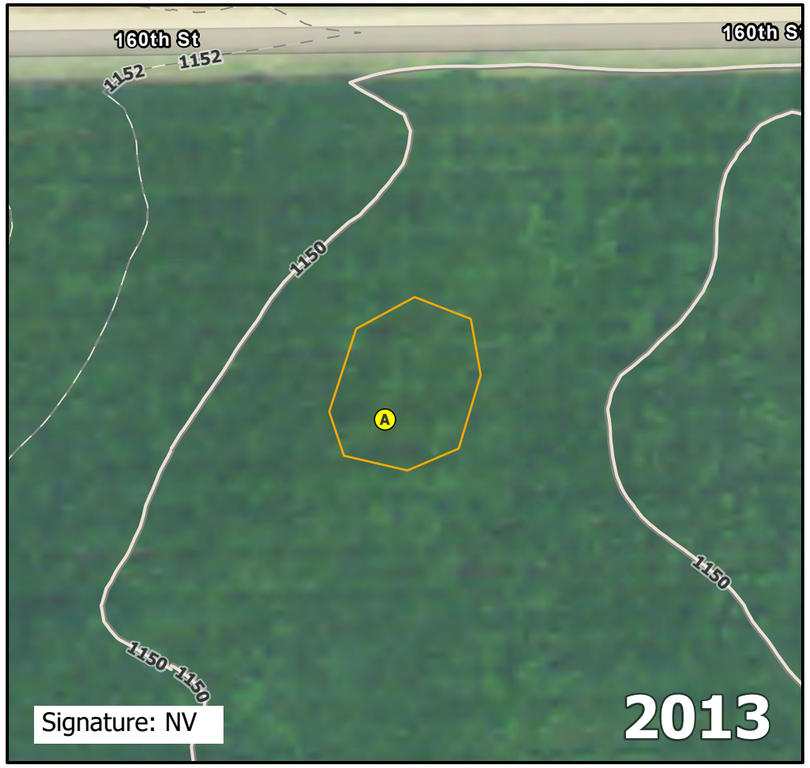
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

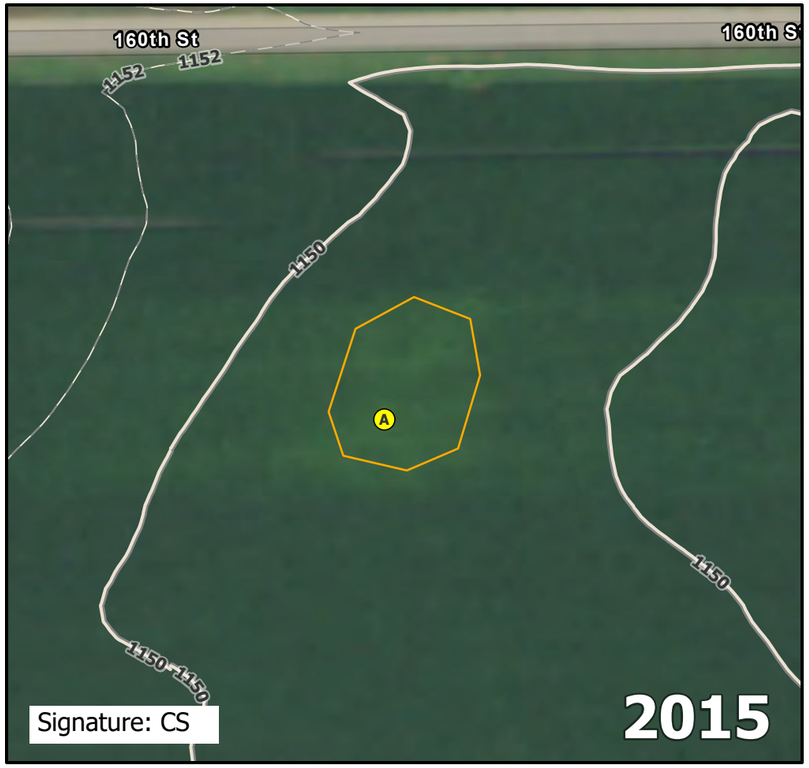
Remarks:

Overview of upland sample point NWB083A.

Direction: North	Photo ID: delin_photo-20221025-133312.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB083







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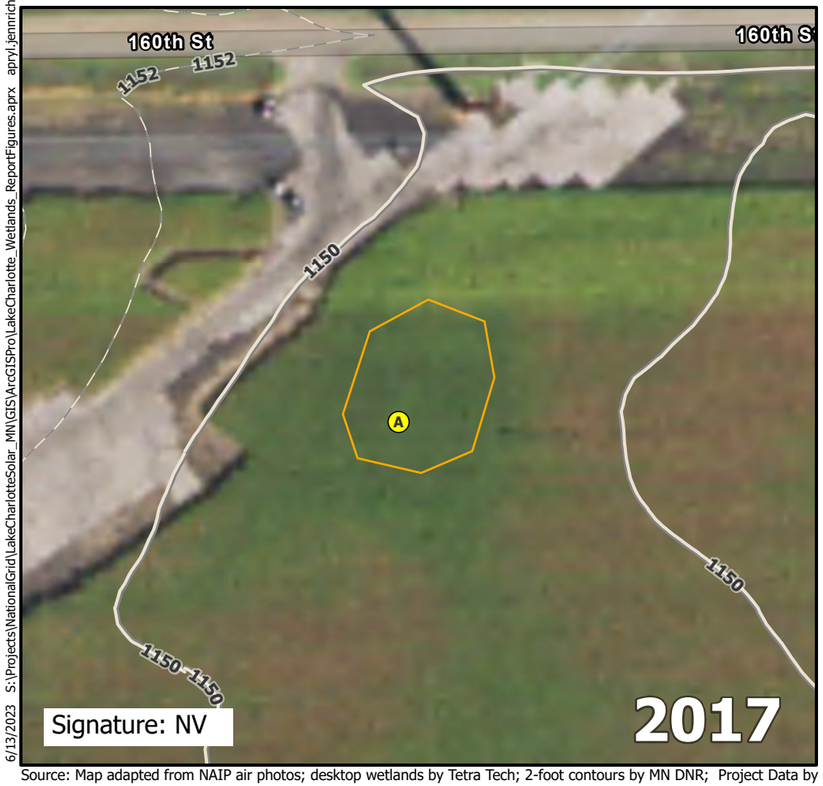
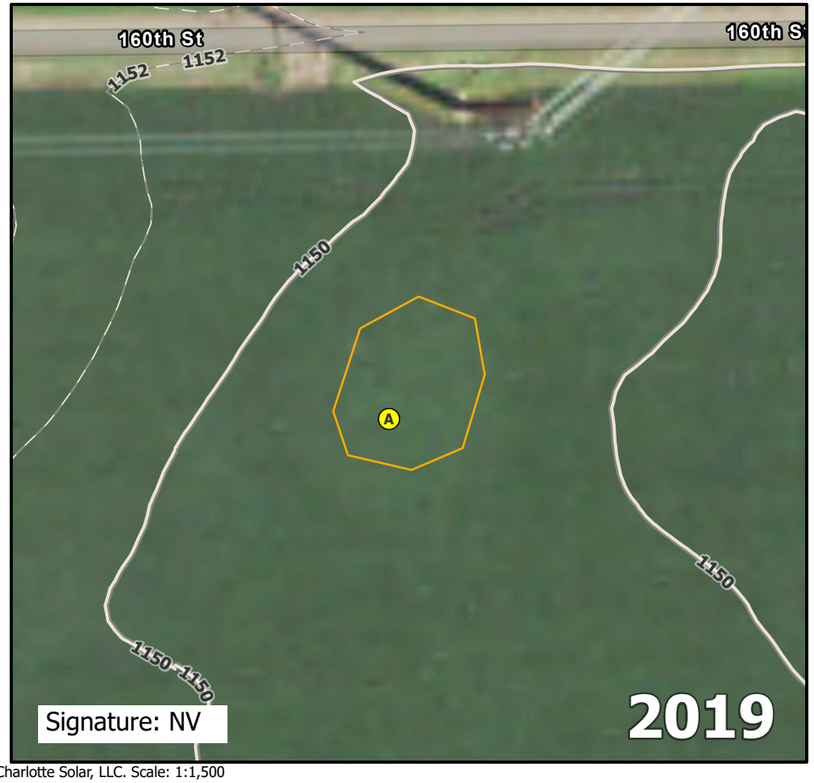
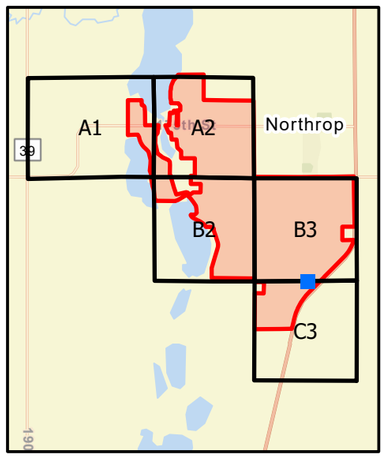
Feet







Feature ID: NWB083

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB086

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB086A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.71664 | Long: -94.44734 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB086A

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**		
0-26	10YR 2/1	100					Silty Clay	
26-28	10YR 4/1	100					Silty Clay	
28-34	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

(includes capillary fringe)

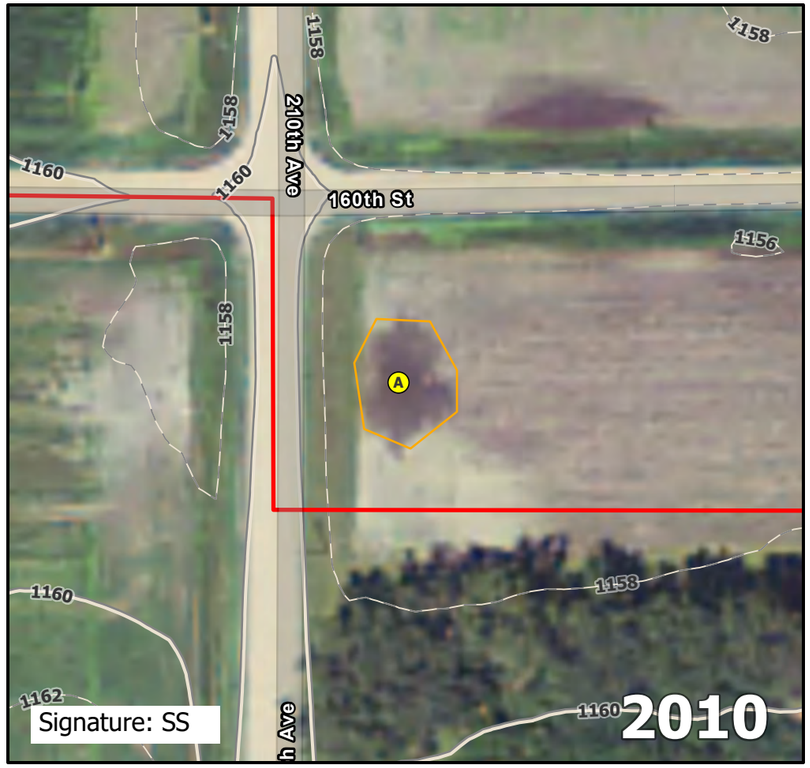
Wetland Hydrology Present? No

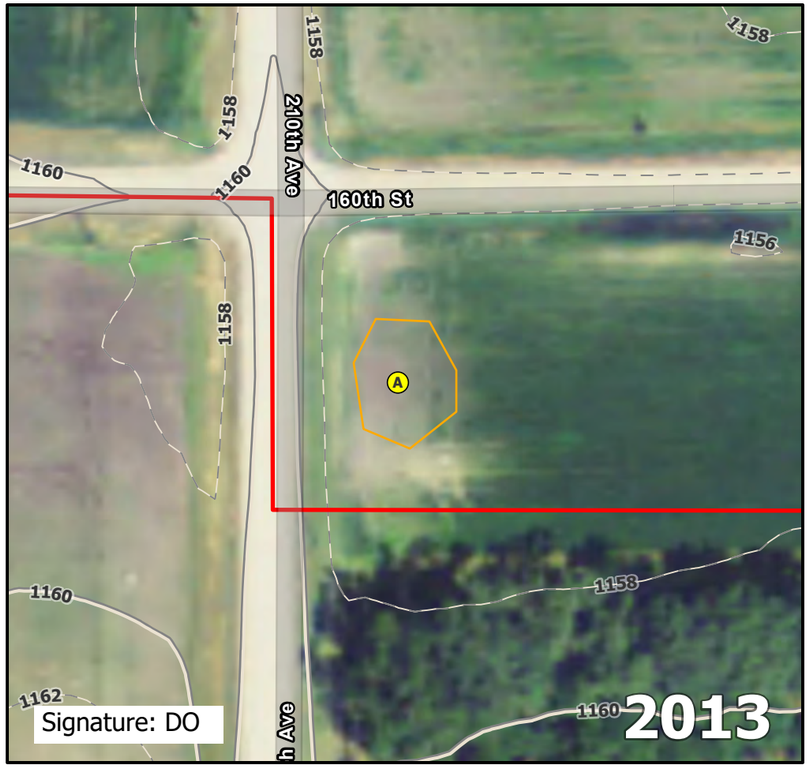
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

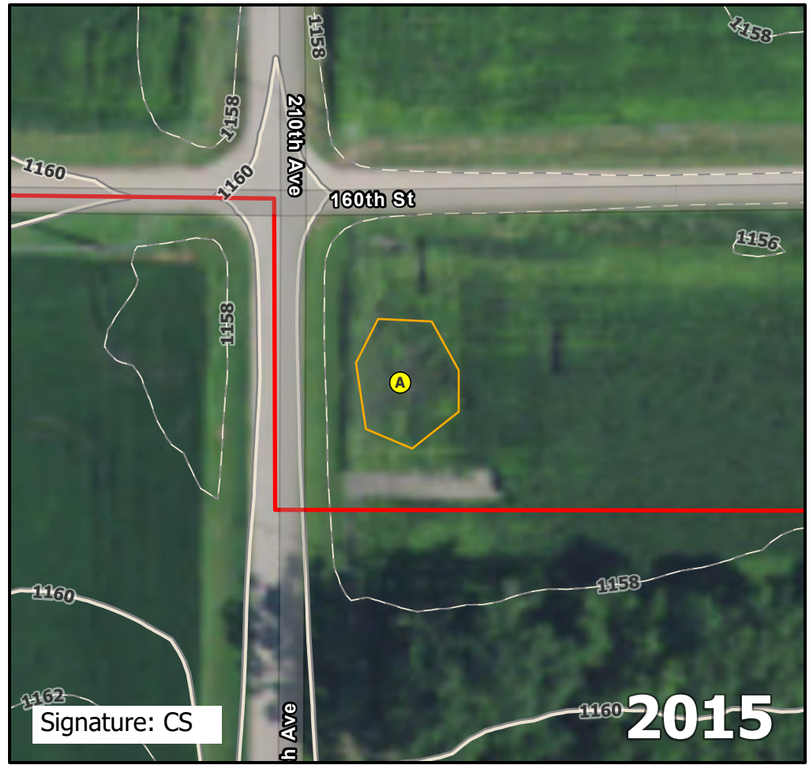
Remarks:

Overview of upland sample point NWB086A.

Direction: South	Photo ID: delin_photo-20221025-151720.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB086







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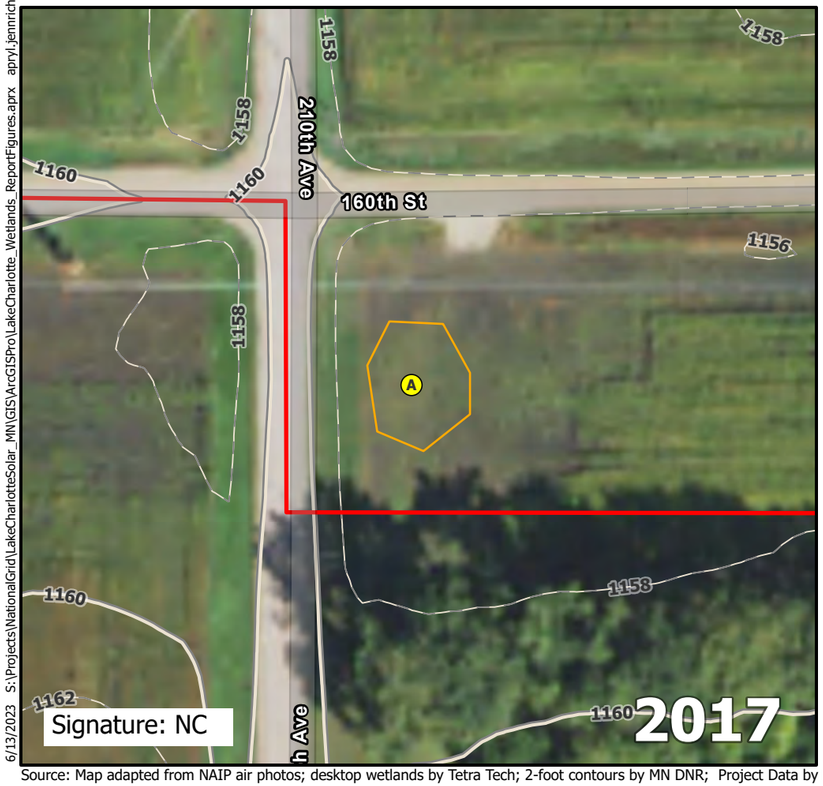
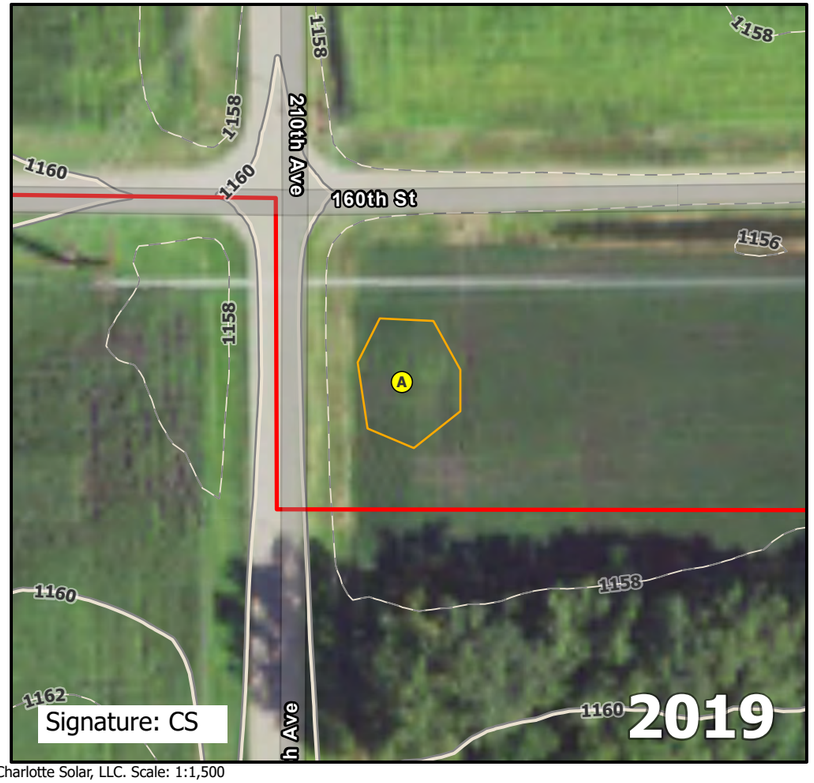
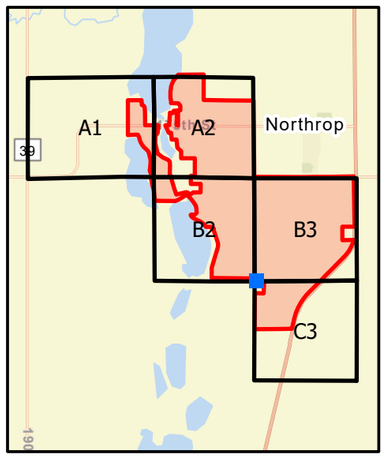
Feet







Feature ID: NWB086

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWB091

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB091A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.21 T103N R30W

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

Slope (%): 3 | Lat: 43.71401 | Long: -94.44281 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? No **Is the sampled area within a wetland? No**

Wetland Hydrology Present? Yes If yes, optional wetland site ID: ____

Remarks:

Recently tilled agricultural field. Recently harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB091A

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	
20-28	10YR 2/1	90	2.5Y 5/2	8	D	M	Clay	
			2.5Y 5/4	2	C	PL		Distinct or Prominent
28-36	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

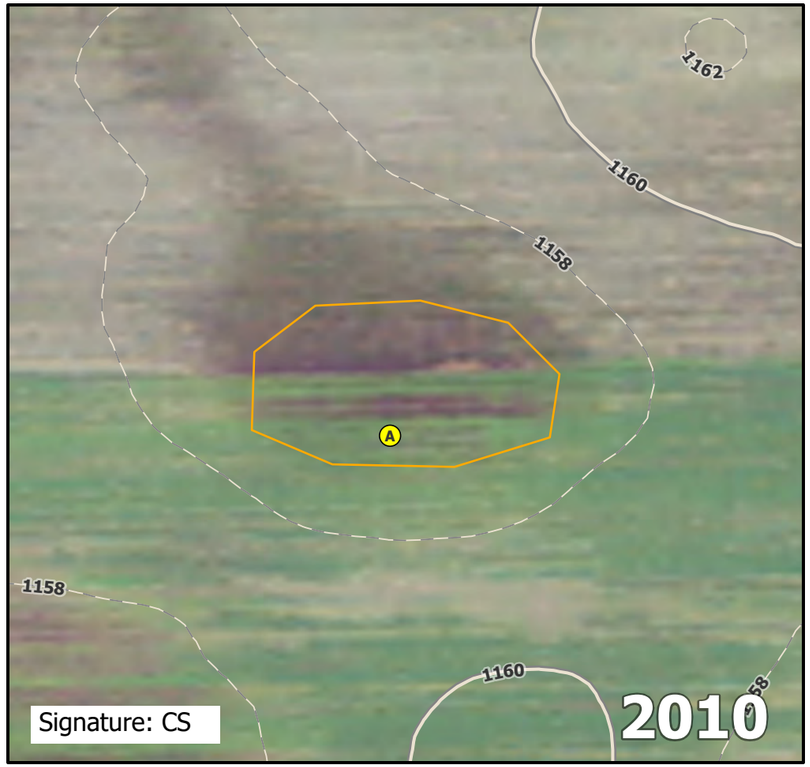
Wetland Hydrology Present? Yes

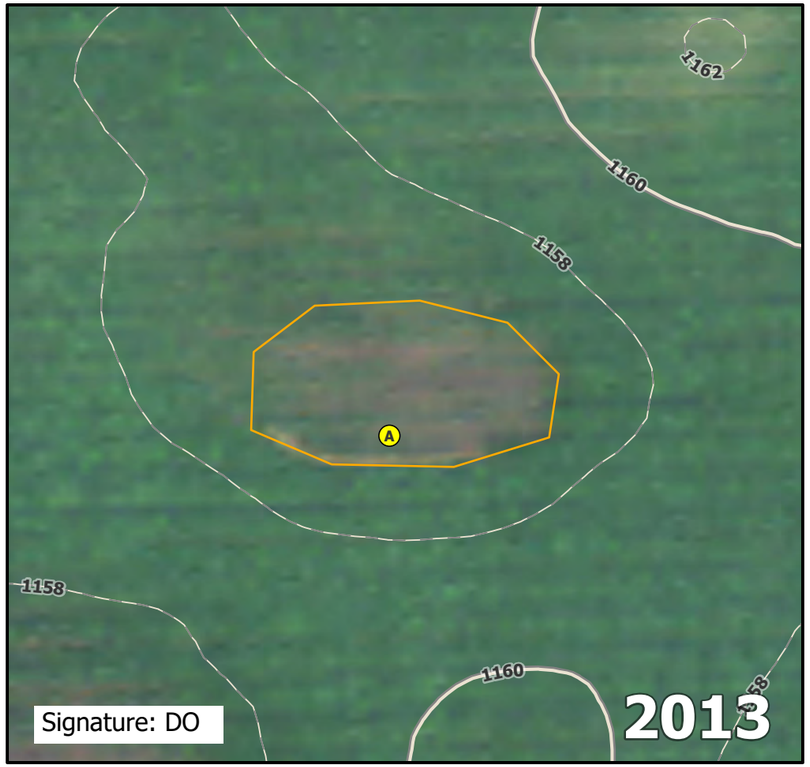
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

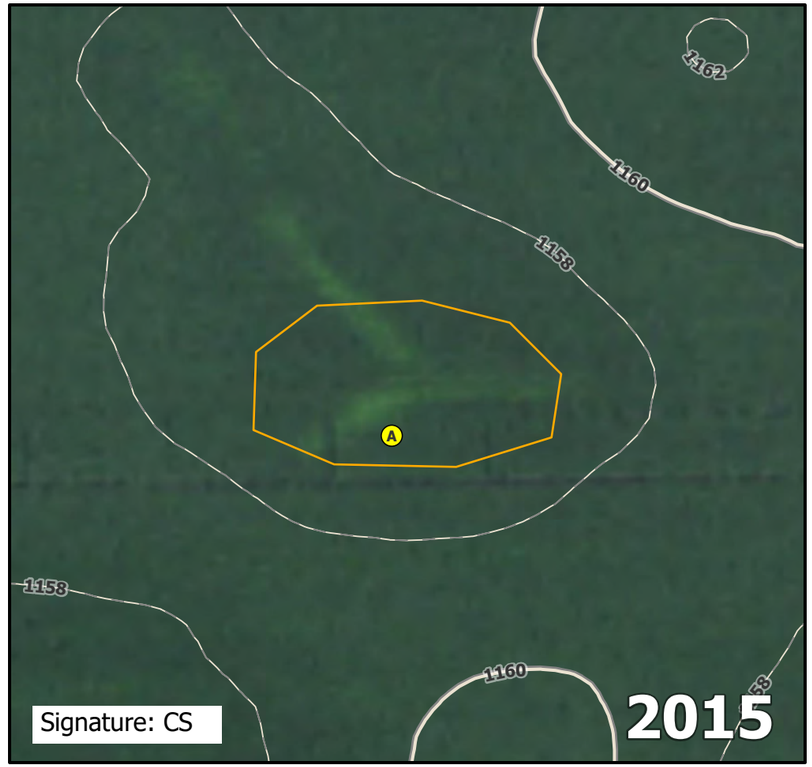
Remarks:

Overview of upland sample point NWB091A.

Direction: Southwest	Photo ID: delin_photo-20221025-171543.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB091







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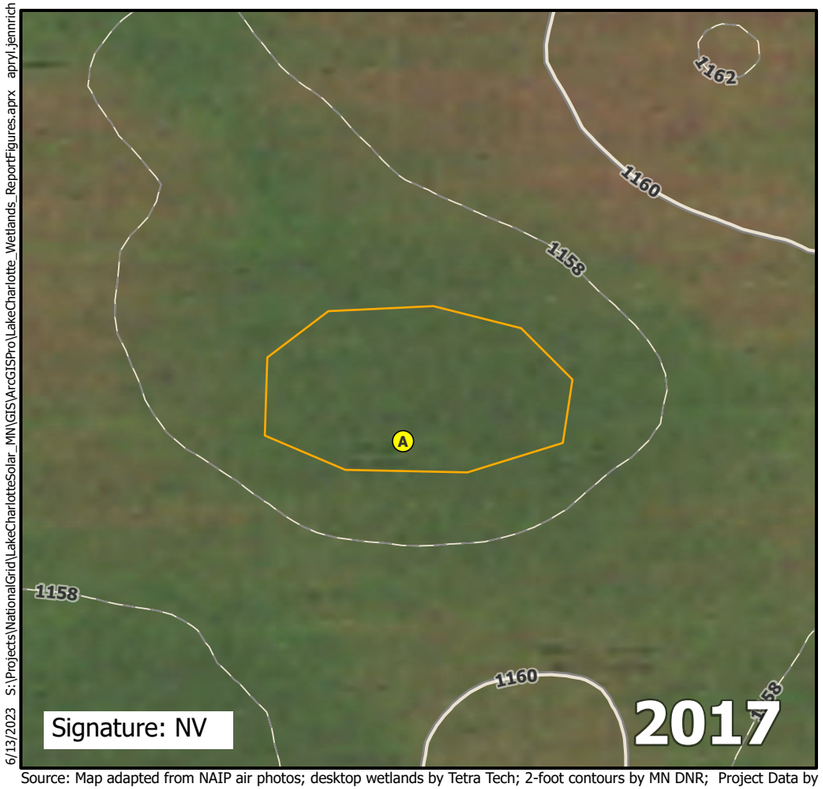
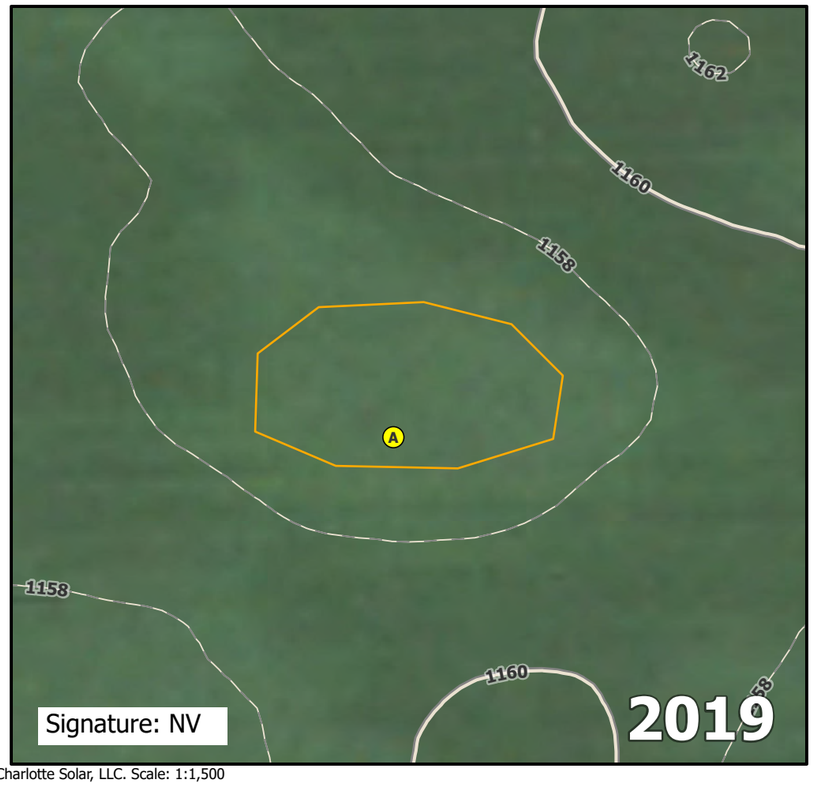
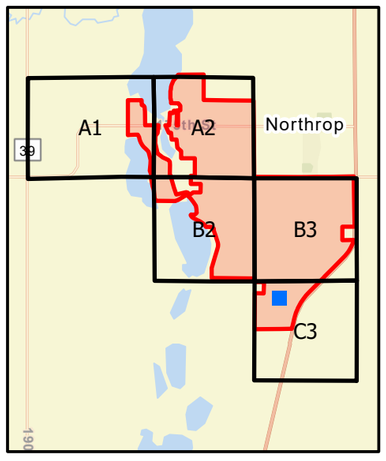
Feet







Feature ID: NWB091

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB093

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB093A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 1 | Lat: 43.72599 | Long: -94.43933 | 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 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? No

Hydric Soil Present? Yes **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Zea mays*	40	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column totals	40 (A)		200 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 60%

SOIL

Sampling Point: NWB093A

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**		
0-40	10YR 2/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- X 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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

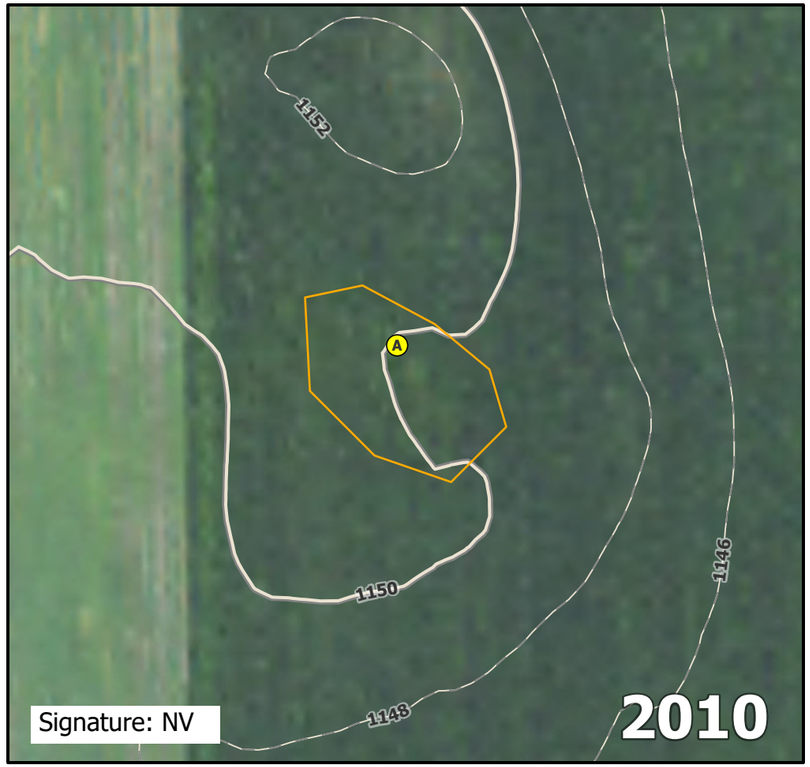
Wetland Hydrology Present? No

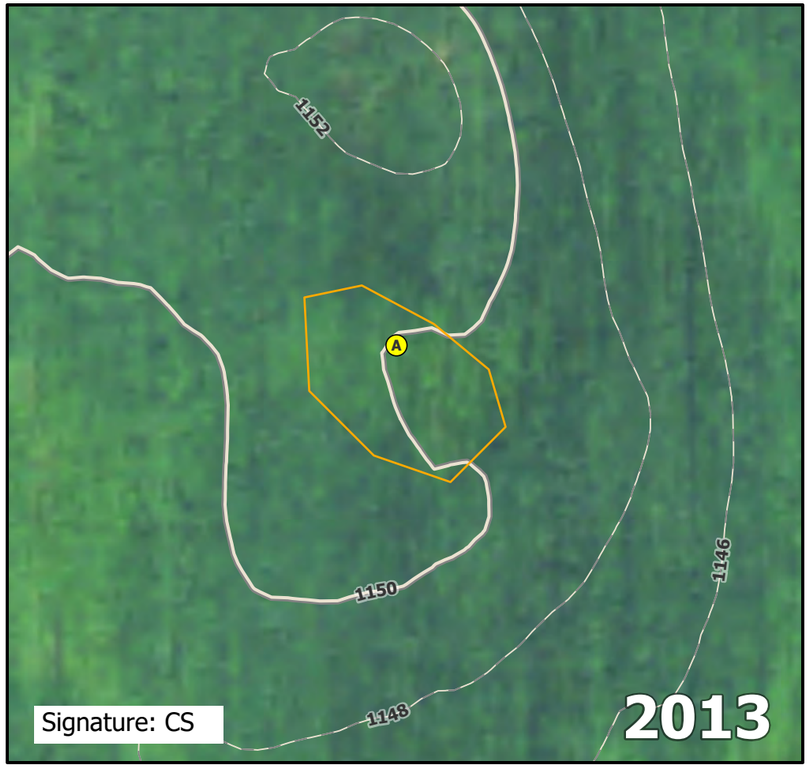
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

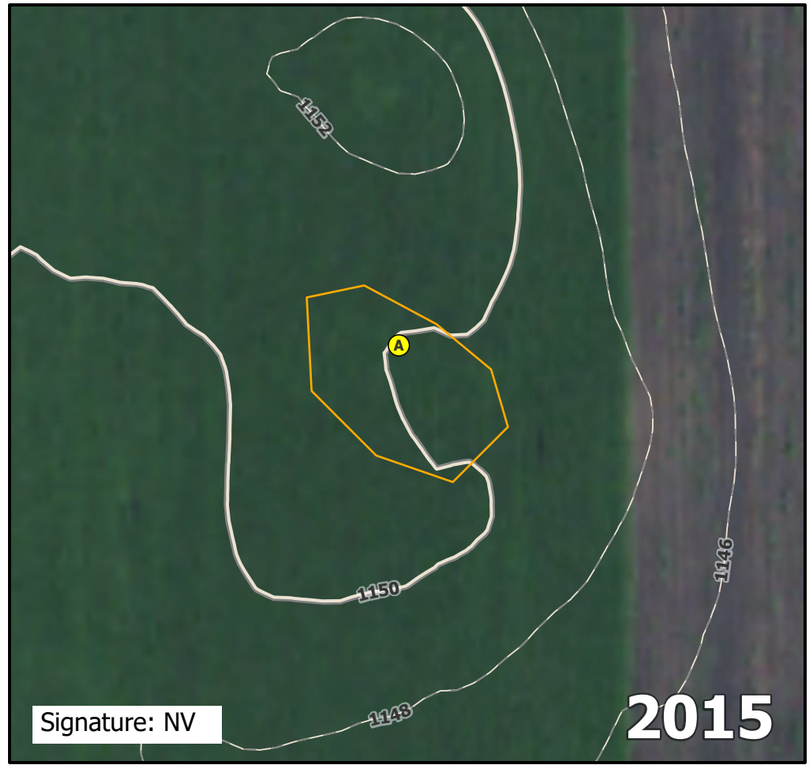
Remarks:

Overview of upland sample point NWB093A.

Direction: North	Photo ID: delin_photo-20221025-193242.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB093







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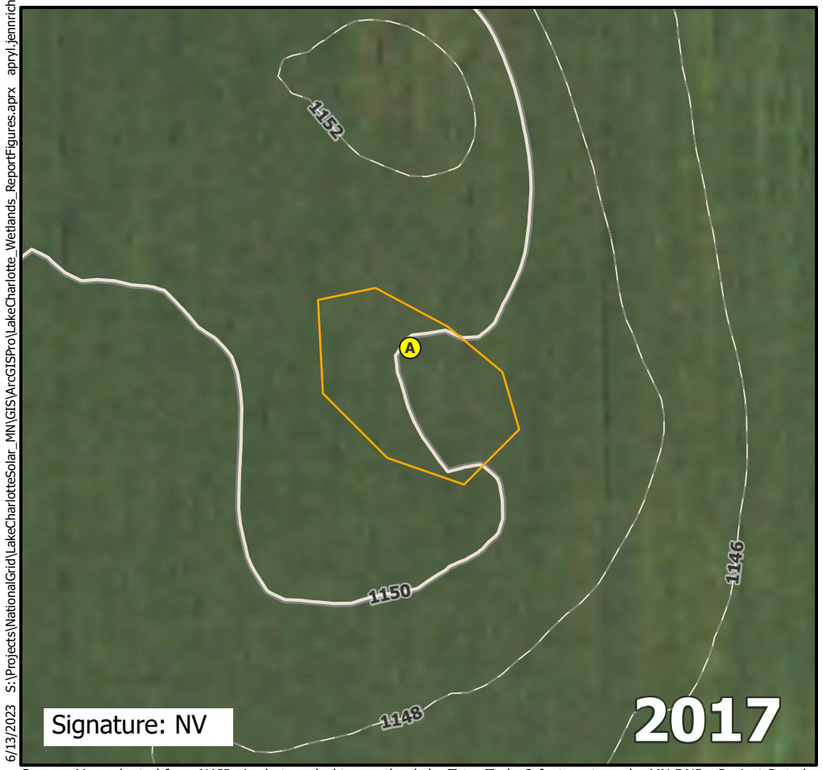
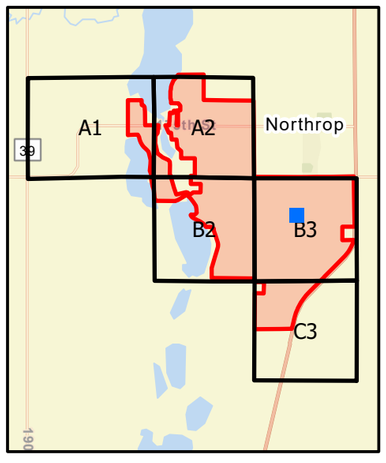
Feet





Feature ID: NWB093

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB094

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB094A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.72534 | Long: -94.43848 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Zea mays*	40	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column totals	40 (A)		200 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 60%

SOIL

Sampling Point: NWB094A

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**		
0-32	10YR 2/1	100					Clay Loam	
32-40	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

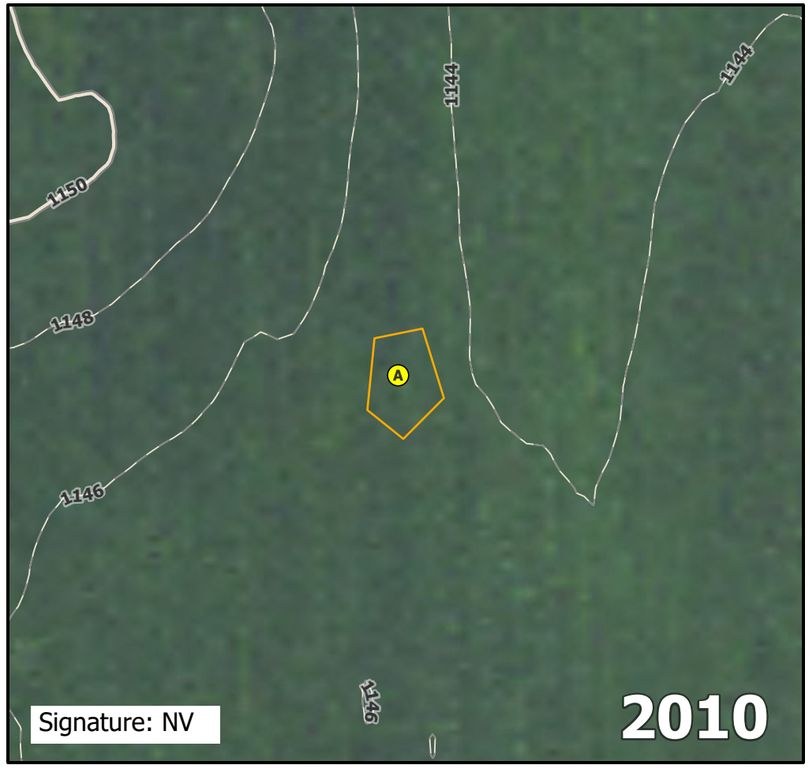
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

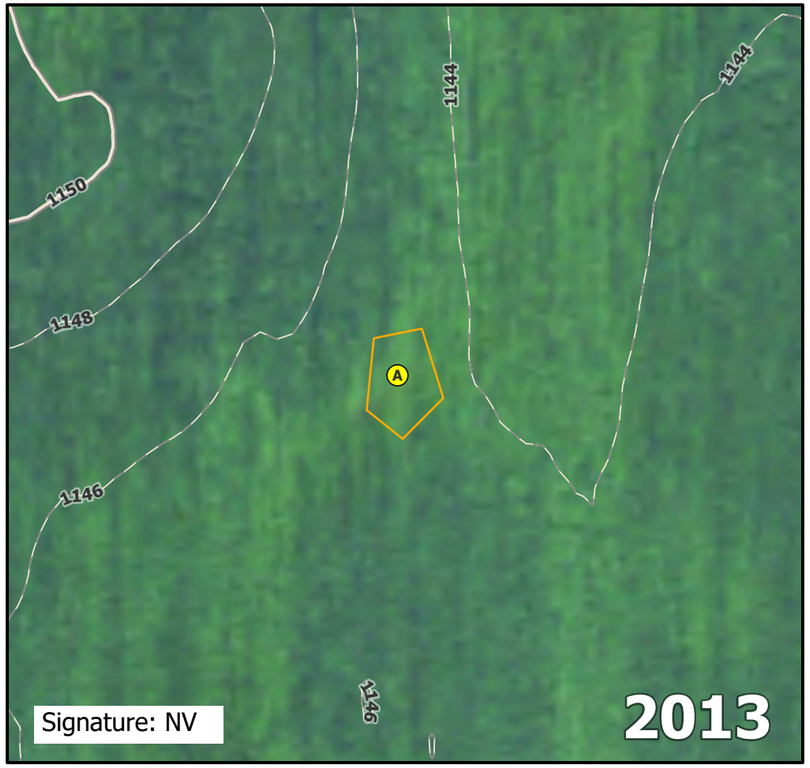
Wetland Hydrology Present? No

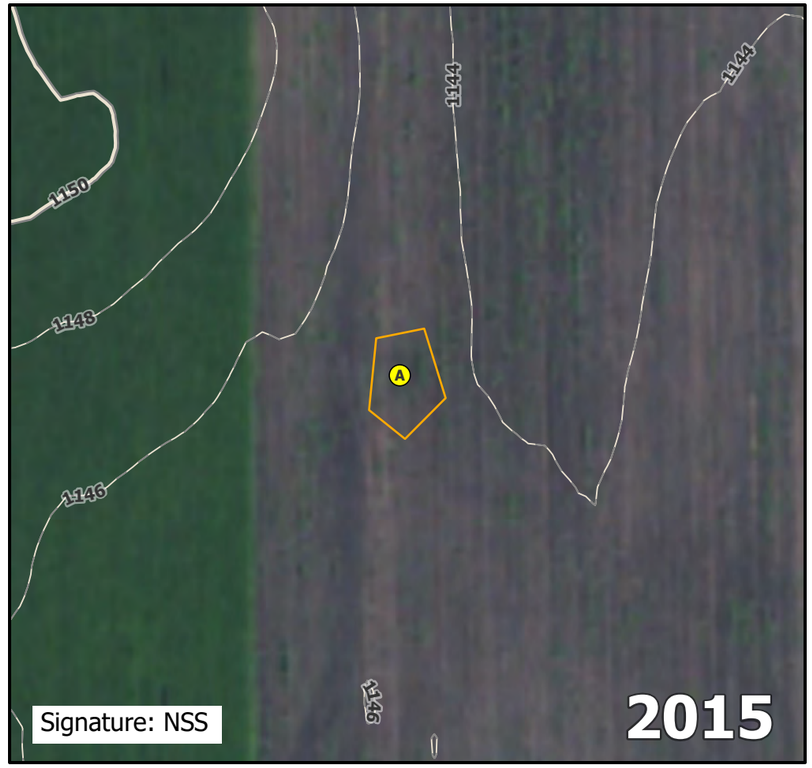
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB094A.		
Direction: North	Photo ID: delin_photo-20221025-195043.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB094







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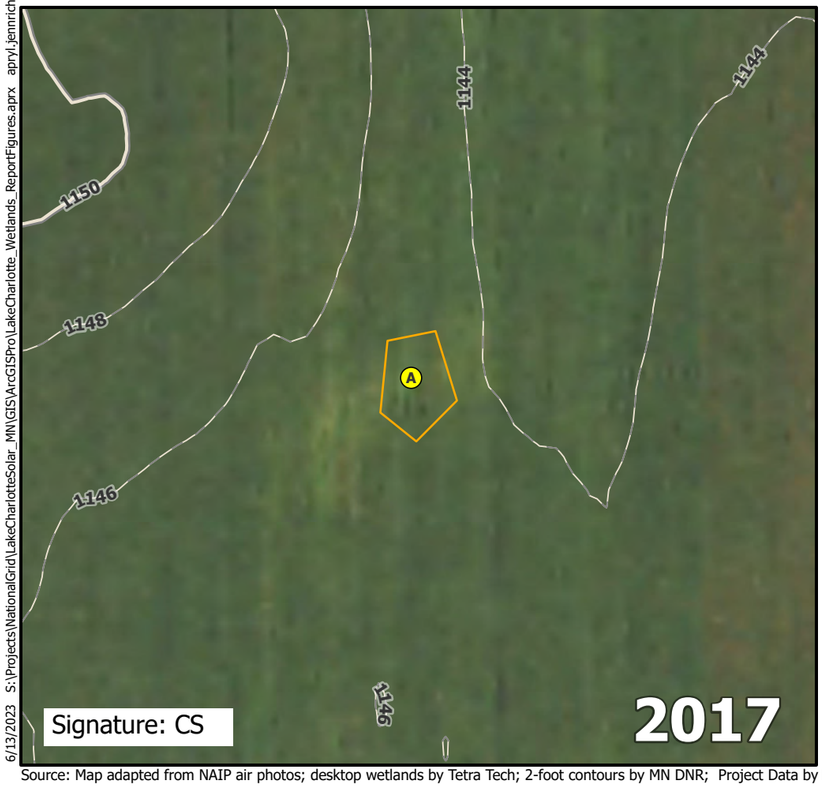
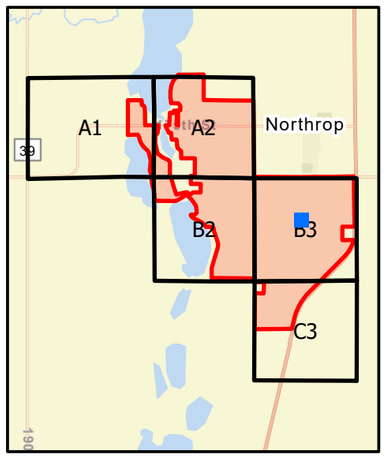
Feet





Feature ID: NWB094

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB097

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB097A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.72476 | Long: -94.43991 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? No **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Zea mays*	40	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column totals	40 (A)		200 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 60%

SOIL

Sampling Point: NWB097A

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	
16-21	10YR 2/1	90	2.5Y 5/3	10	C	PL/M	Clay	Distinct or Prominent
21-30	2.5Y 5/3	60	2.5Y 6/8	5	C	PL	Clay	
	10YR 2/1	35						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

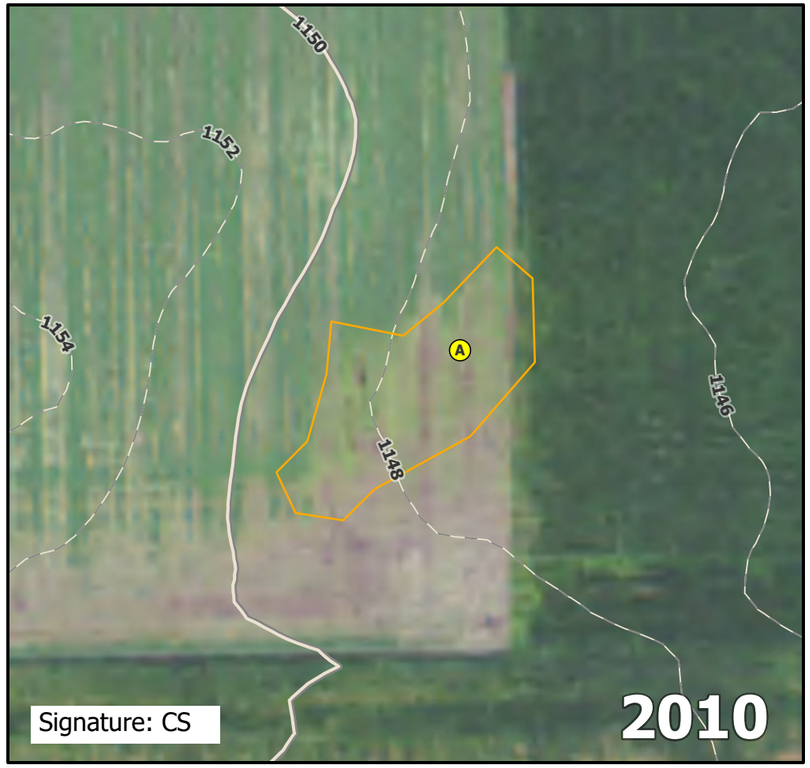
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

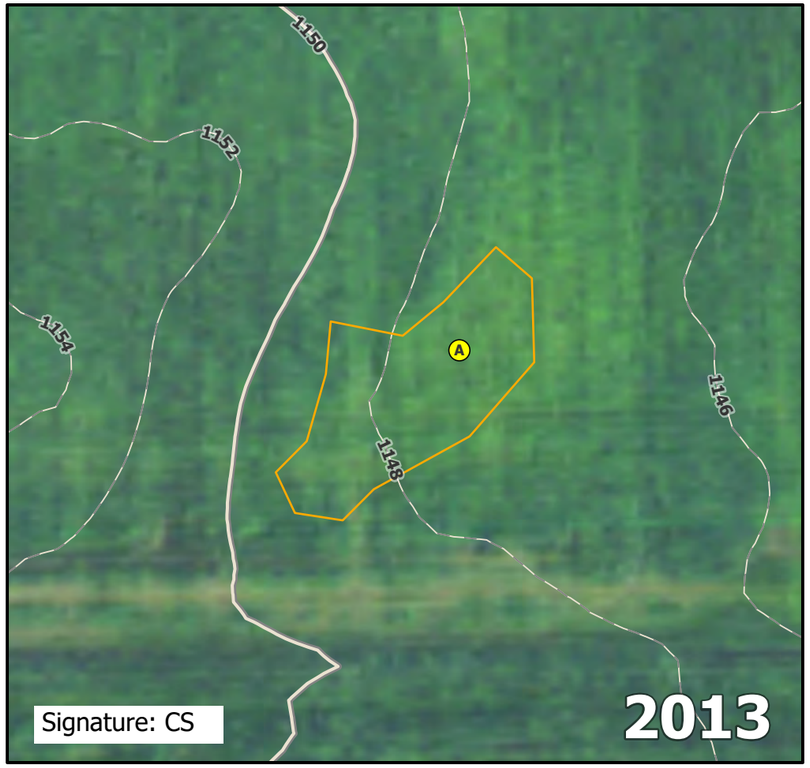
Wetland Hydrology Present? No

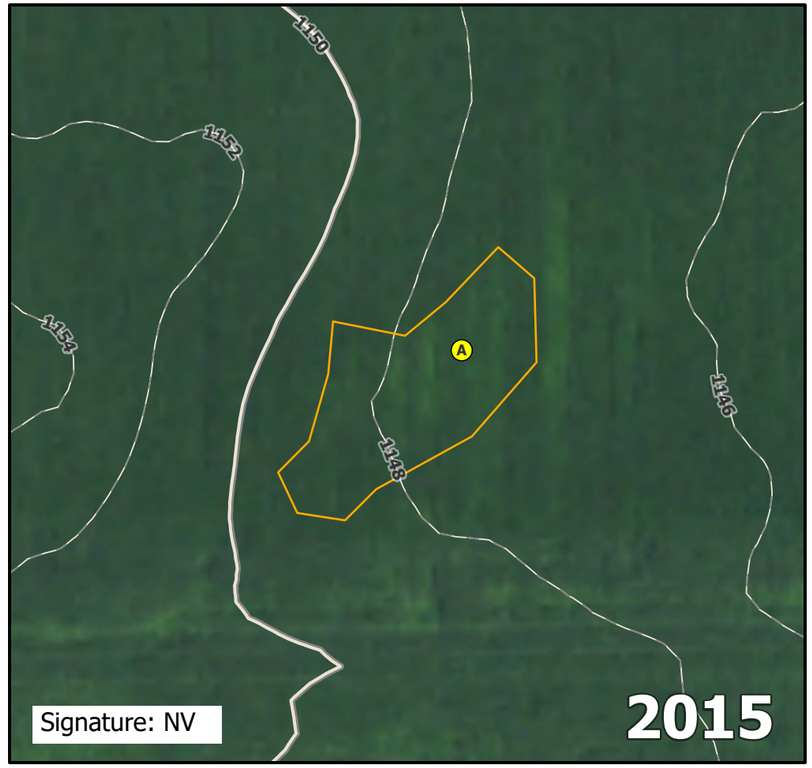
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB097A.		
Direction: North	Photo ID: delin_photo-20221025-210346.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB097







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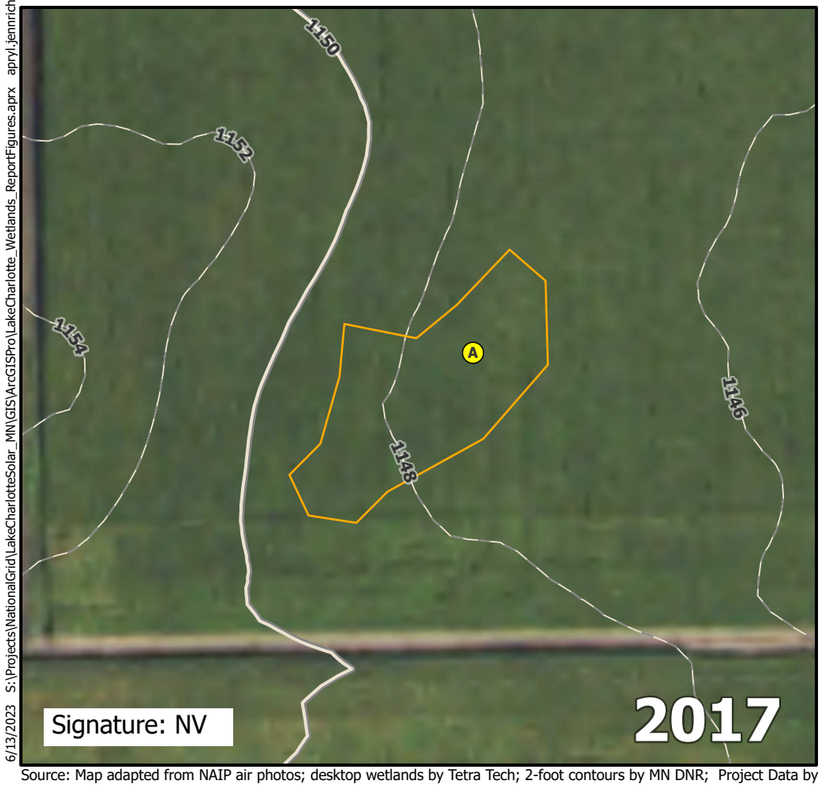
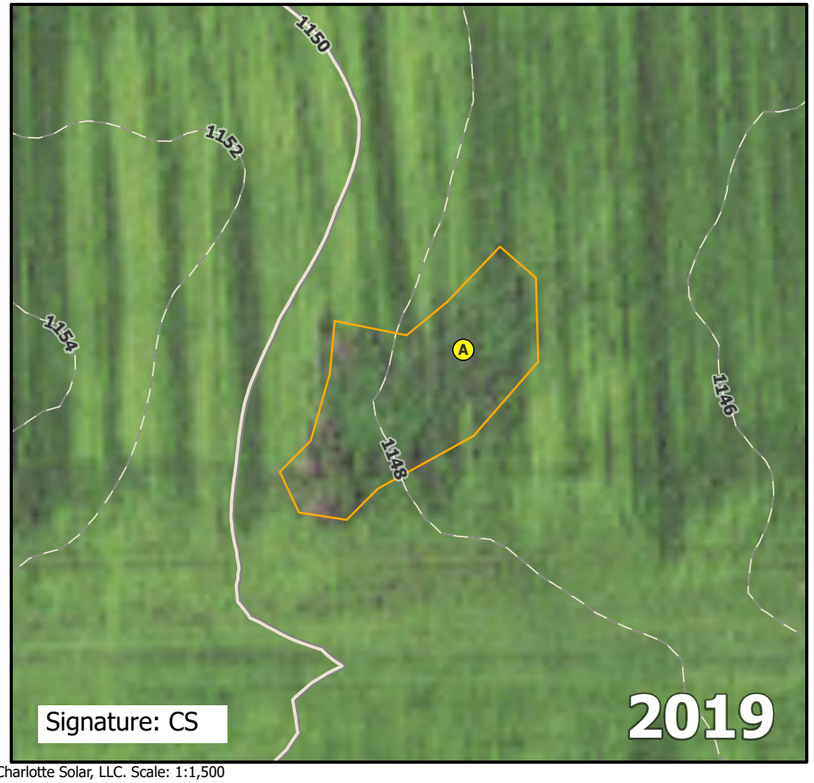
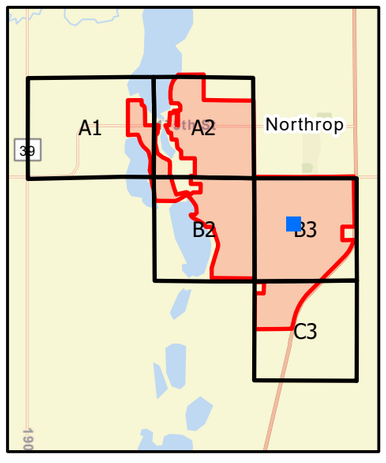
Feet







Feature ID: NWB097

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWB098

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB098A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 2 | Lat: 43.7243 | Long: -94.44266 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? Yes **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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB098A

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**		
0-40	10YR 2/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- X 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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

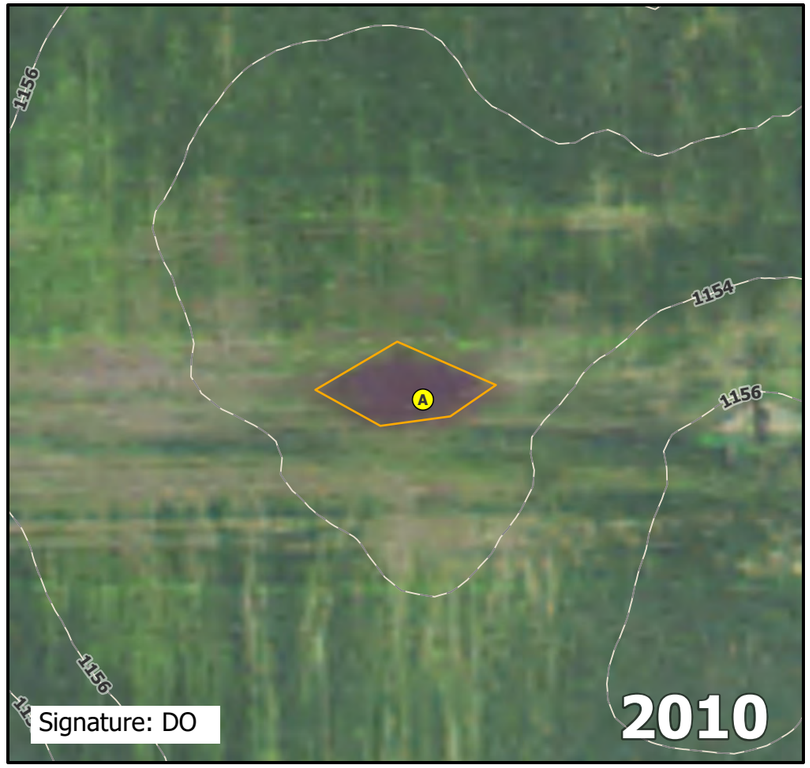
Wetland Hydrology Present? No

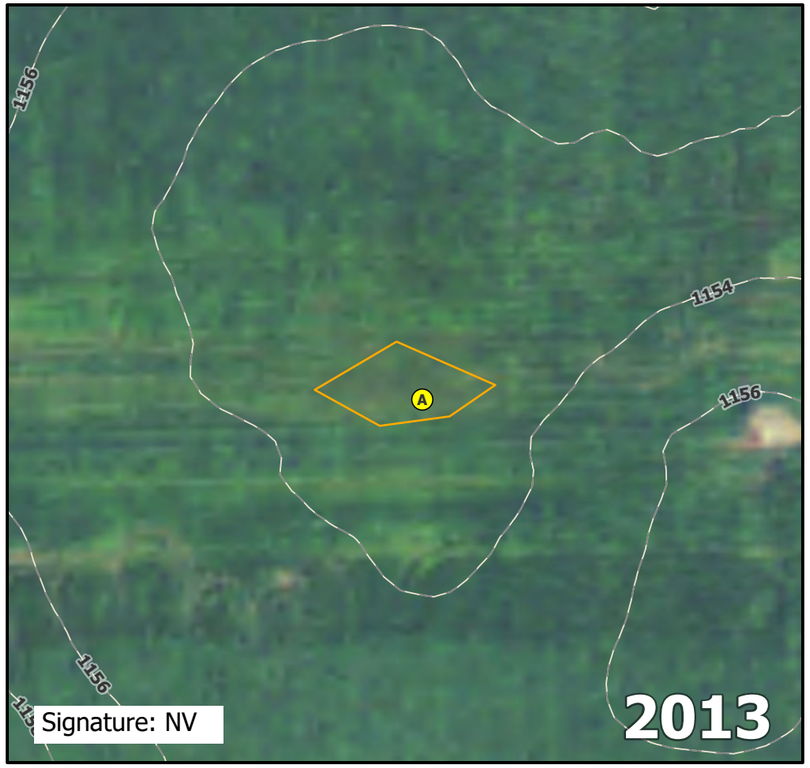
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

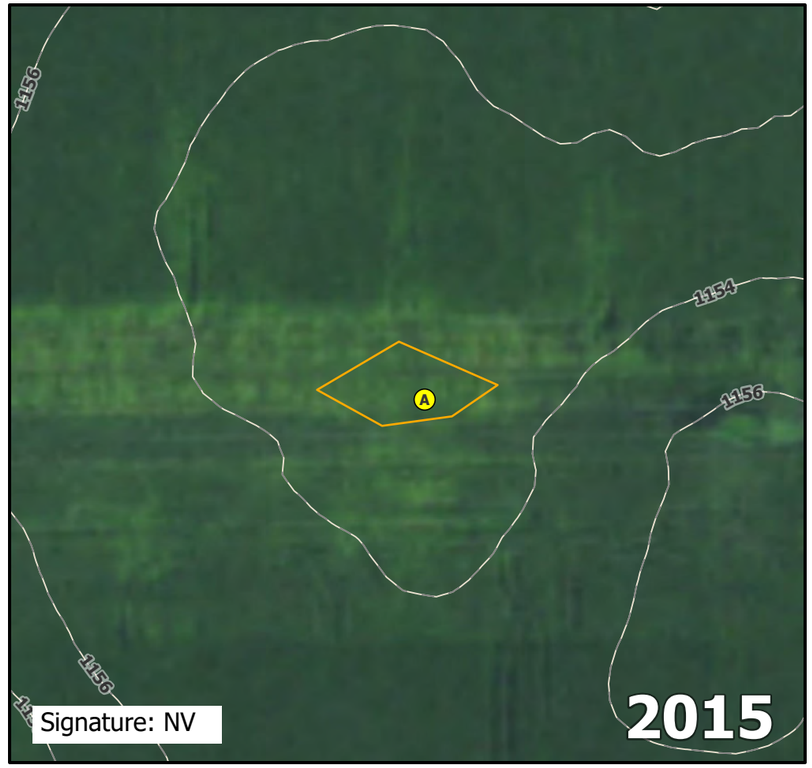
Remarks:

Overview of upland sample point NWB098A.

Direction: Southeast	Photo ID: delin_photo-20221025-211928.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB098







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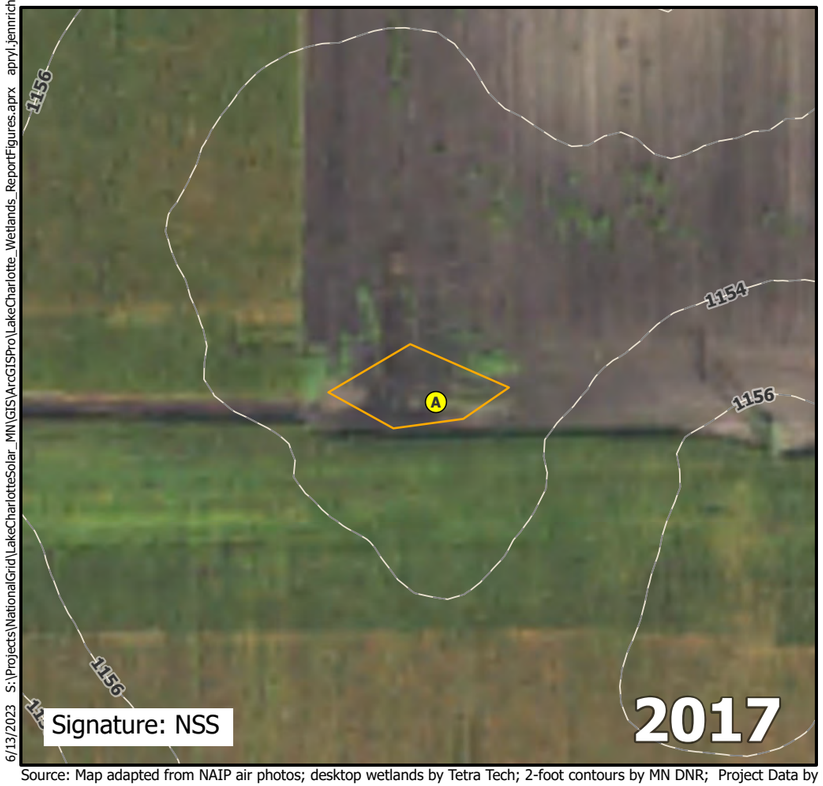
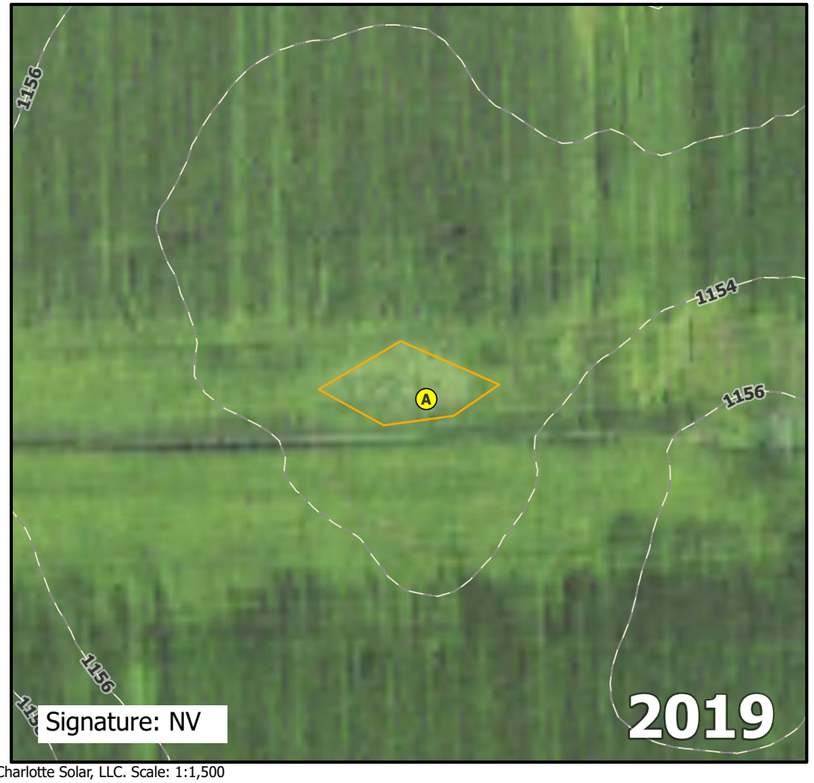
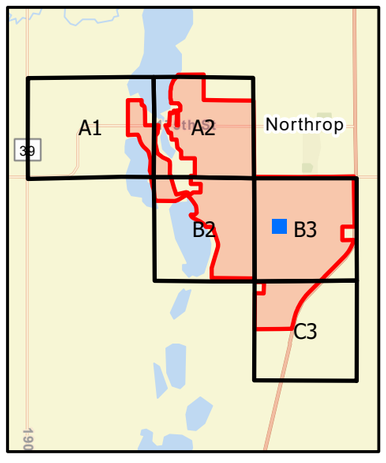
Feet







Feature ID: NWB098

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB099

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB099A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 0 | Lat: 43.72535 | Long: -94.44147 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? No

Hydric Soil Present? No **Is the sampled area within a wetland? No**

Wetland Hydrology Present? No If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Zea mays*	40	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column totals	40 (A)		200 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 60%

SOIL

Sampling Point: NWB099A

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	
19-22	10YR 2/1	60					Clay	
	2.5Y 5/4	40						Mixed Matrix
22-30	2.5Y 5/4	96	7.5YR 5/8	2	C	PL	Clay	Distinct or Prominent
			10YR 2/1	2	Fe/Mn Nodules	PL/M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

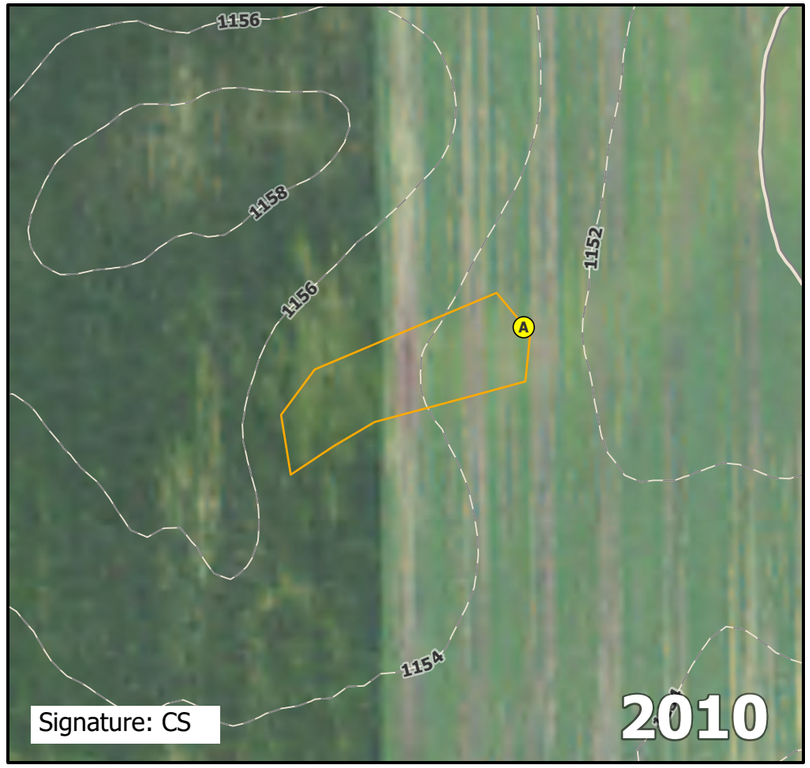
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

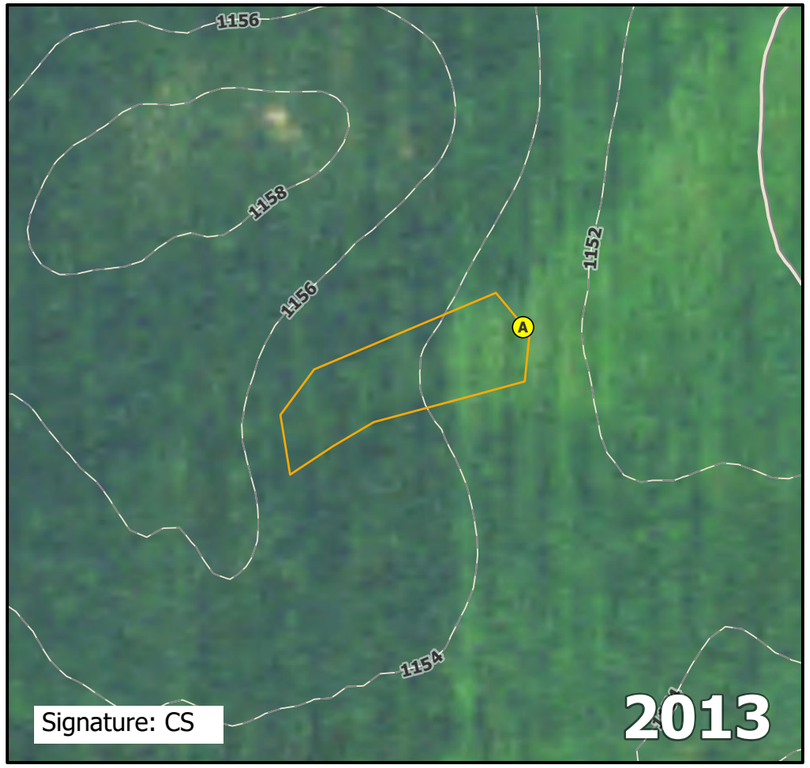
Wetland Hydrology Present? No

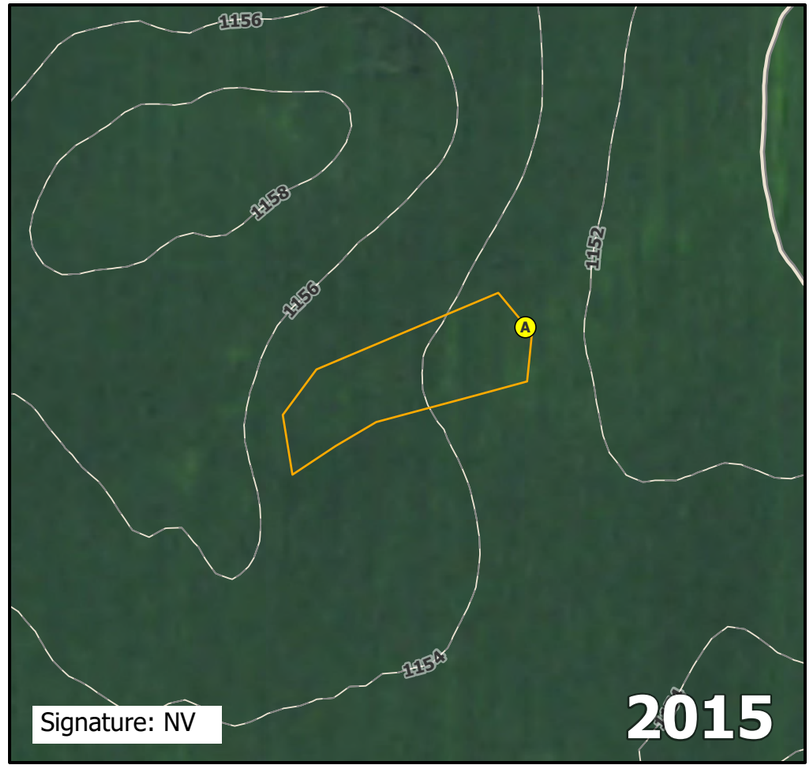
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB099A.		
Direction: South	Photo ID: delin_photo-20221025-213312.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB099







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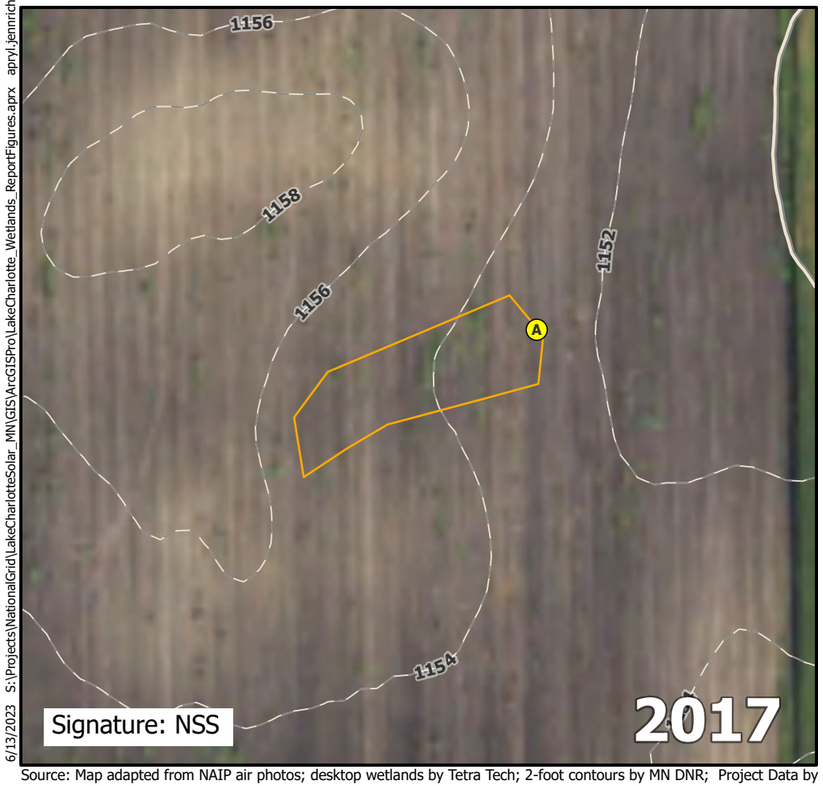
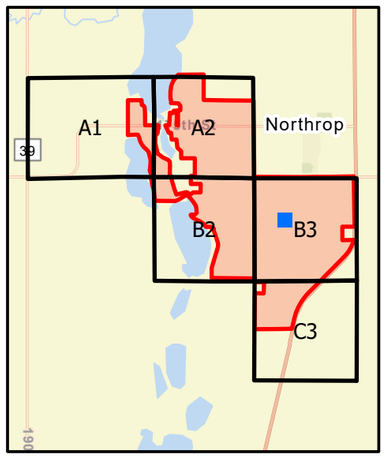
Feet





Feature ID: NWB099

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB100

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB100A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 2 | Lat: 43.72848 | Long: -94.44131 | Datum: WGS84

Soil Map Unit Name: Crippin loam, 1 to 3 percent slopes | NWI Classification: PEM1Af

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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? Yes — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Zea mays*	40	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column totals	40 (A)		200 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 60%

SOIL

Sampling Point: NWB100A

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**		
0-24	10YR 2/1	100					Clay	
24-30	2.5Y 5/3	90	7.5YR 5/6	5	C	PL	Sandy Clay Trace Gravel	Distinct or Prominent
			2.5Y 6/8	5	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

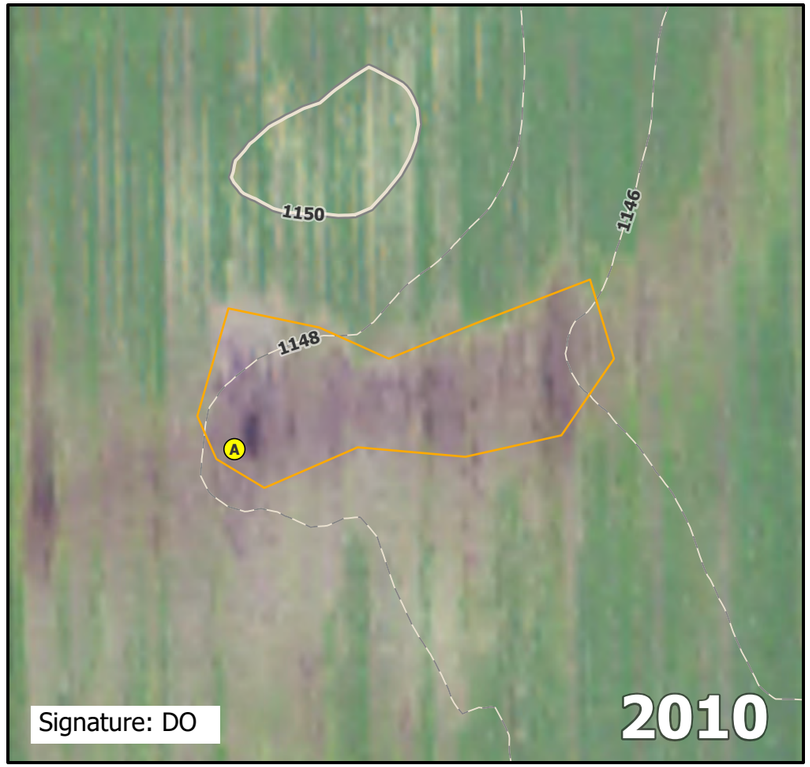
Wetland Hydrology Present? Yes

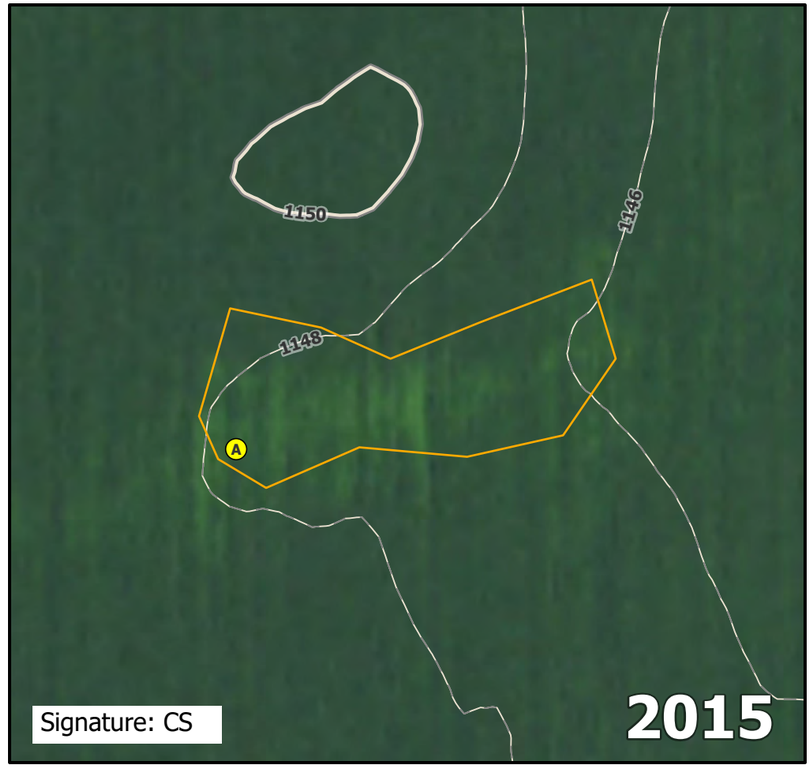
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB100A.

Direction: North	Photo ID: delin_photo-20221025-214900.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB100





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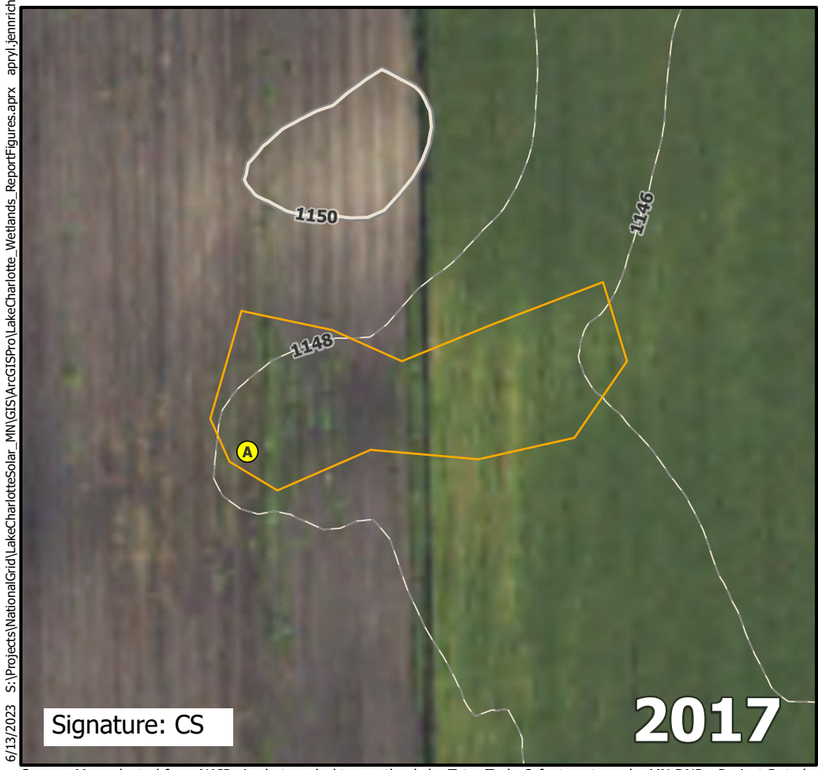
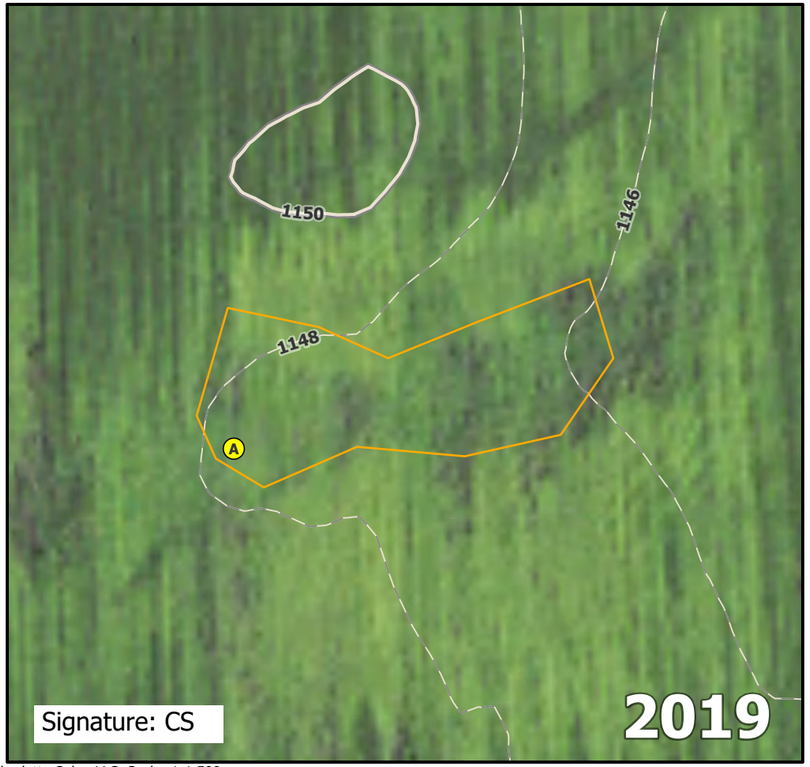
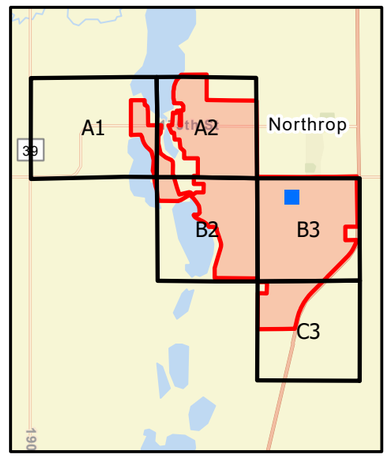
Feet







Feature ID: NWB100

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB101

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB101A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.21 T103N R30W

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

Slope (%): 1 | Lat: 43.71398 | Long: -94.44541 | Datum: WGS84

Soil Map Unit Name: Crippin loam, 1 to 3 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB101A

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	
19-21	2.5Y 3/1	90	2.5Y 5/3	9	C	PL/M	Clay	Distinct or Prominent
			7.5YR 5/6	1	C	PL		Distinct or Prominent
21-30	2.5Y 5/3	80	7.5YR 5/6	2	C	PL	Clay	
	10YR 2/1	18						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

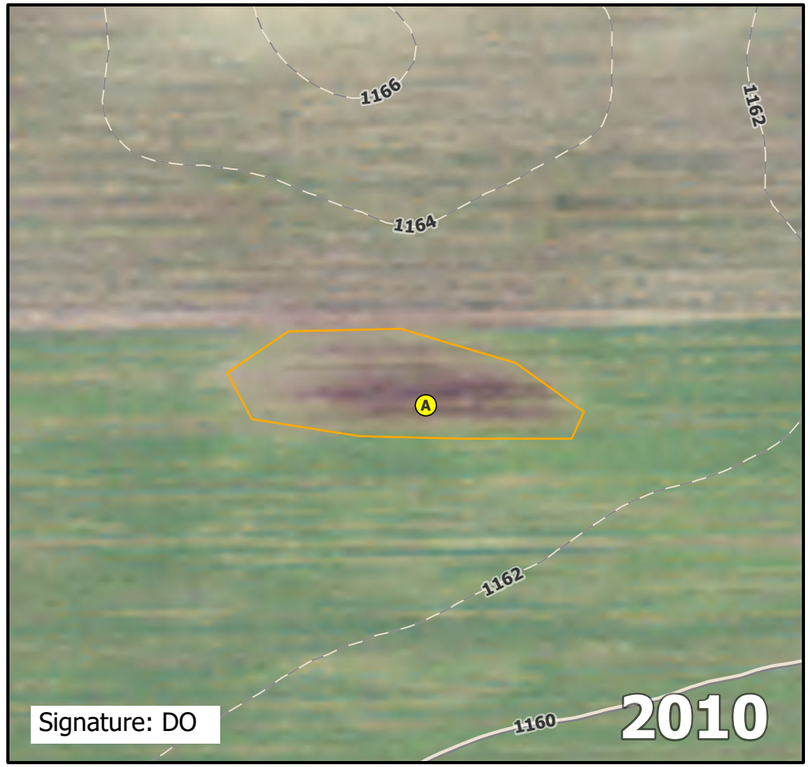
Wetland Hydrology Present? No

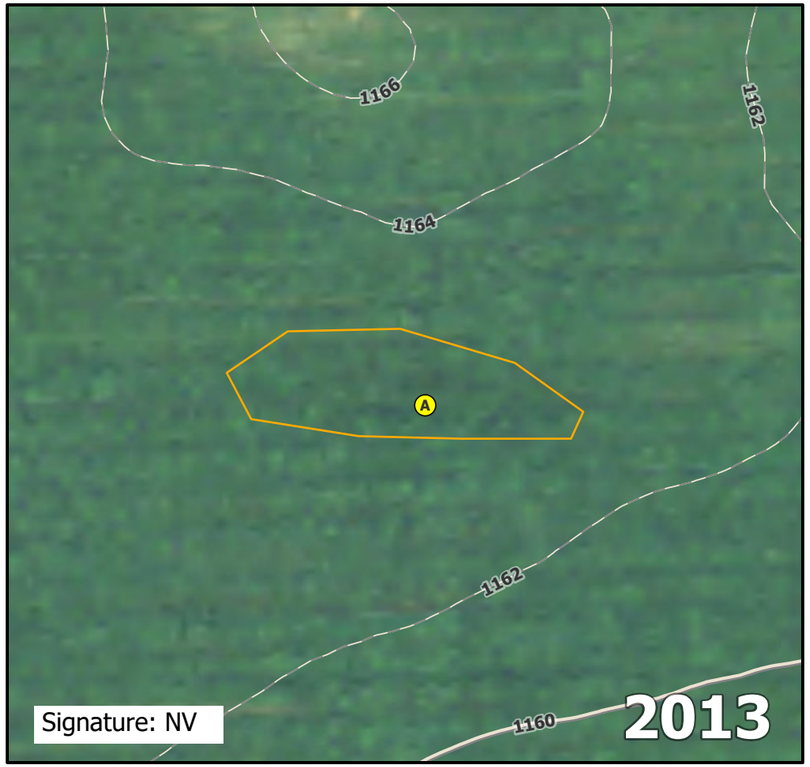
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

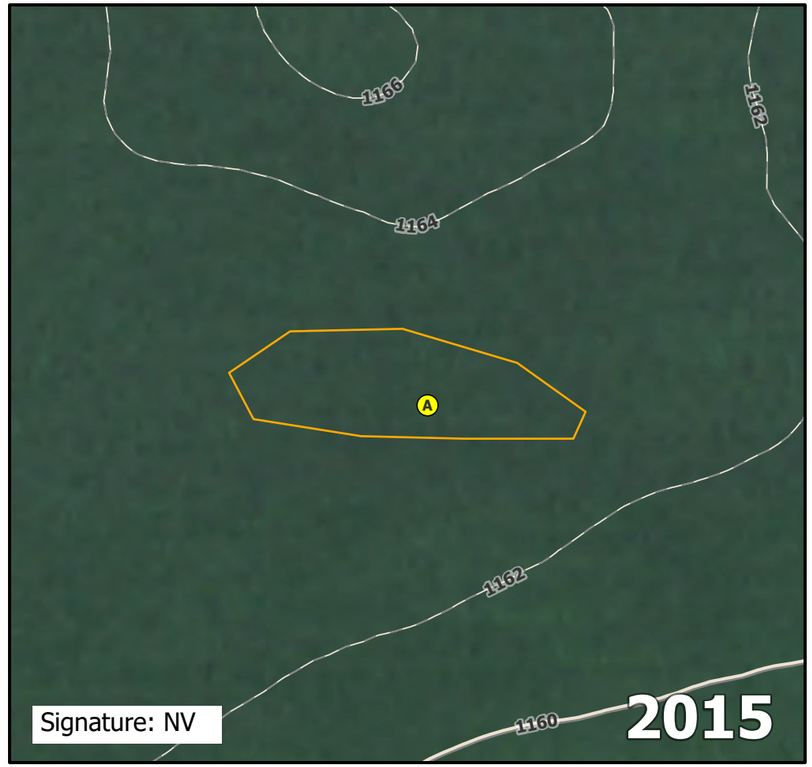
Remarks:

Overview of upland sample point NWB101A.

Direction: North	Photo ID: delin_photo-20221026-134832.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB101

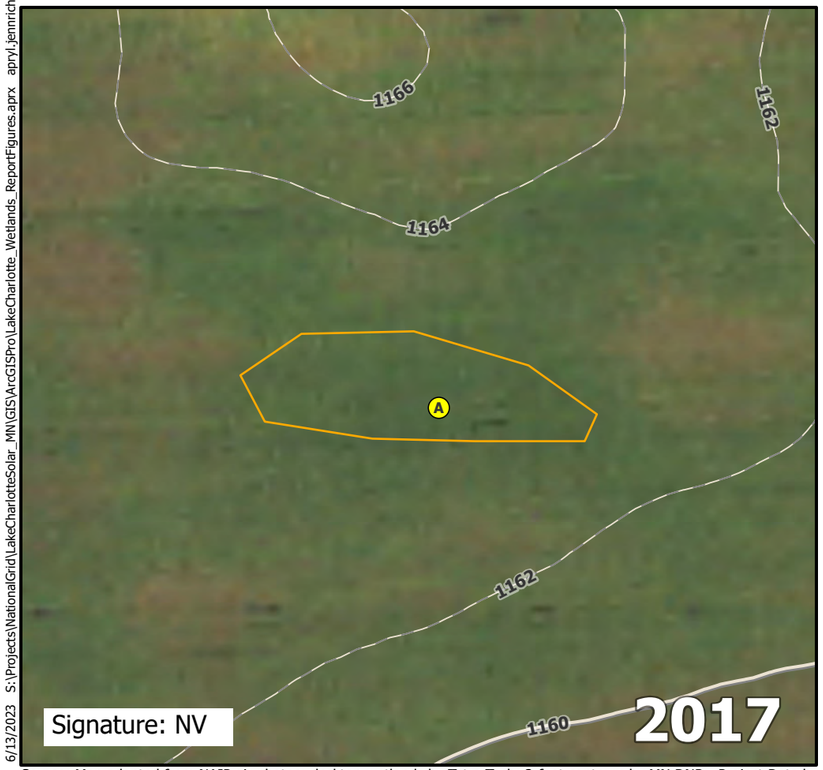


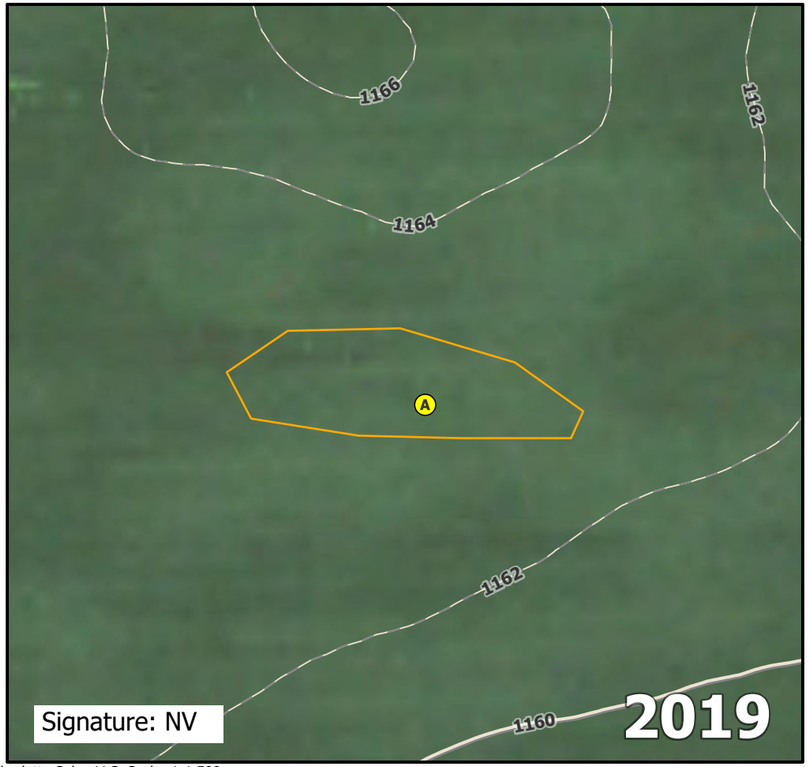


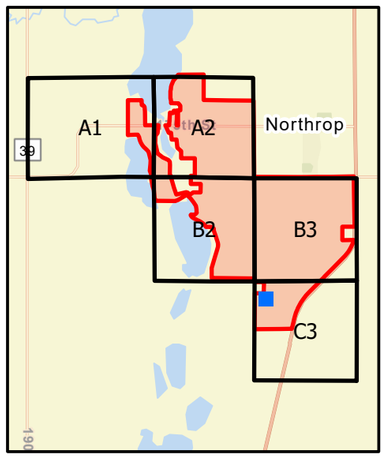


0 40 80 120 160 200

Feet







Feature ID: NWB101

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

NWB103

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB103A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 3 | Lat: 43.72243 | Long: -94.45486 | Datum: WGS84

Soil Map Unit Name: Omsrud-Storden complex, 10 to 16 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? No

Hydric Soil Present? Yes

Wetland Hydrology Present? No

Is the sampled area within a wetland? No

If yes, optional wetland site ID:

Remarks:

Recently harvested agricultural field.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator 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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB103A

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**		
0-40	10YR 2/1	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- X 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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

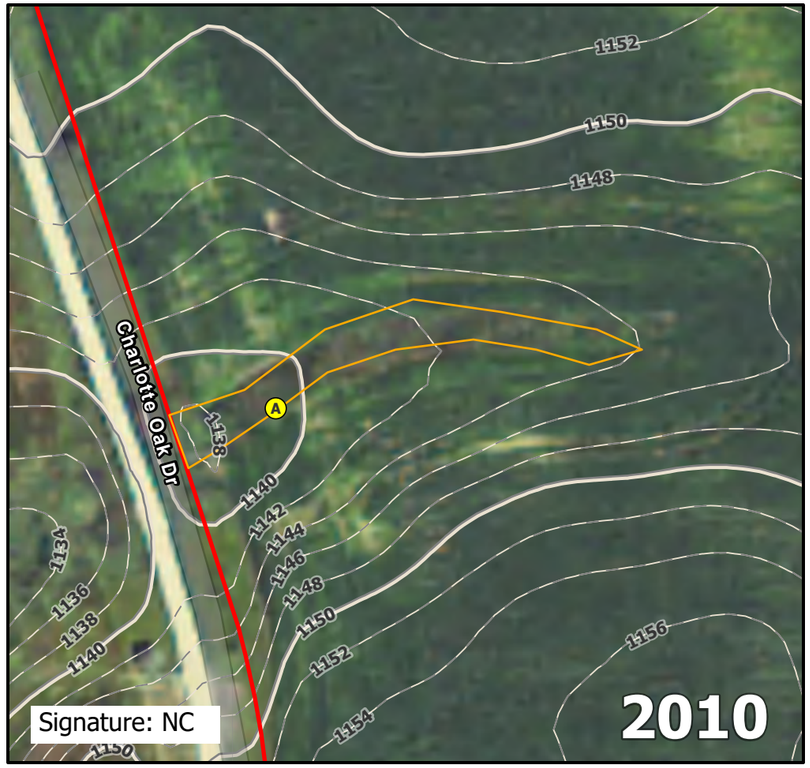
Wetland Hydrology Present? No

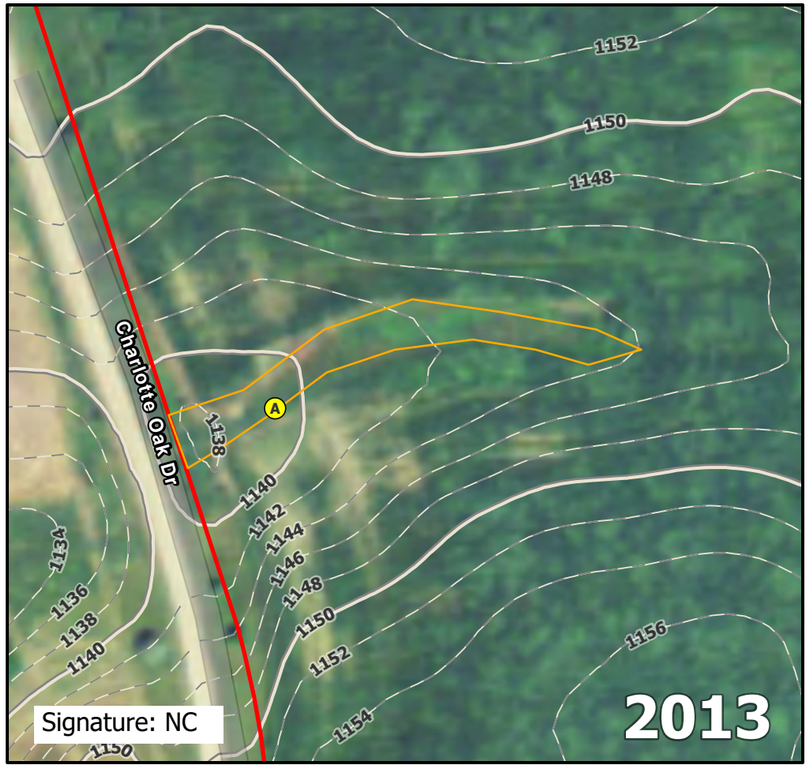
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

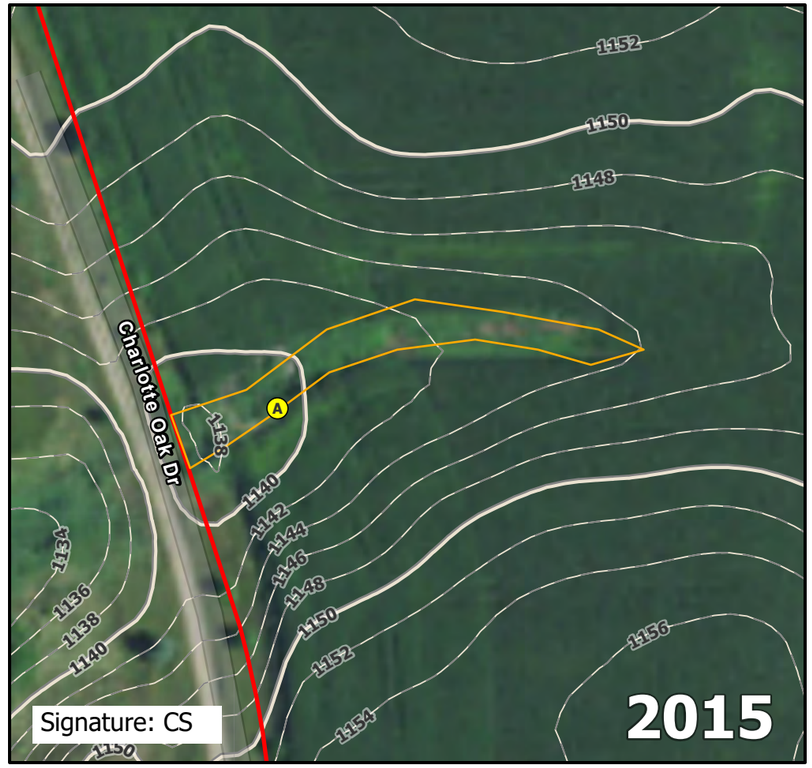
Remarks:

Overview of upland sample point NWB103A.

Direction: Northeast	Photo ID: delin_photo-20221026-144200.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB103







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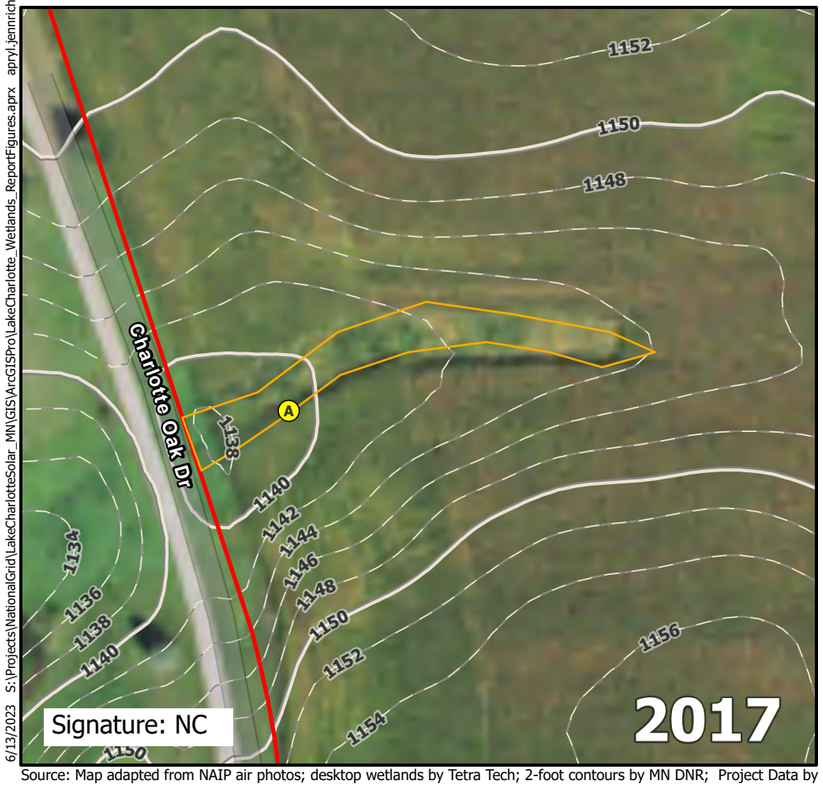
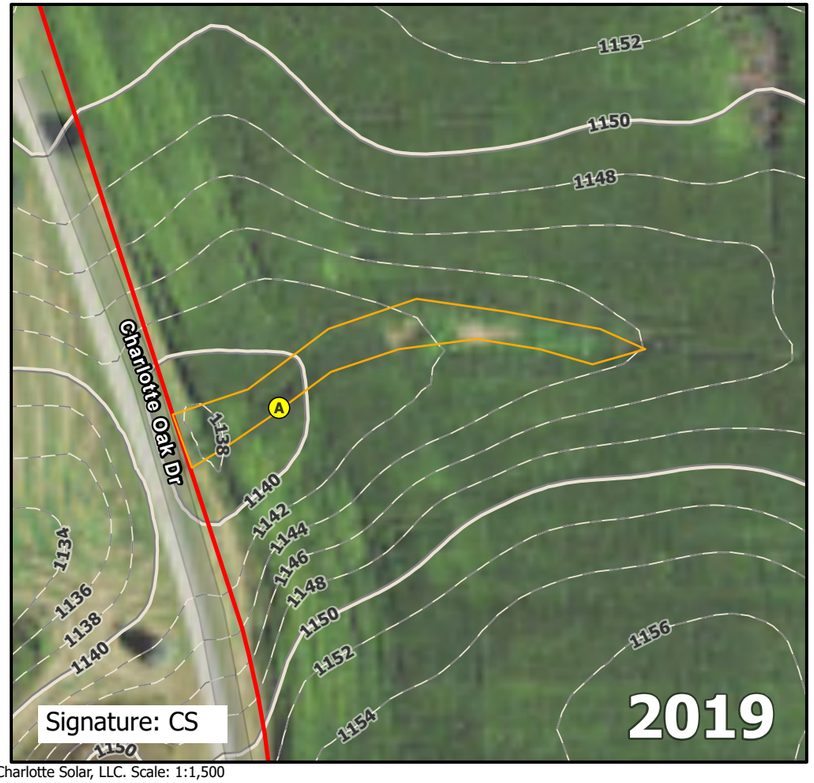
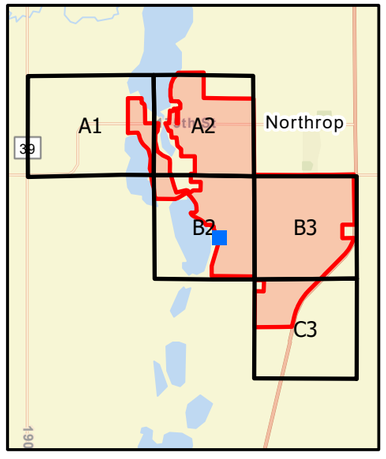
Feet







Feature ID: NWB103

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB104

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB104A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 6 | Lat: 43.72298 | Long: -94.45375 | Datum: WGS84

Soil Map Unit Name: Omsrud-Storden complex, 10 to 16 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? No

Hydric Soil Present? No

Wetland Hydrology Present? Yes

Is the sampled area within a wetland? No

If yes, optional wetland site ID:

Remarks:

Recently tilled agricultural field. Recently harvested agricultural field.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator 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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB104A

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**		
0-8	10YR 2/1	100					Clay	
8-14	2.5Y 5/3	93	2.5Y 6/6	7	C	PL	Clay	Distinct or Prominent
14-16	2.5Y 5/2	90	2.5Y 6/6	5	C	PL	Clay	Distinct or Prominent
			2.5Y 8/1	5	D	M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

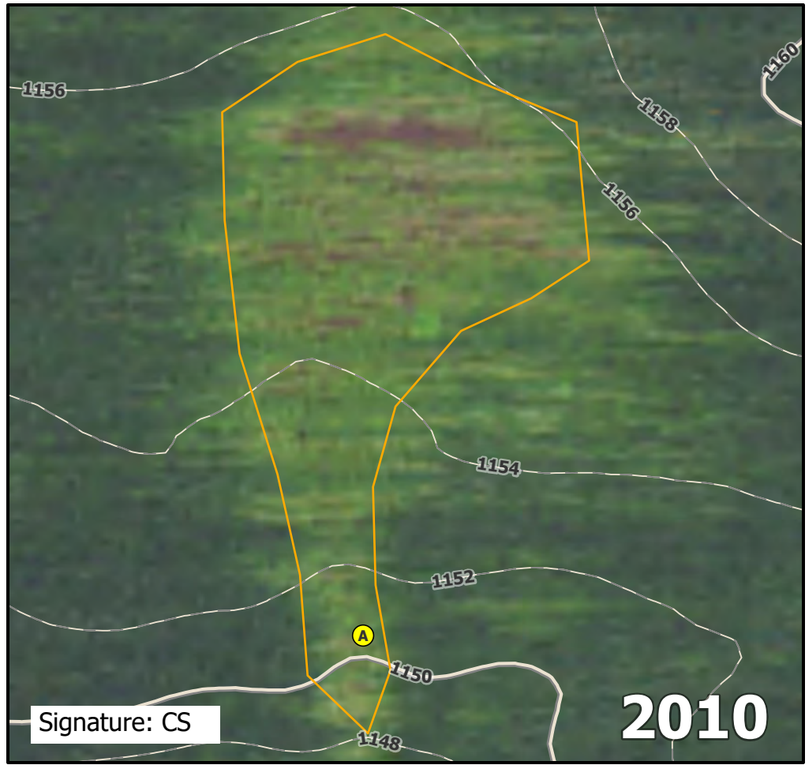
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

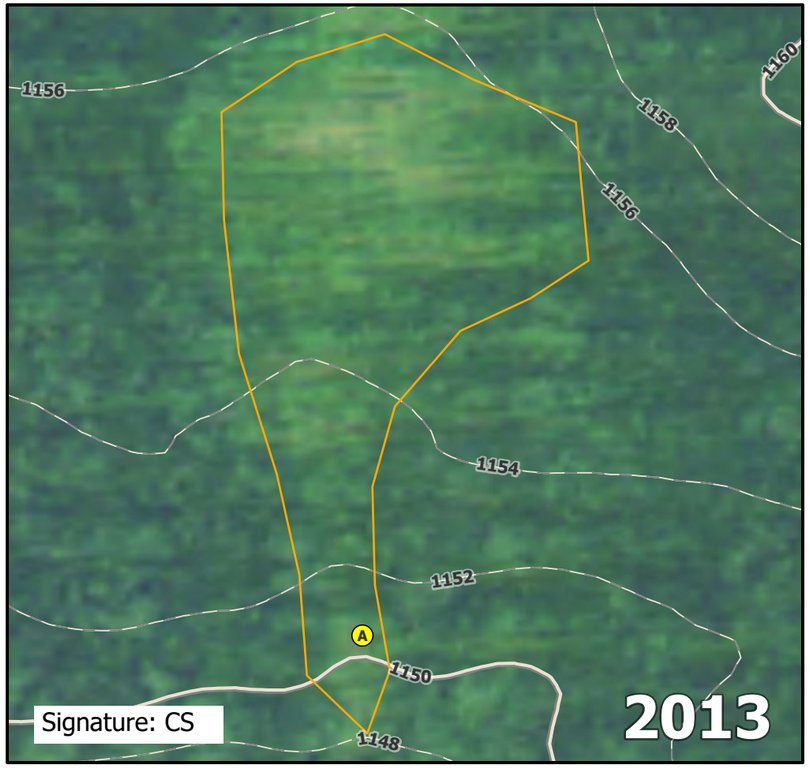
Wetland Hydrology Present? Yes

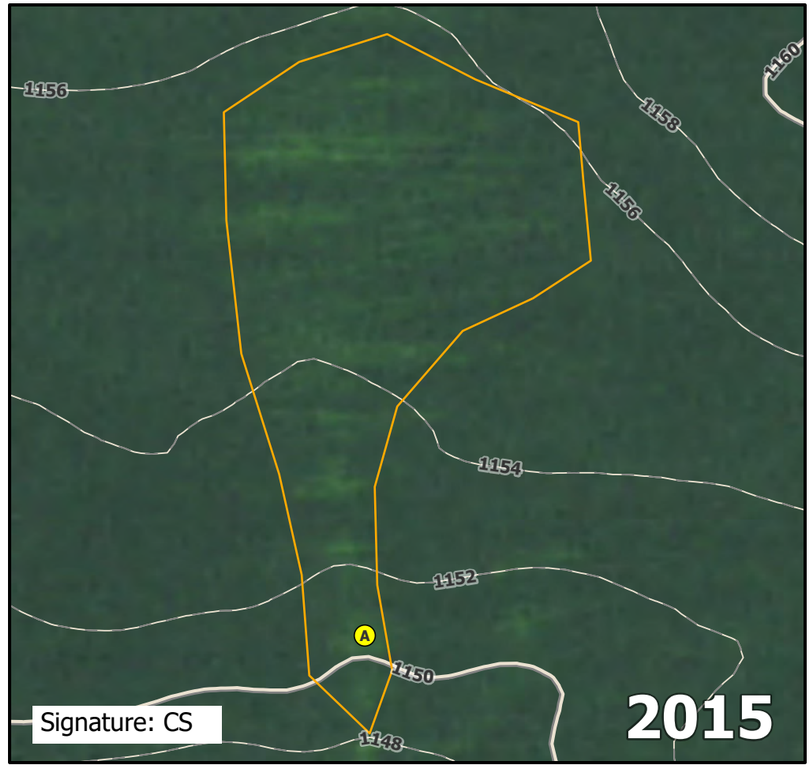
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB104A.		
Direction: North	Photo ID: delin_photo-20221026-145400.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB104







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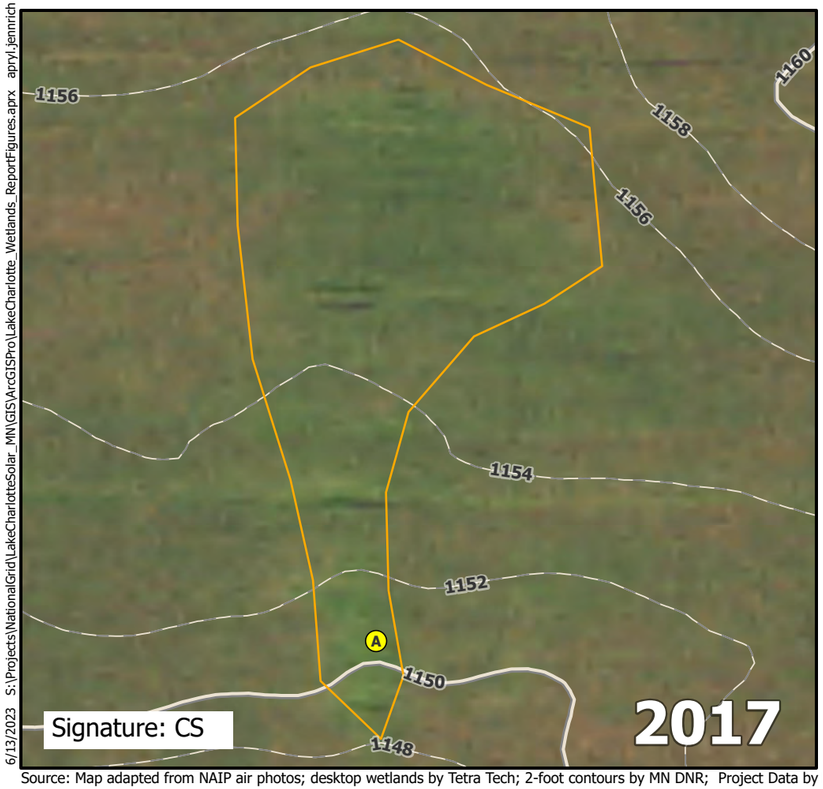
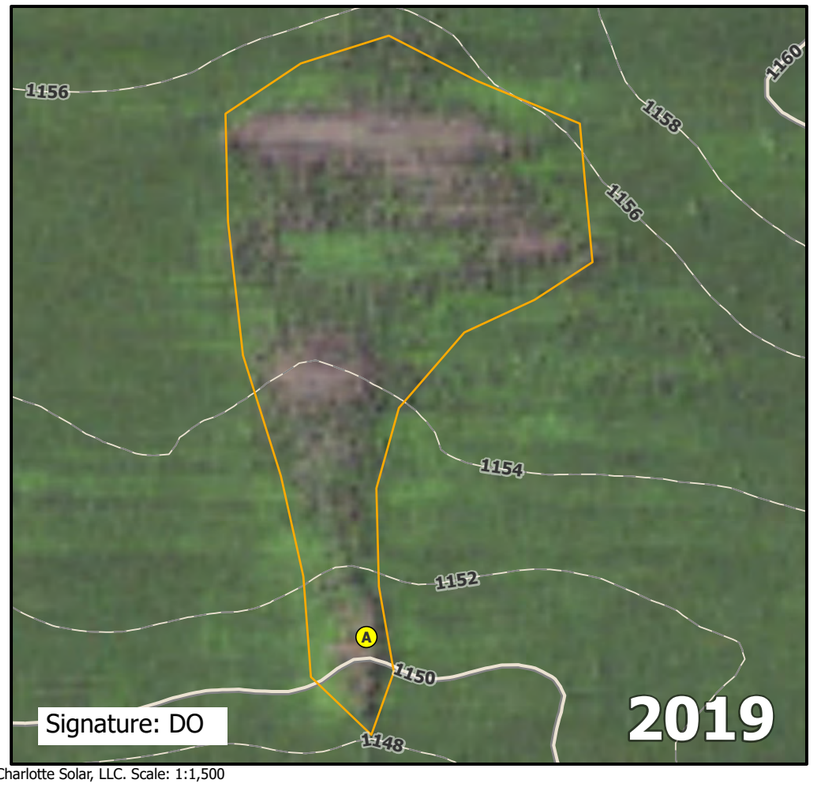
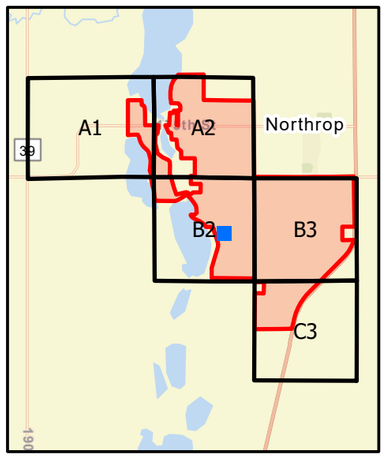
Feet







Feature ID: NWB104

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB106

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB106A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 3 | Lat: 43.72162 | Long: -94.45324 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB106A

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**		
0-10	10YR 2/1	100					Clay	
10-20	10YR 2/1	50					Clay	
	2.5Y 5/3	50						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

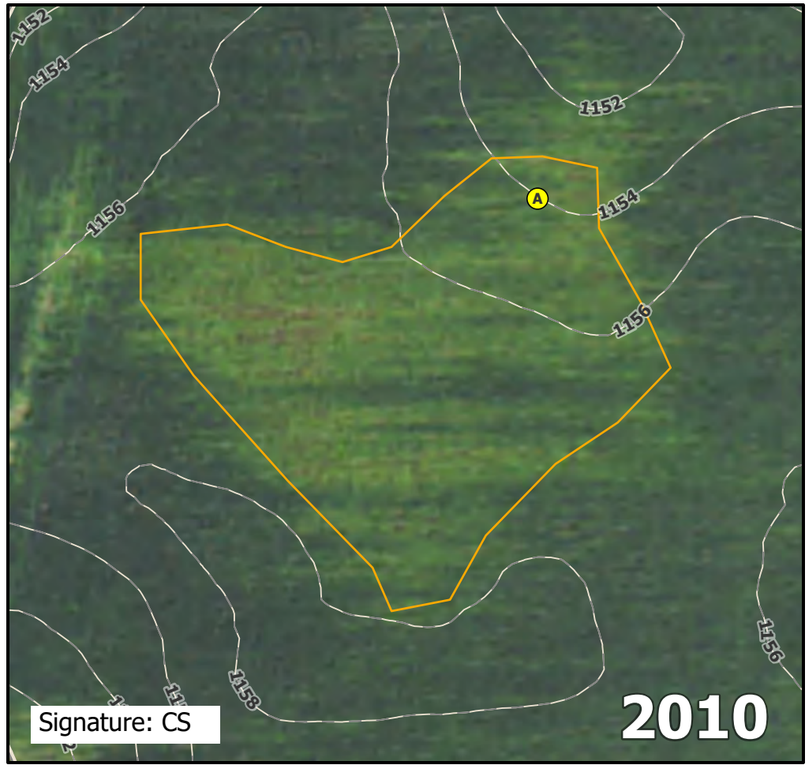
Wetland Hydrology Present? No

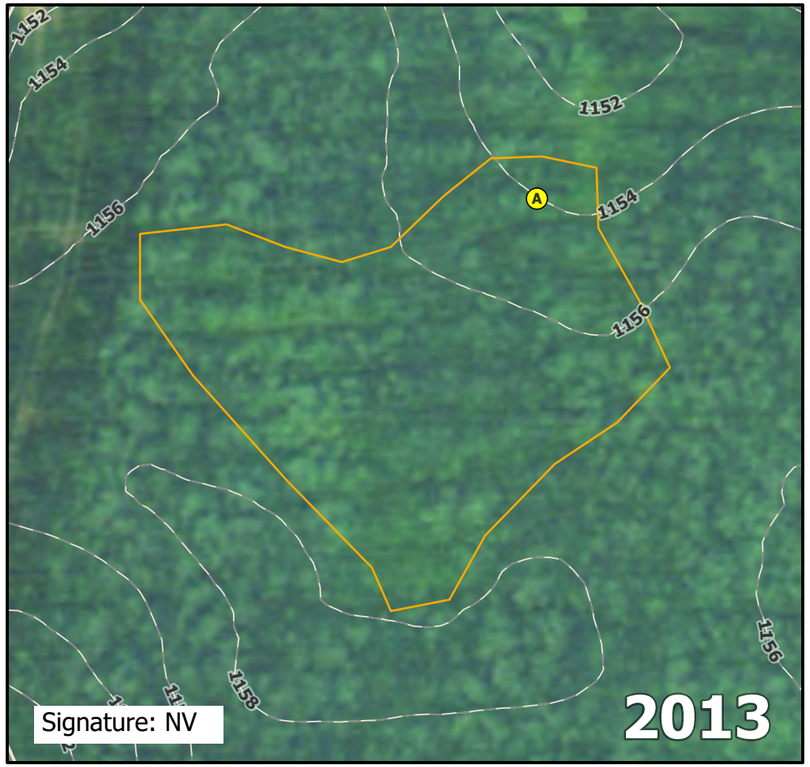
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

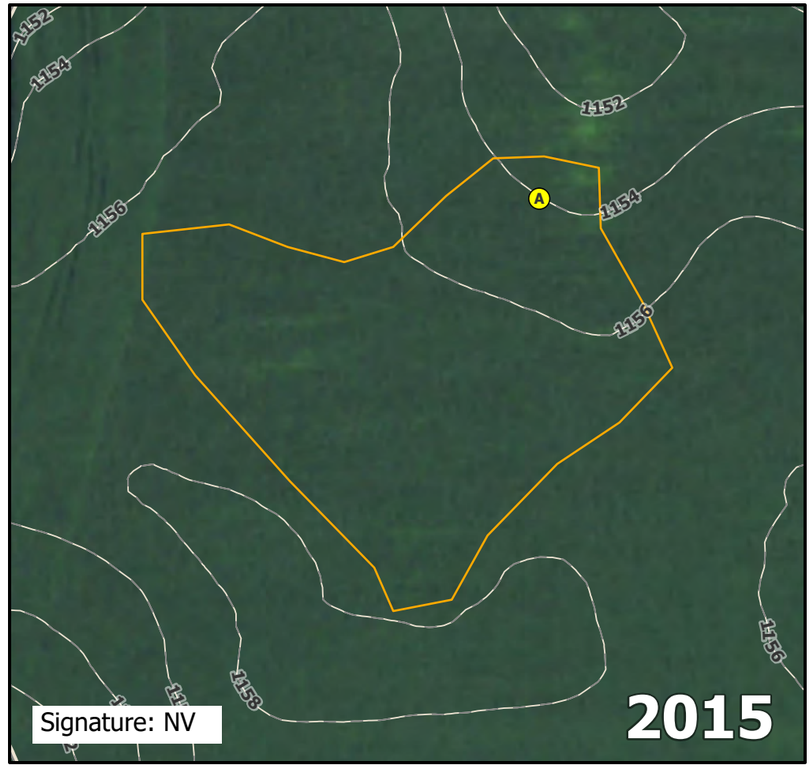
Remarks:

Overview of upland sample point NWB106A.

Direction: North	Photo ID: delin_photo-20221026-153653.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB106







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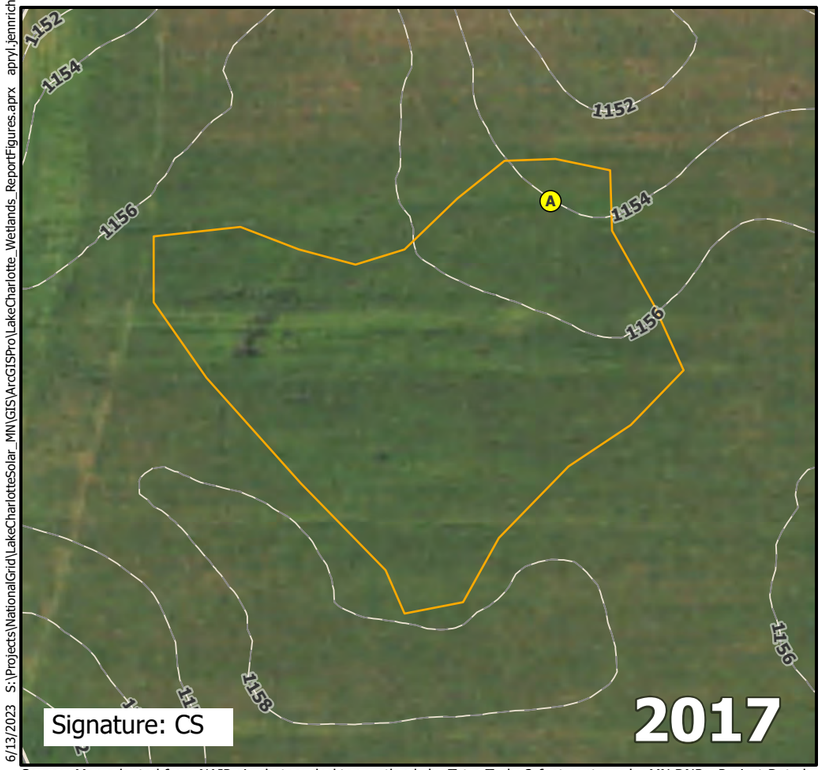
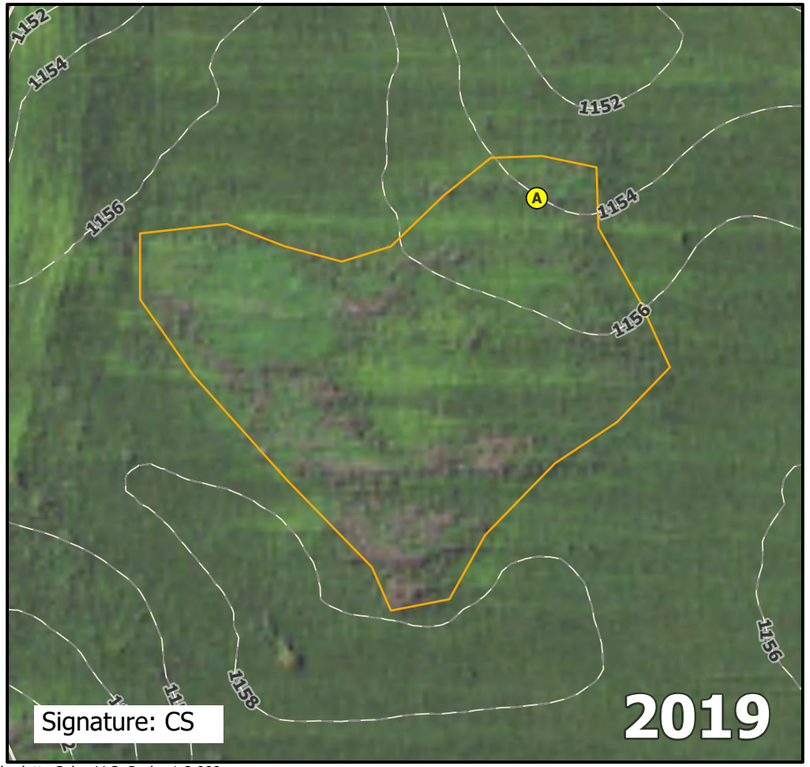
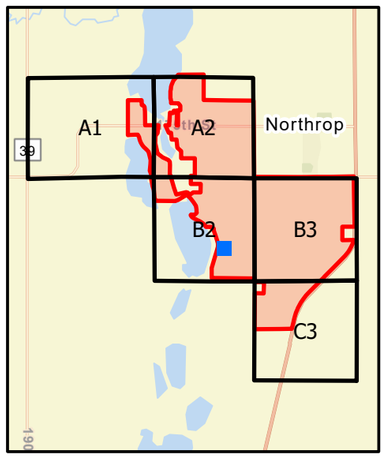
Feet







Feature ID: NWB106

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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: 1:2,000

Non-Wetland ID

NWB107

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB107A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 4 | Lat: 43.71748 | Long: -94.45586 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Recently tilled agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB107A

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**		
0-8	10YR 2/1	100					Clay	
8-11	10YR 2/1	70	10YR 4/4	30	C	PL/M	Clay	Distinct or Prominent
11-13	10YR 6/6	70	7.5YR 6/8	10	C	PL/M	Clay	
	10YR 2/1	20						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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: Drain tile

Depth (inches): 13

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

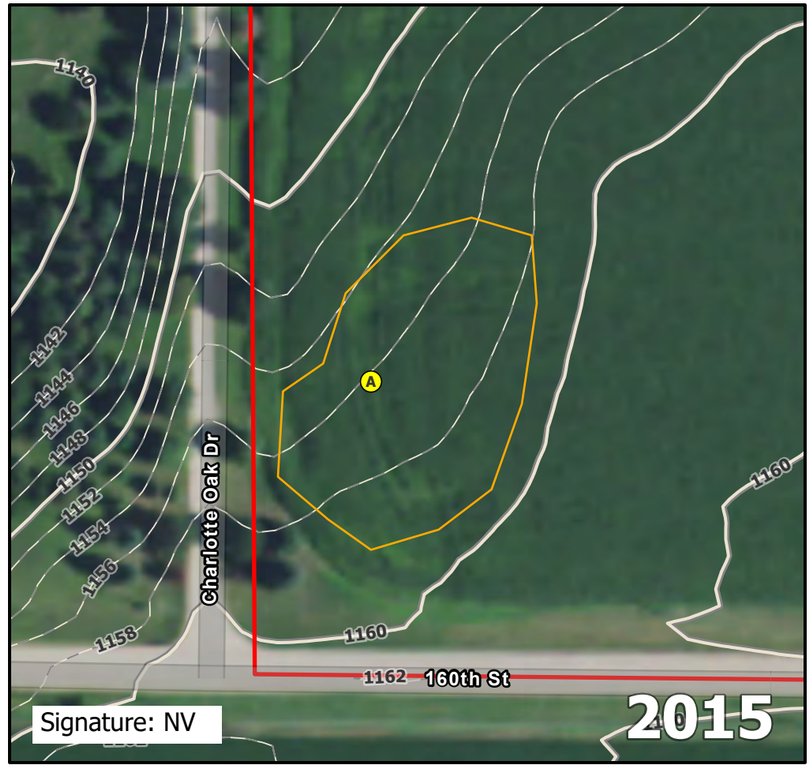
Wetland Hydrology Present? No

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

Remarks:

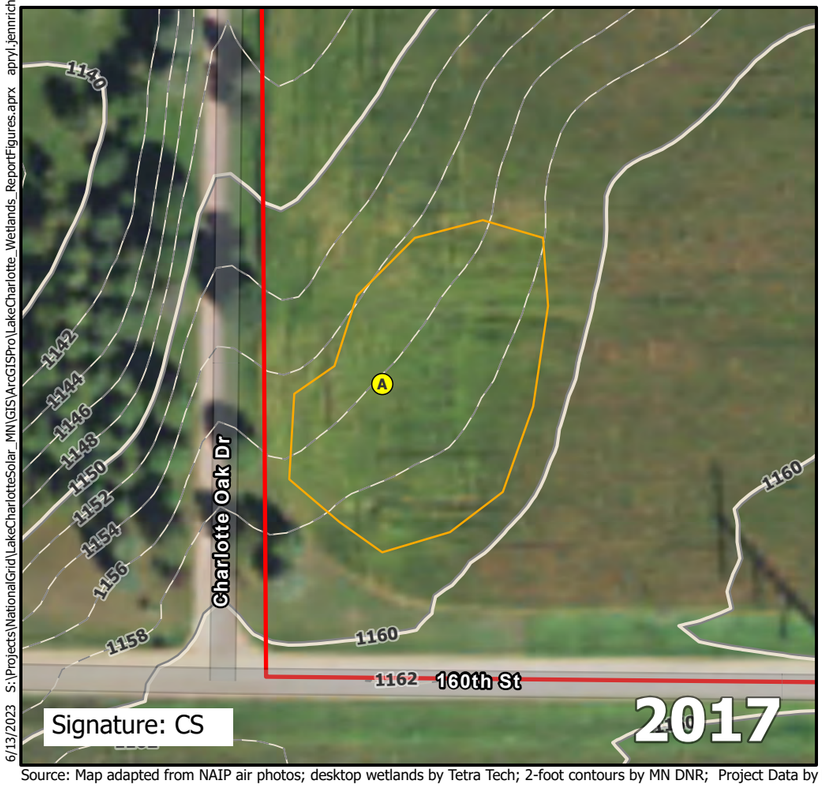
Overview of upland sample point NWB107A.

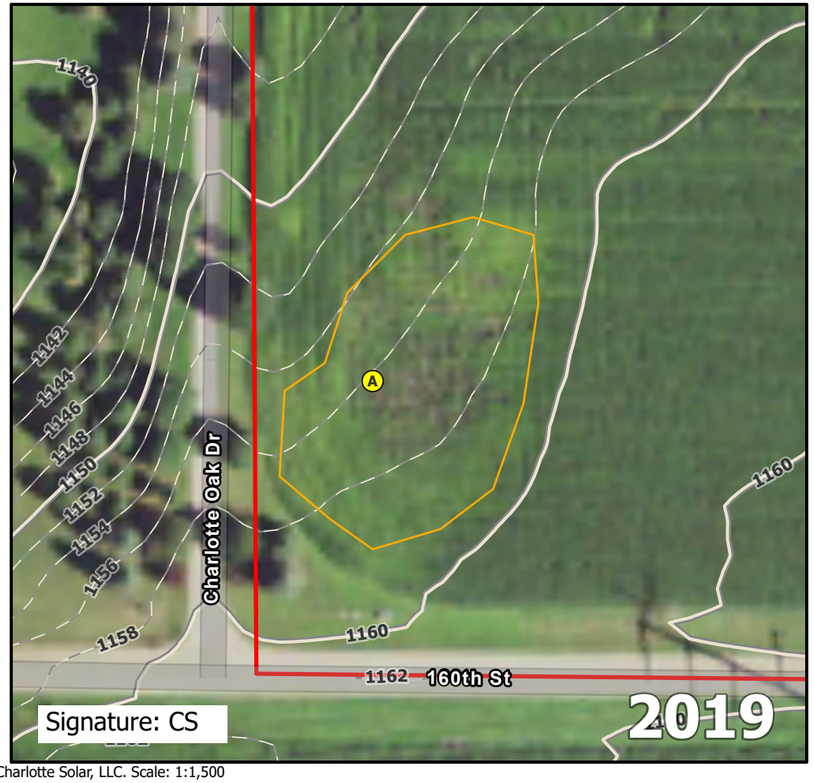
Direction: Northeast	Photo ID: delin_photo-20221026-155327.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB107

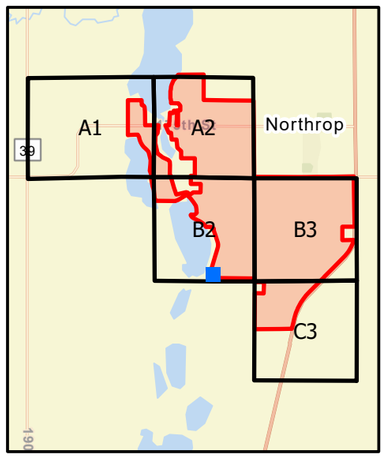


0 40 80 120 160 200

Feet







Feature ID: NWB107

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWB108

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB108A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 6 | Lat: 43.71842 | Long: -94.45526 | 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? No

Hydric Soil Present? Yes

Wetland Hydrology Present? No

Is the sampled area within a wetland? No

If yes, optional wetland site ID: ____

Remarks:

Recently harvested agricultural field.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species	Indicator 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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB108A

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	
5-10	10YR 2/1	94	2.5Y 5/3	5	C	PL/M	Clay	Distinct or Prominent
			10YR 6/6	1	C	PL		Distinct or Prominent
10-22	10YR 2/1	80	2.5Y 5/3	19	C	PL/M	Clay	Distinct or Prominent
			10YR 6/6	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

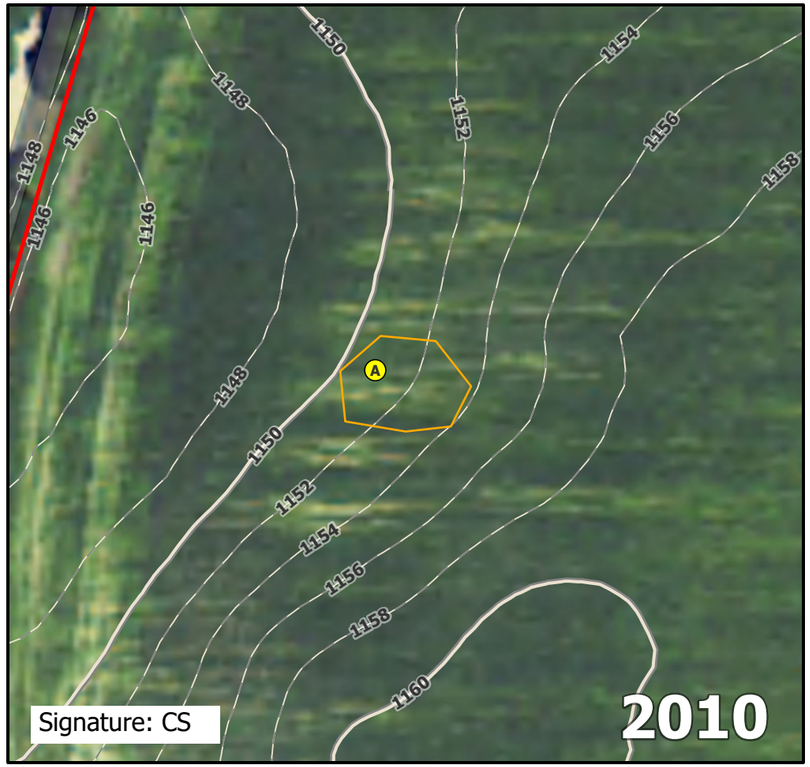
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

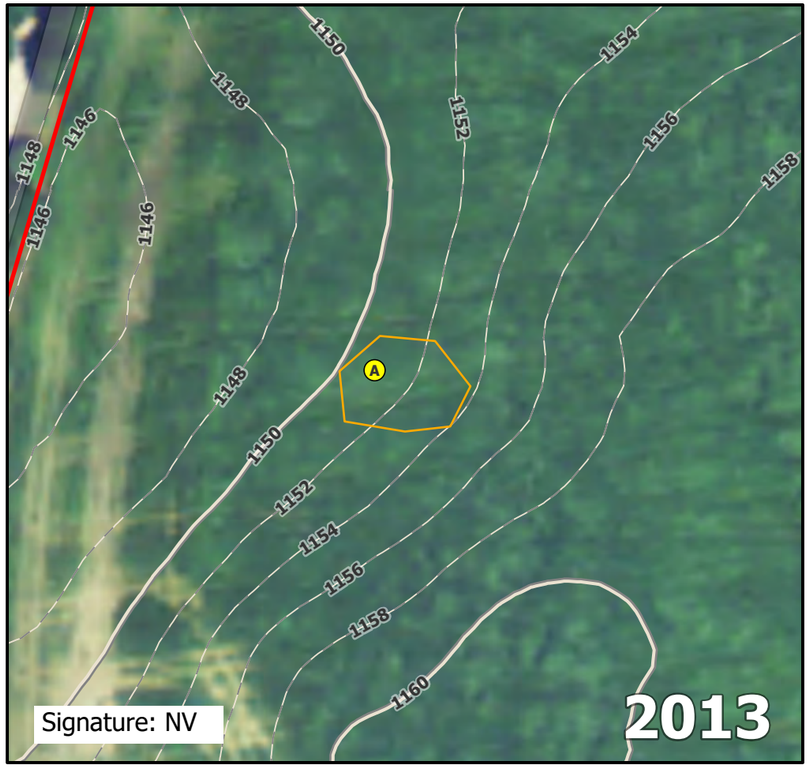
Wetland Hydrology Present? No

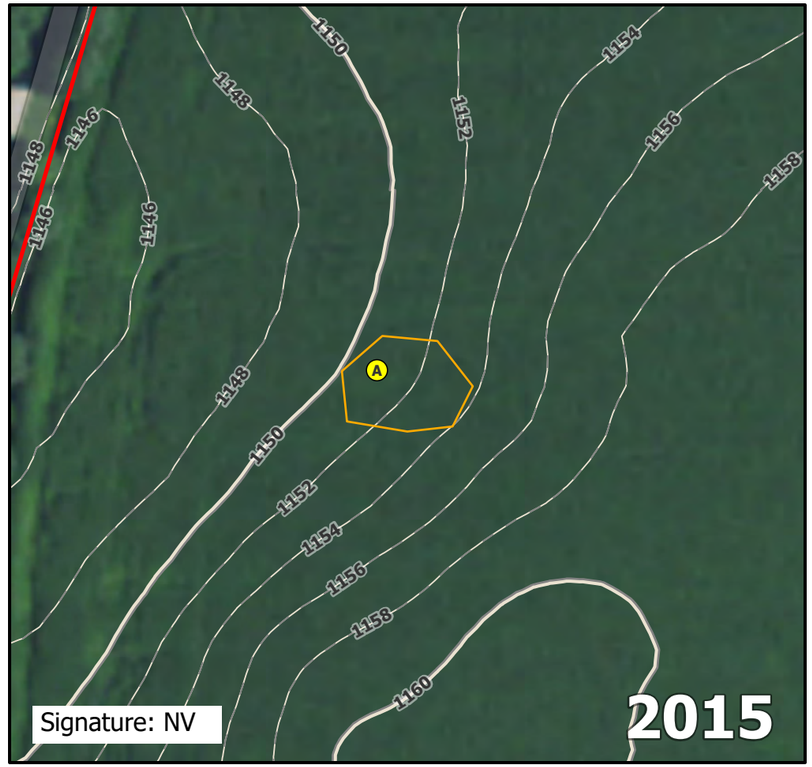
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB108A.		
Direction: Southeast	Photo ID: delin_photo-20221026-160645.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB108







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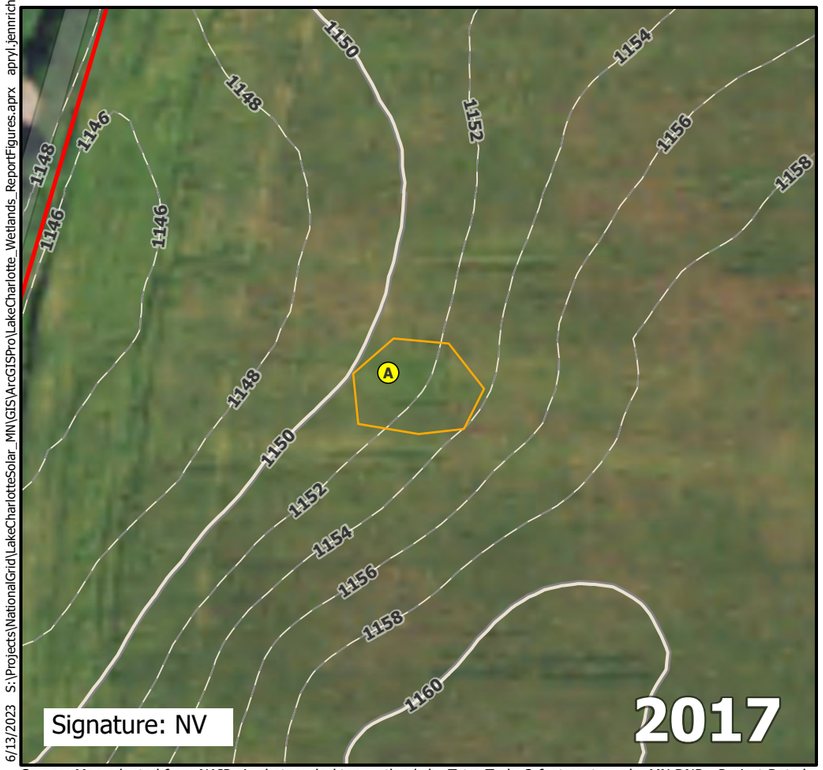
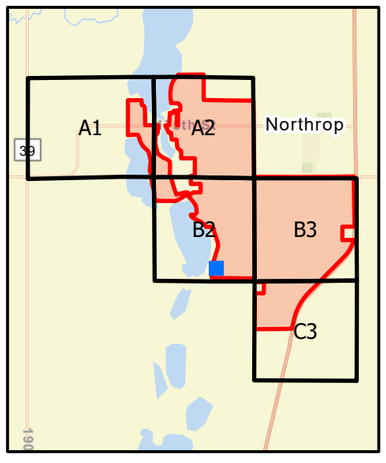




Feature ID: NWB108

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

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

NWB110

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB110A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 0 | Lat: 43.71789 | Long: -94.45011 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB110A

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**		
0-15	10YR 2/1	100					Clay	
15-20	10YR 2/1	85	2.5Y 5/3	15	C	PL/M	Clay	Distinct or Prominent
20-31	2.5Y 6/3	80	7.5YR 5/8	1	C	PL	Clay	
	10YR 2/1	19						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

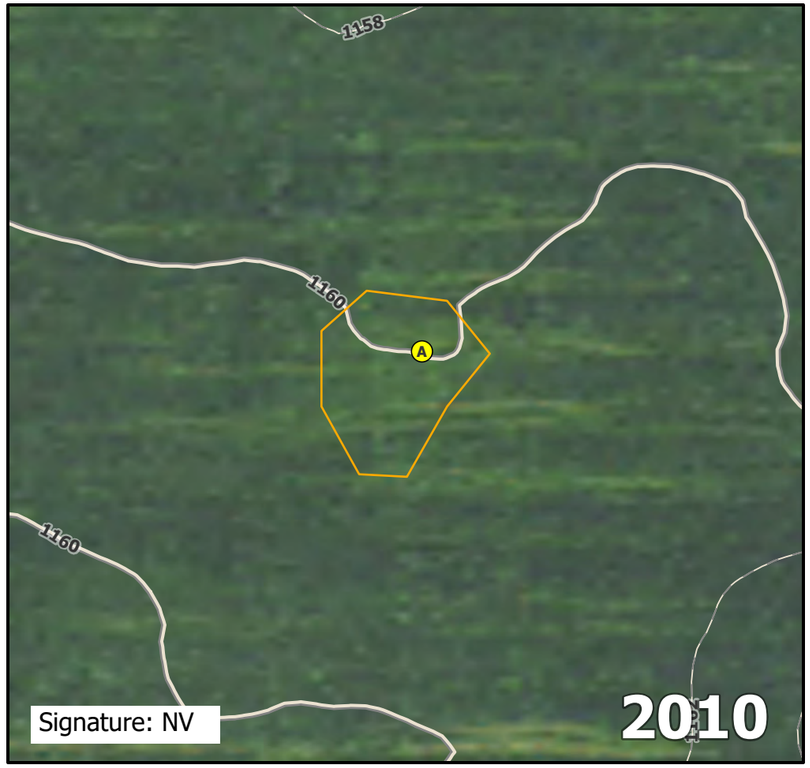
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

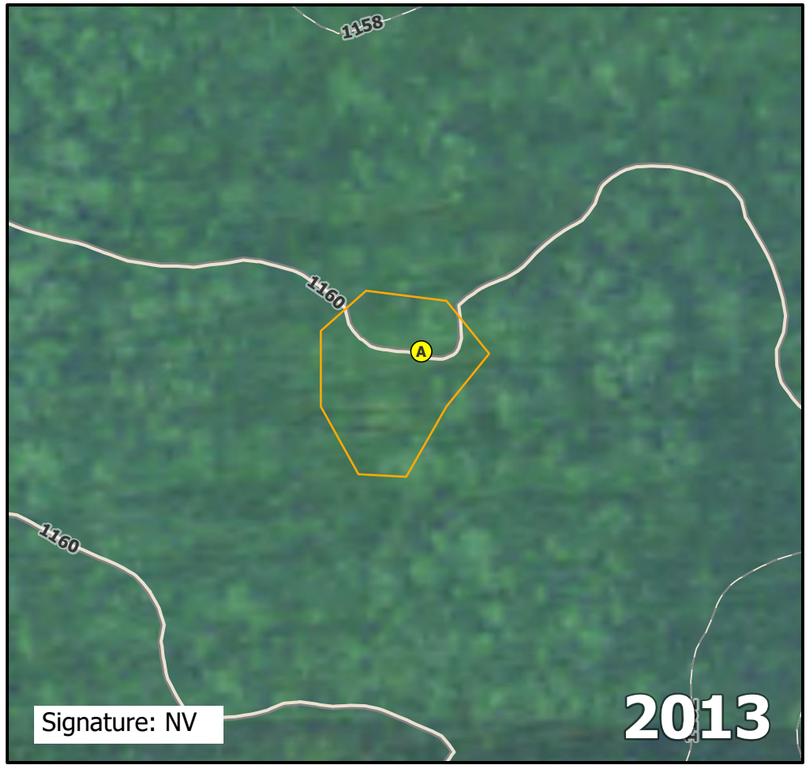
Wetland Hydrology Present? No

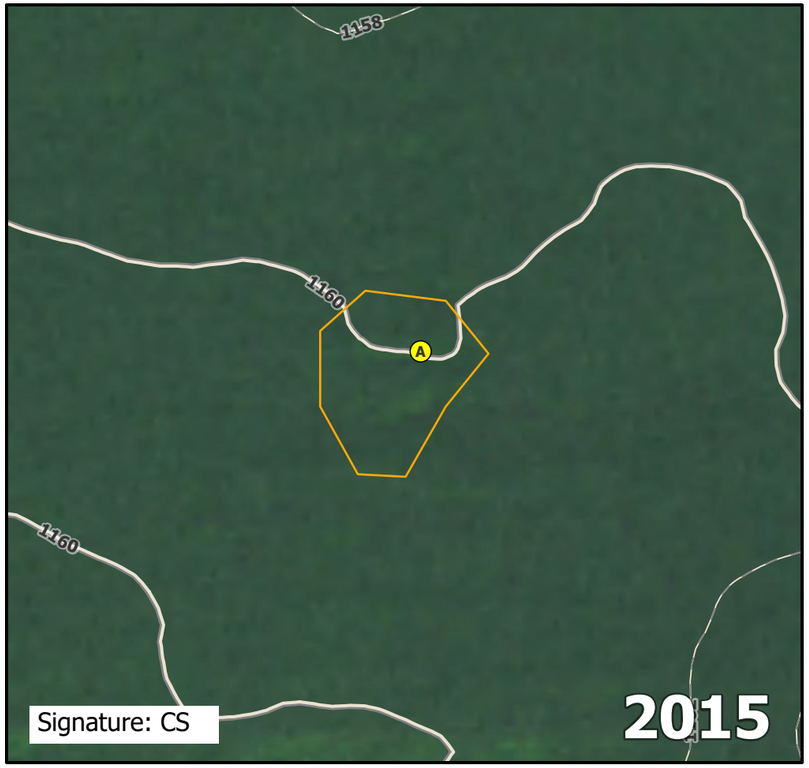
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB110A.		
Direction: East	Photo ID: delin_photo-20221026-164539.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB110







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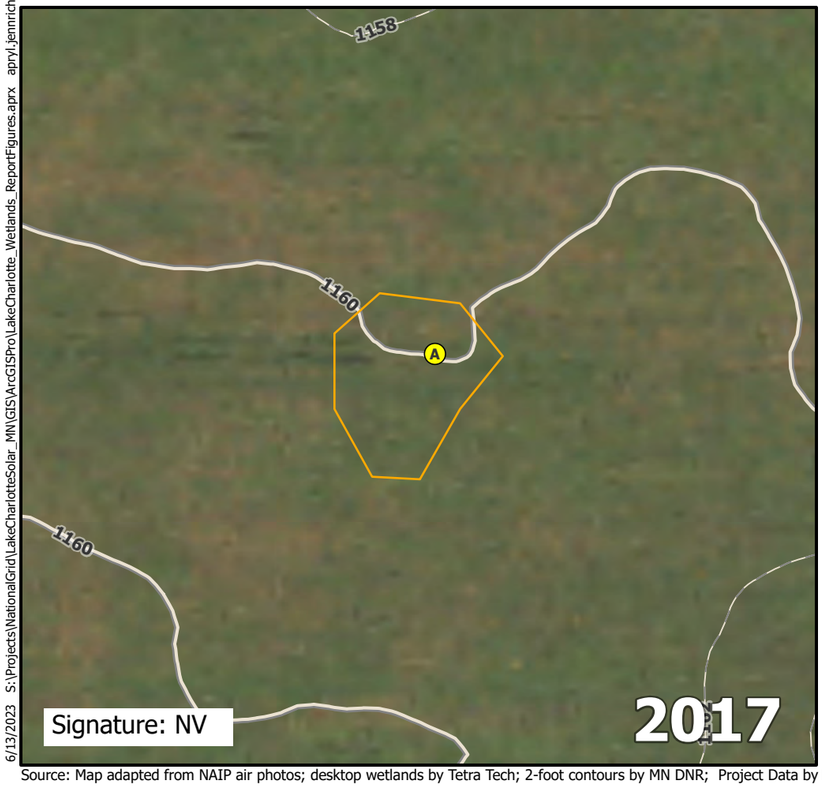
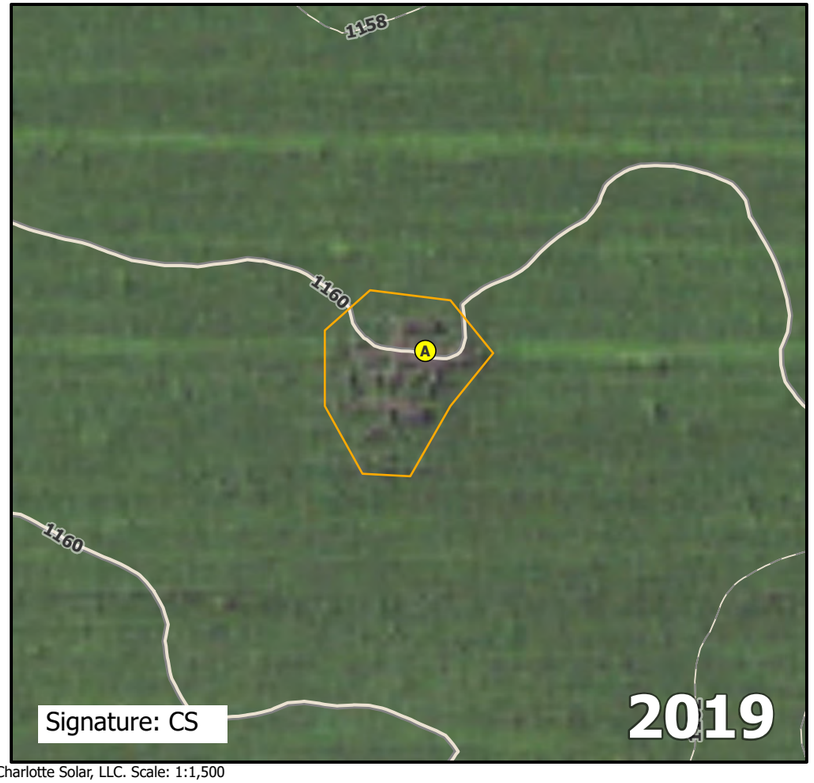
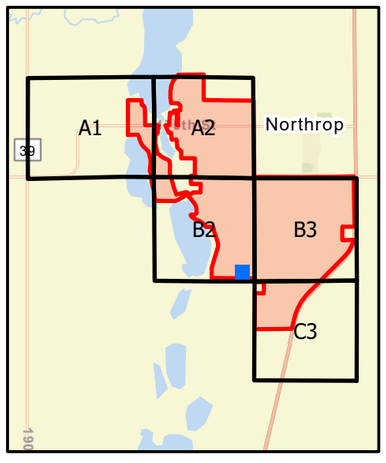
Feet







Feature ID: NWB110

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB111

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB111A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 0 | Lat: 43.71927 | Long: -94.44993 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB111A

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	
23-28	10YR 2/1	97	2.5Y 4/3	2	C	PL/M	Clay	Distinct or Prominent
			10YR 3/4	1	C	PL/M		Distinct or Prominent
28-35	2.5Y 5/3	40					Clay	
	10YR 2/1	30						Mixed Matrix
	2.5Y 6/4	30						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

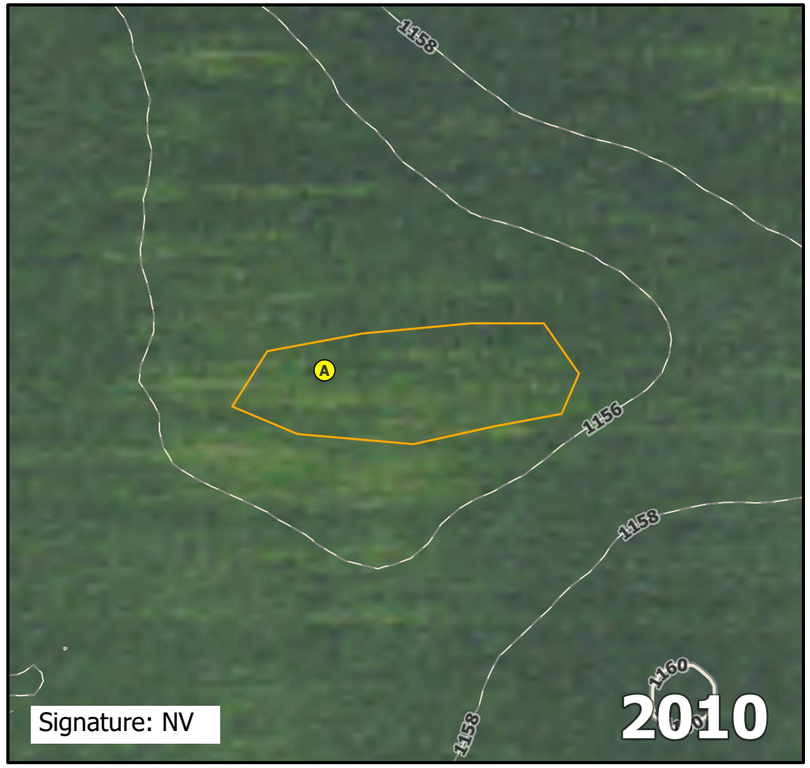
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

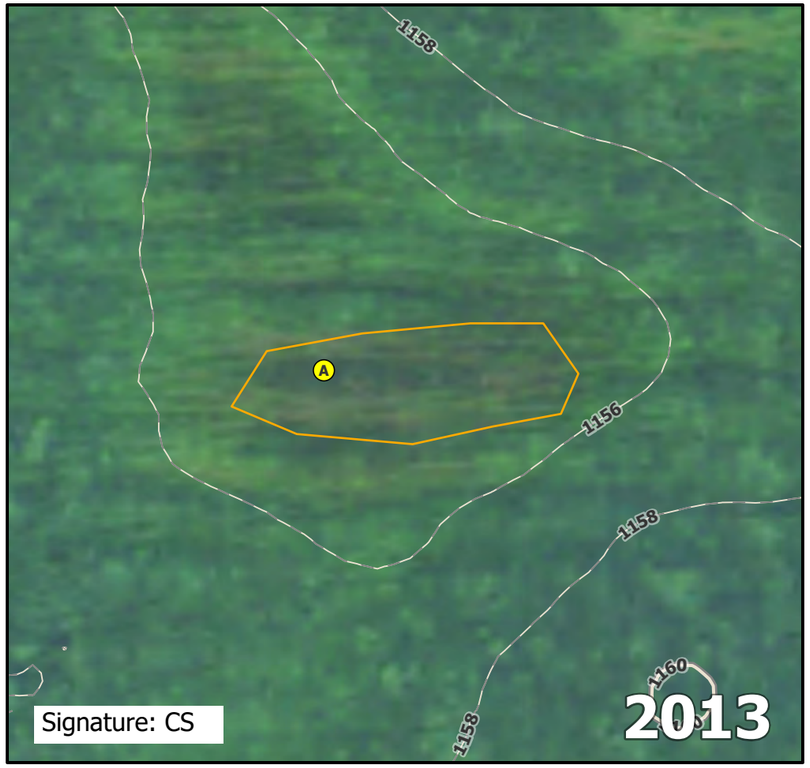
Wetland Hydrology Present? No

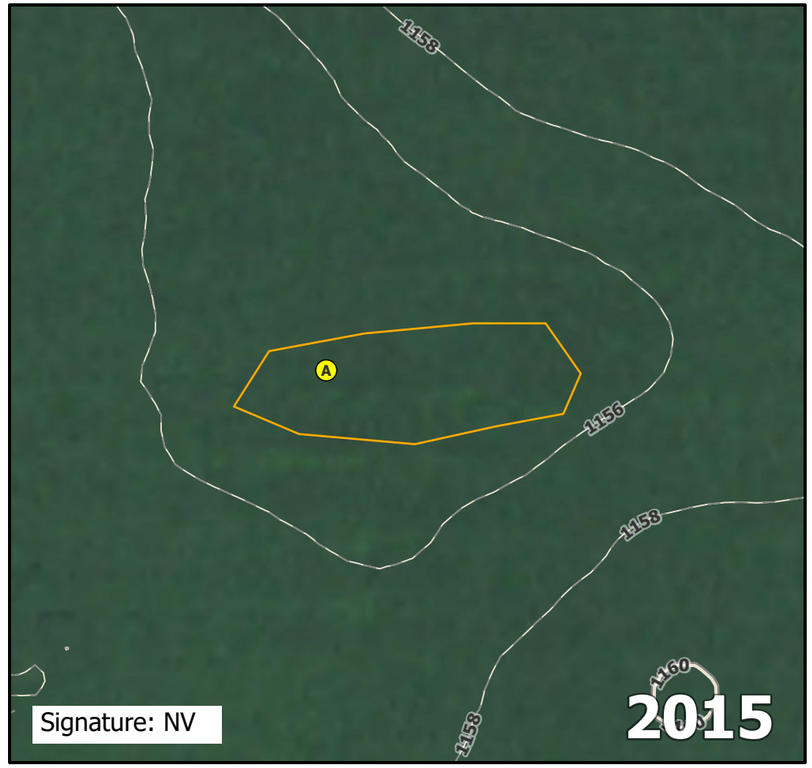
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB111A.		
Direction: East	Photo ID: delin_photo-20221026-165925.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB111







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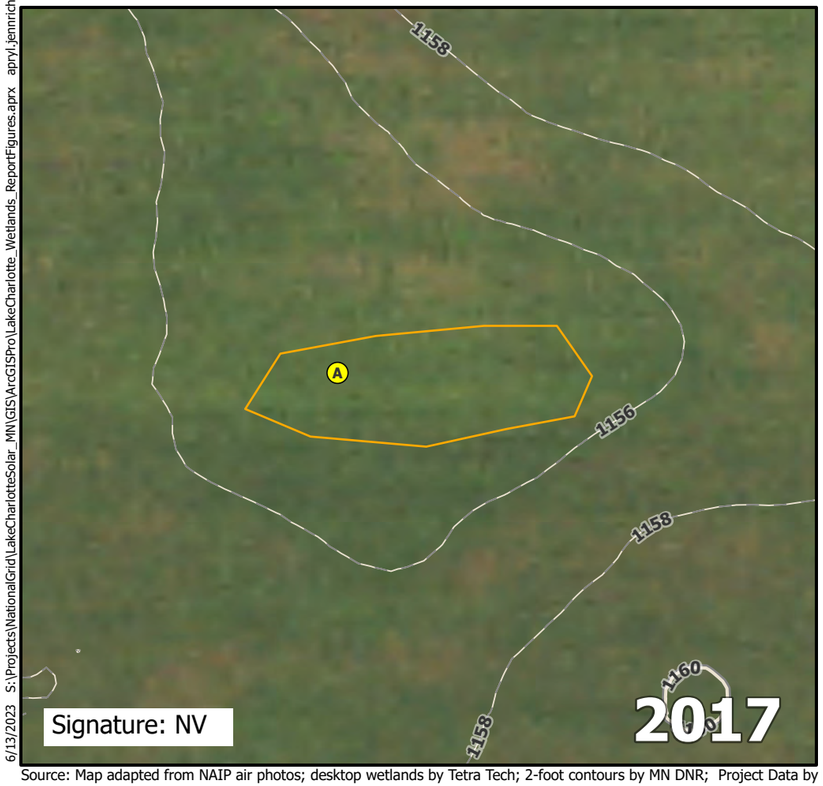
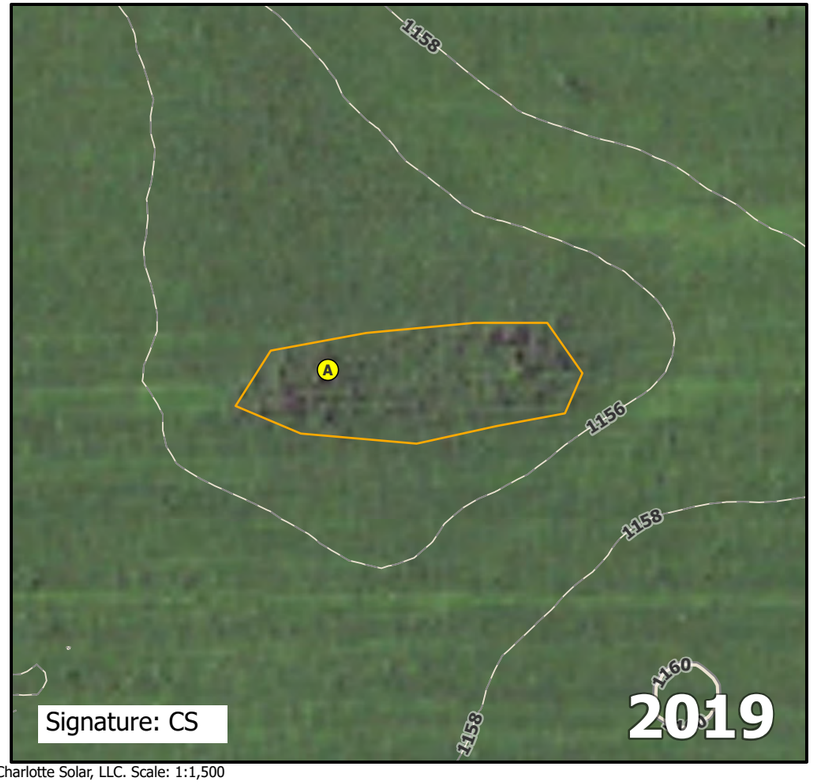
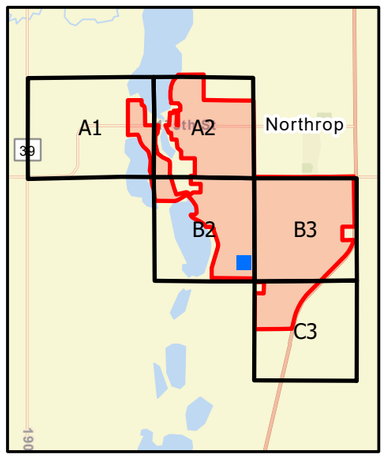
Feet







Feature ID: NWB111

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB112

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB112A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 2 | Lat: 43.72041 | Long: -94.45089 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB112A

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	
22-30	2.5Y 5/3	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

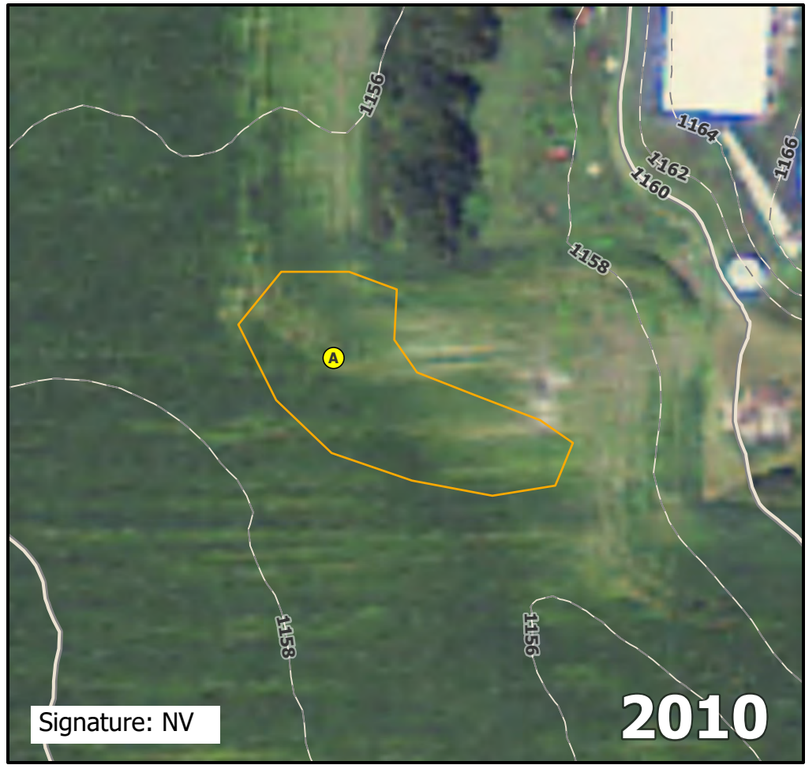
Wetland Hydrology Present? No

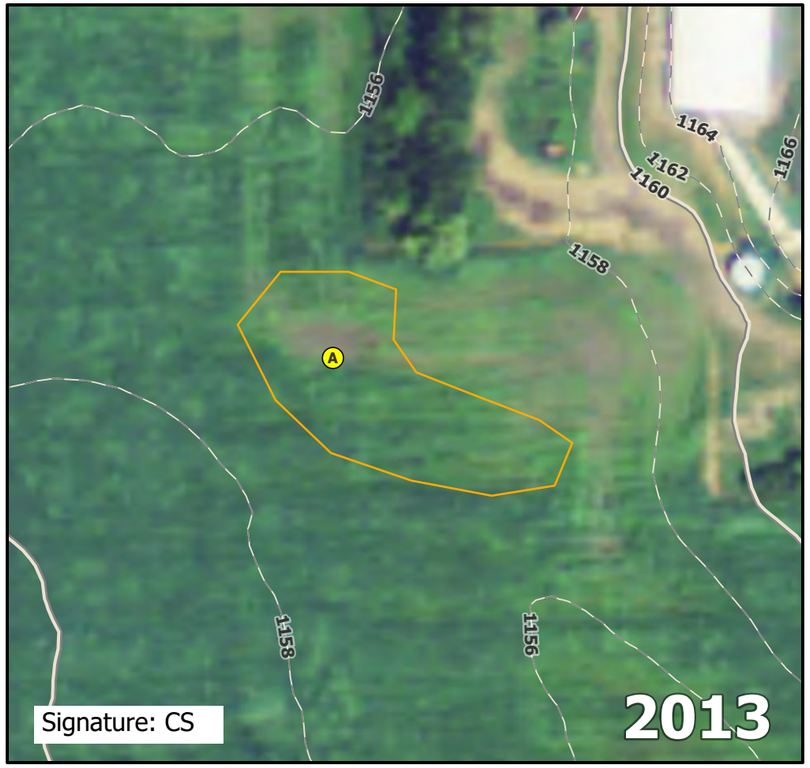
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

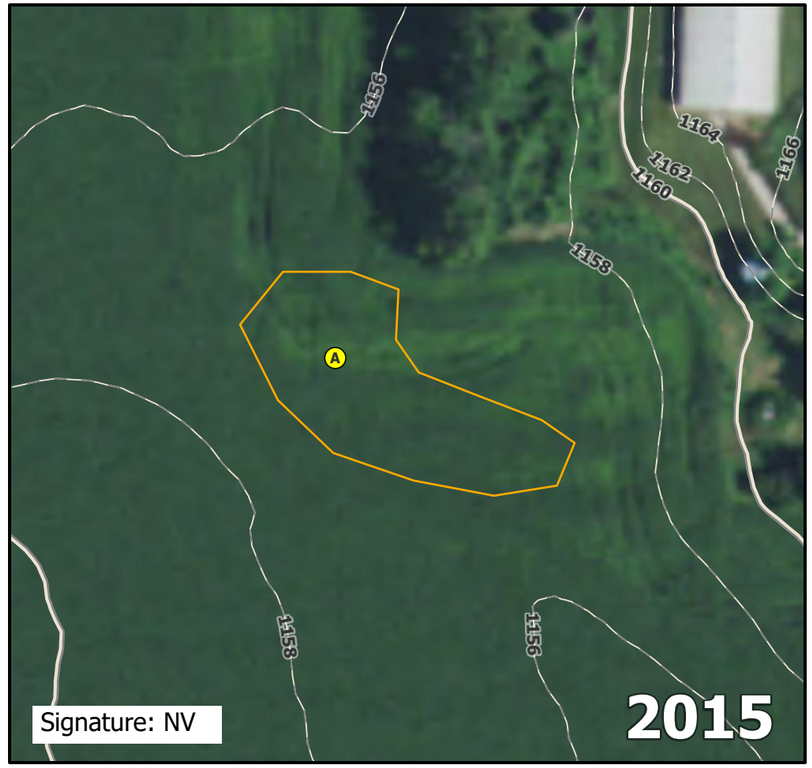
Remarks:

Overview of upland sample point NWB112A.

Direction: West	Photo ID: delin_photo-20221026-171300.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB112







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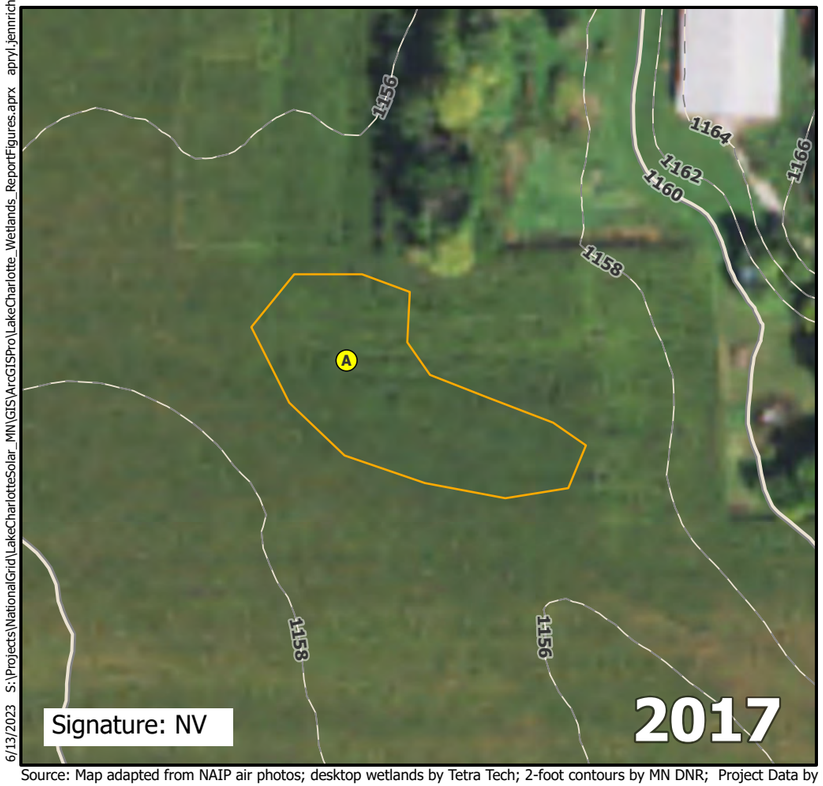
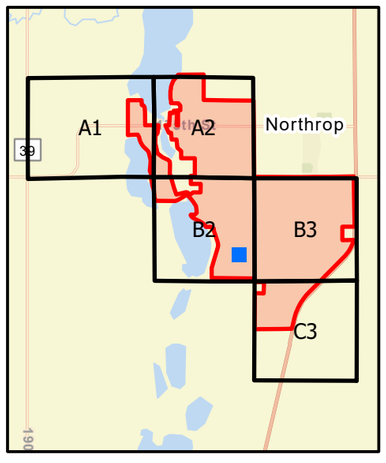
Feet





Feature ID: NWB112

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB113

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB113A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 1 | Lat: 43.72133 | Long: -94.45093 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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? No

Hydric Soil Present? No — **Is the sampled area within a wetland?** **No**

Wetland Hydrology Present? No — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Bare ground: 100%

SOIL

Sampling Point: NWB113A

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

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. Could not dig due to soil compaction. Soils assumed not hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ___ No ___ Depth (inches): ___

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

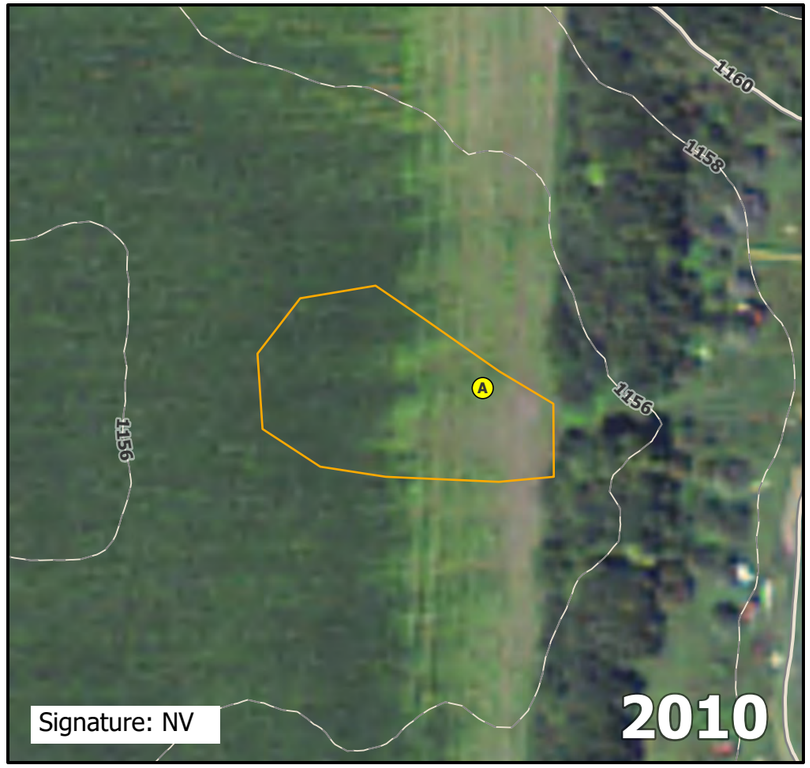
Wetland Hydrology Present? No

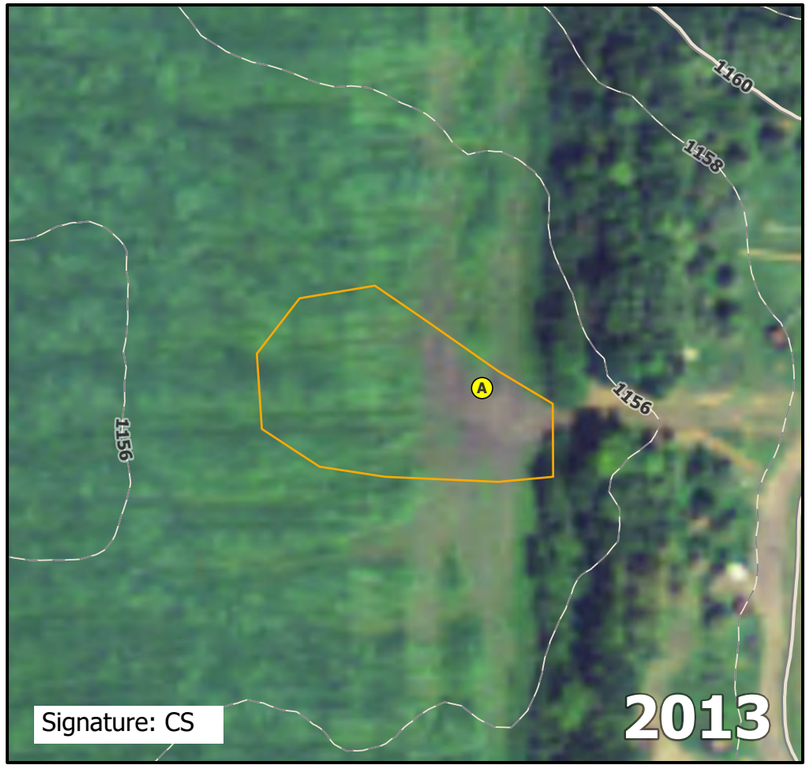
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

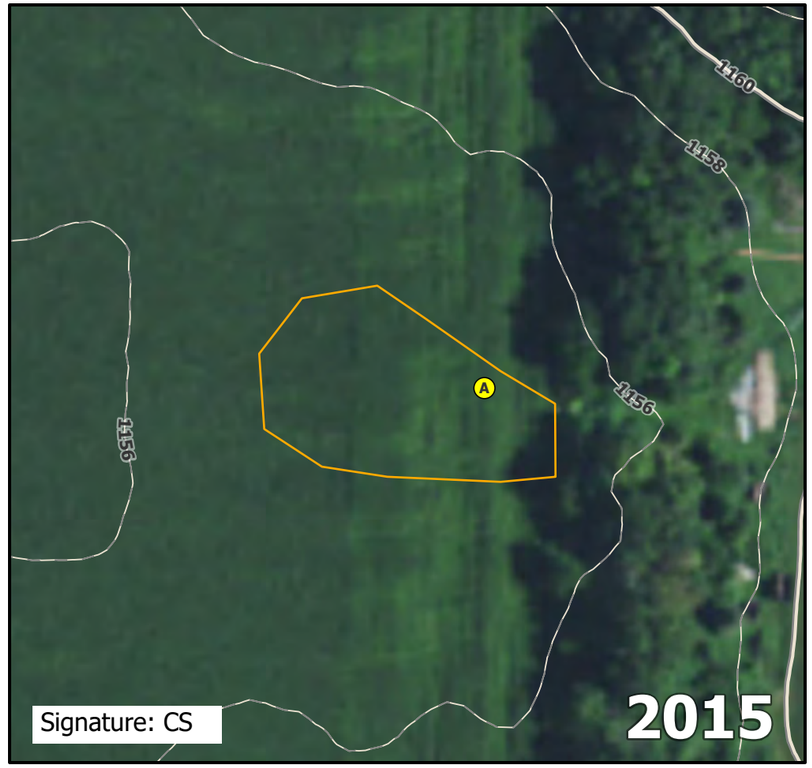
Remarks:

Overview of upland sample point NWB113A.

Direction: Southeast	Photo ID: delin_photo-20221026-171656.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB113







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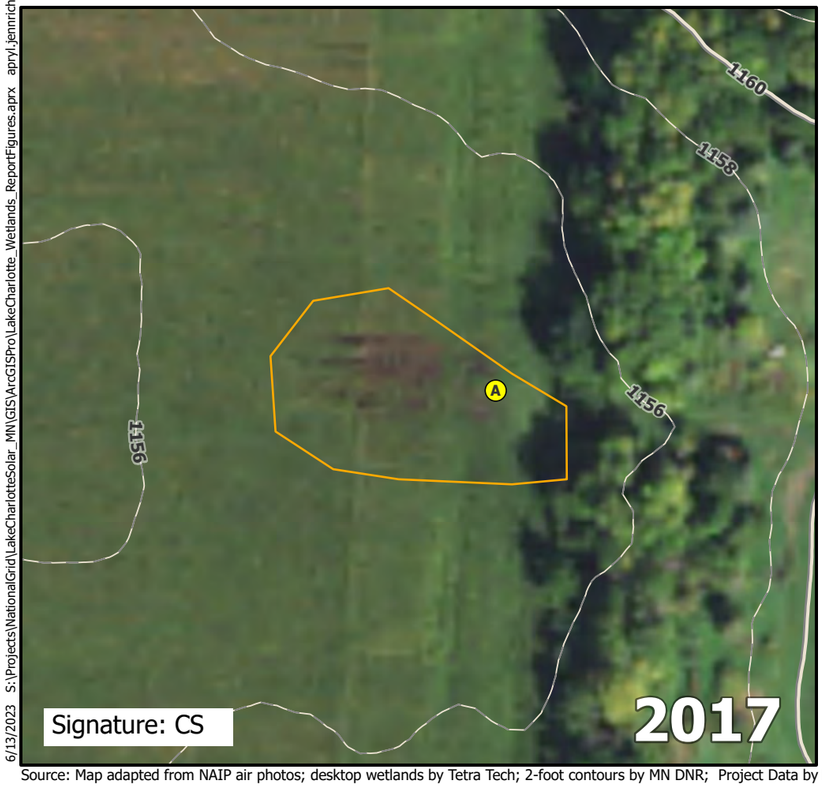
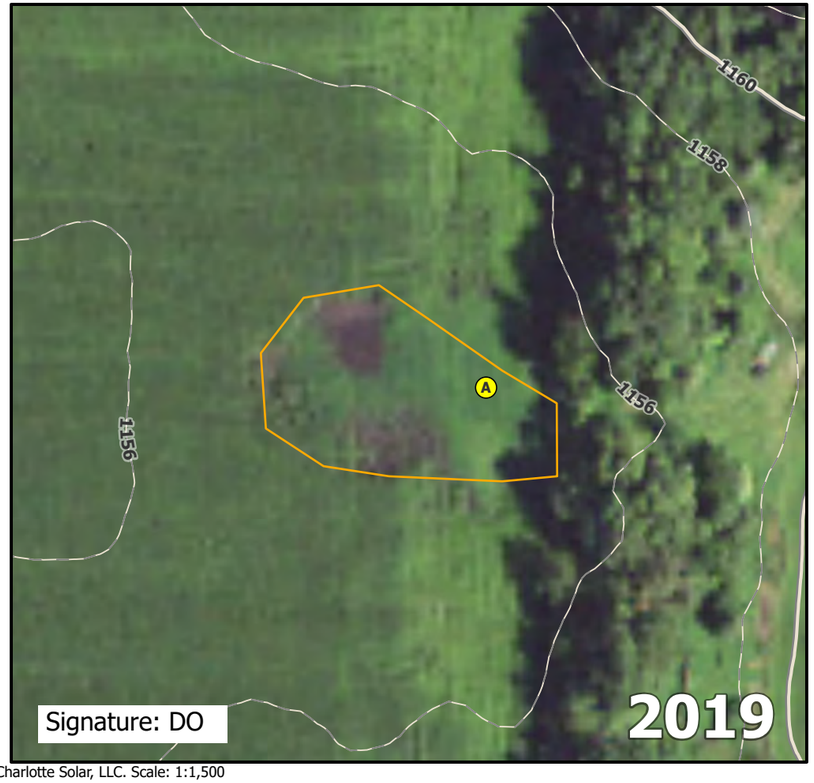
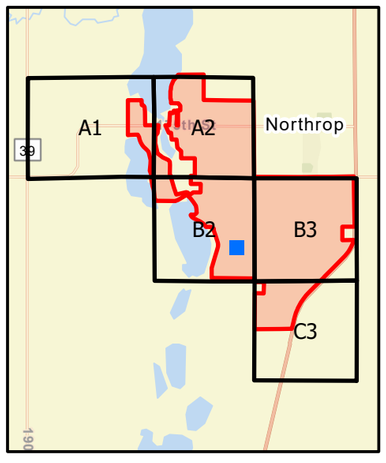
Feet







Feature ID: NWB113

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB114

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB114A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 0 | Lat: 43.72218 | Long: -94.44969 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB114A

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	
22-30	2.5Y 3/2	95	2.5Y 5/3	5	C	PL/M	Clay	Faint

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

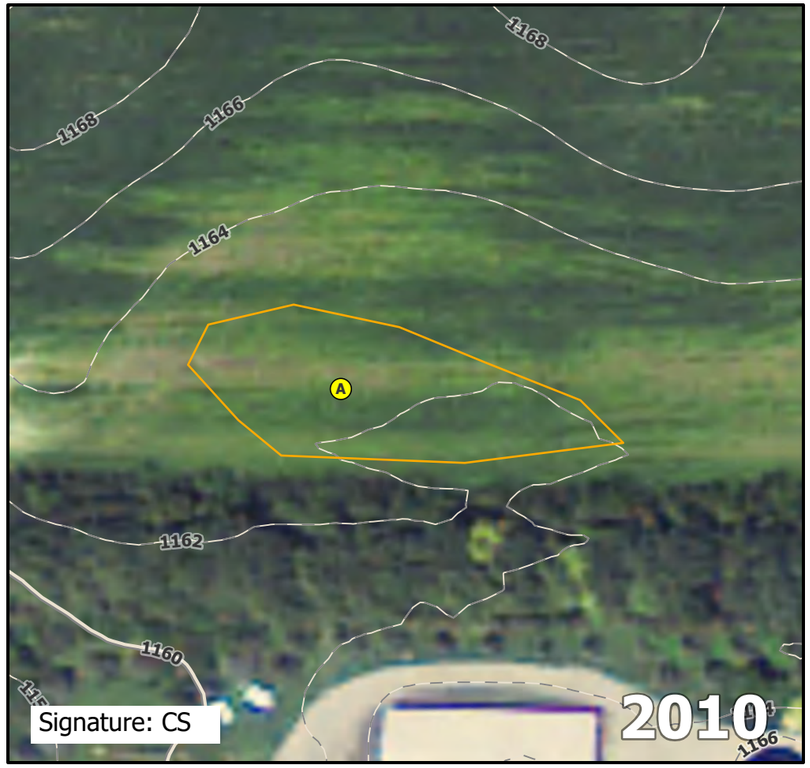
(includes capillary fringe)

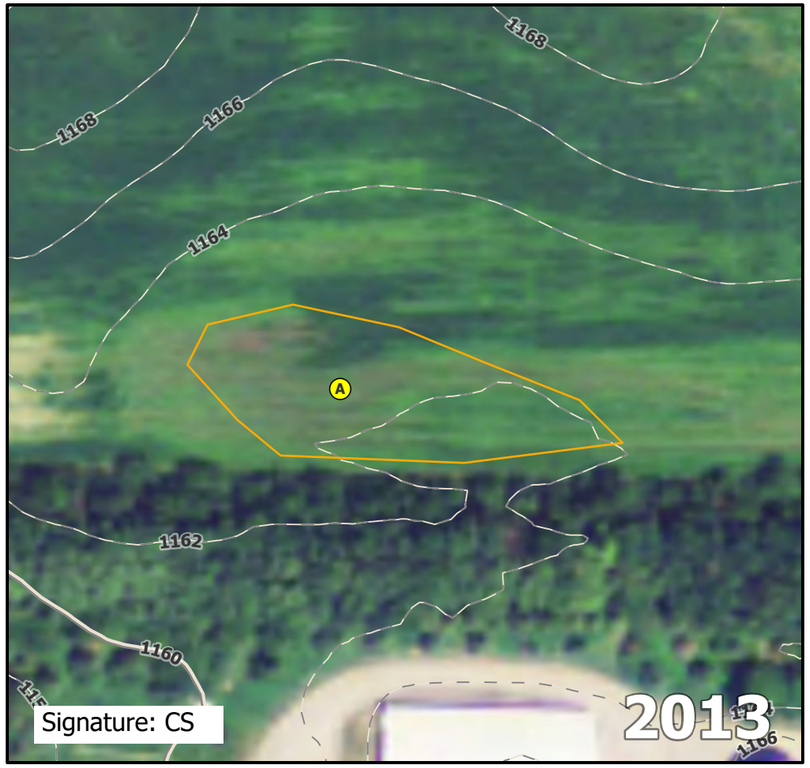
Wetland Hydrology Present? No

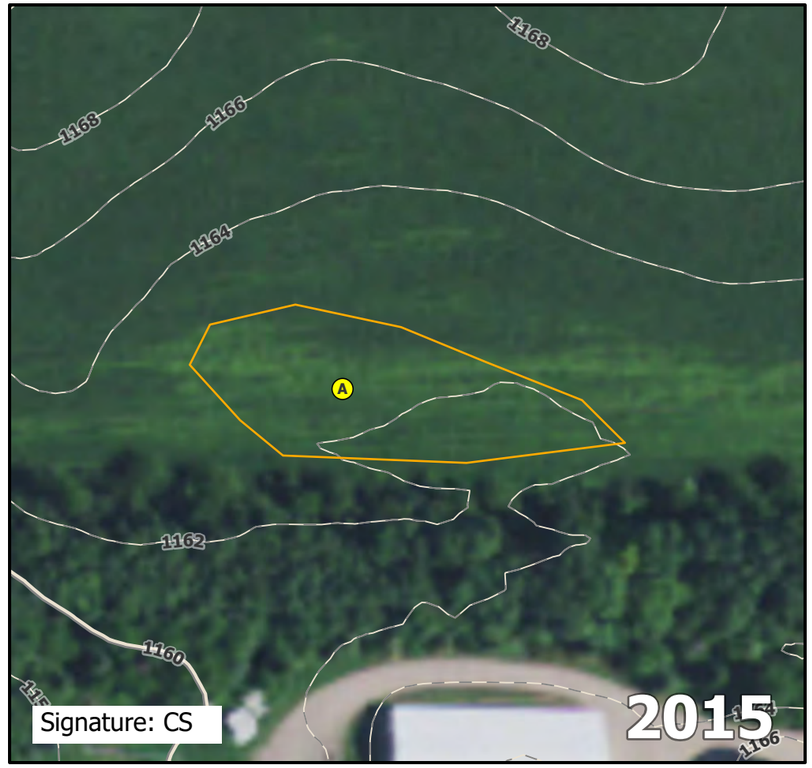
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Overview of upland sample point NWB114A.		
Direction: East	Photo ID: delin_photo-20221026-172637.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB114







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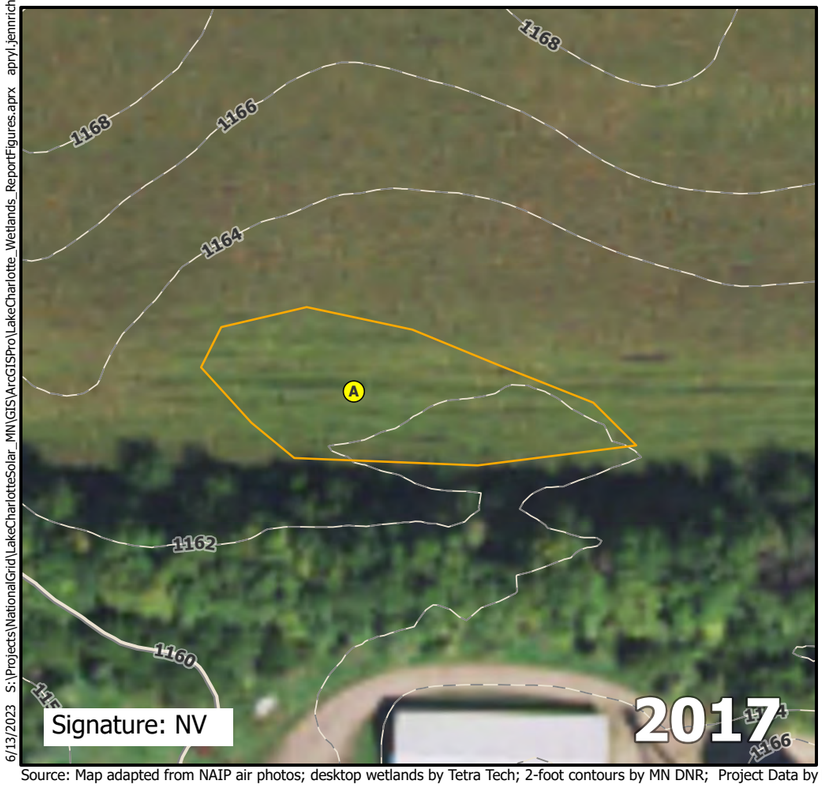
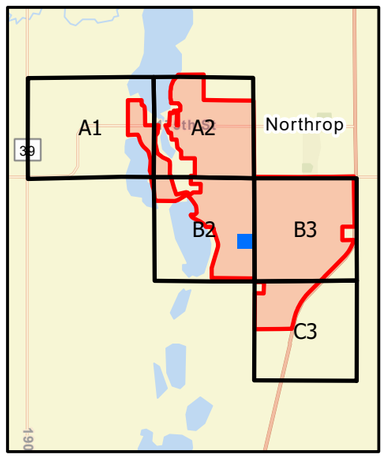
Feet





Feature ID: NWB114

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB115

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/26/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB115A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.17 T103N R30W

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

Slope (%): 0 | Lat: 43.72002 | Long: -94.44828 | Datum: WGS84

Soil Map Unit Name: Canisteo-Glencoe complex, 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 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? 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 harvested agricultural field.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: ____)			
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

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

Harvested agricultural field. Bare ground: 100%

SOIL

Sampling Point: NWB115A

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**		
0-15	10YR 2/1	100					Clay	
15-17	10YR 2/1	80					Clay	
	2.5Y 5/3	20						Mixed Matrix
17-24	2.5Y 5/3	50					Clay	
	10YR 2/1	25						Mixed Matrix
	2.5Y 6/3	25						Mixed Matrix

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

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

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

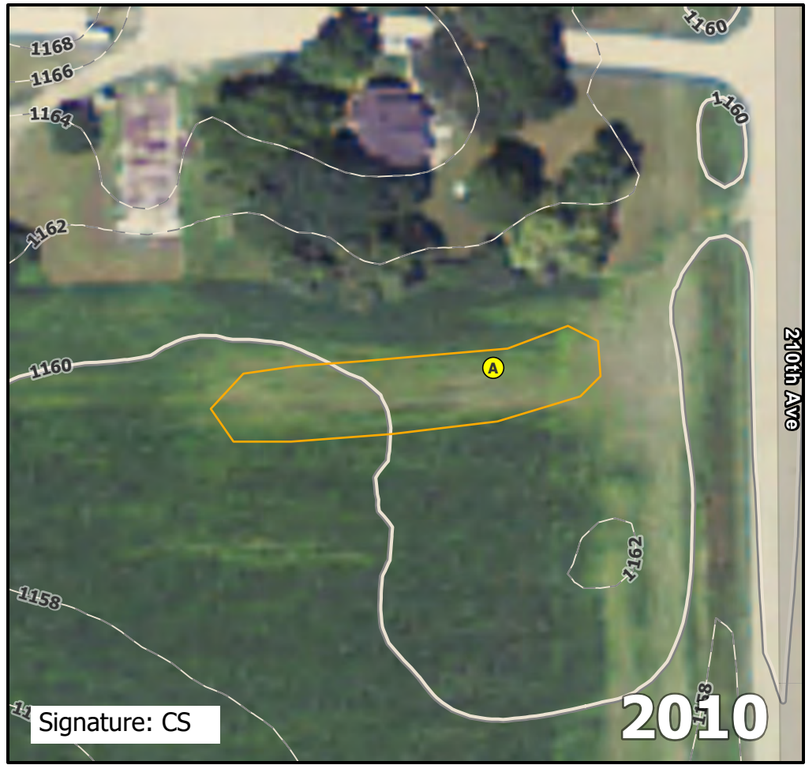
(includes capillary fringe)

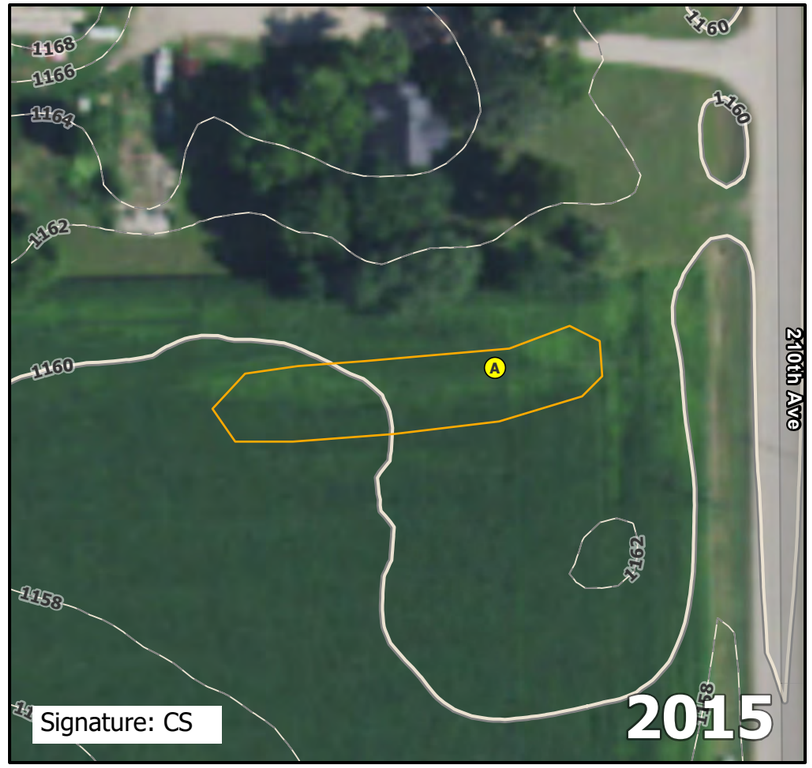
Wetland Hydrology Present? No

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

Remarks:

Overview of upland sample point NWB115A.		
Direction: West	Photo ID: delin_photo-20221026-174109.jpg	Date: 10/26/2022
Project Name: Lake Charlotte		Feature ID: NWB115





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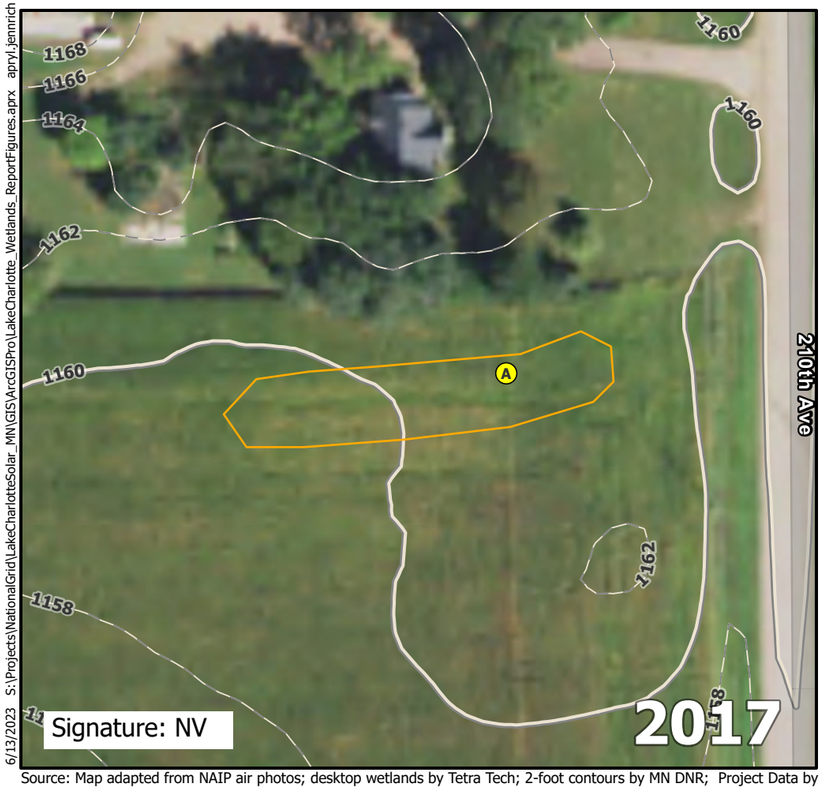
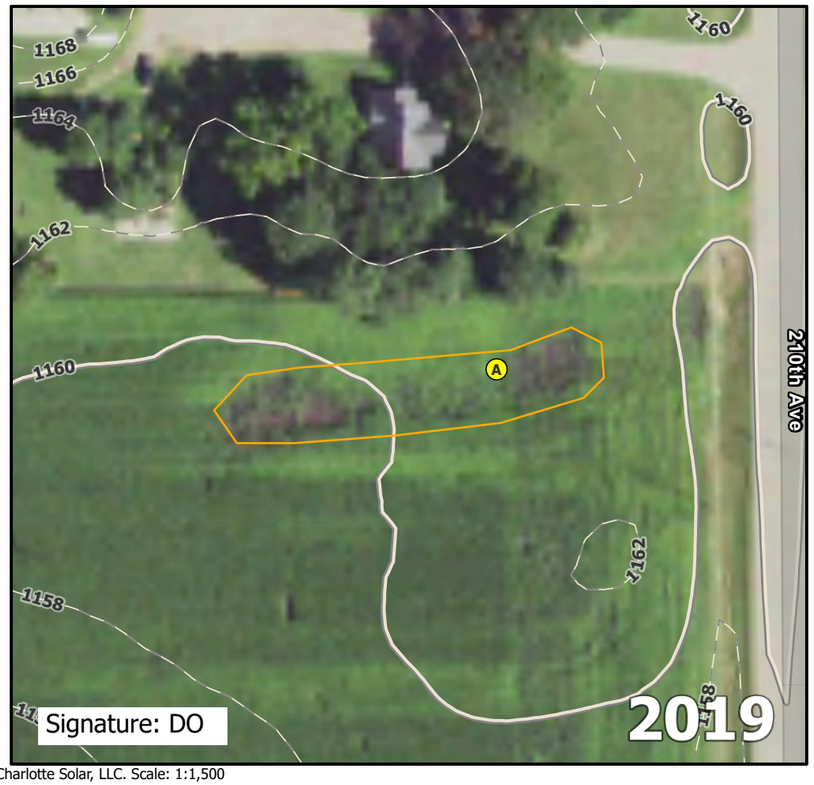
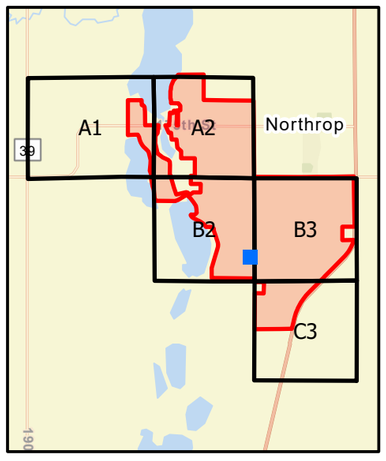
Feet







Feature ID: NWB115

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

TETRA TECH

Aerial Photograph Review

Lake Charlotte Solar
Martin County, Minnesota

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

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

NWB116

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lake Charlotte | City/County: Martin | Sampling Date: 10/25/2022

Applicant/Owner: Lake Charlotte Solar, LLC | State: MN | Sampling Point: NWB116A

Investigator(s): Susan Mayer | Section, Township, Range: Sec.16 T103N R30W

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

Slope (%): 1 | Lat: 43.72708 | Long: -94.43939 | 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 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? No

Hydric Soil Present? No — **Is the sampled area within a wetland? No**

Wetland Hydrology Present? Yes — If yes, optional wetland site ID: ____

Remarks:

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Zea mays*	40	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 1 (B)

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

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column totals	40 (A)		200 (B)

Prevalence Index = B/A = 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

Hydrophytic Vegetation Present? No

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

Agricultural field. Bare ground: 60%

SOIL

Sampling Point: NWB116A

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	
36-40	2.5Y 5/3	90	10YR 5/8	10	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)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

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)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

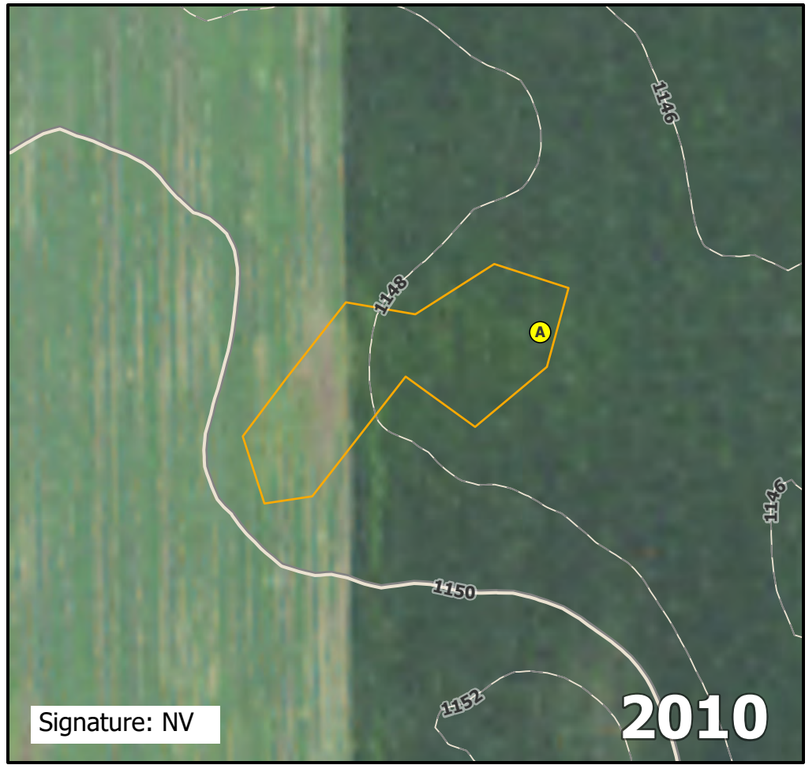
Wetland Hydrology Present? Yes

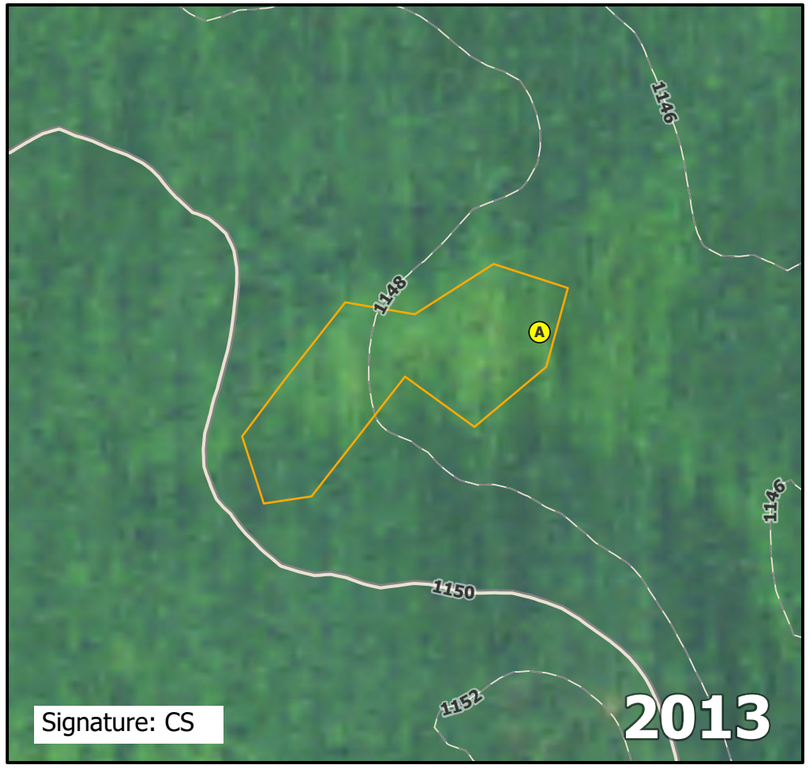
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

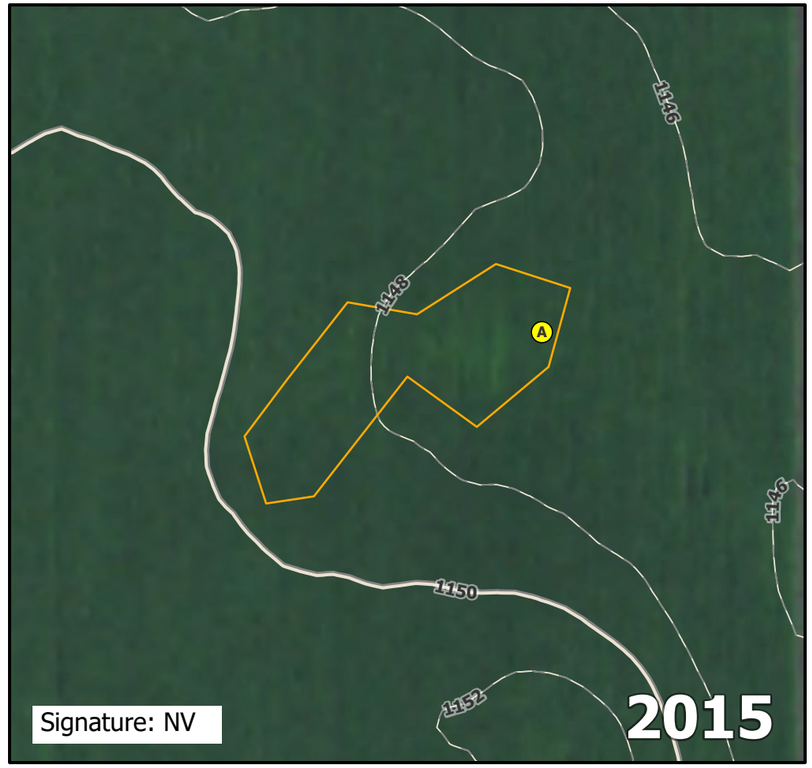
Remarks:

Overview of upland sample point NWB116A.

Direction: North	Photo ID: delin_photo-20221025-191811.jpg	Date: 10/25/2022
Project Name: Lake Charlotte		Feature ID: NWB116







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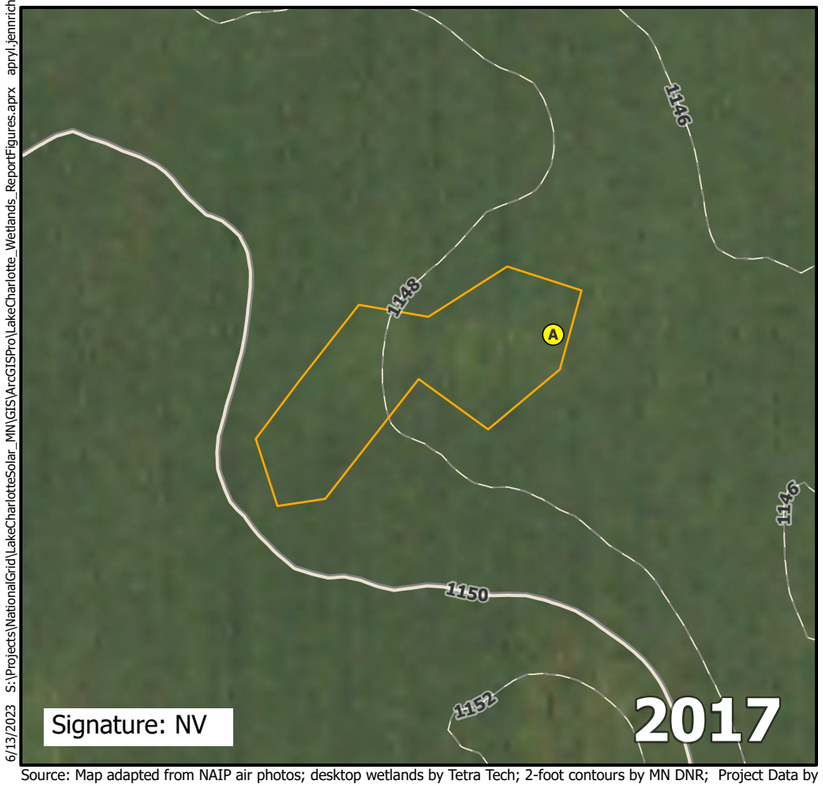
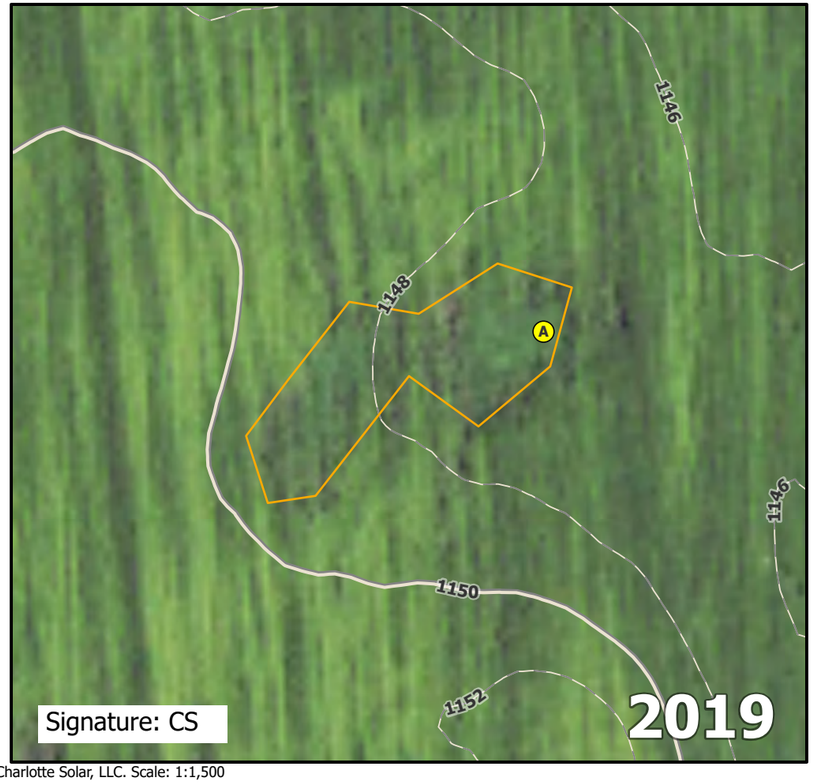
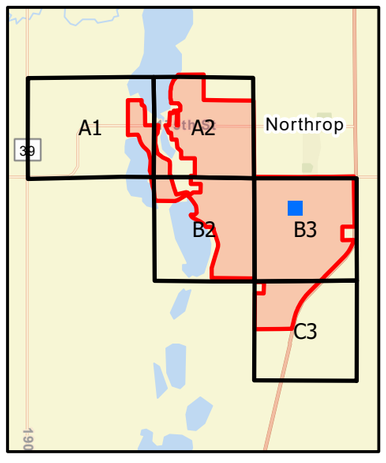
Feet







Feature ID: NWB116

- Survey Area
- Desktop Potential Wetlands and Waters

Wetland Survey

- Non-Wetland Sample Plot
- Delineated Wetland
- Surveyed Pond
- Surveyed Lake
- Surveyed Stream

2-foot Elevation Contour

- Index
- Intermediate

N

TETRA TECH

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

APPENDIX F: WETLAND CLASSIFICATION KEY

Cowardin Wetland Classification System

Systems	Subsystems	System Specific Classes
L - Lacustrine	(1) Limnetic (2) Littoral	RB, UB, AB, RS, US, EM,
P - Palustrine	None	RB, UB, AB, US, ML, EM, SS, FO
R - Riverine	(1) Tidal (2) Lower Perennial (3) Upper Perennial (4) Intermittent	RB, UB, SB, AB, RS, US, EM
Classes	**Water Regimes**	**Special Modifiers**
RB - Rock Bottom **UB -** Unconsolidated Bottom **SB -** Streambed **AB -** Aquatic Bed **RS -** Rocky Shore **US -** Unconsolidated Shore **EM -** Emergent **ML -** Moss Lichen **SS -** Scrub Shrub **FO** - Forested	**A** – Temporarily flooded **B** – Seasonally saturated **C** – Seasonally flooded **D –** Continuously saturated **E** – Seasonally flooded/saturated **F** – Semi-permanently flooded **G** – Intermittently exposed **H** – Permanently flooded **J** – Intermittently flooded **K** – Artificially flooded	**b** – Beaver **d** – Partly drained/ditched **f** – Farmed **m –** Managed **h** – Diked/impounded **r** – Artificial substrate **s** – Spoil **x** – Excavated

Source: Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC. (FGDC 2013)

Circular 39 Wetland Classification System

Type and Definition	Approximate Cowardin Equivalents
Type 1: Seasonally flooded basin	PEMA, PFOA
Type 2: Meadow	PEMB
Type 3: Shallow marsh	PEMC, PEMF, PSSH, PUBA, PUBC
Type 4: Deep marsh	PEMF, PEMG, PEMH, PUBB, PUBF, PABF, PABG, L2US, L2EMF, L2EMG, L2ABF
Type 5: Shallow open water	L2ABG, L2ABH, L2EMA, L2EMB, L2EMH, L2RS, L2UB, PABH, PUBG, PUBH
Type 6: Shrub swamp	PSSA, PSSC, PSSF, PSSG, PSS1B, PSS5B, PSS6B
Type 7: Wooded swamp	PFO1B, PFO5B, PFO6B, PFOC, PFOF
Type 8: Bog	PFO2B, PFO4B, PFO7B, PSS2B, PSS3B, PSS4B, PSS7B

Source: Wetlands in Minnesota, Minnesota Board of Water and Soil Resources (BWSR n.d.)